FACULDADE DE CIÊNCIAS SOCIAIS E HUMANAS
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Título

Teaching New Tricks:
A Cognitive Approach to Teaching English to Adult Portuguese Learners

Tese de Doutoramento

Doutoramento em Didática das Línguas –

Multilinguismo e Educação para a Cidadania Global

Cláudia Rute Canelas Pereira Duarte

Orientadora: Professora Doutora Isabel Falé

Co-orientadora: Professora Doutora Rita Queiroz de Barros

Julho 2024

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Agradeço à minha família por me ter dado a oportunidade de aprender no passado, por me ensinar tanto no presente e pela esperança que me dá no futuro.

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Declaro ter atuado com integridade na elaboração da presente dissertação/tese. Confirmo que em todo o trabalho conducente à sua elaboração não recorri à prática de plágio ou a qualquer outra forma de falsificação de resultados.

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I hereby declare having conducted my thesis with integrity. I confirm that I have not used plagiarism or any form of falsification of results in the process of the thesis elaboration.

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Resumo

Os professores de escolas de línguas privadas são frequentemente responsáveis por gerir a planificação dos cursos, a seleção de materiais e a avaliação, e geralmente existe neste contexto falta de regulamentação e apoio. Consequentemente, estes professores frequentemente dependem da experiência e dos recursos disponíveis, como os manuais didáticos, que nem sempre são adequados às necessidades dos seus aprendentes.

Este estudo propõe colmatar esta ausência delineando um enquadramento teórico no contexto da linguística educacional, e focar especialmente o contributo da linguística cognitiva para um ensino de línguas mais direccionado e eficaz, especialmente na sua vertente aplicada, ou CALT (*Cognitive Approach Language Teaching*). Esta metodologia incorpora a instrução gramatical explícita e a L1 dos aprendentes, assim como o conhecimento enciclopédico que os falantes adultos possuem, a incorporação (o princípio segundo o qual a formação e uso da língua são moldados pela experiência sensorial e corporal humana) e o uso intensivo de material visual, entre outras técnicas. Estas técnicas relacionam-se com processos cognitivos universais que são fundamentais para a linguística cognitiva, mas a metodologia proposta tem pontos em comum com outras metodologias, como o Ensino Comunicativo de Línguas. Esta abordagem híbrida fomenta a flexibilidade, e visa capacitar os professores, proporcionando fundamentos teóricos aliados a uma orientação prática, melhorando assim a sua capacidade para adaptar a instrução e os materiais às necessidades dos seus aprendentes.

A aplicação prática dos princípios do CALT mostrou que os aprendentes alcançaram uma maior proficiência nas estruturas gramaticais alvo em comparação com aprendentes ensinados com outros métodos, demonstrando a eficácia desta abordagem.

Palavras-chave: Linguística Educacional; Linguística Cognitiva; Abordagem Cognitiva ao Ensino de Línguas; Instrução de Gramática; Ensino do Inglês; Aprendentes Adultos; Materiais de Instrução de Línguas

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Abstract

Teachers in private language schools are often responsible for managing course planning, material selection, and assessment, and there is usually a lack of regulation and support in this context. Consequently, these teachers frequently rely on their experience and the available resources, such as textbooks, which are not always suited to the needs of their learners.

This study aims to address this gap by outlining a theoretical framework within the context of educational linguistics, focusing particularly on the contribution of cognitive linguistics to more principled and effective language teaching, especially in its applied form, CALT (Cognitive Approach to Language Teaching). This methodology incorporates explicit grammar instruction and the learners' L1, as well as the encyclopaedic knowledge that adult learners possess, embodiment (the principle that language formation and use are shaped by human sensory and bodily experience), and the intensive use of visual aids, among other techniques. These techniques relate to universal cognitive processes that are fundamental to cognitive linguistics, yet the proposed methodology also shares commonalities with other approaches, such as Communicative Language Teaching. This hybrid approach promotes flexibility and aims to empower teachers by providing theoretical foundations combined with practical guidance, thereby enhancing their ability to adapt instruction and materials to the needs of their learners.

The practical application of CALT principles has shown that learners achieved greater proficiency in target grammatical structures compared to those taught using other methods, demonstrating the effectiveness of this approach.

Keywords: Educational Linguistics; Cognitive Linguistics; Grammar Instruction; Cognitive Approach to Language Teaching; English as a Foreign Language; Adult Learners; EFL Materials

Resumo

1. Introdução: Situação Actual da Formação em Inglês em Portugal

Em Portugal, a formação em Inglês não é regulamentada por uma entidade oficial nem segue padrões uniformizados equivalentes aos do ensino oficial em termos de metodologia, materiais didácticos e objectivos pedagógicos adaptados a diferentes cursos. Apesar de existir um certo grau de maturidade organizacional resultante da experiência, a formação de formadores de Inglês em Portugal baseia-se essencialmente nos cursos de formação para formadores certificados pelo Instituto do Emprego e Formação Profissional (IEFP) e no CELTA (*Certificate in Teaching English to Speakers of Other Languages*), os quais, contudo, não são obrigatórios em todas as instituições de ensino. O Ensino Comunicativo das Línguas (ECL) e o *Task-Based Language Teaching* (ELBT) são os modelos metodológicos mais prevalentes, em conformidade com as diretrizes do CEFR (*Common European Framework of Reference*). Estas metodologias enfatizam a comunicação, mas negligenciam as diferenças individuais dos aprendentes, os contextos da sala de aula e a instrução explícita de gramática. Neste contexto, os formadores de línguas estrangeiras recebem tipicamente formação em aspectos sociais e em aspectos formais da língua, mas os primeiros têm ganho relevância em detrimento dos segundos; como consequência, a gramática — tanto no ensino como na prática — é frequentemente entendida como um "mal necessário", pouco explorado pelos formadores.

Na ausência de uma orientação estruturada, os formadores dependem fortemente de manuais projectados para mercados globais e que requerem adaptação. Como resultado, a abordagem ao ensino do Inglês tende a centrar-se exclusivamente na segunda língua (L2) e na sua cultura, sem uma integração explícita de qualquer elemento da língua nativa (L1), cultural ou estrutural. Em última análise, os formadores nesse contexto aprendem principalmente por meio da experiência, desenvolvendo sua metodologia com base em tentativa e erro. Propõe-se, então, um modelo misto que equilibra a base teórica com aplicação prática, oferecendo aos formadores uma orientação estruturada, mas flexível. A Linguística Cognitiva (LCG) oferece uma abordagem que facilita a inclusão e exploração de aspectos formais da língua no ensino de línguas estrangeiras: por um lado, considera a linguagem como um processo cognitivo, por outro, evita reduzi-la exclusivamente a um fenómeno social ou a um mero produto da atividade cerebral.

A metodologia de ensino inspirada na LCG, designada por Abordagem Cognitiva ao Ensino das Línguas (ACEL), também se caracteriza pela sua abrangência. No contexto da linguística educacional, esta abordagem não impõe uma aplicação rígida de princípios, mas propõe uma

implicação direta de diferentes áreas do conhecimento, que se complementam mutuamente, em vez de se excluírem. Deste modo, propõe-se as seguintes hipóteses:

• A ACEL implica princípios que promovem uma aprendizagem eficaz de línguas estrangeiras.

• A gramática da L1 e o contexto cultural e pessoal são recursos importantes na aprendizagem de uma língua estrangeira.

• Os aprendentes adultos de línguas estrangeiras beneficiam do ensino explícito de estruturas gramaticais

2. Necessidade de um Enquadramento Teórico na Formação em Línguas Estrangeiras

Torna-se assim fundamental o estabelecimento prévio de um quadro teórico que defina de forma clara os processos de conceção, aquisição, validação e estruturação do conhecimento no ensino de línguas estrangeiras. Neste contexto, a Linguística Educacional (LEd), tal como proposta por Bernard Spolsky (1978), constitui um referencial teórico essencial.

O objectivo maior deste enquadramento teórico é estabelecer um modelo de referência estável e aplicável a qualquer língua, independentemente das suas especificidades sociais, psicológicas, linguísticas ou didácticas. Assim, não se pretende criar um sistema rígido e exclusivo, mas sim uma ciência operacional: um modelo dinâmico e adaptável, capaz de evoluir à medida que novas descobertas e práticas emergem. O foco não é determinar a validade absoluta de teorias como verdadeiras ou falsas, mas sim avaliar a sua utilidade prática numa perspetiva transdisciplinar, promovendo um modelo baseado na implicação e não apenas na aplicação de conclusões.

2.1 Domínios da Linguística Educacional

A LEd está estruturada em quatro domínios interligados, que reflectem as diferentes dimensões do ensino de línguas, a saber:

2.1.1 O que ensinar (linguística) – conteúdos linguísticos, abrangendo a linguística teórica e aplicada

A linguística teórica desempenha um papel importante na LEd, mas o seu escopo difere significativamente. Enquanto a linguística teórica se centra na descrição formal das línguas, a LEd preocupa-se sobretudo com a instrução e a prática pedagógica.

No âmbito da linguística teórica, destacam-se quatro correntes fundamentais que marcaram o estudo da linguagem desde o início do século XX: Linguística Estruturalista – análise da língua como um sistema de unidades inter-relacionadas (Saussure, 1983); Linguística Generativa – estudo da competência linguística inata e das regras formais que governam as línguas (Chomsky, 1965, 1986); Linguística Sistémico-Funcional – foco na língua como um sistema orientado para a comunicação e a

função social (Halliday, 1985); Linguística Cognitiva – abordagem baseada na relação entre linguagem, cognição e conceptualização da experiência humana (Lakoff 1980; Langacker, 1987).

A LCG constitui um contributo fundamental para a LEd, ao integrar conceitos das ciências cognitivas, da psicolinguística e das metodologias de ensino. A sua abordagem baseia-se na ideia de que a linguagem é um fenómeno cognitivo e emergente, estruturado pela experiência e pelo uso. A LCG propõe ainda que o conhecimento linguístico se constrói por meio da aprendizagem associativa, da fixação de padrões e da emergência de construções linguísticas (Langacker, 1987).

2.1.2 O que ensinar (cultura) – aspectos culturais e sociais inerentes ao uso da língua

A comunicação intercultural, enquanto disciplina das ciências sociais, analisa as interações entre indivíduos de diferentes origens culturais, considerando o impacto de valores, normas e estilos comunicativos (Byram, 1997; Spencer-Oatey & Franklin, 2018).

Em particular, a pedagogia crítica incentiva os aprendentes a questionarem as estruturas de poder e as normas sociais. Neste contexto, torna-se essencial considerar as variações culturais tanto da L2 como da L1 na aprendizagem de línguas, garantindo que a prática pedagógica seja aditiva e não subtrativa, evitando assim a reprodução de estereótipos.

2.1.3 Quem ensinar – factores relacionados com a neurociência e a psicologia da aprendizagem

A aprendizagem de uma L2 envolve a memorização e recuperação eficiente de itens e estruturas linguísticas, sendo este último um dos principais desafios para o aprendente. O funcionamento neuronal rápido e a exposição repetida fortalecem a memória e facilitam a recuperação da informação mas o cérebro humano é também altamente adaptável e sensível a factores como novidade, atenção, emoção e repetição, elementos que influenciam diretamente a consolidação da memória. A aprendizagem da L2 pode ser optimizada por estratégias cognitivas, afectivas e socioculturais.

No ensino de adultos em particular, é essencial considerar as suas características psico-neurológicas e sociais, uma vez que a aprendizagem é influenciada por factores como antecedentes educativos, ocupação e estilo cognitivo. Os adultos tendem a procurar a aprendizagem de L2 com objectivos específicos e abordam o processo de forma crítica, valorizando a aplicabilidade do conhecimento. O formador deve incentivar a autonomia e a confiança dos aprendentes, favorecendo um ambiente que encoraje a análise, a investigação e a interação para maximizar a eficácia da aprendizagem.

2.1.4 Como ensinar – metodologias e princípios didácticos aplicáveis ao ensino de línguas

No contexto deste estudo, destacam-se três metodologias fundamentais devido à sua relevância teórica e aplicação contemporânea.

Ensino Comunicativo das Línguas (ECL) e Ensino de Línguas Baseado em Tarefas (ELBT)

A abordagem ECL caracteriza-se pelo foco no aprendente e pela ênfase no uso autêntico da língua. A comunicação de significado assume maior importância do que a exactidão gramatical, e a aquisição linguística ocorre através da exposição e prática. A metodologia ELBT surge como uma extensão da ECL, mantendo a ênfase na comunicação autêntica, mas estruturando o ensino em tarefas comunicativas específicas. A aprendizagem ocorre através da resolução de tarefas, onde os aprendentes interagem e desenvolvem competências linguísticas num contexto funcional. No entanto, a abordagem ELBT pode também incluir momentos de foco na forma, apesar de, na sua forma mais rigorosa, não incluir instrução explícita de gramática.

As abordagens ECL e ELBT, apesar de amplamente aceites, ainda assim enfrentam desafios como: a falta de estrutura, a exclusão de metodologias não comunicativas, a desvalorização da L1 e da cultura do aprendente, a aprendizagem implícita demorada e difusa, e o foco excessivo na interação e nas actividades, sem exploração do propósito.

Torna-se, portanto, essencial integrar abordagens que contemplem tanto os aspectos comunicativos como os estruturais da aprendizagem de uma língua estrangeira, garantindo um equilíbrio entre forma e significado, adaptação ao aprendente e eficiência pedagógica.

ACEL (Abordagem Cognitiva no Ensino de Línguas)

A ACEL é uma metodologia de ensino baseada nos princípios da LCG, inspirando-se na Abordagem do Código Cognitivo e integrando conhecimentos contemporâneos da ciência cognitiva. Embora ainda se considere estar em fases iniciais de desenvolvimento, a ACEL tem vindo a ganhar atenção devido ao seu carácter holístico e orientado para o significado no ensino de línguas (Littlemore, 2023; Kermer, 2016).

A ACEL baseia-se na relação entre linguagem e cognição, incentivando os aprendentes a explorar a organização conceptual das formas linguísticas para promover uma aquisição mais significativa. O conceito de *construal* destaca como diferentes línguas oferecem perspectivas distintas da realidade, exigindo ajustes nos quadros mentais dos aprendentes. A atenção selectiva e a categorização também influenciam a aprendizagem, tornando necessário um ensino direccionado para facilitar a adaptação conceptual através da L1. Esta coordenação entre L1 e L2 promove a flexibilidade cognitiva, permitindo a integração de novas regras linguísticas, enquanto a prática e a exposição são essenciais para reestruturar o sistema linguístico. A gramática na ACEL é vista como um inventário estruturado de unidades convencionais, sendo aprendida através de padrões, metáforas e analogias. Finalmente, esta abordagem propõe um regresso à análise contrastiva, aliada a princípios cognitivos, para prever dificuldades e melhorar a instrução da L2.

Materiais Didácticos para o Ensino de Inglês

Ainda em relação com a metodologia, e como sua parte integrante, é necessário considerar os materiais didácticos utilizados nos cursos de formação. Os manuais globais, concebidos para serem utilizados em contexto internacional, apresentam fragilidades, uma vez que não estão adaptados a uma L1 ou cultura específicas e continuam a utilizar técnicas que não correspondem à perspectiva teórica vigente. A instrução gramatical nos manuais globais situa-se em dois eixos principais: precisão – fluência e reprodução – criatividade. No entanto, a maioria dos exercícios incluídos privilegia a precisão e a reprodução, independentemente da metodologia subjacente. Os manuais globais tendem também a ser excessivamente genéricos, pelo que deveriam apresentar maior flexibilidade.

No entanto, a alternativa de criar materiais à medida pode comprometer a coesão e a metodologia, tornando-se igualmente problemática; os manuais globais representam publicações com décadas de desenvolvimento por profissionais dedicados e experientes, por isso, recomenda-se uma abordagem mista, baseada na adaptação dos manuais globais às especificidades do contexto de ensino.

Tomlinson (2016) propõe cinco princípios fundamentais para o design de materiais: os aprendentes devem ser expostos a um *input* linguístico rico, reciclável, significativo e compreensível; devem estar emocional e cognitivamente envolvidos; devem ser encorajados a prestar atenção à forma da língua e, simultaneamente, dispor de amplas oportunidades para comunicar. Deste modo, a adaptação dos manuais pode ser realizada através de diversas estratégias, tais como adicionar, eliminar, modificar, simplificar, reordenar ou editar conteúdos, bem como alterar agrupamentos ou instruções. O objectivo é tornar a prática mais variada, significativa, sensorial (com especial atenção ao aspecto visual) e envolvente.

Além dos manuais, devem ser considerados outros recursos didácticos, incluindo materiais adicionais seleccionados pelo formador, suportes teóricos de referência e recursos diversificados ajustados às preferências individuais e necessidades dos aprendentes.

Ensino do Inglês em Portugal

Também ainda no âmbito da metodologia e práticas do ensino, interessa considerar particularmente a metodologia e condições do ensino de Inglês em Portugal. O ensino oficial distingue-se da formação, uma vez que segue um conjunto de regras estabelecidas, enquanto a formação apresenta uma menor normatividade, ainda que se verifique um esforço crescente no sentido da sua regulamentação. Em geral, predominam a ECL e a ELBT, que privilegiam a prática comunicativa e os aspectos culturais (ainda que não da L1). No entanto, a gramática continua a ser abordada de forma pouco comunicativa.

Relativamente ao uso do Português (L1) nas aulas de Inglês (L2), a alternância de código linguístico e a tradução são fenómenos inevitáveis, dado que ocorrem naturalmente na cognição dos aprendentes, e a L1 deve ser considerada um recurso valioso, à semelhança do que acontece na educação bilingue. No entanto, um obstáculo frequente é o facto de muitos formadores não dominarem a L1 dos seus aprendentes, o que pode limitar o seu uso em sala de aula.

A L1 pode ser utilizada de forma estratégica para reduzir a carga cognitiva do aprendente e facilitar a aprendizagem. Segundo a LCG, a L1 e a L2 são armazenadas de forma coordenada no cérebro, e conexões não exclusivamente linguísticas podem facilitar o processamento da L2. Além disso, formadores que possuem conhecimentos da L1 dos seus aprendentes têm uma vantagem significativa, pois proporcionam uma perspectiva pessoal e profissional do desenvolvimento linguístico dos aprendentes.

3. O Estudo Piloto

No sentido de provar as hipóteses estabelecidas anteriormente, estas foram testadas num estudo piloto com uma amostra de cursos de formação (estudo e de controlo) de Inglês Geral B1.1 realizados na FLUL, Cli, e FCSH – ILNOVA com formandos falantes de Português com idades compreendidas entre o final da adolescência e os 60 anos, mas maioritariamente entre os 20 e os 30 anos com formação prévia em Inglês entre 3 e 10 anos. Tendo em conta as diferenças estruturais e pedagógicas entre estas instituições, foram seleccionados grupos com características comparáveis para garantir a fiabilidade dos dados e permitir uma comparação válida entre grupo experimental e grupo de controlo.

Os cursos do estudo piloto foram na sua maioria cursos de 60h de instrução, realizados de outubro de 2021 a janeiro de 2023 e seguindo duas metodologias: ACEL para os Grupos de Estudo e ECL para os Grupos de Controlo, com a seguinte distribuição:

Horários dos Grupos

Sábados de manhã (4h/semana no CLi):

Grupo A (10 alunos)

Grupo B (8 alunos) – Estudo

Duas vezes por semana (2h/sessão no CLi e ILNOVA):

Grupo C (6 alunos) – Estudo

Grupo E (9), Grupo F (5) – Controlo

Cinco vezes por semana (4h/dia em regime intensivo no ILNOVA):

Grupo D (6 alunos) – Estudo

Duas vezes por semana (1,5h na FLUL):

Grupo G (6 alunos) – Controlo

Este não foi um estudo de larga escala devido a limitações práticas, a saber: os cursos decorrem apenas duas, no máximo três vezes por ano, sendo necessário lecionar diferentes níveis e não apenas o nível B1.1. Os horários são também limitados, dado que a maioria dos alunos são trabalhadores-estudantes e por isso o horário dos cursos é maioritariamente pós-laboral. As instituições participantes são também limitadas porque se elegeu trabalhar apenas com escolas reputadas e de qualidade equiparável. Adicionalmente, foi necessário escolher turmas que utilizem o mesmo manual. Por fim, os formadores tendem a adoptar práticas pedagógicas muito individualizadas, podendo revelar-se relutantes ou indisponíveis para partilhar as suas metodologias, pelo que foi difícil estender a amostra a mais cursos.

Os formadores são de nacionalidade portuguesa, britânica e polaca (fluentes em Português), com uma experiência que varia entre 14 a 27 anos, todos possuidores de certificados CELTA. O principal recurso utilizado neste estudo é um manual de Inglês britânico que segue a metodologia ECL. O curso incluiu avaliação contínua, com foco no progresso individual em vez do desempenho em teste escrito, mas os aprendentes realizaram um Pré-teste no início e um teste escrito final.

A instrução dada no curso seguiu a estrutura apresentada no manual, complementada com a instrução e prática baseada na ACEL e nos princípios da LEd. O curso concentrou-se em nove unidades principais que incluem os seguintes tópicos: *Present Simple, Present Continuous* (com sentido presente e futuro), *Future Simple*, "*be going to*" + verbo, o modal "*shall", Past Simple, Present Perfect Simple, Present Perfect Continuous*, advérbios, adjectivos, (incluindo um foco especial na comparação), verbos modais auxiliares *can*, *could, should, must* e *have to,* e incluindo um tópico adicional especificamente dedicado às preposições, que foram abordadas em várias etapas ao longo do livro.

À prática presente no manual, acrescenta-se uma base de actividades extra de onde o formador pode escolher as actividades para complementar a prática em aula ou como trabalho de casa. Estas actividades gramaticais extra promovem ma prática melhorada do desenvolvimento da forma (através da precisão e da reprodução) e do significado (através da fluência e da criatividade), aplicando também princípios cognitivos. As actividades estão organizadas por tópico e incrementalmente e, apesar de todas terem sido testadas, não é possível usar todos os exercícios num curso de 60h, por isso há que fazer uma selecção a cada curso, com base nos seguintes critérios: variedade, ligação com actividades anteriores ou posteriores, nível de dificuldade,

interesse e produtividade da actividade, nível de cansaço, tempo, necessidade, tempo entre as aulas e estado de espírito e coincidência de tópico. Para mais, apesar de não ser possível replicar integralmente os mesmos procedimentos pedagógicos em todos os cursos e sessões, manteve-se uma linha orientadora comum: a) as actividades partiram de uma base comum de conteúdos; b) os critérios de selecção das actividades foram uniformizados e c) as adaptações introduzidas tiveram como objectivo assegurar a eficácia e coerência pedagógica do ensino.

As actividades categorizam-se segundo a técnica nelas aplicada e o foco didáctico, do seguinte modo:

1. Competição (interação competitiva com outros aprendentes) – precisão e fluência
2. Criatividade (uso da nova língua) – fluência com um foco criativo
3. Discussão (expressão de opiniões e factos) – fluência com um foco criativo
4. Preenchimento de espaços (recuperação da forma num contexto sensível ao significado) – precisão com um foco reprodutivo
5. Correspondência (itens correspondentes) – precisão com um foco reprodutivo
6. Troca de informações (registo e recuperação de informações) – precisão com um foco reprodutivo
7. Memória (recuperação de uma forma num contexto insensível ao significado, semelhante a um exercício de repetição) – precisão com um foco reprodutivo
8. Negociação (expressão de opiniões e factos com a intenção de persuadir) – fluência com um foco criativo
9. Troca de informações pessoais (partilha de informações) – fluência com um foco reprodutivo ou criativo
10. Resolução de problemas (negociação de soluções dentro de um contexto fechado) – fluência com um foco criativo

Deu-se foco particular ainda a três técnicas especificamente relevantes para a ACEL, a saber:

11. Encorporação
12. Interpretação visual, esquemas de imagens e mapeamento conceptual
13. Conhecimento enciclopédico

3.1 Resultados do Estudo Piloto

A análise dos dados recolhidos através da aplicação de pré-testes e pós-testes revelou diferenças significativas entre os grupos de controlo e os grupos de estudo: no Pré-teste, os grupos de controlo demonstraram um desempenho superior à partida, mas no Pós-teste os grupos de estudo evidenciaram uma melhoria significativa no desempenho, ao passo que os grupos de controlo não registaram progressos relevantes. Nota-se que os resultados obtidos pelos grupos de controlo no pré-teste foram significativamente superiores aos dos grupos de estudo. A razão para este desvio poderá encontrar-se nas diferenças do Grupo G, uma vez que apresentam características diferentes dos outros grupos: foram submetidos a critérios mais rigorosos no teste de colocação de

nível, são no geral mais jovens, com mais anos de aprendizagem da língua, e poderão estar ainda mais familiarizados com situações de avaliação.

A evolução positiva nos grupos de estudo foi atribuída à aplicação da metodologia que incorpora a ACEL e enfatiza flexibilidade e variedade. A abordagem alavanca a prática comunicativa com instrução explícita baseada na cognição, incentivando os aprendentes a envolverem-se activamente na análise linguística e na compreensão conceptual dos padrões de linguagem. A dinâmica de grupo resultou não apenas numa melhoria na produção linguística, mas também no desenvolvimento de capacidades analíticas e no pensamento crítico sobre as estruturas da língua e a sua aprendizagem e prática.

O estudo teve como objectivo clarificar um modelo que auxilie os formadores no planeamento e na execução do ensino da gramática de forma mais eficaz, segundo uma lógica de implicação (não de aplicação) de princípios, e incorporando de forma abrangente os mais diversos aspectos da aprendizagem de línguas. Embora a correlação entre actividades específicas e os resultados do pós-teste não tenha sido completamente clara devido à natureza personalizada do curso, a metodologia geral teve um papel significativo na melhoria dos resultados dos Grupos de Estudo.

O estudo indica que os princípios da ACEL proporcionam uma base eficaz para a aprendizagem de línguas, ao integrar aspectos cognitivos, sociais e linguísticos. A instrução explícita de gramática e a consciência metalinguística promovem uma aprendizagem mais profunda, enquanto a flexibilidade metodológica permite ajustar o ensino às necessidades dos aprendentes. Essa adaptabilidade melhora a retenção de longo prazo das estruturas linguísticas e favorece a sua aplicação no mundo real.

A inclusão da L1 e do contexto cultural revelou-se especialmente vantajosa para aprendentes adultos, facilitando a compreensão de estruturas desafiantes e reforçando a identidade e a consciência cultural. Além disso, a criação de um ambiente de aprendizagem motivador e equilibrado mostrou-se essencial para o envolvimento e o sucesso dos aprendentes.

4. Resultados Gerais e Conclusões

A ACEL distingue-se pela integração coerente de dimensões cognitivas, sociais e linguísticas, propondo uma abordagem holística ao processo de ensino-aprendizagem de línguas. Esta orientação promove a instrução explícita da gramática e o desenvolvimento da consciência metalinguística, elementos fundamentais para a compreensão aprofundada de estruturas linguísticas complexas. A flexibilidade didáctica é igualmente central, permitindo uma adaptação eficaz às necessidades, ritmos e estilos de aprendizagem dos diferentes perfis de aprendentes. Estas características

favorecem uma maior retenção a longo prazo das estruturas trabalhadas, promovendo aprendizagens significativas e duradouras.

Esta metodologia valoriza a inclusão da língua materna (L1) e de referências culturais no processo educativo, reconhecendo o seu papel facilitador na compreensão de fenómenos linguísticos na L2. Simultaneamente, esta integração contribui para o reforço da identidade linguística e cultural dos aprendentes, promovendo uma maior consciência intercultural e uma atitude reflexiva face à diversidade linguística.

A ACEL fomenta ainda a criação de ambientes de aprendizagem motivadores, colaborativos e cognitivamente estimulantes. Os aprendentes são incentivados a participar activamente no processo, explorando a língua de forma analítica e funcional. Esta abordagem favorece o envolvimento profundo com o conteúdo linguístico e promove o desenvolvimento de competências cognitivas superiores, como o pensamento crítico e a autonomia.

Do ponto de vista teórico, a ACEL é compatível com as directrizes da Linguística Educacional, cobrindo as principais áreas da disciplina. A ACEL contempla tanto fundamentos da linguística teórica como da linguística aplicada ao ensino, e inclui também aspectos psico-neurológicos e sociais na metodologia de ensino.

A aplicação desta metodologia oferece uma base pedagógica sólida, mas adaptável a contextos educativos variados. Adicionalmente, a ACEL promove a equidade e a inclusão, assegurando que todos os aprendentes tenham acesso a oportunidades de aprendizagem ajustadas às suas características individuais. Para os docentes, constitui uma ferramenta estruturante que orienta a prática com base em princípios claros, flexíveis e sustentados.

Uma das inovações centrais desta abordagem reside na alteração do foco de ensino: em vez de privilegiar exclusivamente o papel do formador ou do aprendente, o modelo propõe colocar a própria língua no centro da atividade pedagógica. Entendida como um sistema dinâmico e funcional, a língua é explorada colaborativamente, permitindo o desenvolvimento de uma consciência linguística aprofundada. Este foco renovado potencia ambientes de aprendizagem mais ricos e promove a autonomia e o pensamento crítico dos aprendentes.

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Index of Abbreviations

A1/2	Elementary Level of language
AmE	American English
ANEFA	*Agência Nacional de Educação e Formação de Adultos*
ANQ	*Agência Nacional para a Qualificação*
ANQEP	Associação Nacional para a Qualificação e o Ensino Profissional
B1/2	Intermediate Level of language
BP	Brazilian Portuguese
BrE	British English
C1/2	Advanced Level of language
CEFR	Common European Framework of Reference
CELTA	Certificate of English Language Teaching to Adults
CGL	Cognitive Linguistics
CALT	Cognitive Approach to Language Teaching
CLT	Communicative Language Teaching
DELTA	Diploma in Teaching English to Speakers of Other Languages
DGERT	*Direcção Geral do Emprego e das Relações de Trabalho*
EC	Entrenchment and Conventionalisation
EFL	English as Foreign Language
EP	European Portuguese
ESA	Engage, Study, Activate
IEFP	*Instituto do Emprego e da Formação Profissional*
KAL	Knowledge about Language
L1	First/Native language
L2	Second/Foreign language
OECD	Organization for Economic Co-operation and Development
PPP	Presentation, Practice, Production
TBLT	Task-Based Language Teaching
TTT	Test, Teach, Test
UNESCO	United Nations Educational, Scientific and Cultural Organization

Introduction

When teaching an English class in an adult training environment, it is common for the teacher to be under considerable pressure. A teacher is an ambassador of English but also a marketeer who must make sure their product is more effective than the competition's product; learners must achieve or improve fluency across the board of skills in record time and feel motivated to participate in a learning experience that is usually undertaken at the expense of precious working hours or even more precious private time. When older adults attend lower-level classes where the need is for basic language and understanding of the mechanics of language rather than extension of knowledge and improving skills already acquired, the challenge is even greater. Teaching English to adults in a private training context brings its own sets of challenges for a teacher and for learners which cannot be compared to an academic setting. In the latter context, the class is the focus for everyone involved, and learners are younger and distributed according to level, producing a clearer learning structure. In professional training courses, learners frequently feel there is a disconnection between the classroom and their life, and feel inadequate, too distant or too old to go back to school.

Analysing the reasons for this disconnection, it is relevant to identify and categorise the contexts for English as a Foreign Language (EFL) in Portugal. The first distinction to be made is that of education and training. EFL is a part of academic curricula from the first year of compulsory schooling to tertiary education; it has been included as an optional course in the curriculum of university degrees in Medicine, for example, in Nova Medical School in Lisbon, and as a teaching language for some Bachelor's Degrees, for example in Nova School of Business & Economics in Lisbon. In parallel, EFL is also the subject of training courses for learners who are not on an academic path but complementing their *curriculum vitae* or simply learning for personal reasons. Learners attend these courses in official institutions, such as *Instituto do Emprego e da Formação Profissional* (IEFP), which follow official guidelines for preparation, execution and evaluation of these courses, or in private language schools or training centres, where supervision is dependent on the institution itself. Therefore, the range of language classes in training courses is wide and it covers learners with needs that bear little connection with each other.

Private training courses can have extensively varied circumstances because learners may have different ages, academic and personal backgrounds with different exposure to and practice of English. For example, considering it is easy to find abundant personal variation even in cohesive groups of children of the same age and academic background sharing a class, it is clear this will be much more extensive in groups of adults with individual personalities and life experience. Furthermore, teachers may also have different training and experience, and the control of the institution can vary as well.

Language teachers can become so through higher education, private training and experience, but there are also instances in which the primary requirement for the teaching institution is being a native speaker. This bias is recurring, including from the learners, and it results in the idea that a native teacher is the gold standard: a native speaker of the language is always the best teacher of the language. However, it has been argued and it is echoed here that non-native teachers bring a different set of skills to the classroom which help them empathise with learners and contribute to the learning relationship in a different but equally effective and valid way (e.g., Macaro, 2009a; Hirosh & Degani, 2018).

In terms of the content of what is taught, it is also necessary to make a distinction between training courses for General English and for Business English, Technical English, and other English for Specific Purposes areas. These vary based on the purpose of the learners: a General English learner will study more general and common situations, such as using transport and going to restaurants, and this includes a much broader vocabulary scope of what is to be dealt with in class, whereas a Business English course will focus on work-related topics, such as presentations and meetings, and have a relatively limited lexicon (in comparison to a General English course). In courses of English for Specific Purposes, such as courses for Academic English or English for IT for example, the language is more specialised.

Considering learning circumstances, different class environments can have considerable impact on how learners are engaged. Classes can vary in learners and teachers, but also in length of overall course, length of classes, number of participants and resources available. They may take place in a traditional classroom with desks or in a meeting room or private office, or even in person or online, at 8am or 10pm, with the help of computers and projectors or without, following a coursebook or not, and methodology and materials may be designed by the teacher or imposed by an organisation. The variety can be overwhelming, so it may even be difficult to define exactly what a language training class is

(Tanner & Green, 1998; Scrivener, 2011). These differences are analysed further later, but it is clear that the extent of the variation contributes to a complex scenario.

Regarding the methodology used in these courses, Communicative Language Teaching (CLT) and its derivation, Task-Based Language Teaching (TBLT), currently prevail in education and training in Portugal, as they do, generally, in Europe. CLT is focused on the learner and based on the notion that the knowledge of a language relies on the ability to use it for communication rather than formal declarative knowledge. TBLT adds that this communication should result from language exchanges while dealing with various realistic tasks. The use of CLT and TBLT prevails also because of its link with the actions of the Council of Europe in establishing a European Common Framework of Reference (CEFR) (Council of Europe, 2001; 2020) which was created with the following purpose:

> The CEFR aims to help language professionals further improve the quality and effectiveness of language learning and teaching. (…) The CEFR's action-oriented approach represents a shift away from syllabuses based on a linear progression through language structures, or a pre-determined set of notions and functions, towards syllabuses based on needs analysis, oriented towards real-life tasks and constructed around purposefully selected notions and functions. (…) The idea is to design curricula and courses based on real-world communicative needs, organised around real-life tasks and accompanied by "can do" descriptors that communicate aims to learners. (Council of Europe, 2020, p. 27)

This framework has also been used in private training, and it provides the level system widely used in Portugal (levels A1 to C2).

CLT and TBLT are connected to the CEFR through their goals of communicative language teaching, action and real-world oriented practice "rather than syllabuses based on a linear progression through language structures or a pre-determined set of notions and functions" (Council of Europe, 2020, p. 27) as described above. This description also points out another characteristic of CLT, TBLT and the CEFR: a move away from language syllabuses that focus on the explicit instruction of grammar and its practice.

This trend can also be seen in available teaching materials used as coursebooks produced by international publishers for EFL and in materials produced by national publishers for national primary and secondary education. These materials generally have a strong focus on developing learner communication in EFL and offer a variety of instruction

and practice on productive skills (speaking and writing) and receptive skills (listening and reading), vocabulary, grammar, pronunciation and functions of English. These books and resources are sometimes developed in series over a range of linguistic levels (from A1 to C1), which are structured to be used as coursebooks over several courses, or have a specific focus on a specific skill (such as writing) or on a specific area of English for Special Purposes (such as English for oral presentations).

Coursebooks can prove very helpful to teachers in private training because this type of training is rarely bound to official guidelines. It is frequently the case, as pointed out by Tomlinson (2016a) that the solution the teacher finds is to use a coursebook as a syllabus because these provide efficient ready-made answers to two issues: what to teach (the syllabus) and how (the methodology). Once learners and teachers become accustomed to a layout and methodology, it is easier to continue in the same vein and do consecutive courses using the same coursebook series.

However, these coursebooks also present some challenges: their standpoint is necessarily generic in terms of age or level of experience of adult learners (as general English coursebooks only make a difference between young learners, teenagers and adults in general), and the learners' first language or languages (L1) and culture are not considered. This decision relates to the possibility of having multiple nationalities and L1s in the same class. Any adjustment to specific needs, personal characteristics, geographical or cultural environment is left at the teacher's discretion.

The question of adjusting the coursebook to a specific L1 and culture also highlights another issue: this can only be done if the teacher has at least some working knowledge of the learners' L1. Within the framework of CLT and TBLT, this is not a requirement, as it asserts that learners should be exposed to English in EFL class and L1 should be avoided (Canale & Swain, 1980). One of the consequences of this principle is that native teachers, who might not have knowledge of the learners' L1, prevail over non-native speaker teachers, the former being seen as the gold standard in terms of examples and resources for reliable information (Macaro, 2009a).

The justification for this perspective is that the learners might not all have the same L1, although this is frequently not the case. In any given country, EFL classes are frequently taught by non-native speaker teachers to groups of learners who share an L1 because they are the majority of the population. As for the native teacher being a source of authentic

information, this suggests that all the information provided by native speaker teachers would be cohesive and similar, but the sheer variety presented by native speakers of English speaks against this. Native speakers of English originate from various countries, each with its distinct cultural background and dialects. Even within a single country, there can be significant regional variations in language use, accent, and cultural practices. Additionally, native speakers differ in age, educational background, and life experiences, which further contribute to their diverse ways of using and understanding the language. Therefore, the idea that native speakers inherently offer a uniform source of cultural and linguistic knowledge is flawed. In reality, the diversity among native speakers means that they cannot provide a single, definitive model of the English language and its cultural context, just as non-native teachers.

The principle of prevalence of native speaker teachers would also imply that a native teacher's extensive knowledge of culture and language is useful to learners of any level, which is also doubtful: a Beginner EFL class, for example, is unlikely to expand to areas which would only be available to native teachers. Furthermore, it would also imply that non-native teachers cannot attain extensive knowledge of English language and culture, which also cannot be generalised (Kirkpatrick, 2007).

Another challenge coursebooks present relates to grammar instruction and practice. As hinted at before, CLT and TBLT tend to discourage explicit grammar instruction and propose instead that grammar should arise from communicative practice, causing learners to focus on form and create hypotheses about the structure of the language, which are then tested, thus developing their own English grammar system (Long, 1985; Skehan, 1996). This procedure conflicts with coursebook structure because, if grammar items are to arise naturally in communicative practice, it is difficult to predict exactly what issues will arise, at what point in the course and from which learners, even when doing tasks directed at a specific grammar point (Swan, 2005b). Moreover, adult learners in particular may expect to see a logical system of rules to be used as a shortcut, rather than experiencing such extensive practice as necessary to induce the rules (McCarthy, 2021).

Most coursebooks present a syllabus which includes a list of grammar items and practice for these items at a given time in the course, and according to the level. However, this grammar instruction and practice tends to be short, because it is discouraged by the CLT and TBLT, and it does not reflect the techniques used in the practice of other areas of a

language syllabus, like the four skills mentioned above, for example. This is also a reflection of CEFR guidelines, where, out of more than 60 descriptors, there is only one for Grammatical Accuracy (within the group of Communicative Language Competences). Moreover, although it is stated in the CEFR that in it there is "no suggestion that one should stop teaching grammar" (Council of Europe, 2020, p. 29) there is also the statement that: "We have NOT set out to tell practitioners what to do, or how to do it" (Council of Europe, 2001, p. iv Notes to the user). Therefore, the instruction and practice of grammar is based on the preferences and decisions of institutions, their teachers or the materials they use.

Another issue with grammar practice in coursebooks is that it is not as varied or as communicative as the practice for other areas of language: the exercises proposed for the grammar generally involve gap-fill and matching exercises, whereas vocabulary practice or pronunciation involve more creative activities. The practice of grammar, as described in the majority of coursebooks, has not changed significantly in recent decades. When questioned about the decision of what to include in grammar instruction and the grading of levels in particular, coursebook authors agree that publishers pressure them to keep the same structure and methodology (Tomlinson, 2016a). Publishers, on the other hand, seem restricted by profit, as it is considered a financial risk to change a format which is remarkably consistent throughout the industry (Burton, 2019). Furthermore, in global coursebooks there is no account for specific L1s, as mentioned above, and there might be various similarities and differences between L1s and English which would require more or less practice of the grammar item than is included in the coursebook.

Choosing a global coursebook as a syllabus draws issues, but this may nevertheless be the best available option. Global coursebooks are mature publications with a proven track record and they frequently provide complements such as a teacher's book (with instruction, lesson plans and extra exercises), a workbook for extra practice, and online resources, which allow for extensive practice and choice of which exercises or resources to use. Furthermore, as claimed here, the grammar instruction and practice in a global coursebook can be adapted to suit the specific learners, by using and adapting various other resources, according to a principled choice.

Grammar practice in global coursebooks comprises mostly of gap-fill exercises, matching exercises, or limited drills. It is argued in this study that this type of exercise does have its place in the language class, as do communicative and task-based exercises, but the

range of grammar instruction and practice should be expanded to include insights from cognitive linguistics (CGL), and that this can improve effectiveness and engagement in the EFL class.

CALT is based on the implications of CGL and therefore it is necessary to start by outlining the characteristics of the latter. CGL is not a single theory but a group of compatible theoretical proposals following main principles (Langacker, 1999a, pp. 13-14; Evans & Green, 2006; Ungerer & Schmid, 2006):

- Language and grammar in particular have a cognitive nature and they are not autonomous from other cognitive functions;
- Language and grammar are usage-based in nature;
- Language and grammar are motivated by meaning derived from usage and this is inseparable from form;
- Language and grammar have embodied meaning, which means that the human body is used to perceive and describe the world and it is therefore relevant to the meaning of language;
- Figurational devices like conceptual metaphor and mental spaces play an important role in language and grammar.

It is also relevant to highlight the possibly misleading use of the term 'cognitive': this term is commonly used in all currents of teaching because learning must necessarily be cognitive. The theory of CGL has a more specific use for the term 'cognitive' (Gibbs, 1995; Taylor, 2002); it is a mixed perspective comprised of aspects of generative linguistics but also firmly based on features of functional linguistics, as shall be described later.

The focus of the present study is specifically on grammar, because, as pointed out above, this area of language teaching seems to have lost some of its importance in the prevailing language teaching model and its application in coursebooks. However, teachers still feel the need to address rules and to practice grammar with learners. It is believed that CALT can be used to provide a principled approach to adapt and extend grammar instruction and grammar practice from a coursebook to specific groups of learners, in this case adult Portuguese native speakers in an EFL class.

A cognitive perspective of grammar defines it as a structured inventory of conventional units with its own system in which units are related though symbolisation, categorisation and composition (Langacker, 1987, pp. 73-75). Symbolisation refers to the correspondence between phonology and semantics, and it can be placed in multiple cognitive domains (like time and space, for example) and these can be used as background to build more complex domains (Langacker, 1987, p. 150) such as perfective and imperfective aspect of verbs. Categorisation in language does not follow a traditional system of necessary and sufficient characteristics for a category (Lakoff, 1987), but follows two models of categorisation: by schema (in which the items in the category become increasingly more specific) and by prototype (in which the items diversify and extend from central members of the category) (Langacker, 1987, pp. 370-373). Finally, assuming that language is usage-based means that speakers develop their inventory of linguistic items from extensive exposure and patterns are built based on this exposure. Two crucial concepts that derive from this exposure are the importance of visual cues and the embodied nature of language. As proposed in this study, these play a crucial role because they enhance the learners' performance. Visual cues and embodied language contribute significantly to the process of understanding language through sensory and motor experiences by grounding abstract concepts in visual aids like images, diagrams, and gestures, which can make intangible ideas more tangible, allowing learners to form mental models that connect grammatical structures to familiar experiences. Furthermore, using visual aids and physical movement aids memory retention by engaging multiple cognitive pathways. This multisensory approach leverages the brain's natural ability to remember visual information more effectively than text or sound alone. Embodied experiences, such as using hand gestures to represent syntactic structures, create stronger memory traces. Moreover, engaging learners' senses through visual and kinaesthetic activities aligns with the embodied cognition theory, which posits that cognitive processes are deeply rooted in the body's interactions with the world. Finally, visual and embodied cues provide contextual clues and scaffolding tools that aid in comprehension and use of language in real-life scenarios, and increase learner engagement and motivation.

Finally, if speakers learn a language from extensive exposure, in learning a foreign language, adult speakers have been exposed to at least an L1 and they are necessarily

viewing the foreign language through their L1. Rather than a hindrance, this linguistic inventory of L1 can be seen as a cognitive stepping stone to process a foreign language.

Research Hypotheses

Because there is lack of official practical guidelines and guidance in methodology in the area of private training, teachers of English training courses follow General English global coursebooks which contain systematic but limited grammar instruction, which in turn leads to lower overall learning of the structures of English, and therefore lower accuracy and fluency, and consequently lower results in evaluation. However, these coursebooks can be supplemented to promote faster understanding and proficiency. Therefore, the working hypotheses are the following.

- CALT entails principles that promote effective foreign language learning.
- L1 grammar and cultural and personal background are important resources in learning a foreign language.
- Adult foreign language learners benefit from an explicit grammar framework with declarative metalinguistic teaching.

These hypotheses were tested in a pilot study in which it was attempted to adapt a General English teaching coursebook to fit adult speakers of a specific L1 (Portuguese) according to the principles of CALT and thus broaden the scope of techniques regarding grammar instruction to optimise language learning. The resulting guidelines could be used as a template to adjust different coursebooks to different classes and different teachers, since general guidelines and goals are provided, but also enough flexibility of choice and teaching and learning style is allowed, to suit a variety of teaching circumstances.

This study is comprised of two parts. The first part presents the theoretical background and it includes considerations on educational linguistics and a special focus on the contribution of CALT to EFL and the teaching of grammar. It also includes considerations

about teaching EFL to adult learners in Portugal and how this affects the decisions made about grammar instruction and promotion of language learning. Finally, it dwells on EFL materials and their treatment of grammar instruction and practice, and how CALT can contribute to a more effective use of existing materials.

The second part presents the application in a pilot study using a global coursebook complemented with instruction and practice from various extra resources, following principles of CALT and common characteristics of the group of learners as tools for an informed choice of instruction and practice of grammar in English courses of level B1.1 for Portuguese adults.

Chapter 1. An overview of educational linguistics

The theoretical context for the teaching of grammar in the above-mentioned training courses starts with educational linguistics. The introduction to the multireferential and operational field of educational linguistics uses Edgar Morin's systematisation of epistemological paradigms as its stepping stone (Morin, 1990). The first paradigm is that of reductionism, which is associated with hard sciences and defines and characterises reality in reduced models that should be as simple as possible and then subdivided into levels and specifications. Generative theory in linguistics, for example, fits with this paradigm. A second paradigm is that of simplification (typically used to characterise soft sciences in a similar way to hard sciences) which is defined by different levels and specifications of hard sciences branching out and becoming autonomous. The variety of topics within applied linguistics is a good example of this paradigm. The third paradigm is the complexity paradigm. Morin (1990) states this paradigm is the most adequate for educational linguistics because it defines that, after the division and characterisation in domains and specifications for different levels of the system, these areas should be studied as linked to each other, as parts of a complex network, but under the assumption that not everything can be explained, and that the resulting system is only partially true. This model is appropriate for human sciences, and in particular for educational linguistics, where it is not necessary, or even desirable, to consider strictly the more structural areas of language, such as syntax and phonology, but it is relevant to consider broader, softer areas such as identity and personal beliefs, experience and culture. However, Morin's multireferential, multidimensional perspective may be too broad when trying to define a framework for how language should be taught, so there is an attempt to reduce the scope to objective components: precise and well-defined elements of language education on one hand, and elements which do not depend on personality, nationality and culture. If these elements can be established, the next step is to incorporate them into a model that can be validated empirically and applied in any time and place, and this should provide a stable framework for language teaching. It should be mentioned, however, that the scope of the model for language teaching and learning is still extremely broad, and therefore this is a developing model that should be continuously adjusted (Balboni, 2018).

As a multireferential model, educational linguistics can be said to consider four interactive domains: cognitive, educational, cultural and linguistic (Puren, 2010). These domains are not applied in educational linguistics, but educational linguistics draws implications from them. These implications lead to creating questions and solving problems, therefore drawing information and also providing feedback to several sciences through empirical and scientific research. Operational disciplines such as educational linguistics do not comprise true or false statements, but they are effective or useless (Balboni, 2018) - and a main objective of this study is to prove assess the effectiveness of use of CGL principles in the EFL class.

Objectives of language teaching

The framework such as it is described above provides the base for what should be language teaching methodology, but it is still necessary to outline specific teaching objectives or goals. In terms of the general objectives of language teaching, there are three nodes to consider in terms of human interaction and communicative competence: the self, others, and the world, of which the self represents self-actualisation, or the fulfilment of a life project of progressive maturity and learning, others represent the subsequent socialisation or interaction with other people, and the world represents the ability to perceive and adapt to a culture, or culturalisation, according to Abraham Maslow's work on human psychology (Maslow, 1962). Maslow's hierarchy of needs and model for human psychology is also in tune with Roman Jakobson's and Michael Halliday's communicative function models (Jakobson, 1960; Halliday, 1973).

In foreign language teaching, interpersonal and referential functions (connection with others and the world, respectively) are generally central goals, but, in fact, there should be an attempt to include all functions of language to fulfil the objective of self-actualisation (Marslow, 1962). While CGL and CALT may not explicitly state that self-actualisation is furthered through cognitive commitment and reflection, its principles inherently support this idea. The field's focus on the cognitive and experiential aspects of language learning aligns with the processes of self-awareness, personal growth, and social connection that are central to self-actualisation.

The specific objectives of language teaching are related to communicative competence and communicative performance, knowing how to use a language rather than knowing about a language (Hymes, 1972). The distinction has been discussed for over 50 years, since Chomsky first presented his Generative Grammar Theory and first used the term in the 1960s (Chomsky, 1965), differentiating between the mental, intrinsic knowledge of a language and how its sounds correspond to meaning - competence- and the language produced - performance - which involves extra-linguistic knowledge pragmatics and sociolinguistics. Later, in 1986, Chomsky defined these as internal language and external language, and reiterated that the focus of analysis should be on internal language (Chomsky, 1986) within a context of theoretical linguistics.

The separation between competence and performance is central to generative linguistics: it focuses mainly on the study of competence and the representation of language in the mind, dismissing descriptivist views of language as the basis for theoretical linguistics (Chomsky, 1965), unlike what is argued in functional linguistics or CGL. These theories argue for the usage-based nature of language and that linguistic competence derives from language use, and therefore, performance.

Moreover, linguistic performance is ruled by principles of cognitive structures such as memory and attention which are not, from a strict generative perspective, related to language, but are taken into consideration in CGL (Langacker, 1987). Furthermore, it is also argued that cognitive and functional perspectives are more effective in dealing with questions which are excluded from a generative perspective because they are not part of a native-speaker, standard level of the language uttered in ideal, abstract conditions (Evans & Green, 2006). In this case, and considering the framework for educational linguistics, since the focus is not on theoretical linguistics, questions related with the context in which language is used in the classroom and the effects of cognitive systems are indeed very relevant and should be considered. In fact, competence and performance are inextricably linked in the mind, and therefore neither takes precedence but both should be taken into account, as attested, for example, by studies on aphasia (Goodglass, 1979).

Communicative competence and performance were discussed in the field of educational linguistics in the 1980s, highlighting the usage-based aspects of language and the role of language skills which included grammatical but also sociolinguistic, discourse and strategic skills (Canale & Swain, 1980; Canale, 1983; Sauvignon, 1983; Widdowson, 1983).

Bachman (1990) and Bachman and Palmer (1996) expanded on Widdowson's model (1983) by dividing competence in organisational knowledge (related with structure) and pragmatic knowledge (related with sociolinguistic factors such as functional and sociolinguistic competences) but this model still overlooked performance, and information deriving from it.

The CEFR also outlines specific objectives for non-native language syllabuses through defining what it is to know how to use a language in communicative events, but it is still a somewhat simplified model, which does not include extralinguistic codes and sociolinguistic aspects (Council of Europe, 2001; 2018). In fact, it can be considered that sociolinguistic and extralinguistic aspects are very difficult to categorise, and the different varieties are difficult to define in a non-ambiguous way[1] because they are highly abstract and dependent on cultural background and teaching circumstances.

When dealing with a foreign language and intercultural communication specifically, there are two types of skills to take into consideration: language skills to know how the foreign language works and behavioural skills to know how to deal with intercultural issues (Kramsch, 1993; Byram, 1999; Johnson, 2006). These skills involve, for example, awareness of the critical points of language, such as how cultures may vary in how directly questions are asked, for example, or what is the appropriate sentence structure or register to use and its grammatical repercussions (as it is the case for example with the differences in formal, informal and neutral forms of address in English and Portuguese).

These variations regarding intercultural communication extend also to non-verbal codes and these merit some attention although these are not, strictly speaking, part of this study. Non-verbal language may have radically different meanings from culture to culture and this is rarely considered in syllabuses and materials for foreign language teaching. Especially in the case of adults, non-verbal language may feel natural, but it is in fact highly culturally bound, and this should be addressed by the teacher.

Finally, there should also be awareness of socio-pragmatic and cultural critical points. Socio-pragmatic aspects relate to hierarchical forms for showing respect, both verbal

[1] The connection between competence and performance cannot be established in an unambiguous way, but what can be established in such a way is the location of these two notions: knowledge is located in the mind and performance is located in the world (Balboni 2018).

and non-verbal, and how communicative moves (such as interrupting, highlighting or admitting a mistake, for example) are viewed in the target culture. Awareness of cultural critical points involves issues related to cultural differences which are intertwined with language, such as how time and space are perceived, for example (as specific examples, punctuality may be perceived as essential or irrelevant, depending on the culture (Levine, 2006), and personal or private space and public space varies from culture to culture as well (Campbell, 2007). In a model for intercultural communicative competence, this awareness is then connected to performance through the above-mentioned skills – linguistic but also behavioural. These skills may not be able to be strictly taught, but the teacher should strive to make learners aware of their own positive or negative prejudice about a foreign culture to promote a change in attitude to better incorporate intercultural communication in language teaching (Byram, 1997; 1999; 2003).

Sources for an epistemological model for the framework of language teaching

Having discussed the basic principles and general and specific objectives of educational linguistics, it is relevant to establish the various domains involved in the framework, and how they interact.

Firstly, language teaching necessarily involves linguistics, and there should be a difference drawn between formal, theoretical linguistics (and its various specific fields of study), which dwells on the nature of language and its use, and applied linguistics. Applied linguistics is more difficult to define, as its scope seems at once too broad and too narrow and has been so since its inception (Kaplan, 1980): applied linguistics may be seen as applications of linguistics to language teaching on one hand, and as performing "a mediating function between theoretical disciplines and various kinds of more practical work" (Buckingham & Eskey, 1980, p. 2) on the other. The current trend is still for applied linguistics and social practice to interact in a dynamic and complementary relationship with theoretical linguistics, where these areas inform each other (Shuy, 1981) or, more specifically, "applied linguistics is emerging as an integrated discipline, feeding in to linguistics technically sophisticated statements about language in genuine social situations, on the one hand, and responding to the needs of practitioners, on the other" (Brumfit,

1996, p. 10). The definition of applied linguistics was further developed by Halliday, who argues that applied linguistics is a transdisciplinary field rather than interdisciplinary or multidisciplinary, where the disciplines are not bridged but superseded, "creating new forms of activity which are thematic rather than disciplinary in their orientation" (Halliday, 2001, p. 176).

Of the different areas applied linguistics deals in, language and education became especially relevant in the 1960s and 1970s (Shuy, 1981), and there was special development of applied linguistics in connection with English language teaching (Widdowson, 2001). In 1974, Bernard Spolsky put forward the term educational linguistics to describe the area of applied linguistics pertaining to education and language, which he elaborated on throughout the following years (Spolsky, 1978; 2003; Spolsky & Hult, 2008). Educational linguistics moves away from the definition of applied linguistics as linguistics applied to social practice and provides it with a more bilateral and reciprocal approach with formal linguistics. It also includes other domains that are involved in language education, in an attempt to define a pool of sources of knowledge that can be under the scope of language education, as described in the words of Spolsky: "language teaching takes place in a school and is closely tied to sociological, economic, political, and psychological factors" (Spolsky, 1978, p. 2).

Spolsky (1978; 2003; Spolsky & Hult, 2008) proposes that educational linguistics concerns what is taught to whom and how, and the following domains, which contribute to and draw feedback from educational linguistics:

- What (culture and society): sociology, anthropology and cultural studies;
- What (language): linguistics, theoretical and applied, and all sub-fields;
- Who: neurosciences, psychology, relational and acquisitional studies;
- How: pedagogy, teaching methodology, evaluation studies, educational information and communication technologies.

In terms of how the information flows between these areas and educational linguistics, the traditional perspective involves research being conducted in these areas and then conclusions gathered being applied in an educational setting. However, it is proposed here to use a principle of implication rather than a principle of application: having identified

a need, the researcher checks if other relevant models for other fields of study can provide answers to these issues (Hornberger, 2001). This is a perspective of operational problem-solving (Spolsky, 1978; Halliday, 2001). As an operational science, educational linguistics does not intend to produce true results, but to produce effective results (Spolsky, 1978). The results can then be adapted as necessary and integrated with other areas of study in a symbiotic transdisciplinary perspective (Widdowson, 2005) also reaching for critical thinking skills that allow to implement tools in a systematic and creative way (Van Lier, 2004).

By broadening the scope of disciplines and perspective for educational linguists, a difficult task may be at hand, since each topic for research can only draw upon its areas of expertise, but, in allowing for individual contribution to the overall progress of educational linguistics, it also allows for a more integrated understanding of the various disciplines (Spolsky, 2003).

1.1 Socio-cultural sciences in educational linguistics

Analysing specifically each of the intervening domains in educational linguistics, the first area described here is related to "what to teach", and it includes the two areas of studies concern, on one hand, the language to be taught (discussed below), and on the other the contribution of socio-cultural sciences. Culture can be said to be indissociable from language and the literature on the matter of intercultural communication studies is extensive (Lado, 1957; Hall, 1976; Galisson, 1991; Kramsch, 1993; Hinkel, 1999). There is, however, an area of EFL in which cultural association to the foreign language is purposefully and systematically removed, English as a Lingua Franca, in which the focus is often on mutual intelligibility and effective communication rather than strict adherence to native speaker norms. This widespread use of English has implications for language education, as it shifts the emphasis from mastering native-like proficiency to acquiring functional skills for international communication.

According to Spolsky (1978), socio-cultural studies in educational linguistics can be divided into two areas, one focusing on civilisation, related to sociology and anthropology, which is more relevant in native language teaching, and the other focusing on everyday culture and behaviour, related to pragmatics. The first area explores the deep-rooted aspects of culture, such as traditions, history, and societal norms, aiming to provide a

comprehensive understanding of a culture as it relates to its native speakers. In a language education context, this could involve studying literature, folklore, and idiomatic expressions that are deeply embedded in a particular culture, helping learners understand not just the language but the ethos and worldview of its speakers.

Furthermore, concepts such as multiculturalism and multilingualism can inform language teaching approaches that foster cultural awareness, empathy, and respect for diverse linguistic and cultural communities, as language teaching often involves teaching learners to communicate across cultural boundaries. Intercultural communication, a field within social sciences, explores the interactions and communication between individuals from different cultural backgrounds. It examines the impact of cultural values, norms, and communication styles on intercultural interactions (Hymes, 1972; Kramsch, 1993; Byram, 1997; Spencer-Oatey & Franklin, 2018; Hua, Z. (Ed.), 2019; Lustig & Koester, 2021). It is important language teachers address intercultural communication in their instruction to develop learners' intercultural competence, enabling them to navigate cultural differences, avoid misunderstandings, and communicate effectively with speakers of other languages.

In the scope of this study there is a brief account of multilingualism and its social effect in language learning. Social sciences are also relevant in educational linguistics in this case through the specific relation between Portuguese as an L1 and English as an L2, and what that relation entails from a social and educational point of view for the teachers and learners.

The second area, focusing on everyday culture and behaviour, is crucial for learners who are likely to interact in diverse social settings. This could involve teaching situational language use, etiquette, customs, and even non-verbal cues like gestures and body language. It is often designed to prepare learners for real-world interactions, enabling them to navigate social situations in a foreign culture more proficiently. For example, learners might practice how to order food in a restaurant, navigate public transport, or conduct a business meeting in the target language. This area is more relevant to foreign language teaching because it involves ordinary communication, which is learnt implicitly by a native speaker in common everyday situations, but needs to be learnt by a foreign speaker together with the linguistic aspects of the language that involve linguistic competence for full communicative competence. The area of studies that informs the role of context in interpreting meaning is pragmatics. It examines how language users employ strategies such

as implicature, politeness, and speech acts to convey intended meanings in specific social situations, and it is pointed out by Larsen-Freeman and Celce-Murcia (2016) as one of the three dimensions of language, together with form and meaning. Language teachers should incorporate pragmatics into their instruction to help learners understand and use language appropriately in different social and cultural contexts. This includes teaching speech acts, cultural norms, and pragmatic conventions to enhance learners' pragmatic competence (Halliday, 1978; 2001; Balboni, 2018). Kramsch (1993; 1995) emphasises the importance of integrating culture into language teaching and fostering learners' intercultural competence, promoting a critical and reflective approach to language teaching that acknowledges the sociocultural dimensions of language and communication.

1.2. Theoretical linguistics and L2 teaching

The second area to inform educational linguistics in the "what to teach" category is that of language sciences. As summarised by Bayram and Rothman (2020, p. 11) "formal linguistics (theory and acquisition) endeavours to describe and explain the psychological reality, development, and ultimate attainment of grammars in the mind, especially abstract hierarchical structure, acquired in a 'naturalistic' wild, compatible with systematically collected data enabling theoretical justification and prediction." Therefore, formal linguistics is not focused on learning but on the mature system and its acquisition. However, language teaching, and particularly L2, is non-realistic and it is bound to be shaped by the experience and knowledge of the teacher, learners and conditions, so the research for formal linguistics and educational linguistics will only partially overlap.

Another factor that must be considered in how linguistics is applied to the L2 classroom is that theoretical linguistics is based on description, which means objectively studying the linguistic facts without trying to change them. However, theoretical linguistics is still involved in the practical applications of linguistics, and even more so in the case of teachers. For example, teachers have not only to try to eradicate prejudice against certain varieties of the L2 but also limit the amount of varied information to be presented in class (as learners cannot be expected to be fluent in all dialects and sociolects of English concurrently, for example). Therefore, whereas theoretical linguistics focuses mainly on

description, educational linguistics must focus on prescription and a more limited scope (Hudson, 2008).

Even Chomsky has expressed reservations regarding the relationship between the sciences of theoretical linguistics and psychology and language teaching as he stated that "it is difficult to believe that either linguistics or psychology has achieved a level of theoretical understanding that might enable it to support a 'technology' of language teaching" (Chomsky, 1971, pp. 152 - 153).

It should also be mentioned that L2 teachers have very heterogenous training to do their jobs, but there do not seem to be many who have theoretical linguistics in their background. If linguistics is the science of language and what is being taught is language, it seems strange that there should be a disconnection between these two poles, but indeed there is. Furthermore, recent studies have shown that teachers are resistant to bridging the gap with formal linguistics because they lack time, access to the resources, or knowledge about the linguistic terminology (e.g., Marsden & Kasprowicz, 2017; Sato & Loewen, 2019). Research can also be confusing in its variety and specificity, and the findings may be unclear: "the findings of academic research are bound to be no less misleading and unreliable than teachers' experience and intuitions" (Medgyes, 2017, p. 490).

Both from a practical perspective this is the case, as mentioned before regarding teachers, and also from a theoretical perspective, as mentioned above, insight from theoretical linguistics seems to have relatively little influence on the language class (Swan & Smith, 2002; Larsen-Freeman & Anderson, 2011; Ellis, R., 2015) because their areas of study are different (broader in pedagogic linguistics and narrower in theoretical linguistics), and their purposes are different; furthermore, formal linguistics retains a strong theoretical perspective, which makes it hard for outsiders to the theory to directly connect it to the practice of teaching (Widdowson, 2003a). However, it is believed, as indeed by the authors above, that theoretical linguistics can and does still inform the language class, particularly because there is allegiance between linguistic theory and some teaching methodologies, as described in section 1.4.

Furthermore, Hudson, for example, argues that linguistics is intrinsically pedagogical and there is an indistinguishable continuum between linguistics and education because language users are influenced by their educational experience in their perception of language (Hudson, 2008). It should also be noted that Hudson advocates bringing formal

components of linguistics into the class under the guise of explicit grammar instruction and KAL (Knowledge About Language, which is analysed later), with a cognitive justification, which is also argued later (Hudson, 2004; 2008; 2020).

Structural, Generative and Systemic-functional linguistics

Considering linguistic models that are relevant to educational linguistics, the first to mention is structural linguistics, or structuralism, originated by Ferdinand de Saussure's work on semiotics first published in 1916 (Saussure, 1983) and later adopted and expanded upon, as structuralism, by Roman Jakobson (1960), for example. Structuralism views language as a self-contained system of interconnected elements defined by their relationship to each other, and includes syntagmatic and paradigmatic analysis to define units within the system. The joining of structural linguistics with behavioural psychology (Skinner, 1938; 1957) became the basis for the Audio-lingual method, one of the most influential in shaping foreign language teaching in the first half of the 20th century and from which some characteristics are still relevant (and which are clarified below). However, from the 1960s, the Audio-lingual method and its base linguistic theories were challenged by generative linguistics and systemic-functional linguistics.

The second model to mention is generative linguistics. American linguist Noam Chomsky stated that language learning could not be done just by imitation because of the generative quality of language. Unlike the views argued by behaviourism, in which language learning is considered similar to other types of learning, the new theory proposed by Chomsky argued for the existence of language universals: humans have a predisposition for language which is revealed in an ability to generate new utterances even when input is weak. In a generative view, individual languages are analysed in detail and abstract generalisations about all languages are made. Chomsky has argued for a strictly scientific view of language, and his idea of generative grammars has been used to introduce school-level linguistics to the scientific method. However, Chomsky discourages applications of his theories to education, claiming that language is an innate mental organ rather than something learned or taught (Chomsky, 1965; 1986).

Another challenger was British linguist Michael Halliday, who argued for an opposite view of generative linguistics: systemic-functional linguistics (Halliday, 1973). In its

application to education, this model does not emphasise the explicit teaching of traditional grammar rules or formal syntactic questions that are central to generative linguistics. Instead, it focuses on how grammatical structures serve different functions in communication, for example. The contribution of systemic-functional linguistics to educational linguistics is particularly valuable in terms of textual coherence, register variation and social context of meaning (Halliday, 1985).

In fact, despite being opposed in their principles, both generative linguistics and systemic-functional linguistics have made some contributions to language teaching, especially in their role in CLT, and more recently in TBLT. Furthermore, in recent years there have been new developments in formal linguistics driving language teaching; teacher training has moved even further from the strict study of language to include communicative and social aspects under the influence of CLT and critical pedagogy without leaving behind the previous learnings (Whong, Gil, & Marsden, 2013; De Knop, 2016; Marsden & Slabakova, 2018; Gil & Rastelli, 2018; Trotzke & Rankin, 2020).

CGL

Finally, the last and most recent relevant model for this study is CGL, which is based on the principles put forward by Ronald Langacker (1987), George Lakoff (1980; 1987), Leonard Talmy (2000), and Gilles Fauconnier (1994) but in fact has no single leader, as it blends a number of models which have in common the claim that language is part of general cognition and that it grows and develops based on experience (Langacker, 1999a; Tomasello, 2003; Evans & Green, 2006; Ungerer & Schmid, 2006).[2]

In Portugal, there has also been some research regarding CGL, namely and most extensively with Augusto Soares da Silva, who focuses mainly on theoretical aspects of CGL such as conceptual metaphors, image schemas, and radial categories (Silva, 1997; Silva et al., 2003)

In fact, all areas of research related to the application of CGL to teaching can still be considered very new, since there have been relatively few studies exploring this application

[2] The inception of the model has not been without controversy, as it was difficult to even name it – all theoretical linguistics models have some use for the term 'cognitive', therefore the decision was made to use capital letters to identify the specific model (Gibbs, 1995; Peeters, 2001; Taylor, 2002).

(e.g., Tyler, 2012; Bielak & Pawlak, 2013; Drożdż & Taraszka-Drożdż, 2020). In particular, CGL has contributed by focusing on how learners specifically develop their own grammar, as stated firstly by Langacker (1987; 2008a) among others (Goldberg, 1995; 2006; Achard & Niemeier, 2004) and by focusing on the connection between form and meaning. Still, CGL has yet to be as explored as the previous models in its use in foreign language teaching, and this study aims at contributing to the further use of CGL insights in CALT.

1.3 Neurological and psychological aspects of educational linguistics

Aside from the hard science of theoretical linguistics, the softer science of neuro-psychological research has also been a contributor to educational linguistics. In terms of the connection with teaching methodology, from the time the audiolingual approach was implemented, in the mid-20th century, the psychological aspects of learning have been increasingly more prominent, even if studies developed within this area in the 1960s still did not have a strong effect on language teaching and educational linguistics. In the 1970s, Renzo Titone was among the first academics to claim that knowing how languages are processed by the individual is possibly more important than knowing how the language is described (Titone, 1971).

The brain and L2 learning

For speakers of any given language to establish communication, their brain is required to use speed and considerable flexibility because every utterance heard requires very complex processing done very quickly. Considering the different processes taking place, the first one is to segment and recognise words in a constant flow of speech, despite the variability of the speech signal and an almost endless variety of contexts (e.g., Bull & Aylett, 1998). This process alone shows how sophisticated the brain's processing of language can be (when compared to what is achieved with computerised voice recognition, for example). The second process, after correctly dividing the information, is accessing the correct meaning for the parsed words and assemble their meanings in the correct combination to give the utterance an overall meaning. To perform this extremely simple and yet so complex task, speakers use information from grammar, lexicon, and pragmatics, and at an

astonishing speed and frequency (Divjak, 2019). This is even more astonishing when considering that, when measuring brain activity, it has been discovered that the human brain processes relatively slow (Dabrowska, 2004).

In particular, since learning a language is related to memorising items and structures for it, and being able to retrieve them when necessary, the difficulty here lies in retrieving them, as is mentioned before. This is particularly true of lexicon, where the number of lexical items recognised in any language (passive knowledge) is always larger than the number produced (active knowledge), but it can also be the case with grammar. So the question arises as to how it can so quickly process language and even pre-empt it. The answer lies in the fact that neurons, biological cells for transmitting and retaining information in the brain, are different because they transmit visual, auditory, olfactory and sensory information across the brain and the body (Dabrowska, 2004). They are slow but there are a lot of them - about 86 to 100 billion - and the human brain is expert at creating shortcuts. These shortcuts for language are memorised chunks which are then combined into sentences (Stemberger & MacWhinney, 1986; 1988), and these can be stored in the long-term memory, which has almost infinite capacity. Memory can retrieve all related information instantly, completing patterns on words, phrases and even sentences (Gibbs, 1980; Bybee & Scheibman, 1999; Bod, 2001). Exposure increases memory, even for irregular formations (Thomas et al., 2001); for example, bilinguals who use each language in a different context have retrieval difficulties when switching contexts because they have memorised patterns (Dabrowska, 2004). Another example is how a story retold many times becomes more formulaic and fluent (Goldman-Eisler, 1968).

The dilemma of balancing between the effort of storing and the effort of computation in the human brain is a constant: linguistic rules can be applied to a multiplicity of cases and they have a compact nature so they are easy to store, but processing of information involves considerably more repeated effort; organising language into chunks and isolated words makes for easy computing but it increases the effort of storage greatly because then there are many more items to take on (Divjak, 2019).

In this duality between computation and storage, it seems that human brains can be compared to computers, and the study and understanding of memory have been frequently related to this analogy of storage; but, based on new neuroimaging evidence, this is very far from the truth. Neuroimaging evidence suggests memory is a network of activation patterns

of neuronal tissue in the brain (Pereira et al., 2007). Alan Turing is claimed to have declared in 1969 that the analogy between human brains and computers was only valid at the level of information, not physiology, and this idea is carried by David Eagleman, a renowned neuroscientist who asserts that human memories are not stored as in a computer, and that memories are even able to identify culture and explore the unknown (Eagleman, 2020). Kolb, Gibb, and Robinson state that "the organization of brain circuitry is constantly changing as a function of experience" (2003, p. 1) and research has shown that language experience and practice tunes the cortex - the outer layer of the brain.

The brain is constantly reconfiguring itself for every second of its life and it does so without any central management. The analogy made by David Eagleman (2020) is that the brain resembles not a well-organised company, but drug dealers in Albuquerque. This quirky analogy means that, if some disaster wiped out half of Albuquerque, the remaining drug dealers would rearrange themselves into a new network and continue business as usual without need for top-down management. The human brain responds remarkably well to any disturbance by rewiring itself efficiently and quickly because neurons compete for territory, disregarding predefined areas of action. According to Eagleman (2020), even being deprived of vision for an hour can cause the brain to start reshaping itself and for hearing and touch to begin taking over the visual areas. The picture of the brain here is not one of peaceful task distribution but of territorial war, where an all-hands-on deck attitude and highly driven competition propel constant change and adaptability.

Therefore, although linguistics generally describes language as a rule-based system, this may not be realistic from a neurological point of view. This is because, on one hand, no matter how inclusive these rules may be, they always have exceptions and there are never rules which can explain the complete linguistic system, and on the other hand, they generate too much redundant information by generating multiple routes to the same solution (Divjak, 2019). Zull (2002) also presents a view where experience prevails, through the perception, integration, reassessment, and testing of information, but with a connection to emotion (through the limbic system), which is what the teacher is intended to provoke in the learner. Zull (2011) also mentions why understanding is a slower process than most teachers expect. In fact, depth of understanding involves a truly enormous number of neurons, and learning cannot overtake the speed allowed by brain structure and chemistry.

Zull therefore urges teachers to take this information into account when planning classroom activities and take into account enough time and practice.

Regarding language's place in the brain, the traditional view is that there are two areas of the brain which are particularly involved with generating and storing language: Broca's area, where grammar is stored, and Wernicke's area, the area for lexicon. This has been established based on studying patients suffering from aphasias following damage to these specific areas of the brain and were later confirmed using Computed Tomography and Magnetic Resonance Imaging on living patients (Price, 2000).

However, there is evidence that linguistic information is not exclusively stored in one specific area of the brain, but it is likely to be connected to different areas in different ways in order to be accessed easily (Eagleman, 2020). Research also seems to indicate that, until memories are consolidated in the brain, they are retrieved using the same neural pathway used to store them (Gluck et al., 2020). This implies that, from an L2 learner perspective, there should be progressive practice from more contained drill type of exercise to more creative tasks (or from lower-level thinking to higher-level thinking) (Sprenger, 2005). Understanding a topic is not enough to consolidate knowledge, but this can be achieved through practice such as homework, experiences and tasks of various nature that reinforce the different pathways to storage of information. It must be highlighted that independent and individual homework is an extremely important tool to restructure and expand on the process of learning. Practising starts with lower-level thinking skills, such as remembering and applying known information, but then it progresses to higher-level thinking skills such as analysing the information – differentiating relevant from irrelevant points –, organising of different parts and establishing relationships, evaluating, and finally creating new information.

Furthermore, it is also the case that lesions in different areas of the brain may also result in aphasia and sometimes lesions in the areas traditionally earmarked for language do not result in aphasia. The distinction of areas for lexicon and grammar can also be challenged, as aphasics generally do not have problems with exclusively one linguistic area, but they overlap. It is suggested that in these cases the information does not disappear but may be more difficult to retrieve (Dronkers et al., 2000; Lieberman, 2002). It also seems to be the case that when language has not been developed in these areas of the brain or the brain has been damaged, it may develop somewhere else in the brain. It should also be

noted that, in adults, this recovery of language is more reduced because other areas of the brain have already been used to develop other skills and there is less plasticity in the brain (Stowe et al., 2005).

It must be mentioned at this point that, admittedly, there is a difference between how younger individuals and older individuals learn complex systems and languages, or grammar in particular; while children have ease in dealing with chunks of information in language and the capacity to reanalyse them quickly and effectively, there is no evidence adults can perform in the same way (Kandel, 2006). This is partly due to the mechanics of the human brain. There are two types of circuit involving braincells: plasticity, allowing the brain to deal with new information by extending neural connections, and stability, holding on to this information for future use (Eagleman, 2020). As proven by anyone with a working knowledge of children, younger individuals' brains have higher activity in neural plasticity and as they grow older the balance shifts towards neural stability. It must be said that both kinds of activity are essential to learning a language, as there is no point in learning information if it cannot be retained and retrieved; but there is a point that adults have lower brain plasticity and therefore may be more resistant to learning something new.

It is believed, however, that the key here is to profit from the neural network already in place in the adult brain to make learning an L2 an extension of this network, rather than learning something completely new. Still, at any age, brain architecture for language is very flexible indeed.

Universality and uniformity of language acquisition may suggest this process takes place according to biology and is not dependent on cognitive systems. Stephen Krashen was and still is one of the most influential neurolinguists to focus on language learning and acquisition. Krashen argues that acquisition is an instinctive unconscious development of a first language in which the learner has procedural but not declarative knowledge of the language, which typically happens in childhood. Learning is described as a conscious effort to learn a language, involving declarative knowledge and metacognition, and typical of an L2 and adults (Krashen, 1981). This would mean that the goal of language learning is still acquisition, and that learning is an intermediate step. However, as mentioned in the CEFR, there is not enough data to be able to make a clear distinction between these two concepts, and even Krashen admits there is some cross-over (Krashen, 1982, 2009). The present study considers that, as it pertains to an intermediate stage of interlanguage – intermediate

stages of linguistic competence, and to make a distinction from L1 acquisition, the term used should be 'learning' whenever it refers to processing a foreign language.

In the context of the Natural Approach (Krashen & Terrell, 1983), Krashen also states that, for acquisition of a language to take place, input presented must be comprehensible for the specific stage of development of the learner (Comprehensible Input Hypothesis (1985)) where items are presented in a natural order of acquisition (the Natural Order Hypothesis, later expanded to include the study of interlanguages, described later). This hypothesis states that children acquire grammatical features in a constant order, so certain features take precedence and should be taught first in L2 as well (Krashen, 1982; 2009). However, this is not a consensual idea inasmuch as that order, if there is one, may not be the easiest to apply in an L2 class; for example, the fact that nouns and verbs are learnt before prepositions or adverbs, or that the present tense is learnt before the conditional will not get teachers very far when planning a syllabus because classes of words cannot be introduced in isolation and verb tenses are usually combined in utterances.

The Natural Order Hypothesis also originated the Processability Theory, first outlined by Manfred Pienemann (1998), which states that acquisition is characterised by developmental stages: learners process only as much as they can handle cognitively, and these have a pre-determined, incremental order. This should be a concern with syllabus developers and teachers to make sure that learners are presented with easiest way to process grammar (Benati, 2020).

Additionally, according to Krashen, several affective factors such as motivation, self-confidence and low levels of anxiety play a role in learning, allowing for less filtering, such as fear or shame, and more input to be processed (Krashen, 1977). In particular, the work of Schumann on the neurobiology of emotions has added to Krashen's in clarifying and expanding on the biological foundations and the repercussions of affect (Schumann, 2004).

Finally, Krashen also proposes the Monitor Hypothesis, according to which adult language learners are able to make conscious use of their learned system as a self-monitor when producing target language (L2) utterances. This is done by internally scanning for errors before and during the production of an utterance (or focusing on form), and then making corrections accordingly. However, Krashen recognises that this is problematic in communicative situations, and more adequate to writing practice, and therefore not used comprehensively in the L2 class (Krashen & Terrell, 1983).

There is also a series of related theoretical bases and cognitive processes which have been identified as playing a part in language instruction by Ronald Leow. The progression from one stage to another is that of attention and the role it plays in learning. According to Leow (2019, p. 16), there are five stages to the learning process between the input and the output of language:

1. Processing the language input;
2. Product of intake;
3. Processing of intake;
4. Product of L2 knowledge;
5. Processing of L2 knowledge to produce output.

Regarding the processing of input, Schmidt's Noticing Hypothesis (Schmidt, 1990) is relevant as it highlights how attention is crucial for intake because of a low level of awareness, causing input to become intake through noticing of information. This is different to Krashen's Input Hypothesis because it considers that for information to be computed, the individual must pay attention, whereas Krashen considers there just needs to be comprehensible input because context as well as linguistic information are used in understanding utterances, so the search for meaning is previous to the learning and drives it from an expectation (Krashen, 1982; 2009). It is considered here that there will be varying degrees of attention from different learners, but intake will always take place to some degree, as according to Robinson's Model of Relationship between Attention and Memory (1995), which is related to stages 1 and 3 of the list above. This model adds the notion that detection (unawareness) and noticing (awareness) are both relevant for intake, even if noticing is more important. Another notion added with this model is that prior knowledge is also taken into consideration in conceptually driven processes, which makes L1 relevant.

Swain's Output Hypothesis (1985) is relevant to stage 5. This hypothesis claims there are three relevant functions regarding learner production: a noticing function, a hypothesis testing function (used when learners experiment with new forms) and a metalinguistic function (active when learners reflect on their use of language) which together lead to learning through deeper linguistic processing of output.

Finally, Leow's Model of the L2 Learning Process in Instructed Second Language Acquisition (2015) is related to all five stages of the learning process. This model adds that processing of L2 is not so much dependent on limited attention but on limited processing capacity, so the importance of attention is transferred to the role of depth of processing during intake, and therefore feedback given may be useful to restructure information. While Leow's model does not directly address age-related processing ability, it does consider individual differences, such as working memory capacity and attentional control, which can potentially influence language learning outcomes. These individual differences may vary across individuals of different ages, even if the model does not explicitly focus on age as a determining factor.

In all these propositions, the following cognitive processes are involved to some degree: working memory, attention, awareness, depth of processing and prior knowledge (Leow, 2019), all factors taken into consideration by CGL.

Academic developments have allowed researchers to better understand and evaluate physical cognitive processes in the human brain, and one of the conclusions most relevant to this study is that cognitive processing seems to be visual in its genesis, but subsequently also driven by logic, intention, motivation and socialisation (as aspects of psycholinguistics and sociolinguistics which help shape language) (Dabrowska, 2004; Sprenger, 2005). Information stored in the brain is most likely not verbal but visual, and cognitive activities are imagistic mental operations. Therefore, in line with CGL, it can be said that words are not stored in the brain as such, in fact they are complex dynamics taking place somewhere in the brain. Still, language includes a clear verbal component, which is drawn from social interaction.

Lastly, it is also relevant to consider the case of language acquisition by blind children: this generally takes longer than with children with sight because blind children lack some of the context to identify meaning of language. Blind children also have to be more driven to get meaning from linguistic input: it is a trial-and-error process to understand how specific items in language work, and this frequently leads to unusual linguistic experiences (Dabrowska, 2004). This example further shows the importance of context in learning language and how having a physical, sensory experience of the language can enhance and speed up language learning.

Factual or declarative, conceptual, and procedural knowledge

There are three types of knowledge humans can attain: factual (or declarative), conceptual and procedural (Hiebert, 1986). Facts are perceived as the basic building blocks of knowledge for adults; therefore, it is predictable that facts about L2 should be conveyed by the teacher and that in learning (as opposed to acquisition) of a language, a certain amount of declarative knowledge is necessary. Factual knowledge seems to need repetition to be retained, both in exposure to listening and reading and in oral production and writing. This is very clear in the case of the traditional ways of teaching vocabulary in a language class, for example. However, and as it will be shown later, there can also be focus on developing connections between facts using visual aids and other techniques involving several cognitive skills. Factual knowledge needs to be remembered in the same way it is taught, and it is a basis for conceptual and procedural knowledge: "One cannot analyse what one knows (analytical thinking), go beyond what one knows (creative thinking) or apply what one knows (practical thinking) if one does not know anything." (Sternberg et al., 2001, p. 250)

As argued by CALT, adults will learn faster by a combination of exposure and practice to acquire implicit procedural knowledge, but also require explicit factual knowledge, so it is important to present the facts of language (such as rules of grammar and vocabulary) explicitly. This knowledge will lead to conceptual knowledge, which is related to the interpretation of the facts. Conceptual knowledge can be defined by trying to derive meaning from language through several useful processes such as classification, exemplifying and analogy. The final type of knowledge is procedural, which is conceived as the ability to use language to communicate effectively in real situations (Sprenger, 2005).

The different types of knowledge play a part in the effective language class, and they are reflected, for example, in the traditional Presentation, Practice, Production technique for teaching grammar (which will be contextualised in section 1.4). The first step is to present the rules of grammar, then to give some controlled practice, and finally to promote some less controlled practice, in which learners should use the language of focus in context. However, this can be extended by considering more interpretation of the information presented in a conceptual way: by explicitly discussing grammar characteristics, rules, exceptions, and the possible reasoning behind them, as well as the comparison between L1

and L2, it is possible to draw conceptual knowledge through analysis and classification, summarising and recoding the information. This manipulation and exploration of the information allows especially adult learners to feel more in control and allows for connection and understanding of the material being dealt with.

Procedural knowledge derives from conceptual knowledge added to as much practice as possible in the classroom and outside it (Divjak, 2019). This allows for the widest range of practice possible. The teacher might have little control over it, but it is specific to every learner, and therefore focused and tailored, allowing the learners to be responsible for their own study and allowing them to choose the practice they prefer in the intensity that is right for them (also in accordance with the principles of critical pedagogy that were presented above, and a driver for self-actualisation, socialisation and culturalisation (Marslow, 1962)). There are several activities which may be suggested by the teacher, such as reading their favourite magazine or talking to foreigners in exchange groups. All exposure is beneficial (as extensive input is agreed as a major driver for learning) and helps in the development of language, as long as it is enjoyable (as positive emotions towards learning are also crucial), varied in terms of content (to stimulate a sense of novelty) and realistic. In effective learning, it should also be noted that exposure and practice should be frequent, but it does not have to be very prolonged in each instance (Divjak, 2019). In fact, all these processes drive knowledge in all its forms and long-term memory.

The gap between linguistics and psychology is bridged by the connection between learning, attention, and memory. The structure of memory and the process of learning are co-dependent, and attention is a device to account for the differences in processing (Divjak, 2019). Furthermore, this can be seen as a three-part model including perception, attention and memory leading to learning (Norman & Shallice, 1986).

Perception and attention

The first objective of a teacher is to stimulate the attention of learners (in the sense of a cognitive process which allows the subject to control and tone down irrelevant stimuli to notice important information). Attention requires arousal and focus so it can be directed and select a stimulus, and then a particular aspect of a stimulus, and be able to sustain that focus for the necessary length for perception to act (Divjak, 2019). The first definition of

attention was outlined by William James (1890, p. 404): attention "is the taking possession by the mind, in clear and vivid form, of one out of what seem several simultaneous possible objects or trains of thought. Focalisation, concentration, of consciousness are of its essence. It implies withdrawal from some things in order to deal effectively with others". This definition does not vary significantly from the definition put forward by Nobre and Kastner (2014, p. 1204) of attention as the "the prioritization of processing information that is relevant to current task goals", and the authors themselves admit that a precise, comprehensive definition of attention has not been established.

Attention has a complex relationship with language, as other concepts that connect attention and linguistics, such as salience or automaticity, also seem to lack concrete exhaustive definitions (Divjak, 2019) so this makes it a very unwieldy area of research in terms of drawing comparative results.[3]

However, it is necessary to consider attention when dealing with language because it comprehends several processes, such as establishing and keeping focus, ignoring irrelevant distractions and ongoing monitoring of activities for a better performance; selective attention is essential to acquire robust information from the environment (Mishra, 2015).

Wu (2014, pp. 29-38) presents five different types of attention:

- top-down versus bottom-up (guided by internal states, such as goals, expectations, knowledge, and prior experience, or driven by external stimuli);
- endogenous (to the perceiver) versus exogenous (driven by external events);
- goal-directed versus stimulus-driven;
- controlled versus automatic;
- voluntary versus involuntary.

Of these functions, top-down versus bottom-up deployment of attention is particularly important to educational linguistics, especially with regard to salience (Itti & Koch, 2000). Salience defines how attention selects items, but this concept is fuzzy too, as it

[3] Still, some insight regarding insight has been derived from studies of language development and use in those affected by cognitive disorders because a deficit in attention causes delays in linguistic development (Mishra, 2015)

may derive from frequency, context or personal idiosyncrasies. The one uncontroversial statement is that attention is drawn first to items which involve primary, survival issues (Divjak, 2019). Bottom-up is driven by external factors such as stimulus salience (characteristics that help stimuli stand out, such as colour and intensity) while top-down is driven by internal factors such as current goals, task relevance and rewards.

Support for the bottom-up view, in which scene saliency attracts eye movements and therefore attention, was shown by Itti, Koch and Niebur (1998). On the other hand, Henderson (2003) argued for the top-down view, where the cognitive goals of the perceiver guide scene perception and therefore attention. This top-down process can further refer to predictive processes, where readers anticipate what is coming based on their background knowledge and reading fluency (Mishra 2015). Mishra, Singh, Pandey and Huettig (2012) demonstrated that, in high literates, visual objects and linguistic forms are activated simultaneously, thus explaining how language input drives attentional mechanisms towards matching visual objects automatically.

The other function of attention that is relevant to psycholinguistics in particular is controlled versus automatic attention (Wu, 2014). Linguistic processes may require deliberate effort or be automatic. Auditory stimuli seem to activate attention (Salverda & Altmann, 2011) but syntax is processed automatically, at least in perception if not in production, whereas semantic processing seems to require voluntary attention for both (Friederici, 2011). These studies were carried out for native speakers, but it is interesting to take them into consideration for L2 learners as well, even if this view of attention and its influence may still be undefined and the subject of much discussion.

The relation between memory and attention is also relevant because memory is limited by processing (as it is not possible to commit all experience to memory); therefore, attention is involved in the formation and retrieval of memories (Chun & Johnson, 2011). If attention is directed at information, and the information is rehearsed enough, it will move from short-term memory to long-term memory, but if attention is diverted before rehearsal is sufficient, the information is not encoded into long-term memory (Broadbent, 1971).

It is important to note that, in terms of retrieval, selective attention is important to reduce interference between memories (Chun & Johnson, 2011) and attention is necessary for explicit memory, but it does not seem to be necessary for implicit memory (Kuhl & Chun, 2014).

Memory

The human brain is constantly bombarded with information, so it must establish a hierarchy to deal with these stimuli. This management is done by the thalamus, and it responds first to stimuli related to survival, then it focuses on novelty, and finally it exercises the power of choice. The thalamus then sends information to specific lobes where information is identified and connected with previous knowledge. Then the hippocampus filters factual information and the amygdala filters emotional information, it is catalogued and sent back to the lobes for storage in memory (Sprenger, 2005).

Four different types of memory can be distinguished. The first is sensory memory, a very short-term memory to store information being processed by the sensory organs. Secondly, immediate memory, which is also short-term (around 20 seconds) holds up to seven items of information. The third short-term memory is active working memory: it can hold information for a few hours to a few weeks, and it allows for the manipulation of information for complex cognitive tasks for as long as it is necessary to perform those tasks. Finally, there is long-term memory, which contains information for an indefinite time, to be retrieved when necessary (Atkinson & Shiffrin, 1968). This memory is where language lies, and it is a complex structure of information organised with different pathways for the same information and for which adding emotion can make a very definite difference. If emotion is added to an experience, the imprint on long-term memory can be extremely strong (Sprenger, 1999; Arnold, 1999; Immordino-Yang & Damasio, 2007). For example, during a lesson, language input and related activities are stored in a learner's working memory, temporarily reusing existing synapses. To acquire permanent knowledge, new synapses must be created[4], and this can be done through individual, recurring practice in homework.

Long-term memory is divided into two types of memory: explicit and implicit. Implicit memory is non-declarative, so it is unconscious. This is procedural memory, which involves memorising how to perform sequences and tasks automatically, without having to reflect on

[4] These synapses derive from the action of a molecule called CREB (Camp Response Element Binding) (Montminy & Bilezikjian, 1987). CREB molecules produce proteins that are necessary for synapse stabilisation. Emotional experiences during teaching, such as meaningful teaching, as described by Ausubel (1968), or within the teaching environment, as noted by Contreras (2016), are required to activate CREB molecules and enable their function and create long-term memories.

it. Ultimately, language should be stored here to be retrieved and used with fluency, which makes this one the most powerful and lasting of memories (Sprenger, 1999).

Explicit memory, also called declarative, is consciously learned. Explicit memory is divided into episodic memory, related to remembering places, times and events, and semantic memory, learnt from repetition. Factual knowledge is related to semantic memory, a type of memory of knowledge of the world, including knowledge of words, for example (Prera, 2020). The remembering involved in episodic memory always requires the knowledge of facts, but the opposite is not true, as being able to remember these facts does not involve remembering specific episodes of when they were learned.

In terms of language, it can be argued that semantic memory plays the most relevant part as it stores the information needed to recognise and retrieve language, but episodic memory deals with social and pragmatic aspects of language, which must be taken into consideration if language is to be understood as a thoroughly human system which involves more than just denotation. (Atkinson & Shiffrin, 1968; Sprenger, 2005).

Another type of explicit memory which is relevant is spatial memory. Since CGL proposes humans have a physical human perspective of language, spatial memory is important to understand and memorise concepts which link knowledge of the world with the language used to express it, and which is the same regardless of variation of language. The recoding of information perceived can occur using non-linguistic representations such as pictures or kinaesthetic representations, as information can be stored in the brain in both words and images. This idea is reinforced by concepts such as mind mapping, considered one of the most effective ways to learn information related with lexicon, for example. However, once learners have recoded using non-linguistic representations, they should try to recode using words because this transformation helps to transfer information to the semantic pathway, and it drives the goal of language fluency.

In terms of implicit memory, where automatic non-conscious knowledge lies, and which, most importantly, includes language, it connects to conceptual knowledge, especially through conceptual priming (Prera, 2020), and it refers to constructing meaning which is then applied in different contexts. According to Sprenger (2005) there are several processes which lead to this type of knowledge, such as interpreting information through paraphrasing and clarification, exemplification, considering typical examples and more peripheral examples (as it is also discussed here in terms of CGL as prototypes and peripheral items),

and non-examples to check understanding. Exemplification is also related to classification, another of these processes. This consists in recognising what belongs to a certain category, and therefore what does not, according to its characteristics. This classification can be directed by the learner or by the teacher, depending on the ease and nature of the information.

Another technique to drive conceptual knowledge is summarising by removing all the repetitive or less relevant information and creating a topic sentence to focus on the main idea or a more memorable visual formula (as it can frequently be done with grammar). A further technique is inferring, creating a conclusion based on evidence. This helps learners differentiate between a prediction (which is a logical guess), an inference (a logical conclusion based on sources and background), assumptions (which are presumed to be true), and an opinion.

One more useful technique is comparison to make generalisations. Learners' understanding is increased by identifying similarities and differences in topics presented, then these similarities and differences are outlined in graphs or other schemas or through metaphors and analogies. As discussed regarding CGL, the use of metaphor is one of the cornerstones of language development, especially when it comes to understanding new concepts based on previous knowledge, and these can be applied to meaning in general and not just traditional vocabulary items (Lakoff, 1987; Sprenger, 2005).

Generally speaking, recoding information gives the brain time and opportunity to start that all important process of connecting concepts, and this needs to be a constant in a classroom environment, as it develops a habit and it ensures the progress of the learners who may not be able to follow if they are left to their own devices. Learners should be encouraged to deal with grammatical information by classifying, differentiating, comparing, inferring and summarising information, then clarifying, paraphrasing and searching for further examples and generally manipulating the information as much as possible to drive conceptual knowledge.

Another type of learning related to implicit memory which is relevant to the present study is category learning, a recurring feature of cognition of extreme value to language learning; this learning implies the division of entities into groups based on their characteristics, and it allows for prototypical and peripheral entities (Prera, 2020). It is also related to metaphor, a very important concept in generating meaning in the perspective of

CGL because it links items to more than one category, extending the meaning of these items.

Lastly, procedural learning is related to implicit memory, and this is the ultimate goal of language learning, as it is as the knowledge of L1, where information is retrieved automatically to perform a task without any conscious control or attention (Prera, 2020).

Human memory functions by extracting meaning from stimuli and storing it, but this meaning can then be modified by new information and practice, because each time a memory is retrieved, it is reconstructed and readjusted. The recovery of long-term memories causes new connections, which in turn cause new conceptual and procedural understanding. The robustness of the memory may depend on how much practice and reinforcement there has been, but also on the emotional attachment and importance given to it, and the depth of understanding it originally had. However, it is interesting to note that memories that are accessed often are always changed by the retrieval process, and therefore, despite being more robust, they are more changeable, adapted memories (Dabrowska, 2004)

It is accepted that short-term memories are retained using the declarative memory system mediated by the hippocampus but, to retain information for longer, events need to recur; then they are learned through the procedural system, mediated by neocortical structures, also called slow learning. Long-term memory involves multiple systems, so both declarative and procedural memory systems may be active in processing language (Dabrowska, 2004; Divjak, 2019).

The memory processes relevant here are encoding (which refers to learning), storage (which refers to information not in use), and retrieval (referring to accessing and activating information). Having a strong memory, however, does not always result in retrieval (Tulving & Schacter, 1990) because it is essential to have cues that trigger the best encoded aspects of that specific memory. If the cue is poor, retrieval may be unsuccessful, or the wrong memory may be retrieved. It is generally accepted that accessing a memory tends to strengthen it (even though sometimes it wears it off, for some unknown reason) but other deciding factors in retrieval are environment, context and mood, for example, so it is not a straight route (Morris et al., 1977).

Ultimately, the proof of learning is in retrieval: whether the learner is able to access long-term memories and bring them forward to the working memory to solve problems.

When this is not possible, it is necessary to review: if learners cannot recognise the information, this means that it was not stored properly, but if it is difficult to recall the information, the issue is with retrieval. It is important at this point to establish if the problem is still with storage, because this may require reteaching. In this case, this must be done not by repeating the same strategies but varying and trying to adapt to the specific topic and learning style of the learners struggling with the material. This may also be done through peer teaching, as it will reinforce the memories of other learners and possibly help all learners by adding that variation and a new perspective on the material. In revision, it is always important to check for accuracy of memory and strengthen existing neutral networks, but it is also necessary to provide conditions to use higher-level thinking and be flexible and creative in using the material. In fact, it seems good revision can ensure learners remember information for longer because learners are frequently not aware of what they remember or not. The process should include checking the entire process of presentation, reflection and practice to check it was done with enough detail and that each part was given enough time and reinforcement (Sprenger, 2005).

To enhance learning and promote awareness of the learning process, it seems beneficial that learners are conscious of the metacognition involved in the process (as mentioned above), in the same way they should be aware of the explicit instruction given in class. Learners should consider how they think and how they learn, monitoring the cognitive processes they are using themselves. This helps to empower learners and engage them with the class and the teacher, as it is clearly a task that is within the reach of the learners and helps them understand the final goal of learning a language and the process to attain it. This is particularly relevant with adult learners, who are usually more in control of the processes behind achievement of goals and who enjoy having this control over their own learning. At every point of the process, learners should be aware of what they know and what they do not know, and should feel comfortable in asking questions but also in trying to understand what the issues are. The same applies to the teacher, as the more is learnt about learning, the more productive, efficient and in control a teacher will be.

It is shown by Dabrowska (2004) that learners present less error on high frequency irregular verbs, which indicates they are easily memorised and there is no application of a rule but straightforward retrieval, which in turn indicates that memory storage is sensitive to frequency. This is also the case with high frequency regular forms, which are also easier

to retrieve. These prefabricated chunks of two to three words are easier to process, and sentences can be easily assembled using chunks and words. Evidence shows that ordinary language processing is shallow, which means that speakers notice the salient lexicon and then fill in the gaps according to usual constructions. Repetition of learned information spaced at growing intervals seems to be an effective way to increase learning, as the "best time to practice is on the verge of forgetting" (Divjak, 2019, p. 123).[5] Regarding encoding variability, it seems that more robust memories are connected to other ideas present: words are learned better with repetition but in different contexts (Johns et al., 2016). Furthermore, memory seems to process small chunks of information better than masses of information because the latter will only be available in short-term memory and quickly discarded. Small chunks of language divided over time promotes long-term memorisation and learning (Sprenger 2005).[6]

Human memory may also be highly adapted to the environment, so the system judges memories and their availability on likelihood of use. It is not just a matter of mathematics in calculating exposure and cost of processing, but a relative judgement. For example, children's acquisition of language seems to involve a process of schematisation, in which they form productive constructions by hearing repeated uses of one form in similar contexts (Tomasello, 2003). This process allows them to use both recurrence and novelty to break into the system via low-level generalisations, which are then further processed by cognitive abilities such as categorisation and abstraction. However, the extent to which learners infer language structure from linguistic input and how individual differences interact with this process is still unknown. Probabilistic approaches to language may help to understand this process, as they suggest that learning does not require reconstructing one grammar with certainty, but rather approximating it with a high probability. This idea was first explored by connectionists in the 1980s (McClelland & Rumelhart, 1981; Rumelhart & McClelland, 1982), and has since been used to explain human language development and processing.

[5] Language learning apps such as Duolingo use this factor of repetition in their algorithms.

[6] Practice seems to be the main way to process memories and repetition makes most tasks easier (and the more proficient learners become, the less noticeable improvement is as the behaviour becomes a skill) but this is not always the case, and there may not be straightforward relation between frequency and memory, as sometimes learners seem to be exposed to a concept with extreme frequency and still not be able to memorise it, so there is not always a direct effect of frequency on memory. (Divjak, 2019)

The concept of entrenchment (as repeated encounters of a linguistic patterns that strengthens its representation in memory) is related to memory and it is widely utilised in CGL to explain the process of encoding and committing linguistic experiences to memory. This notion is employed to support a more comprehensive understanding of learning and memory-based processing (Ambridge & Lieven, 2011). Entrenchment was introduced to CGL as a theoretical construct by Langacker (1987), who proposed a continuous scale of entrenchment in cognitive organisation; this suggests that a structure becomes more entrenched each time it is used, but extended periods of disuse can reverse that effect. Croft and Cruse (2004) and Bybee (2007) also emphasise the role of frequency in entrenchment, and Blumenthal-Dramé (2017) argues that entrenchment is related to processing, rather than the inventory of stored entities. In general, entrenchment is seen as a process whereby repeated use leads to a strengthened representation that facilitates ease of access and increased fluency or fluidity of processing. However, Geeraerts, Grondelaers and Bakema (1994) argued that frequency of use does not determine cognitive entrenchment, but rather the relative frequencies of competing expressions. Consequently, Schmid (2016) proposed the Entrenchment and Conventionalisation (EC) model, which unites both sides of the CGL entrenchment coin. The EC model is cognitively and neurologically plausible, but still functional, interactional and usage-based: entrenchment is a psychological process that occurs in the minds of speakers and involves patterns of associations and activities related to usage. In contrast, conventionalisation is a social process that takes place in societies and speech communities, and it is based on utterance types (or utterances that share some elements).

Furthermore, salience and relevance may play a role in entrenchment too, and quality of processing is also relevant: more meaningful handling of information results in better encoding (such as associating words with images, other words or existing knowledge) (Divjak, 2019). In addition, repetition of exposure is important for entrenchment, but it may not be necessary if there is an association with strong emotions.

The work of John Schumann and Janet Arnold on the influence of affect in language learning demonstrated that this is not an indefinite emotion which is nothing more than a desirable characteristic of empathetic teachers, but a required chemical element for brain synapses to take place, processing and therefore memorisation and learning (Montminy & Bilezikjian, 1987; Schumann, 1997; Arnold, 1999; Schumann, 2004). Emotional attachment

or affect is an extremely important aspect to memory and learning, but it is also remarkably difficult to quantify.[7] Although there is anatomical and physiological evidence from brain studies that affect is a major force in human social interaction and learning (Schumann, 1997; 2004; Immordino-Yang & Damásio, 2007; Damásio & Carvalho, 2013; Gazzaniga et al., 2014), there is still comparatively little investment in exploring this route for more effective teaching practice, even if there is some development of areas such as Educational Neuroscience (Fischer et al., 2010). In fact, as proven by the above-mentioned authors, if the material used and studied has a dramatic impact in visual or auditory terms or if there is a pre-existing emotional attachment and investment, these connect to learner motivation, and retention is considerably more probable.

Finally, it should be mentioned that the whole brain (and not just the left hemisphere) is involved in communication on a rational level (in areas such as rational categorisation and classification) and emotion (regarding attitude and acceptance, motivation, affective relationship) (Price, 2000; Stowe et al., 2005). Therefore, a grammatical system is not isolated within the brain (as, according to data from brain imaging, nothing in the brain is isolated) but part of a neuronal network and therefore potentially influenced by other mental processes (Gluck et al., 2020).

Furthermore, it should also be said that, even though the neurological processes to deal with language are common to all human beings able to learn, these learners still have different attitudes and personalities, different cognitive styles of processing and learning styles, different intelligences, and different motivations for learning.

Considering adult learners' reasons for learning an L2, these may be related to work and have a more cerebral than emotional reason (Eyring, 2014). Therefore, it may be of help to value the knowledge learners already have of L1 and the social and cultural context of L1 (and any knowledge of L2) to help them feel more comfortable or adjusted and to give them a starting point that is not zero. The relevance of the information can also be derived from contextualisation. For example, learners telling stories helps them relate to the topic and relate to other learners and the teacher. Another example is the use of novelty; by using

[7] It should be noted that, even if psychologically oriented educational linguistics is very much present in Western culture and it is a very important feature of this study, this is not a universal feature in all cultures. In some Asian cultures, for example, language learning is usually perceived as a much more mechanical and intellectual pursuit, where emotion plays little part.

something different and surprising (realia, props, humour, for example) learners are drawn into the novelty and variety (Sprenger, 2005). In a learner-centred classroom where project-based learning is incentivised, the skills of information processing are developed, which leads to more understanding. In trying to move information from sensory memory to short-term memory to long-term memory, attention, motivation, relevance and learning styles should be taken into consideration. Furthermore, an emotional and social aspect of engagement with the topic and relationships with other people present in the classroom also have great relevance in achieving the goal of long-term retention of information (Schumann, 2004; Immordino-Yang & Damásio, 2007)

In broader terms, the relationship between learners and teacher should be based on, and help to develop, personal skills of self-management and self-awareness, but also relies on developing social skills of social awareness and relationship management. Mature learners perceive the differences between themselves in a different way and frequently have a much richer and sometimes biased view of other learners based on social and cultural knowledge, so it is especially important for the teacher to highlight the common ground of language learning as a unifying factor, developing empathy with the learners and between learners (Eyring, 2014).

In terms of the response learners may have, there is also a useful categorisation outlined by Rebecca Oxford (2011, p. 24) which defines two levels of strategies for management and control of learning from the learner's perspective, metastrategies and strategies. On a first level, there are metastrategies for general management and control (paying attention, planning, obtaining and using resources, organising and implementing plans, orchestrating strategy use, monitoring and evaluating). These metastrategies are cognitive, affective and sociocultural-interactive and then lead to cognitive, affective and sociocultural-interactive strategies, respectively.

Cognitive strategies help the learner construct, transform, and apply L2 knowledge by:

- Using the senses to understand and remember;
- Activating knowledge;
- Reasoning;
- Conceptualising with details (analysing, comparing, for example);

- Conceptualising broadly (synthesising, summarising, for example);
- Going beyond the immediate data (guessing, predicting, for example).

Affective strategies help the learner create positive emotions and attitudes and stay motivated by:

- Activating supportive emotions, beliefs, and attitudes;
- Generating and maintaining motivation.

Finally, sociocultural-interactive strategies help the learner interact to learn, deal with the new culture, and communicate even if there are knowledge gaps by:

- Interacting to learn and communicate;
- Overcoming knowledge gaps in communication;
- Dealing with sociocultural contexts and identities.

Motivation

Greenberg and Baron (2008, p. 248) define motivation as a "set of processes that arouse, direct, and maintain human behaviour toward attaining a goal". Additionally, motivation can be broadly divided into extrinsic motivation, which comprises reward or punishment received by the learner, and intrinsic motivation, which consists of a feeling of an activity being important or pleasurable for the learner (Sprenger, 2005; Dorneyei, 2014). This may greatly influence learners' experience of the classroom since the more pleasurable, relevant, and fulfilling the teaching and learning experience is, the more memorable and effective it will be (Immordino-Yang & Damásio, 2007; Gazzaniga et al., 2014). Damásio and Carvalho (2013, p. 150) argue that "feeling paved the way for the establishment of higher levels of cognition and consciousness, culminating in the modern human mind". Therefore, also according to Damásio (1999), when one feels depressed, anxious or angry, learning cannot take place, and it is by incorporating positive emotions that memorable experiences can derive from a classroom. Furthermore, as was mentioned before, emotions, and affect

in particular, relate to motivation, which has been a relatively uncontroversial factor in learning (Dörnyei et al., 2016).

Schumann (1997) advances a notion of motivation that categorises five key categories language learners use to appraise stimuli: novelty, intrinsic pleasantness, goal/need significance, coping potential, and norm/self-compatibility. Schumann further proposes that the amygdala plays a crucial role in learning by helping to assign emotional and motivational value to experiences. It works in conjunction with other parts of the body to assess experiences, and it integrates external stimuli from the environment with internal values that guide an individual's actions, therefore the amygdala uses neurobiological structures to connect emotion with meaning. As summarised by Schumann (2004), firstly, emotion and cognition are closely linked, and effective learning and behaviour are dependent on motivation and affect. Secondly, cognitive systems may have evolved from motor systems, with cognitive processes as higher-order functions of motor processes. Finally, learning can be viewed as mental foraging, which engages the same neural systems as foraging for food or mating.

Considering these notions to be valid in the L2 classroom, the teacher should always strive to keep learners not only active but motivated and feeling engaged and safe in the classroom. An example of how this can be achieved is by starting the class with a practical example or a story about what is to be presented, and ask for learner participation in a quick exercise or a questionnaire. This is an attempt at immediate engagement of the learners, and it also facilitates the incorporation of different learning styles by using exercises which may be visual, auditory or kinaesthetic (Sprenger, 2005; Tomlinson, 2016b).

There is a growing demand for studies toward a combination of neurobiological studies with humanistic disciplines. This has developed into Educational Neuroscience, a new field that “brings together biology, cognitive science, developmental science and education to investigate brain and genetic bases of learning and teaching” (Fischer et al., 2010, p. 68). For this to happen, there should be interaction so that “practitioners and researchers work together to formulate research questions and methods so that they can be connected to practice and policy” (ibid p.68).

According to Dorneyei (2014) motivation is about why people choose a particular course of action in relation to persistence and effort. Learning a foreign language is necessarily a long-term process, therefore requiring motivation. This is dependent on

several clusters of motivational, emotional, and cognitive variables. One categorisation which is particularly useful is the future vision learners have of themselves, with three primary sources of motivation: the learners' vision of themselves of effective speakers, social pressure and a positive learning experience.

From the teacher's perspective, there is a comprehensive proposal for how motivation is articulated in teaching L2 proposed by Dornyei (2009) with the following structure:

- Creating the basic motivational conditions
    - Appropriate teacher behaviours
    - A pleasant and supportive atmosphere in the classroom
    - A cohesive learner group with appropriate group norms

- Generating initial motivation
    - Enhancing the learners' L2-related values and attitudes
    - Increasing the learners' expectancy of success
    - Increasing the learners' goal-orientedness
    - Making the teaching materials relevant for the learners
    - Creating realistic learner beliefs

- Maintaining and protecting motivation
    - Making learning stimulating and enjoyable
    - Presenting tasks in a motivating way
    - Setting specific learner goals
    - Protecting the learners' self-esteem and increasing their self-confidence
    - Allowing learners to maintain a positive social image
    - Creating learner autonomy
    - Promoting self-motivating strategies
    - Promoting cooperation among the learners

- Encouraging positive retrospective self-evaluation
    - Promoting motivational attributions

- Providing motivational feedback
- Increasing learner satisfaction
- Offering rewards and evaluation in a motivating manner

Psychology and L2 learning

From the field of psychology, it can be said that the first scientist to influence language teaching directly was Skinner (1938; 1957): Skinner's behaviourist theory was instrumental in the development of the audio-lingual approach, which argues that language learning involves habit-forming behaviour to promote learning. Chomsky's generative theory challenges this notion of language as the product of habit forming because it states that language is generative, so speakers can produce new language not based on habit (Chomsky, 1986).

CGL seems to provide a balanced psychological perspective of language learning because language is seen as a product of the symbiotic relationship between nature and nurture. This view includes universally shared features of cognition, but also an empiricist aspect of cognitive theories, which highlights that language must be studied in a communicative, social setting (Maftoon & Shakouri, 2018; Tyler et al., 2018).

Cognitive psychology, which is at the base of CGL, encompasses elements of behaviourism (the base for structural views of language teaching), arguing that grammar derives from simpler factors, such as repetition, practice and interaction. This view stresses how important interaction and behaviour is for language, and the learnings to be taken from observing this (Maftoon & Shakouri, 2018). In terms of CGL, it means that learners extract rules from L2 input and use them to enhance connections in the neuronal network (Ellis N., 2003). This is the instance that sets CGL apart from other theories of language: the fact that it asserts that language is dependent on the same cognitive processes used for all other types of learning and that "language acquisition is a dynamic process in which a number of elements (e.g., regularities, frequencies, associations, L1, interactions, brain, society, and cultures) operate and are responsible for the emergence and development of the second language." (Benati, 2020, p. 39).

Further afield from Cognitive Psychology, there are other theories which are relevant, such as Howard Gardner's theory of multiple intelligences. Gardner proposed in 1983 a theory which stated that intelligence is not a uniform concept, but a set of different abilities used to solve problems or produce content in adequate social circumstances (Gardner, 2011), namely:

- Musical-rhythmic and harmonic, relating to special sensitivity to rhythm, pitch, meter, tone, melody or timbre, which can be connected to the sounds of language;
- Visual-spatial, relating to the ability to visualise in the mind, which is relevant to language as a representation of concepts in the physical world and it may aid to memory as a visualisation of language;
- Linguistic-verbal, relating to ease with understanding and producing with words and languages. This is generally considered to be located in areas such as Broca's and Wernicke's areas in the left hemisphere of the brain;
- Logical-mathematical, relating to reasoning, logic, numbers and critical thinking, deductive thinking or understanding underlying principles such as grammar rules;
- Bodily-kinaesthetic, relating to handling objects and bodily motions, which may be relevant to the human perspective of language and its perception through the human body, and to the nuances of body language;
- Interpersonal, relating to sensitivity and empathy to others and ability to work in cooperation, including debate, discussion and negotiation;
- Intrapersonal, relating with reflection and introspective analysis and evaluation, allowing for self-awareness and self-improvement.

Apart from these original seven intelligences, Gardner later proposed a naturalistic intelligence (an ability to deal with biological aspects of the world) and as recently as 2016, he proposed adding a teaching-pedagogical intelligence (related to the teaching of others) and there has been the suggestion to add digital intelligence as well, but these have not been as explored as the original seven. This theory has been criticised for not having enough empirical evidence, but the definitions remain useful for teachers considering how to adapt to different learning and processing methods from learners.

A related theory which also should be mentioned is that of Neuro-Linguistic Programming which considers the different learning styles of individuals as visual (learners who process information mostly visually), auditory (learners who process information by listening to it mostly) or kinaesthetic (learners who process information better when experiencing it by touch or moving). This theory originated in the 1970s with John Grinder, Richard Bandler and Frank Pucelik, and it has attracted much criticism, but it is considered here that adding perspectives to how learners are perceived is positive, and therefore it should also be mentioned.

Summarising, neuro-psychological research has had an extremely important contribution to a better understanding of language learning. Studies regarding the brain have continuously yielded new insights which can be used to adjust language learning and improve its effectiveness. It has become clear that, although the left hemisphere is traditionally the area of the brain where language is dealt with, language and communication are now viewed in a holistic manner, not just because different areas of the brain are involved, but also that language and communication involve both rational and emotional factors (Damásio, 1994; Deacon, 1997; Kolb et al., 2003)

The next section will explore the learnings that may have implications for educational linguistics and the current study deriving from and contributing to teaching methodologies and pedagogy or didactics.

1.4 L2 Pedagogy and teaching methodologies in educational linguistics

The fourth area at play in educational linguistics focuses on the lessons from pedagogy, teaching methodology, evaluation studies, educational information and communication technologies.

Research provides resources that describe activities, techniques and technologies that develop linguistic and intercultural skills, support grammar and lexicon learning, support reflection on grammar and lexicon in general, test and implement innovative methodologies in language education (such as problem solving or task-based teaching) and help motivation and engagement through play and games and other creative activities (Balboni, 2018). These concepts must be organised in a global framework; to establish this framework for educational linguistics, the traditional organisation proposes a hierarchy of

approach, method and technique. This study follows the understanding of Anthony (1963), which states that an approach outlines the frame of a theory of language that provides answers for the educational linguist on matters such as the nature of language and knowing a language, and the role of the learner and the teacher, for example. A method is the way an approach and its theoretical principles are implemented as a teaching project and process. The method should cover issues related to the curriculum and syllabus[8] as well as teaching resources and materials. Finally, technique refers to the methodological instruments and practices that materialise the theory in the actual classroom and that cover the typology of activities that develop communicative competence, manage the social interaction in class and provide testing tools, for example (Anthony, 1963). As described in Anthony's words: "An approach is axiomatic, a method is procedural. […] A technique is implementational – that which actually takes place in a classroom. […] Techniques must be consistent with the method and therefore in harmony with the approach as well." (Anthony, 1963, pp. 65-67)

In addition, in this study it is also believed that, as Larsen-Freeman and Anderson (2011) propose, coherence between technique and the overarching method does not mean that techniques do not fit different methods or that they cannot be carried out in different ways. In accordance with this view, as stated by Balboni (2018, p. 146), outlining a framework for educational linguistics should consider method and approach exclusively, as the technique is highly dependent on the variable circumstances of practical implementation.

This difference in methods is reflected in the difference proposed by Wilkins (1976; 1979) between synthetic syllabuses, and analytic syllabuses. Synthetic syllabuses are composed of linguistic units such as grammar structures, vocabulary items, and functions ordered logically from linguistic simplicity to linguistic complexity, and the learners process these linguistic units for communication. The Audio-lingual Method, for example, is in accordance with synthetic syllabuses, as it tends to follow this order. Analytic syllabuses, on

[8] A curriculum comprises the processes of planning, executing, and evaluating, which are involved at the level of the lesson, unit, course or programme. The result of the interaction of these processes is a syllabus, lesson plans or evaluation. Therefore, a syllabus describes what will be taught in a course and curriculum involves more detail in terms of the distribution at a micro level, and a broader inclusion at a macro level, including evaluation and execution. It must be said, however, that the term syllabus in British English can also be used for the content of a programme (Graves, 2014).

the other hand, are organised in terms of purposes for which people are learning language and the kinds of language performance that is necessary to meet those purposes. Several methods were developed in accordance with this type of syllabuses, which are subsequently described.

There are four stakeholders to consider in L2 teaching: the learners, the teachers, the school (used here as a broad term for the physical space where the class takes place and the organising institution or body it may belong to) and the resources used that are not directly produced by the teacher or the school.

The role of the teacher and teaching institution in educational linguistics

It is extensively mentioned in the literature how varied the learners can be in their motivations, personal characteristics, experience and learning styles, but it is frequently omitted that teachers can be just as varied, as are their roles in class; as mentioned by Larsen-Freeman & Anderson (2011, p. 9): "The work of teaching is simultaneously mental and social. It is also physical, emotional, practical, behavioural, political, experiential, historical, cultural, spiritual, and personal. In short, teaching is very complex." Also, in the *Segundo Encontro Nacional de Didácticas e Metodologias de Ensino* held in Aveiro University in the 1990s, Alarcão defined didactics as analytical, rational, interfacing, synthesising, integrating, investigative, reflexive, metacognitive, constructivist, transformative, innovative, projectionist, clinical, awareness-creating, interactive and formative, among others (Alarcão, 2010, p. 66). As a consequence, teachers also bring more perspective into class, as their views on language, and learning and teaching it as well, play a part, as do the social and cultural background, training and experience the teacher has. It can also be claimed that teachers have a dual role in terms of the object they teach: they execute the practical side of teaching but they also have a role as theoreticians, as it is possible for them to reflect on the learning process and adjust their practice to the conclusions drawn from their own experience (Larsen-Freeman & Anderson, 2011). This is relevant in training courses because in this case there is usually no accepted authority or governing board to establish programmes and teaching methodology. In the case of formal education, national authorities have a degree of control over teacher training and standardising programmes

and materials, but in the area of training, carried out by private concerns, this is not the case, and there is no necessary certification for these operations.

In more specific terms of the pivotal role of the teacher in how language teaching can be implemented, there are two opposite points of view: one perceives the teacher as a conveyor of language to the learner and the other perceives the teacher as a facilitator of language (Balboni, 2018, p. 20).

The perspective of the teacher as a conveyor of language derives from cognitive, explicit, intellectual model in which "the general approach is deductive: the teacher explains and the learners deduce what the right language behaviour is." (Balboni, 2018, p. 21). This perspective may seem obsolete, as it suggests the class be teacher-centred and in contradiction with communicative principles of language teaching, but in fact it may prove difficult to dismiss this role for the teacher in the class where it is the teacher who decides what to do, when and how. Practice may be naturalistic, but it is usually instructed and guided. Furthermore, as pointed out by Balboni, it "does not prevent effective and balanced language education, at least during school attendance. It just overshadows the importance of developing lifelong learners' autonomy in language learning worldwide" (Balboni, 2018, p. 23)

The perspective of the teacher as part of the "language acquisition support system" (Balboni, 2018, p. 20) describes the teacher as one of the facilitators of conditions for learning to take place, where there may be more facilitators beyond the class. This perspective promotes learner independence in their studies, personal growth, and creativity, in a holistic, humanistic model of learning. Furthermore, in promoting the role of the teacher not just as a conveyor of language but as a facilitator, it is also proposed that extensive practice should be made available to learners beyond the class, where principles and techniques discussed in class and promoted by the teacher can be put to use in autonomous study, therefore promoting independence in the learner and life-long learning. It should be noted that CALT is in tune with this perspective, but so are CLT and TBLT.

As discussed previously, the scope of variety of learners and the ways to promote learning also finds its counterpart in the scope of variety of teachers. Teachers have different personalities and different teaching methods, and that should be incorporated as part of their own process of personal growth through processes of self-actualisation, socialisation and interaction with the others, and awareness of the cultures and languages

involved, just like the learning process outlined for learners (Maslow 1962). The added professional skill teachers should possess is the ability to understand language on a higher, more expert level, and enthuse learners about it. In this sense, non-native language teachers have a special skillset, but all teachers should be able to articulate the communicative purposes as the ultimate goal with a scientific, objective but also human, empathetic approach. This articulation can work for every teacher in a different way, and therefore it is necessary to comprehend flexibility and alternatives in practice. Teachers should be allowed to choose their practice in class because there is a better chance to enthuse learners if the teachers themselves are interested. Teachers should always consider the specific circumstances and learners, but they should consider themselves as well. The aim of this study is not to develop an effective single-use personalised methodology, but neither is it to standardise one-size-fits-all classes and behaviour. It is believed that more informed, engaged and responsible teachers will be more sensitive to learners' needs and facilitate learning to more informed, engaged and responsible learners.

Regarding the school, the most important aspects to take into consideration are the amount of control over the teaching practice and the teaching resources the school allows the teacher and the learners. This, again, can have a very wide range: some schools impose a method and materials, in which case the teacher has very little leeway to choose how to adapt creatively to specific learners but, conversely, this is an environment which provides support for teachers, supplying them with a ready-made course which has been fine-tuned for years to provide the most effective general syllabus (Tomlinson, 2016a; Tomlinson & Masuhara, 2017). At the other end of this scale, there is total control from the teacher to choose what resources to use, when and how, to fit the specific learners. However, and due to the different roles of a teacher mentioned above, this will necessarily be a choice based on the experience and the personality of the teacher, and so this makes it a very personal and subjective choice, especially since the variety of experience and even awareness of the teaching process may vary tremendously from teacher to teacher.[9]

It is especially when teachers have control but little knowledge of how to make an informed choice that global materials have such an important role to play. These materials frequently act as supervisors and experts for the inexperienced teacher, who follows the

[9] As is mentioned in the section on the contribution of social sciences to educational linguistics.

guidelines in these resources, especially coursebooks which come with a programme set for groups of young, teenage or adult learners, for a specific length of time and a specific linguistic level, with a variety of exercises and resources, including a teacher's book with all the background information and answer keys the teacher may need. This solution is normally considered safe and effective by teachers, learners and schools (Tomlinson, 2016a). But there is a price to pay, and that is that these globally produced materials may not in fact fit any circumstance because one-size-fits-all is rarely a good fit. These materials tend to presume learners to be "aspirational, urban, middle-class, well-educated, westernised computer users" (Tomlinson & Masuhara, 2013, p. 248), who inhabit no-man's land, because hardly ever is there even a chance to adapt teaching content in coursebooks to specific locals (Ottley, 2017, p. 273). In training courses in Portugal (as well as many other countries) this is the case as well, because learners may not meet all these requirements,[10] and the coursebooks used are not generally related to the specific local reality.

The context of language teaching described is, thus, complex: there are many variables at play regarding the learners and their specific needs and experience, the teachers and their individual experience and personality, the circumstances and logistical specifications, and the materials available. Considering this scenario, it seems impossible to outline a single teaching method which would fit such varied contexts (Prabhu, 1990) and the answer to more efficient language learning does not seem to come from technological advances in language teaching as the set of human variables in any given circumstance is too great (Tudor, 2003). It cannot be presumed that teachers will have learnt and share the same views of language, or of teaching, even within the same culture (Bailey & Nunan, 1996; Hawkins, 2004; Burns & Richards, 2009; Johnson, 2009). Teachers of foreign languages are now seen as "users and creators of legitimate forms of knowledge who make decisions about how best to teach their L2 students within complex socially, culturally, and historically situated contexts" (Johnson, 2006, p. 239) and the actions of teachers are no longer seen just as the application of theory to practice, but rather as "the theorization of practice" (Richards, 2008, p. 164).

[10] It could be argued that, if all the requirements would be met, there would be little need for attendance of an extra training course, as the Portuguese education system has included several years of English in its curricula for secondary schooling for decades and there is ample exposure to the English language in the mass media communications industry.

To aid in this pursuit, and although this is now seen as a post-method era (Kumaravadivelu, 2006), teachers can still benefit from acquainting themselves with existing methods. Firstly, it is a way to understand the rationale behind their actions as teachers and how they were shaped by their own learning experiences (Woods, 1996; Borg, 2006) so they can actively participate in and develop their professional lives in making informed decisions about their actions. This awareness should also lead to an interchange of opinions between teaching professionals, which helps to expand the repertoire of techniques but also consider alternative practices and solidify or challenge previous preconceptions (Arends, 2004).

Methods are also of further use considering that guiding principle is not one of application but of implication (Widdowson, 2005), as described at the beginning of this chapter, and the teacher who identifies a need may search for an answer in any available method without having to apply all its principles. In fact, teachers often think in terms of activities and practices, and not of abstract methods (this attitude may highlight the need for critical pedagogy: the classroom context fits into a wider social context, and the first should make a difference in the second (Akbari, 2008)). It is therefore important to list the most relevant methods and approaches which contribute to the context of educational linguistics.

1.4.1 Notes on methods and approaches in L2 teaching

This section presents a summary of L2 teaching methods and approaches that are relevant as they provide context for CALT, starting with methods which provide historical context.

The Grammar Translation Method

This method was popular at the beginning of the 20th century and it was developed mostly with the purpose of dealing and learning about foreign literature - and therefore based on reading skills and the analysis of grammar and vocabulary in a text. This traditional method focuses on the explicit teaching of grammar rules, followed by translation exercises, and therefore language learning is seen as a process of acquiring the grammatical system of the target language and it is based on a structural syllabus. Structuralist syllabuses rely on

the systematic teaching of linguistic forms and structures, emphasizing accuracy and the sequential mastery of grammatical rules. The use of L1 is essential and the focus is on learning about the language, and not how to use it for communication (Kelly, 1969). Although this method has fallen out of favour because it does not focus on communication, there may be aspects which are useful in the modern classroom, such as the use of L1 and cognates in L2 instruction, and the development of reading and writing practice. Another technique which could be said to have its origins in the Grammar Translation Method is the fill-in-the-gap exercise, which is still very much prevalent in current teaching practice.

The Direct Method

This method was used in the beginning of the 20th century and it differs from the Grammar Translation Method because it first promotes the use of language for communication and it is based on the strict use of L2 only, to promote the association of L2 to meaning directly (hence the name). There is no explicit grammar instruction and rules are inducted from exposure. In contrast to the structuralist syllabus, this method uses a communicative syllabus, emphasising communicative competence, meaning, and the social use of language. Since the focus is on the communicative use of language, speaking skills are considered the most important and learning of L2 is promoted in a much similar way to the acquisition of L1 (Krause, 1916). This method is radically different to the Grammar Translation Method and it introduced new strategies, such as the prevailing use of L2 and the communicative focus, which are still mostly present in current classrooms. This method was popularised by the Berlitz schools (Berlitz, 1887) and it is now considered an historical predecessor to CLT.

The Audio-Lingual Method

This method, just like the Direct Method, is also based on developing speaking skills (even though it articulates the four skills) and its main objective is to develop communicative skills. It does not promote use of L1 but it focuses more on developing grammar rather than vocabulary by carrying out drills with variations on syntactic structures. The Audio-Lingual Method applies principles of behavioural psychology and

structural linguistics (Lado, 1957; Skinner, 1957). Learning happens in naturalistic circumstances by being exposed to the target language and rules are implied from this exposure, there is no explicit grammar instruction. It includes a structural syllabus that is synthetic (as described above) and therefore organised around the explanation of structures in L2 and a sequence of PPP: presentation, practice, and production of the various grammatical items. The teacher presents the item, then there is controlled, often written, drill practice, and then freer production including the structure in question. This perspective focuses especially on mechanical repetition, detached from meaning and particularly from the social aspect of language, with its variety and nuances, and covering only syntax, dealing with sentence patterns of increasing difficulty[11] and valuing structure over vocabulary. Language is taught through repetition, imitation, and reinforcement, with focus on the teacher as the controller and reinforcer, and the focus is turned away from meaning, as pointed out by Benati (2020). Despite criticism, the efficiency of the structuralist view has also been proven valid – in for example that it is still widely used in the majority of current coursebooks, published for worldwide courses by the major publishing houses in recent years (Tomlinson & Masuhara, 2017) – so it must be used alongside other techniques rather than set aside as a matter of principle (Swan, 1985b). Among the activities developed in a structural perspective there is gap filling, reading and comprehension activities, and deductive grammar practice (where learners deduce a rule from examples), all common in current coursebooks; therefore, the sheer consistency of use has rendered the structural syllabus unmatched.

Even though the Audio-Lingual Method represented a shift from the Grammar Translation Method and a focus on reading and writing to a focus on speaking, it was still rooted in a structural view of linguistics. Throughout the latter part of the 20th century, the focus shifted again very firmly to developing communicative competence, and several methodologies arose that differed increasingly from the Audio-Lingual Method. In practice, educators in the 1970s began to question the effectiveness of traditional language teaching methods, because they observed that learners could produce sentences accurately in lessons but not use them appropriately when genuinely communicating outside of the

[11] The notion of difficulty in grammar topics merits analysis in how it is defined and organised in the syllabus because it shall be proposed that the difficulty varies depending on the L1 of learners and that should be taken into account if defining the order of items based on difficulty.

classroom (Widdowson, 1978). This observation suggested that communication and the use of functions of language, as defined by Wilkins (1976) should be the aim of language teaching – rather than mastering linguistic structure – because language is used fundamentally with a social intent (Hymes, 1972; Halliday 1973). Wilkin's notional-functional syllabus (1976) emphasizes teaching language exclusively through its communicative purposes and functions, such as expressing emotions, making requests, and giving information. This approach aligns with developing communicative competence, prioritizing real-life language use and meaningful interaction in language learning above structural matters.

The Silent Way

Caleb Gattegno's Silent Way (not a method, according to its creator) emphasises the need for learners to actively search for rules in order to discover the target language (Gattegno, 1972). This perspective considers that human beings have a natural predisposition for language and a universal grammar (Chomsky, 1971). Therefore, learning is not considered to consist of habit formation, but it requires learners to formulate hypothesis to discover the rules of language (Gattegno, 1972). This assertion of the Silent Way is shared and related to the Cognitive Code Approach, which states that learners are responsible for their own learning and should be given the opportunity to use their own cognition and inner resources to process and generate new language.

In terms of the techniques used, learners are motivated to rely on each other and develop their own 'inner criteria' for correctness. The teacher is encouraged to cooperate with learners while they work on the language, making use of what they already know to engage in meaningful practice without drills but resorting to peer correction. Reading is worked on from the beginning, and silence is used to foster autonomy and remove the teacher from the centre of attention (Gattegno, 1976).

Desuggestopedia

Desuggestopedia[12] is a method developed by Georgi Lozanov and Evelina Gateva that seeks to eliminate psychological barriers to learning and stimulate mental reserves through integration of the fine arts (such as using songs, handouts, art, drama, and question-and-answer games) and music and movement (Gateva, 1991). It is based on the study of suggestion and its application to pedagogy (Lozanov, 1978). This method works by "desuggesting" the psychological barriers learners bring with them to the learning situation, therefore it focuses greatly on the learners' feelings and on promoting a welcoming, inclusive environment where creativity is stimulated (Lozanov & Gateva, 1988).

Community Language Learning

The Community Language Learning Method is a teaching approach that emphasises the communicative use of language, learner learning and responsibility, and understanding and valuing both thoughts and feelings, as it considers learners as 'whole persons' (Curran, 1976). It is based on the Counselling-Learning approach developed by Charles A. Curran, a method which helps teachers become language counsellors who understand the struggles learners face in trying to learn another language and helps them overcome any negative feelings and use them as positive energy to further their learning. Language and culture are viewed as integral components of learning and speaking, understanding, reading, and writing skills are emphasised (Curran, 1977).

The Natural Approach

As was mentioned before, Krashen and Terrell's Natural Approach (Krashen & Terrell, 1983) is a language instruction method that focuses on learners developing communication skills through receiving meaningful exposure to comprehensible input. Meaning is given priority over form, and the teacher uses language that is just in advance of learners' level of proficiency while ensuring it is comprehensible. A low affective filter is

[12] Previously also named Suggestopedia.

created by reducing anxiety and boosting self-confidence, without forcing learners to speak but trying to create a motivating environment.

Total Physical Response

James Asher's Total Physical is a method of language learning that involves following instructions given by the teacher without using L1, in order to achieve understanding of the target language quickly and with minimal stress. Novelty and fun should be emphasised and the focus is on oral communication; vocabulary and grammatical structures are embedded within imperatives, which are used to convey meaning (Garcia, 1996; Asher, 2009).

Communicative Language Teaching (CLT)

The most successful approach to teaching developed in the later part of the 20th century was the Communicative Approach (Brumfit & Johnson, 1979; Breen & Candlin, 1980; Canale & Swain, 1980; Littlewood, 1981; Savignon, 1997), related to Michael Halliday's functional linguistics (Halliday, 1973; 1985) and Dell Hymes' wider Communicative Competence concepts (Hymes, 1972; Littlewood, 1981, pp. 541-545).

This approach became more appealing by allowing for a learner-centred environment, using realistic, engaging activities. The role of the teacher deviates from the structural perspective of instructor and becomes more of a facilitator for learner communication (Celce-Murcia, 2014, p. 8). There typically exists very little error correction and the learners are motivated to use language as much as possible to extend the exposure to L2 and to make learning as close to acquisition as possible. There should be interaction between learners and practice should be authentic and meaningful, using role-play, group work, interviewing and similar techniques aimed at replicating, in class, real-life behaviours of the learners (instead of drills and reading of pre-written dialogues, for example).

Explicit grammar instruction is generally discouraged, as notional and functional principles also at play dictate that meaning is more important than form. In fact, this interest in communicative competence (or performance) rather than abstract potential competence (Hymes, 1972) caused the Communicative Approach to deviate from Chomsky's theories, which were still very much focused on syntax and not accounting for

meaning.[13] The work of Canale and Swain (1980) for example, describes four different competences that define communicative competence: grammatical (related to grammar and vocabulary), sociolinguistic (related to social context), discursive (related to individual strategies) and strategic (related to managing communication).

How the Communicative Approach was interpreted and applied in a classroom became increasingly flexible and varied within the purpose of increasing communicative competence, so there is no one agreed upon version of what is now the wider concept known as Communicative Language Teaching (CLT). In the words of Klapper (2003), CLT lacks strictly prescribed classroom techniques, and this flexibility has allowed it to endure for decades, even if this means that there is no agreement on how this is applied. It should also be pointed out that CLT provides the theoretical context for the Common European Framework of Reference (Council of Europe, 2001), which legitimises CLT and also helps disseminate it.

The most important characteristic of CLT is that almost everything done in class has a communicative intent. The teacher facilitates communication and provides advice, while the learners are actively engaged in negotiating meaning: in order to develop communicative competence, the teacher should introduce authentic language and have learners work out the speaker's intentions. Learners are encouraged to work with and on language at the discourse level, expressing their opinions and ideas. Vocabulary and grammar follow from the function and context of the communicative event and should not be enforced explicitly as language functions are considered more important than forms. All four language skills are worked on, and the native language can be minimally used. Games are used frequently in CLT, as learners find them enjoyable and they provide similar practice to real-life interaction (Halliday, 1973; Yalden, 1987; Lee & Van Patten, 1995).

The flexibility of CLT allows for it to be seen on a scale of strength; as Howatt (1984) notes, there are two versions of CLT: a strong version and a weak version. The weak version recognises the importance of providing learners with opportunities to practice English for communicative purposes, while the strong version asserts that language is acquired exclusively through communication. In Howatt's words, the weak version promotes

[13] Chomsky's perfect grammatical sentence with nonsensical meaning "Colorless green ideas sleep furiously." is now the stuff of legends (Chomsky, 1965).

"learning to use English" (L2) and the strong version promotes "using English to learn it" (Howatt, 1984, p. 279).

Task-based Language Teaching (TBLT)

It is within the strong version of CLT that TBLT is developed from the late 1980s, driven by scholars such as Michael Long (1985), N.S. Prabhu (1987), Teresa Pica (1987) and Peter Skehan (1996), for example. TBLT derives from the Communicative Approach: it shares its ideas about the importance of communication, and it also suggests providing L2 learners with a natural context to use the target language. Learners fulfil linguistic tasks using previous knowledge and intellectual acumen in order to increase their exposure, practice and confidence (Long, 1985; Crookes & Long, 1992). It therefore proposes that teaching should be learner-centred as well. It is more specific, however, because it proposes to develop learners' fluency by having them attempt to use the L2 in real operating conditions (Swain, 1995).

The teacher's role is to choose tasks, give input and set the task; learner-learner interaction involves them working together, exchanging information, expressing opinion and deriving information from given information (Long, 1996a; Gass, 1997). The tasks can be unfocused or focused, and input-providing or output-prompting. Input-providing tasks engage learners with listening and reading skills, and output-prompting tasks stimulate learners to write or speak. Tasks are meaningful and have clear outcomes. Structure-based communicative tasks, which involve making inferences using internalized grammar structures, may include formal pre- and post-tasks for preparation and checking the "noticing" of language characteristics (Schmidt, 1990), but explicit grammar instruction is discouraged. The practice in class shifted from PPP, as described earlier, to the TTT (Test, Teach, Test) technique: learners are prompted to use language in a controlled situation, then issues arising are addressed, and finally the learner is prompted to use the same structure in a communicative task to check for understanding (Rudman, 1989; Richards & Rogers, 2001). There is no explicit role for the learners' native language and culture is not explicitly dealt with.

It should be noted that, just like there is a difference between the strong and the weak form of CLT, there is a difference between a task-based syllabus and task-based

learning. Task-based syllabuses, typically analytical syllabuses, have been criticised for excluding grammar (Swan, 2005b), but there are ways to incorporate it into task-based language teaching (Ellis, R., 2003). Loschky and Bley-Vroman (1993) suggested structure-based communicative tasks, which involve using only certain grammatical structures, for example. Input enhancement techniques and post-task activities can also work well for grammatical morphemes (Ellis, R., 2009). Lastly, a focus on forms, as suggested by Krashen, such as reformulating or recasting a learner's error or providing a brief grammar explanation rather than grammar drills or exercises, should be brief and reactive in order to have a positive effect (Long, 1996a).

Criticism of CLT and TBLT

The success of CLT was so spectacular that it was bound to draw some criticism, and some issues have been raised for decades.

> Questions that have been raised include whether a communicative approach can be applied at all levels in a language program, whether it is equally suited to ESL and EFL situations, whether it requires existing grammar-based syllabuses to be abandoned or merely revised, how such an approach can be evaluated, how suitable it is for non-native teachers, and how it can be adopted in situations where students must continue to take grammar-based tests.
> (Richards & Rogers, 2001, p. 83)

As pointed out by Michael Swan, CLT has many advantages, but there must be care in not wiping out beneficial traits of previous theories just for the sake of change or theoretical alliance (Swan, 1985b). In this case, when arguing for a new methodology, the risk is to spend more time justifying it and solving its problems rather than dealing with the real, practical world to which they are supposed to be applied. In fact, language cannot be described simply as a structure of organised items but it is still a set of organised items, so those must be dealt with in class and cleared up for the learners at the risk of generating confusion and frustration (Swan, 1985b). This is the case with adults in particular, who feel much more comfortable emotionally and intellectually when at least some information is presented in a regular, organised way, and so it was gradually accepted by theorists of CLT that focus-on-form, or explicit grammar instruction, should be a part of the language class

(Lightbown & Spada, 1990, p. 105). As mentioned before, KAL has also had a significant recent following.

Furthermore, it seems to be extremely rare for the communicative model to be applied in its purity, as several studies show that form exercises and grammatical accuracy were more prominent in theoretically communicative classrooms, and communicative opportunities were frequently missed (e.g., Nunan, 1987; Legutke & Thomas, 1991; Kumaravadivelu, 1993; Thornbury, 1996).

It may also be necessary to accept that learning a language is hard and takes time, and what may not be interesting to teachers may be novel to learners and fulfil their needs and expectations. As far back as 1984 and 1986, two Australian studies performed by Geoff Brindley investigating learning preferences, quoted by Nunan (1988a), show that, while teachers gave most importance to conversation practice, self-discovery of errors and pair work, learners gave higher ratings to pronunciation practice, explanations by the teacher, error correction and vocabulary development. There was, indeed, some evidence of irritation with activity-rich approaches: as one learner expressed it, 'I don't want to clap and sing, I want to learn English.' (Nunan, 1988a, p. 94).

Another principle of CLT that was challenged is the dismissal of the learners' L1 and the accumulated pragmatic knowledge it brings (Swan, 1985b). It is stated for example by Rose & Kasper (2001, p. 4) that "adult learners get a considerable amount of L2 pragmatic knowledge for free. This is because some pragmatic knowledge is universal [...] and other aspects may be successfully transferred from learners' L1" and by Cook (2002, p. 332), who suggests teachers can promote the use of L1 in the L2 classroom "as a reflection of the realities of the classroom situation, as an aid to learning and as a model for the world outside".

TBLT pivots on learners internalising structure implicitly from contact with language, but it does not handle learning vocabulary well because it just lets it happen by chance, as the practice demands, and therefore many important words may never be mentioned in class and not learnt naturally (unless exposure is considerably longer). This information needs to be specifically chosen and introduced, which implies a much tighter control in planning what is included and how it is dealt with in class, suggesting the use of a synthetic syllabus rather than an analytical syllabus. The right items can be selected for instruction and they can be exposed and dealt with in a concentrated way, which works well for both

grammar and vocabulary (Swan, 2005a, pp. 393-394). In fact, just because a learner can communicate, it does not mean there is progress. To ensure progress, some non-communicative work is also necessary in systematising structure, especially at lower levels of proficiency, because learners have less knowledge with which to engage and experiment (Swan, 2018). As common sense would dictate, no one would use a unilingual dictionary on a first trip to a foreign country, or, as further illustrated by Michael Swan:

> The view that one can get from declarative to procedural knowledge of language 'by engaging in the target behaviour...while temporarily leaning on declarative crutches' (DeKeyser 1998: 49), with a progressive reduction of conscious attention to form (Johnson 2001: 195), corresponds to what happens in other kinds of skill learning. Students of the violin typically master double-stopping or positional playing by working in the context of a progressive syllabus, often in ways that are far removed from 'natural' performance. Trainee airline pilots and surgeons similarly follow courses of instruction involving relatively 'artificial' activities. (One would perhaps not wish to travel on a plane whose pilot had been left to acquire the skill of landing naturalistically, by focusing on the necessary formal manoeuvres when the need arose; nor would one want to undergo a heart operation from a surgeon whose training had been conducted on similar principles.) (Swan, 2005b, pp. 382-383)

Another key element to take into consideration when analysing the efficiency of TBL is how long it takes for learners to process information in a naturalistic way: the high volume of input which occurs naturally in the L1 environment simply is not present in L2, so it is necessary to choose, prioritise and concentrate information so that there is enough focused practice of what is deemed more relevant. A related issue is that of the linguistic level in question, because lower levels need a tighter, more structured base starting from the simplest to process and more frequent items so that any communication at all can take place, whereas higher levels can take more flexibility in practice (Swan, 2005b).

It should also be pointed out that the CEFR (Council of Europe, 2001, 2020) follows CLT and TBLT and that provides shared legitimacy for the communicative, realistic, action-oriented principles, but this framework does not aim to provide syllabuses or establish methodology and evaluation, which is left undefined but remains an imperative in the construction of a course.

Furthermore, it can be said there are issues in applying any methodology; as was mentioned before, there is a gap between theoretical linguistics and pedagogic linguistics (Swan, 2018; McCarthy, 2021) and the grammatical canon is a complicated many-sided creation (Swan, 2018; Burton, 2019). Swan (2018) points out a few of its issues.

Firstly, there is the danger of focusing too much and spending too long on one aspect of the theoretical background, such as discoursing on metastrategies, overemphasising the importance of chunks, or strictly following only one method. A wide and balanced choice is more suitable to the practicalities of the 60h language course.

Secondly, theories need to offer solutions for practical problems of the classroom, as well as match language learning principles. For example, a pure TBLT does not solve all language teaching issues, so teaching by tasks alone leads to incomplete practice; the necessary tools must be carefully chosen and organised, and used together with communicative practice promoting not task-based but "task-supported teaching" (Swan, 2018, p. 10).

Moreover, hypotheses which are valid and useful in their weak form, such as the Noticing Hypothesis (Schmidt, 1990) or the Incidental Focus on Form Hypothesis (Long, 1991), may present the danger of extrapolating and exaggerating their scope and strength, therefore converting them into *sine qua non* features.

Another issue is that, just as new theories tend to be strengthened and valued beyond their capacity, previous theories are frequently discredited on the basis of one of their premises, and although it is natural for new ideas to overtake old ones, this does not generally invalidate the old theory in its entirety. For example, using drills to practice grammar has been vilified for decades, but drills still have a useful place in class, judging for example by the latest and most reputable coursebooks. One final issue is that practitioners of language teaching and their work are largely ignored by theory and academic writers, even in organisations like the Council of Europe in their CEFR, which, in outlining descriptors for language competence comprehend a wide variety of social and cultural factors but has grammar accuracy reduced to one descriptor. It must be stressed that language teaching includes cultural aspects, and these are very important, but the focus has been too far removed from the language itself, and that is the main product being conveyed in a language class.

In terms of the existing coursebooks, and as it shall be analysed later, for the most part, new editions imply changes in form (pictures, colours and texts, for example) but the content is almost the same. It is also clear, by comparing the best-selling coursebooks of the major publishing houses over the years, as it is presented in Appendix 1, that not much has changed over time, especially in grammar instruction, and that this is still very structuralist.[14] This is not to say that these coursebooks and techniques need to be substituted, on the contrary, they have been tried and tested and have their place in the classroom. In fact, current coursebooks prove that structural and communicative theories can coexist and thrive together and have done so for decades. However, if they can be adjusted according to new development from the newest theories by adding, editing and rearranging, more learners could benefit and ensure they get the best possible fit from the L2 class. L2 learners need a grammar in particular that is accurate, accessible and complete (for their level of proficiency), and pedagogical grammars should provide clear instruction in real classes, so there needs to be concrete anchoring of theoretical principles in practical execution (Williams, 2005).

1.4.2 Planning training courses and classroom management, including feedback and evaluation

One further aspect of how to teach, or the methodology of teaching involves the logistic planning of lessons in a lesson plan and, in due course, evaluation for the course within a quantifiable scale that can be inscribed on a certificate. According to Purgason (2014, pp. 362 - 363), lesson planning involves combining the information about teaching, learning and the learners, and creating a plan for a course, taking into consideration not only theories for teaching EFL and methodology, as mentioned before, but also skill, audience, focus and context. As a summary of the key issues in the design and delivery of a language course, Richards (2002) asserts that it is necessary to analyse and define learners and their rights, needs, motivations and strategies and processes in learning an L2, as well as teachers and their roles, methods and materials in promoting learning. Furthermore, it is necessary to analyse how classrooms, schools and communities can promote language

[14] Even if the lexicon and functions have changed, with current themes reflected in consecutive new editions, grammar has remained unchanged in order, quality and depth.

learning, and the role English plays in the lives of learners, what difficulties and benefits it brings, and how learners can achieve their goals.

The first link in the planning, as stated by Purgason (2014, p. 365) involves matching the curriculum and the materials and establishing specific outcomes. According to Richards and Bohlke (2011), these meaningful learning outcomes are divided into skills or competences, and processes and learning experiences (such as developing a positive attitude, experiencing success and being productive and cooperative).The specific outcomes are then outlined in a syllabus, which should be categorised as synthetic or analytical, as described above (Wilkins, 1976; 1979).

In planning lessons, it is important to consider the following factors: goals, activities, sequencing, timing, grouping and resources (Richards & Bohlke, 2011). Within this plan, it must be evaluated whether the objectives can be accomplished with the materials available, and a decision must be made on what to cut and what to add, while planning for a few lessons to keep a perspective of what is to come. However, as suggested by Purgason (2014, p. 368), plans must be flexible because of unexpected events. Occasionally plans do not work well (for example, when activities do not have the expected engagement from the learners, or the materials are not available, or the electronic equipment does not work) or unexpected routes are taken, but these should always be viewed as opportunities for alternative learning and real communication. The group's collective needs should be the guide for the class, and if more time is needed to deal with any given subject or task by most learners, or if extra materials or topics are introduced, this change is considered more pedagogically productive than the original plan, and it should be followed. As described by Richards and Bohlke (2011), lesson plans can be changed to respond to: task effectiveness, insufficient language focus, language support needed, issues with grouping, interest, sequencing, transitions for topics or activities, difficulty, and learner understanding or behaviour. The general goal to deviate from a plan relate to using a personal question that benefits the majority of learners, or accommodating different learning styles, promote learners' engagement, or teach to the moment, when an unexpected event presents a learning opportunity.

It is therefore necessary to consider how the group may be different in their individual needs, and also their learning styles. Learners can have a variety of attitudes in class, and the teachers must be able to deal with them; learners can be task-oriented, social

learners, dependent on the teacher, phantom (learners who are physically present but not mentally engaged), isolated (learners who are socially disconnected) or even alienated and hostile (Richards & Bohlke, 2011). The teacher must strive to create a community of learners fostering cooperation to achieve common goals. This can be done by encouraging learners to share personal information, encouraging interaction in pairs or small groups, but still recognising different cognitive styles, always being fair and seeking consensus regarding classroom issues (Dörnyei, 2001). Regarding learners' cognitive styles, they can be visual, auditory, kinaesthetic, tactile, group or individual, and these characteristics should also be considered once the teacher is more familiar with the learners and they can play a part in the adaptation of resources and changes made to the plans. In these circumstances, the teacher should reflect on the changes made and evaluate the reasons and the outcomes to incorporate them as contingency plans (Katz, 2014). As described by Richards and Bohlke (2011), classroom management that involves these decisions about the use of materials are part of the overall classroom management a teacher is required to perform.

The guidelines for class management also include consideration for the physical arrangement of class and how to manage time. As described by Richards and Bohlke (2011), different combinations of learners can bring benefits and challenges, which should be considered by the teacher. Individual work, for example, requires more motivation from the learner and frequently more teacher assistance too, but it allows for a special kind of processing that is very valuable. Pair work provides balanced and positive practice, but it can also require significant monitoring from the teacher. Group work can be very productive but it can also represent a challenge in terms of the varying time necessary for each group, or in terms of heterogenous participation within the group, and the difficulty in monitoring the groups. However, group activities can be an opportunity for non-participant learners to join in and it can be very realistic in its dynamic. Lastly, whole-class activities are the best for developing quick focus and monitoring performance, but it can also direct focus to the teacher too much. As for time management, teachers are encouraged to limit the time spent on plain explanation and choose a variety of activities that are not predictable or repetitive, making sure each activity has an achievable goal within a set time and the learners' performance is monitored (Richards & Lockhart,1994).

Evaluation and feedback

Richards and Bohlke (2011, pp. 3 - 17) suggest an evaluation of the plan based on acknowledged principles and meaningful objectives, with a coherent sequence exercised with balance, variety and adequate pace, extended opportunity for practice and good classroom management. Expectations of the learners and teacher must be considered by outlining the objectives and the typical descriptors for the level of language proficiency. However, it must also be taken into consideration that teaching should result in enduring understanding of the themes discussed to help learners create sustained development in language learning, and not just to have a high mark in the final test. To better design evaluation, the essential questions are why these are the objectives, how they are going to be reached, and what evidence should there be for learners to show their learning. This evidence underlying understanding should then be adapted to formal evaluation (Katz, 2014). It should be kept in mind that teachers should always deal within information learners can use in the real world but still teach for conceptual understanding (Sprenger, 2005), as is also argued in CALT (Taylor, 2012).

There are three of types of motivational feedback: positive, negative and the absence of feedback (Sprenger, 2005, pp. 84 - 88). It must be presumed that there will always be a certain amount of stress in feedback because there is an inherent evaluation taking place, but this may be perceived constructively, and the overall objective should still be to help learners progress in the common endeavour. Positive feedback should be used to reinforce any improvement and it should be delivered as immediately as possible. Negative feedback should focus on what is required of the evaluation, to rethink and reshape how the original objectives can be met.

In a naturalistic setting, having extensive exposure to positive input is enough to drive the learning process, but in an L2 class context, regular corrective feedback (negative and positive) may be considered useful. This is necessary to let learners know how successful they have been with the process up to that point, and to review or reteach topics again, adjusting conceptual knowledge before practising for long-term memory. Feedback should be given regularly, it should always be clear and specific, and it should be done in a supportive, positive way. It is important to emphasise that feedback is not punishment and mistakes made do not imply any sort of shortcoming, but just that there are pieces of the

puzzle missing in the process of learning which may be different from learner to learner due to personal variety (and also because attendance may vary).

1.4.3 Error and correction

One unavoidable concept when considering a language class which is also related to feedback is that of error. Teachers are not homogenous, and neither is their attitude towards error, so there must be awareness of the relevant issues: characteristic, range, causes and how to deal with error. It should also be stated that error varies not just with linguistic difference but also with cultural difference.

Firstly, it is relevant to establish that a mistake is incorrect performance, but error is systematic. Mistakes are unpredictable and can happen to any speaker in any language, but error is a reflection of an underlying structure, and therefore should be analysed more closely to follow how and what is learned (Bartram & Walton, 1991). Utterances need to be both acceptable and appropriate to be free from error, and missing one of those characteristics judges them incorrect (Corder, 1981, p. 41).

Regarding its causes, error may be caused by interference from the L1, interlingual (meaning it is a case of the L1 transferring wrongly to the L2) or intralingual (which means there is deviation in the L2 unrelated to L1), but these are not mutually exclusive. Error may also be an expression of cognitive data processing and checking hypotheses about language, in learning an L2 as in acquiring an L1. Since learners cannot process all linguistic information at once, and learning happens gradually, this process includes error. The L1 is a resource learners use when their knowledge of the L2 is not available or sufficient (Bartram & Walton, 1991, p. 16) (and it is a useful resource because there are similarities between the L1 and the L2) but since contrastive analysis does not fully explain learner error, there must be a higher comparison of the L1 and the L2, leading to the concept of interlanguage; Larry Selinker introduced the notion of interlanguage in 1972: it conveys the intersection between L1 and L2 which forms a stable transitional grammar, an intermediate stage of development while the learner mentally investigates the L2 (Selinker, 1972). Learning a language involves creating a very dynamic system: since it is not possible to provide the learner with, and have them assimilate, all the information regarding a language at once, there will be a period when the development of language of the learner is taking place. Still,

they can already use the language they do have and create hypotheses for the items they do not yet know. This is a transitional grammar, but a grammar nonetheless, and therefore categorised as interlanguage (Selinker, 1972). This considerably changes the attitude to error, as it is now seen a sign of the testing of the hypotheses learners are constructing, so it is viewed as inevitable part of learning (Corder, 1981, p. 65). Oral error, for example, can be caused by an imbalance between fluency and accuracy, but maybe it is necessary to consider factors such as creativity, because the learner may be experimenting with the language (Bartram & Walton, 1991, p. 35).

If it is possible to establish the grammar of interlanguage, principled instruction can be set to develop it (Corder, 1981). The presence of error means that learners are listening, creating hypotheses, testing them, assessing and reshaping, and testing them again (Bartram & Walton, 1991). Therefore, the next question is of how to help learners move from interlanguage to a grammar that is more approximate to L2. Remedial work can aim at increasing the knowledge of the learner or bringing the level of fluency needed down to a level the learner can accomplish at their present level of fluency (Corder, 1981). It is also important to model correct language and to provide correct input for processing. However, learning is more than the transmission of knowledge: it is about letting learners learn, so it must always be kept in sight that the aim is comprehensibility, not perfection. In fact, learning is a continuous unending process, so it should be the teacher's responsibility to make learners independent and responsible for finding their own corrections for their errors (Bartram & Walton, 1991).

Confidence is important; some learners gain confidence by being allowed to make mistakes and learn from them, and others gain confidence by following the strict limits of what they know is right. These two attitudes can be brought together by technique: teachers should always stress to learners that error is acceptable and will not be judged. Furthermore, learners should be allowed to correct themselves, the teacher only signalling the error and reformulating by reacting rather than correcting. The teacher should also focus only on error correction of the topic dealt with to avoid overburdening and confusing learners (Bartram & Walton, 1991).

Since learners do not learn constructions one at a time or all at once, there is a gradual construction of form, meaning and use, focusing on each of the parts if they are the most challenging of what is being taught. If it is form, there should be controlled practice, if

it is meaning, there should be associative learning of meaning with form, and if it is use there should be extra clarity with appropriate contexts, such as role-play practice. This is already accounted for in practice, but it helps to systematically focus the learners' attention where it is most needed (Bartram & Walton, 1991).

It is relevant to summarise how the different teaching methodologies perceive and deal with error. In the Direct Method the teacher encourages learners to self-correct whenever possible. In the Audio-lingual Method, error is avoided through control of the teacher in what the learners utter and in predicting where the error will be and pre-empting it. In the Silent Way, learners are encouraged to experiment with the language, therefore errors are considered important and necessary because they show the teacher where action is necessary and learners are encouraged also to self-correct. In Desuggestopedia, errors are corrected in the gentlest, least confrontational way, as is with Community Language Learning, by recasting (repeating correctly) the learner's error but without focusing too much on it. In the Total Physical Response Method teachers are also tolerant of all except the most serious errors and correction should be carried out in the most unobtrusive manner. In CLT, errors of form in particular are tolerated during activities but may be mentioned later. In TBLT error correction is done through recast or remodelling (repeating a prompt) but some brief grammar explanation is also accepted (Larsen-Freeman & Anderson, 2011). Finally, in a CALT perspective, errors are seen as evidence of the learner's active engagement with the language, as they attempt to make sense of its underlying patterns and structures: errors play a dual role as instructive feedback for learners and educators. Rather than simply correcting them, teachers leverage errors as diagnostic tools to understand learners' cognitive processes and language understanding. Moreover, errors are perceived as opportunities for constructive learning experiences. Teachers employ errors to prompt meaningful language activities, fostering an environment conducive to experimentation and risk-taking. Error analysis identifies and categorises learners' errors, helping to track linguistic development and informing tailored instruction to deal with individual issues (Tyler, 2012; Kermer, 2016).

1.4.4 Teaching grammar

The previous section dealt with principles and methodologies for teaching languages, but now the scope narrows to focus more specifically on teaching grammar. The reason for the choice of this aspect of the language class is related to the notoriety of grammar in the language class, derived somewhat from prejudice that grammar is difficult, or that teaching grammar is an outdated practice or because teachers, as native speakers, may not have formal knowledge of the rules themselves. Generally speaking, there is a bitter feeling about grammar, and one of the guiding principles behind this work is to raise awareness as to how grammar is not an enemy but a companion who has lived alongside human beings for at least 200,000 years. The issue is rather with the limited way grammar is presented and in cultural or personal prejudice. It does not help that teachers sometimes suffer from, or perhaps originate this prejudice, as they themselves perceive grammar and its teaching as a necessary evil, a step back in time to the old-fashioned non-communicative class. This may not be a personal opinion, as teachers who were trained to teach under CLT guidelines are often enough told to not provide explicit rules, to elicit as much as possible and to keep learners exercising the language constantly rather than have the teacher provide information. But even if this is not the case, grammar is still the ugly duckling of the language class, something unsavoury that is mixed with some more palatable skills to make it easier to digest.

This scenario is not helped by coursebooks and their methodology as, once again, the more engaging tasks and enjoyable pursuits are usually saved for performance rather than competence. Grammar practice is usually associated with fill-in-the-gap exercises, matching exercises and practice similar to drills. Therefore, the objective of this study is also to help teachers look at grammar in a different light.

Brief History of (English) Grammar Instruction

The instruction of grammar in the language class has had a parallel story to education itself. In Ancient Greece, from as early as 5 BCE, the Sophists were discussing the philosophical connection between word and object; later, *grammatistes* taught young boys literacy, mathematics and music, an interesting combination of highly complex abstract

systems of representation. Greek culture experienced great development in just a few centuries, and with the rise of democracy and the need for persuasive language, grammar and rhetoric took pride of place (Wilson, 2006). Many of the concepts (including parts of speech, for example) were created at this time and still stand today (McCarthy, 2021).

Greek culture was a major influence in the Roman Empire, which reflected on the educational system. Grammar, together with logic and rhetoric, formed the *trivium*, an essential part of a child's education from the age of six (Bonner, 1977). With the fall of the Roman Empire and within a very short time, the generalised educational system that had trained learners to excel at their language vanished almost completely. During the Middle Ages, grammar description was still focused on Latin grammar, and how to connect it to the different languages that were emerging from it (Gwosdek, 2013). This view was extended until the 19th century, when grammarians were still trying to make English fit the rules of Latin grammar (Turner, 1980).

For the first part of the 20th century little had changed in grammar instruction. However, it did involve an extreme expansion of research and publications related to the study of languages and the writing of extensive grammar books in a pedagogical context (McCarthy, 2021). With the exception of learners of the Direct Method, up until the 1960s, learners had instruction in what is now called traditional grammar within structuralist syllabuses. This trend has much to answer for in the reputation that grammar still has among learners today as a tedious, cold, abstract subject to be suffered as an endurance memory test and endless fill-in-the-gaps exercises. By the mid-20th century, the focus of grammar study and teaching had begun to change, but prescriptive grammar, as opposed to descriptive grammar, is still very much in use up to today, in a pedagogical context, as there is a need for uniformization and a canon, especially in lower levels (Leith, 2018). McCarthy (2021, p. 126) describes "the English language teaching canon as an invisible orthodoxy – (…) not written down anywhere but [it] exists as a compact between materials writers, teachers, publishers, curriculum designers, examining boards, official bodies (…), teacher trainers, students, care-givers and other stakeholders, together with academic researchers and applied linguists of various sorts". This canon has evolved throughout centuries through scholars' attempts at the systematisation of language (O'Keeffe & Mark, 2017) but it is also the result of collective pragmatism in that it dictates that lower level learners should be taught simple words and structures, and progressively advance to more complex ones

(Nunan, 1988b). Furthermore, there seems to be considerable cohesion in the topics of grammar covered in courses at the lower levels of proficiency (McCarthy, 2021), as seen in Appendix 1.

Reflections on grammar instruction in the language syllabus

An underlying question to grammar instruction that must be addressed first is if explicit instruction can become implicit knowledge (Felix, 1985; Rothman, 2008; Long & Rothman, 2013) and if declarative knowledge can become procedural knowledge (Ullman, 2001; 2016). The original claim from theoretical linguistics from a generative, functional and cognitive perspective in general was that language must be learnt implicitly from exposure and experience in order to generate procedural knowledge (Chomsky, 1986; Langacker, 1987). In fact, the strong versions of communicative syllabuses such as TBLT avoided grammar instruction (Howatt, 1984; Littlewood, 2011), even if the notional-functional approach was more inclined to accept grammar as an underlying base to functions (Wilkins, 1979). However, essential generative principles, as perceived through a CLT perspective, allowed for a focus on form (Long, 1985; 1991), which means that explicit grammar instruction does have a role to play in the foreign language class, and this opened the door for more inclusive use of grammar (Hawkins & Towell, 1996; Norris & Ortega, 2000; Ellis N., 2002). It is now generally accepted, including from a CGL perspective, that explicit instruction may have an effect on mental representation: declarative knowledge can become procedural over time as they are closely intertwined and it is difficult to tell them apart (especially in the case of foreign languages, and more specifically with adults) (Bielak & Pawlak, 2013). It is also accepted in CLT and TBLT, which focus especially on exposure, that learners benefit from some form-focused instruction and practice to make their learning more effective, especially because the amount of exposure to the target language is not, generally speaking, sufficient to promote the same learning as with a native language learnt as a child (Ellis, N., 2008). Specifically in a CALT perspective, it is added that explicit instruction helps in cognitive processing and in building categories and neural networks (Ellis, N. & Larsen-Freeman, 2006; Radden & Dirven, 2007).

Language teaching must therefore make explicit what is implicit. “Natural” grammar rules may not match grammar rules in coursebooks but this could be an opportunity to

consider why these rules are different, and how they should be translated for pedagogy. Explicit, accurate and adequate grammar instruction, and task development that considers natural predisposition for language and learning will help the learner get more and better input, and process information more efficiently (Bayram & Rothman, 2020).

One proposal that deserves a closer look is the Input Processing Theory and its three principles, as outlined by VanPatten (2002; 2007): principle one – learners process input for meaning before form, principle two – the default strategy is to process the first noun or pronoun as subject, and principle three – the first elements of a sentence are processed first. This seems to argue for explicit grammar instruction to improve the processing of syntax in connection with meaning.

Two more hypotheses which are related to explicit instruction and the discussion of procedural and declarative knowledge and that have shown to contribute interesting insight are those of the Feature Reassembly Hypothesis (Lardiere, 2009), and the Bottleneck Hypothesis (Slabakova, 2008). The Feature Reassemble Hypothesis states that learners acquire new L2 features more easily if they can readjust features (especially morphological) from their L1 onto formal counterparts in the L2. The Bottleneck Hypothesis furthers this claim by adding that functional morphology is the hardest feature to acquire in L2 because it bundles semantic, syntactic and morphological features.

In the 1990s, the concept of Knowledge About Language (KAL) (Carter, 1990) became widespread in the UK for teachers and education managers; KAL is also relevant to the connection between theoretical and educational linguistics since it advocates that learners can become small-scale linguists through explicit knowledge of facts and principles informed by the ideas of linguistics. Although some evidence showed there is no benefit to explicit grammar instruction (Elley, 1994; Wyse, 2001) and this was widely accepted, it can also be argued that, under the right circumstances, KAL brings benefits to the classroom. The first is that a knowledge of how language works, physically and socially, is beneficial to all speakers, as it helps them get a better understanding of the skill that makes most of social communication possible and is a crucial part of general education (Hudson, 2008). Regarding more measurable benefits of KAL, it is necessary to return to the notion of predisposition for language, as argued by Chomsky (1986). This theory argues that language is acquired, and therefore it does not need to be taught to children. This view is not, however, accepted by all linguists, and it can also be argued that language is learnt from

experience and usage (Halliday, 1985; Langacker, 1987; Barlow & Kemmer, 2000). It is argued then that natural acquisition falls short of the linguistic competence a mature educated individual attains, including the development of reading and writing, which would not be accomplished without instruction, and a range of vocabulary and grammar that is beyond the bare social necessities. It is therefore considered that KAL helps to extend linguistic competence and the functional potential of language (Halliday, 1978).

Consequently, it is argued here that learners should not only be exposed to explicit instruction, but they should contribute to creating this instruction, by analysing examples, creating hypotheses, testing them against exercises and assessing the results while trying to incorporate and find justification for exceptions, in a process similar to the scientific method and according to KAL. Furthermore, it should be added that learners often do know grammatical terminology (and consider this information useful, especially in categorising). This also contributes to make learners feel intellectually and emotionally in control, as they are asked to analyse the data and derive their own conclusions. Learners are encouraged to behave in a similar way to linguists: analyse, describe and make sense of the language they come across. Even if the contexts analysed are not always realistic, this is a necessary step, and these steps can be interspersed with more complete and challenging material, such as that available for extra practice outside the class.

The relevance of KAL may also be seen for example in guidelines for the Portuguese education system at secondary level, where more importance is now given to subjects such as the native language (and mathematics), which are considered essential to develop academic level skills in other subjects, and for which learners do not naturally develop the necessary level of proficiency (*Lei 46/86, de 14 de Outubro – Lei de Bases do Sistema Educativo, Decreto-Lei 6/2001, de 18 de Janeiro – Reorganização Curricular do Ensino Básico)*.

It can even be said that it is almost inevitable that grammar should be discussed in an L2 class because learners will expect some instruction from the teacher, and because, to build communication, some bricks of knowledge must be attained first.[15] Furthermore,

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[15] As argued by Swan (1985b), the learner who learns grammar rules and is not able to communicate will not benefit from more communicative practice, what they require is more vocabulary. When a learner can understand all the individual words but not the whole utterance, they may just be anxious, or they may be overburdened with information and stimuli, and have no extra processing capacity.

coursebooks are normally organised in the same way, with a structure covering a consistent line-up of grammatical topics across the board of different publishers, and this has been the case at least since the 1970s, regardless of leading linguistic theory.

Specifically in terms of adult learners of L2, it must be highlighted that explicit grammar instruction is useful because the gap between learning an L1 and an L2 is wider. Not only is an adult's time more limited, but the diminished plasticity of the brain suggests that a more explicit direct learning is more efficient (Kolb et al., 2003; Bielak & Pawlak, 2013) and cost-effective both mentally and financially. Explicit instruction provides a sense of purpose and organisation and a feeling of control and comfort which come from perceiving rules. It can help learners draw lines around topics, recognise patterns, categorise, relate and differentiate them, all general cognitive processes which should be used to benefit and are associated with learning.

In terms of defining grammar, exact boundaries can be complex to outline, but, from a practical point of view, the base of grammar can be categorised as: word order, modifying words or inflexion, and using grammatical words such as prepositions (Swan, 2005a). The definition of grammar presented by Larsen-Freeman and Celce-Murcia (2016, p. 2) "Grammar is a meaning-making resource. It is made up of lexicogrammatical form, meaning, and use constructions that are appropriate to the context and that operate at the word, phrase, sentence, and textual levels." is in tune with recent theories in the sense that it is described as the form of language to make meaning, and these more recent theories point out that traditional grammar categorisations overlook certain patterns in language, like chunking and the relevance of constructions. Larsen-Freeman also adds that grammar consists of conventional patterns of language that go beyond one choice of structure to express the same meaning (2014).

According to (Larsen-Freeman, 2014, p.258) "all constructions can be characterized to different degrees by the three dimensions of: (1) structure or form; (2) semantics or meaning; and (3) use or the pragmatic conditions governing appropriate usage". The author outlines the characteristics of each item on a pie chart divided into three parts:

> In the wedge of the chart having to do with form, we have those overt lexicogrammatical patterns and morphosyntactic forms that tell us how a particular construction is put together and how it is sequenced with other constructions in a sentence or text. With

> certain constructions, it is also important to note the sound (phonemic) and writing (graphemic) patterns (…). In the semantic wedge, we deal with what a grammar construction means. Note that the meaning can be lexical (a dictionary definition for a preposition like *down,* for instance) or it can be grammatical (e.g., the conditional states both a condition and an outcome or result). Pragmatics in the use wedge means "the use of language in context." The context can be social (i.e., a context created by speakers, their relationship to one another, or the setting), or it can be a linguistic discourse co-text (i.e., the language that precedes or follows a particular structure in the discourse, or how a particular genre or register affects the use of a construction). (Larsen-Freeman, 2014, p.258)

Larsen-Freeman asserts that these three dimensions must be contemplated by every teacher when planning and executing grammar instruction, even if not necessarily all at the same time, or in equal proportions. However, the three dimensions of grammar may not be feasible to consider; there is a need to recognise a form and a corresponding meaning for this form, but, as argued by Swan (2006b), there does not seem to be necessary to elaborate on appropriacy, especially in the adult class. The reason for this is that adults bring to class pragmatic knowledge of the world, into which much information is already built in, reaching an immense complexity of nuance and meaning. For example, when an adult L2 learner hears the sentence "Your plate is still on the table." they may be able to interpret this in a variety of ways (e.g., put it in the dishwasher, carry on eating, you have not eaten yet) without much more guidance because their knowledge of the world permits it. Even in a more grammatically explicit situation marked in terms of formality such as the question "Can you tell me the time?", it would rarely prompt an answer such as "Yes." from an L2 learner any more than it would from a native speaker. Therefore, although appropriacy is present in language teaching, there is no need to use it as a general category to apply to every token of language.[16]

The perspective of grammar is necessarily reduced by its own definition, as grammar will always be identified with concepts such as *noun*, *tense* and *voice*, and this solidifies it, rather than making it a dynamic fluid system which is used for managing social interaction.

[16] Pragmatics is still relevant, even at lower levels of proficiency, when considering aspects such as formality, as this tends to add different layers to communication and it is more of an issue for adults. It may be important in imperatives, for example, but for the majority of instances, especially at a lower level of proficiency, it is not very relevant and therefore should not be over-valued.

The proposal of Larsen-Freeman (2014) is that the goal be *grammaring*: using grammar structures with correct meaning and use as a dynamic process, not just practicing mechanically but under psychologically authentic conditions, so that grammar is seen as a product of the interaction between teacher and learners in a realistic setting. To this can be added that these conditions should be interesting, fun, engaging and logical, too. In the words of Larsen-Freeman (2014, p. 268): "While rules provide some security for learners, reasons give them a deeper understanding of the logic of English and help make it their own.". Furthermore, according to Larsen-Freeman and Celce-Murcia (2016, p. 3) grammar should be taught by giving reasons for construction rather than rules. This seems to be a very appropriate way of describing the system at hand, as, for most part, rules should be reasonably explained and understood.

Some generalisations about L2 learning can also be put forward, according to Rod Ellis (2017): firstly, it is accepted that learning an L2 means that learners must be exposed to comprehensible grammatical input but also be given opportunity to manipulate it. Learning then also involves explicit knowledge, because implicit knowledge is also driven by focusing on form and declarative representations of language, and grammar specifically in this case. Explicit knowledge of the language involves intentionally memorising facts about L2 in a linear way and it is much more fragile in terms of durability than implicit knowledge, but it provides a stepping stone to implicit knowledge.

It can also be generalised that both implicit and explicit knowledge acquisition are influenced by individual personal factors such as age, motivation, attention, affect and aptitude (Dabrowska, 2004; Ellis N., 2005; Wen et al., 2017). Learners should thus be given time to manipulate the information, namely through interactive tasks and extra challenges to promote implicit knowledge and promote the awareness of grammar learning as a conscious process that moves to automatization.

It is then argued here that the most effective pedagogic grammar is a mix between explicit instruction and communicative manipulation of language: a practical grammar, developed by practitioners, to be used in the classroom. However, the studies carried out under exact scientific conditions are limited and do not provide tailored data for specific L2 syllabuses. For example, in the case of CGL applied in CALT, there is comprehensive work done on infinitives and gerunds, some prepositions, or some aspects of tense and aspect (topics covered in Drożdż and Taraszka-Drożdż (2020) and Kermer (2016), for example) but

this is incomplete in terms of the necessary content for a course. There are studies that cover more distinct items of grammar (e.g., Tyler, 2012) but this is still a comprehensive description of grammar from a theoretical point of view and there is little empirical pedagogic instruction to show how these concepts are conveyed in class. Furthermore, the language class requires not a comprehensive grammar but a simplified one, frequently reduced in instruction and always limited in scope and adapted to a level.[17]

As pointed out by Swan (1994; 2017b), pedagogical rules for a pedagogical grammar should follow several principles, namely:

- Rules should be true and accurate, even if it may not be simple to execute this for two reasons: not all information should be conveyed and the variation on language may be too wide to cover. There must be a compromise to ensure that choices are limited so as not to confuse.
- Rules should show the limits of a given form, describe what it is and what makes it unique, but they do not have to be complete (because this information would be too extensive and because language is prone to change). This also may not be an easy task as rules may overlap, but limits should be drawn as precisely as possible.
- Rules should be clear, and learners should be able to understand all the terminology.
- Rules must be hierarchical, because some rules will be more easily understood than others (plural formation is easier than the formation of the Present Simple for Portuguese speakers, for example), and the time spent on each of these should reflect their level of difficulty for a particular level.
- Rules should be simple and economical enough in content to be understood by learners at their specific level of fluency, even if this decreases clarity or truth. This may again represent a compromise when considering other criteria.
- Rules should be relevant in showing a difference between L1 and L2 (and not repeat what is already known from L1).

[17] It must be mentioned that sometimes languages just seem to go on overdrive on a specific mechanism but for no clear reason, although some cases could be explained by unsystematic phonetic erosion or just conventional redundancy (Swan, 2020).

Turning now to what grammar should be included in a syllabus, this is a very difficult decision if it is to be made by an individual teacher. Considering the ordering of items in a syllabus , as there is not enough knowledge about sequencing of grammatical structures, it makes sense to recycle constructions over time, thinking of the syllabus as a checklist and not an ordered list (Larsen-Freeman & Celce-Murcia, 2016). Furthermore, especially with adults, it is unlikely that the level of development is consistent across the board at a cohesive linguistic level, like B1, for example.

Since order of acquisition of grammatical items in children may not be the solution, one path can be to use complexity of speech processing strategies, meaning that the order should range from the least complex to the most complex, considering L1. It is proposed in this study that order of grammatical items should consider three nodes: ease of processing for learners of a specific L1,[18] learners' communicative needs, but also the order dictated by the coursebook chosen.

The next question concerns when grammar should be taught. Grammar is necessary when comprehensibility (in the case of lower proficiency) or acceptability are at stake. Less important mistakes should be mentioned but not stressed because too much grammar in class is unproductive and tedious, but also too little is ineffective in achieving fluency and accuracy. Exercises should have a range of variety, from repetitive to creative, to focus on different aspects of language awareness. Admittedly, declarative knowledge is not the same as procedural knowledge, but this is not a reason to stop using it (Swan, 2017b).

In terms of how grammar is taught, traditional instruction promotes the PPP technique, as described above. In the first instance there is presentation of information expressed as declarative knowledge, then controlled practice to help move declarative knowledge to procedural knowledge, and finally production leading to automatization through the temporary help of declarative knowledge. For example, reading a text for presentation, a gap-fill for practice and an interview for production.

TBLT scholars proposed a new format for instruction: TTT (test, teach, test) (Brown, 2004) which means the learners experiment with a task, then the teacher instructs the learners on the points where the learners made mistakes, and then learners perform another task to test for the knowledge attained.

[18] As some structures have closer correspondences between L1 and L2 than others and the more closely connected structures should be addressed first.

Harmer (2007) proposed ESA (Engage, Study, Activate) as an effective sequence advancing from TTT, still within a communicative and task-based perspective. It starts with engagement, where learners are emotionally and intellectually involved. These tasks can be, for example:

> (…) games (depending on the age of the learners and the type of game), music, discussions (when handled challengingly), stimulating pictures, dramatic stories, amusing anecdotes, etc. Even where such activities and materials are not used, teachers can do their best to ensure that their students engage with the topic, exercise or language they are going to be dealing with by asking them to make predictions, or relate classroom materials to their own lives. (Harmer, 2007, p. 52)

There is also the perspective of Masuhara (2017) to be taken into consideration: Masuhara argues that the PPP technique described above does not match the current knowledge of how the brain works because it is merely rational and it does not take into consideration affective engagement, especially if the choice of item is done according to external decisions (such as a pre-established syllabus) rather than the learners' needs and interests. What is proposed, then, is first to engage the learners in a meaningful activity from which the PPP technique comes as a logical consequence because "the bias towards reasoning skills and factual knowledge in the learning environment needs to be rebalanced with the notion of sentience (i.e., the ability to feel, perceive, or experience subjectively in contrast to reasoning) in the mind." (Masuhara, 2017, p. 29).

This practice is more conducive to success in the study stage, which involves focusing on the construction of a language item. The study stage is similar to the presentation and practice stages of the PPP structure, but it has a broader sense. Study can be done in different ways, such as learners deducing the rules themselves, in a discovery rather than practice activity, and relating the topic to their own lives. Finally, the activate stage involves learners engaging in communicative activities to handle the language more freely, producing it in as realistic communicative situations as possible, similar to what happens in the production stage of PPP, in activities such as role play, discussion or writing an email in an attempt to personalise practice. But the activating stage represents more than productive skills, as it can be applied to receptive skills and the extra activities learners carry out for pleasure, such as reading or listening to material beyond the classroom.

It is occasionally the case that this activation stage would take considerable time, and the teacher may consider it more productive for the learning process to let the activity run its course, possibly even leading to another stage of study. Harmer (2007, p. 54) points out that, at lower levels, the learners do not have as much background to go on lengthier activities, and the sequences might be faster, but at an intermediate level for example, the learners can already bear some considerable exploration of the activate stage. Furthermore, not only can the time spent on each stage vary, but the sequence can vary as well, depending on the topic and on the needs and interests of the specific group. It can be argued that the PPP and the ESA procedures still have much in common, and this indicates they should be used as complements, as should the TTT procedure.

Concerning the materials and the type of practice associated with grammar instruction, it should be noted that gap-fill exercises are the most pervasive of all exercises, across all types of written resources, complemented by choice exercises (dual or multiple), matching exercises and assembling exercises. These types of exercise have remained largely unchanged for decades, so it is safe to presume they have withstood the test of time and of changing methodologies. Another example of exercise that does not match the communicative guidelines but has remained present in the language class is the drill. It can be said that the notion of chunking (learning sequences of words like an idiom or a collocation, which can also be applied to grammatical sequences) can be repeated as drills for their useful traits of familiarising learners with the phonology and the context of such constructions, while still adding a little challenge and novelty. For example, when practicing the Present Perfect Continuous, learners can carry out a survey exercise by asking as many people as possible a set of questions, using various main verbs but repeating the formula "How long have you been *Verb+ing…?*". This structure presents some fluency issues for the learners because it is composed of several items strung together, therefore, it is useful to repeat the complete string several times to aid automatization, even if it is only effective in the short term. This practice could be criticised as unrealistic, but it can also be argued that striving for realistic practice should not be taken as an essential. Before reaching realistic practice, there needs to be a progressive introduction of reality. Examples should not be contrived, they should be realistic, but also not necessarily as complex, nuanced and contextualised as real-life examples (Swan, 1996).

This is not to say that grammar practice should be in any way limited to drills and gap-fills: as argued previously regarding the PPP, TTT and ESA procedures, a variety of exercises with a variety of functions should be conducive to more effective learning as novelty promotes attention (Sprenger, 2005). This also means that some practices which may be considered outdated by some theorists are not excluded, as nothing should be ruled out on principle, and the empirical data shows there is benefit in variety of accrued knowledge.

Presentation or eliciting should be followed by examples: these should be realistic, and can be sourced from real-life examples (Swan, 2020).[19] They can have many shapes and should be as varied as possible, anything from signs, sentences, cartoons, quotations, literary prose or poetry and various texts.[20]

The next step is to make connections with prior knowledge and analyse the source and the examples. Reflection can be taught and nurtured through the development of habit and using a number of skills related to memory (Sprenger, 2005). The first of these skills is to question what is important, and try to get to the reasons behind the information presented. The second skill is to visualise, by using mind mapping and visual schemas, which is a recurring technique for memorisation and one which is supported by CGL. Another skill to promote reflection is to keep written records of questions or interesting facts, comparisons or ideas, which should be personal to each learner and reflect also their own interests and ways of understanding and displaying information (Johnson, 2015). This personalisation of learning promotes tailored, stronger attachment from the learner.

The next step after taking in different sources is to recode the information from one's own mind. This can be defined as the ability to summarise and paraphrase (Levine, 2002) and it can be done by discussing the grammar topics in class for the learners to try to recode and check understanding.

Counterintuitively, the most effective practice of the teacher can be silence: learners are then allowed to critically evaluate and reflect on the new information and incorporate it with prior knowledge, which allows the active working memory to look for patterns and connections in long-term memory. This is a sequence of focus time followed by a period of

[19] These items are easy to find in contexts and sources which may not be strictly realia but are not intended for the language class, for example websites, films and songs.
[20] It is also possible to revert this order and start from the examples and then move to explanation.

waiting and then a period of reflection which will be likely to lead to long-term memory retention (Sprenger, 2005). Focus time can be as short as 4 to 8 minutes before neurons fatigue (Perry, 2000) so it is useful to start with a story (to drive emotional connection), then present the information, and finally drive conceptual understanding of the story. In this way, the energy of neurons is saved and more effectively channelled. The subsequent step is just to wait. Research done in classrooms and empirical data show that teachers tend to wait less than a second before rephrasing or answering a question (Brinton, 2014), which does not allow the learners to consider the question, let alone answer it. A waiting time permits longer and more complete responses, and more useful speculative thinking. If the necessary conditions of trust and absence of censorship have been established, it also stimulates learners to elaborate on the answers of other learners and improves self-confidence, especially in the slower learners.

Another issue related to the teacher is that they may feel that the programme will not be fulfilled if too long is taken on each of the topics. In this case, it is generally more effective to go through less information in class, at a comfortable speed for most learners than to fulfil the syllabus for statistical purposes. In case the teacher is not responsible for building the syllabus, expectations should be realistically adjusted.

Finally, according to Brinton (2014) one of the best practices for effective learning is that learners produce a great deal of output in class, through classroom interaction, developing interpersonal dynamics in pairs or groupwork and thus establish cohesiveness and cooperation rather than competition and still promote learner autonomy. However, it is also argued here that, and once a supportive environment has been established, healthy competition and a little controversy is desirable to engage learners.

1.4.5 EFL materials

Teaching materials are an intrinsic part of the EFL class and play a relevant role in educational linguistics because they provide a safe, efficient, ready-made syllabus (Tomlinson, 2016a) and a physical, palpable element of the class. However, especially with globally produced coursebooks, these materials are necessarily less adaptable than the interaction between teacher and learners in class. Globally produced coursebooks are not tailored to specific learners (or teachers) and they require adjustment to be used efficiently.

It is argued here that these existing materials created for the global market should be used, but edited to suit the needs of a specific group of learners and teacher.

Global EFL Materials

It is stated by Tomlinson (2016a) that little of the extensive research into L2 learning focuses on the development of materials, and this seems to be a considerable gap, since the choice and use of coursebooks is crucial to most language courses (Li, 2020, p. 14). Once again, it seems the disconnection between the theoretical research into L2 teaching and learning and the more practical development of materials to be used in class may result in studies which are inadequate in "classroom teaching contexts which are constrained by lack of student motivation, inappropriate teacher training, pressure to cover the syllabus and the coursebook, compulsory use of inappropriate coursebooks, large numbers of students, pressure to prepare students for examinations, insufficient time, lack of exposure to English outside the classroom, etc." (Tomlinson, 2016a, p. xiv).

Firstly, it is important to consider the teachers' motivation for using coursebooks, which were identified from empirical studies in different countries in a context of EFL (Bosompem, 2014; Humphries, 2014; Li & Harfitt, 2017; Shawer, 2017) and can be divided into four aspects: teachers (e.g., teachers' beliefs, knowledge base, pedagogical goals, attitudes, perceptions, teaching styles), learners (e.g., learners' language proficiency, background knowledge, interests and needs), context (e.g., institutional regulations on materials use, curriculum, syllabus, textbook stipulation) and coursebook features (e.g., the content, the look and voice) (Li, 2020, p. 16). Shawer (2017) also categorised teachers' reasons for diverging from the materials as a syllabus as personal, social or institutional, as they can be related to their own identity or experience, their perception of the social context of the course, or the rules of the teaching institution.

Regarding where EFL global materials (coursebooks and various teaching aids) come from, most are produced by a few publishing houses in the United States of America and in Britain for a global market such as:

- Cambridge English (http://www.cambridge.org/gb/elt/?site_locale=en_GB);
- Macmillan English (http://www.macmillanenglish.com);

- Oxford University Press English Language Teaching (http://elt.oup.com/?cc=gb&selLanguage=en&mode=hub);
- Pearson ELT (including Longman and Penguin) (http://www.pearsonelt.com/);
- National Geographic Learning (part of Cengage, Heinle ELT https://eltngl.com/).

These materials are the result of extensive experience in teaching of various authors, and the competition between companies causes them to keep innovating and churning out new editions of their best-selling coursebooks. However, after fifty years of experience using these global coursebooks, it has become clear that they have not fulfilled all expectations in facilitating language learning, due to the issues mentioned above. If they have been successful, it is because teachers have adapted them to fit their learners' needs (Tomlinson, 2016b, p. 4).

Furthermore, as noted in Kovačević (2021), the teacher cannot always rely on the solutions offered by a global coursebook. Prodromou and Mishan (2008) analyse a number of features of global coursebooks which are seemingly sound in terms of methodology, but which also disregard the learners' backgrounds, interests and needs, such as how affectively involved learners may be, or how cognitively stimulating an exercise is. The teacher facing this gap may be faced with the dilemma of either using global coursebooks with mature methodological bases and risk alienating learners, or creating their own materials and risk a failed methodology and haphazard structure, possibly leaving learners equally dissatisfied. Therefore, the solution proposed here is one of middle-ground: that coursebooks are used for their stable structure and well-established fine-tuned aspects, and that new, engaging, locally and personally sensitive activities are also included in the syllabus to give learners a sense of consistence and a sense of variety.

If the teacher has control over choice of materials, the first step can be to choose a coursebook that fits the syllabus, the learners, and the teacher by analysing the materials in terms of cycles of design, content, practice, evaluation and support around linguistic and thematic topics. It is important to check content for accuracy and gaps, how realia are tied to it, and what difficulties it could present for the specific learners. It is also important to determine the purpose, quality and reach of the activities, as well as their connection to evaluation, and sections to prioritise or to cut (Byrd & Schuemann, 2014).

Using global coursebooks

However flawed, coursebooks remain a staple of the language training course (Littlejohn, 2011; Garton & Graves, 2014). And, since a lot is known about learning an L2 from classroom research and from decades of longitudinal studies (Tomlinson, 2016b), it begs the question of why this is not put to practice in the materials. Firstly, much of the research is unavailable to teachers because it cannot be easily reached, or the language is inaccessible or there is a general disconnection between theory and the practitioners (Swan, 2009b; Tomlinson, 2016b). Furthermore, as global coursebooks are produced to be used in any country, they have a global attitude which fits every culture and fits none. The focus, not being on the culture where the book is used, will necessarily be on the culture of L2. However, even this must be globalised because, even if materials have, in the case of these North American and British publishing houses, a North American or British perspective, this perspective is generalised to blur the inevitable differences in culture within these countries (still, some compromise must be made in terms of decisions related to spelling, for example). The result is a politically correct sanitised view of the language which fits an ideal educated, affluent, urban learner of the western world (Tomlinson & Masuhara, 2017) but creates little empathy with everyone involved. It is clear that, to be profitable and to distil decades of knowledge, there must be some uniformization in coursebooks, so it is necessary to consider how this can be articulated with the inevitable variety of learners.

The solution could be for publishers to make sure their coursebooks allow for the seamless inclusion of teachers' adaptations (Li & Harfitt, 2018), but it seems that it is still up to the teacher to mediate the relationship between the coursebook and the learner by adapting the first to the latter. But there are questions to be answered in order to perform this adaptation, for example as to who should be consulted. The teachers are included, but the learners themselves should also play a part. The suggestion is not that learners choose the topics that interest them individually, but, according to Ottley, that the choice falls on "topics relating to their cultural and national background, their history and identity" (Ottley, 2017, p. 270).

It should also be noted that it is often the more controversial subjects which guarantee an affective response from learners, and therefore the emotional perspective is aided; this can be further heightened with localisation, adding local information and culture:

by engaging the learners in this process, the teacher is tailoring the materials and the instruction, and engaging the learners and making them responsible for their own learning.

Tomlinson (2016a, pp. 7-10) outlines five principles for designing coursebooks that promote effective L2 learning:

1. Learners are exposed to a rich, recycled, meaningful and comprehensible input of language in use.

This involves what Tomlinson calls "task-free activities", activities such as listening or reading a story for no specific educational purpose, but to help learners engage with authentic texts in a natural, stress-free way. These texts are rich because they include incidental learning that is not explicitly explored and the same themes may surface repeatedly in this manner, therefore being recycled. If the learners enjoy the activity they can go back to it, which will help recycle the meaning as well, and it will also build their tolerance to aspects of a text they do not know. The result is that the text is comprehensible, even if not all grammatical knowledge is explicitly understood. Task-free activities increase the learners' exposure to language in a hopefully enjoyable activity, and it encourages learners to search for English outside the classroom (Tomlinson & Masuhara, 2013).

2. Learners are affectively engaged.

Learners feeling moved into any kind of emotion by what happens in a language class facilitates learning in an extremely powerful way.

3. Learners are cognitively engaged.

Together with emotions, the opportunity to think is also a powerful facilitator. Learners should be exposed to tasks which are achievable but challenging, to develop critical and creative thinking. Using Bloom's classic taxonomy for thinking skills bottom-up: knowledge (remember), understand (describe, explain), apply, analyse, evaluate, create (Bloom, 1956), learners can use different cognitive skills, resulting in more variety and interest and ultimately driving learners to more efficient language acquisition.

4. Learners are sometimes helped to pay attention to form whilst or after focusing on meaning.

While using different cognitive skills, the correspondence between meaning and form may become more vivid and memorable for learners. This also relates to the Monitor Hypothesis (Krashen, 1982), as mentioned before, which states that learning regulates communication in a process of self-correction. This requires metacognition and conditions of time and knowledge of the rule as well as focus on form.

5. Learners are given plentiful opportunities to use the language for communication.

It is still the case that coursebooks do not include as much communicative practice as the theory regarding CLT would dictate, for example, so more opportunity should be provided (Tomlinson & Masuhara, 2013). This gap can be due to pressure to complete a programme or coursebook, but it is still the case that, if communicative competence is the objective, more time is necessary than is allowed by coursebooks.

This is, in fact, an almost impossible mission because of the extensive amount of exposure necessary for learning to take place, as discussed above. The lack of time can never be compensated by a coursebook, and it can never cover the real-life experience, necessity and variety of language of an L1. In the case of adults in particular, attention is normally divided among many parts of their life which take up their energy, which does not leave much room for the L2 class. This is one of the reasons why it is so relevant to make this same L2 class motivating and interesting, to promote memory and an emotional attachment to the context of L2. Furthermore, this extended practice can be done through formal homework or through free practice, which is described in the next chapter.

Another issue with global coursebooks is that in many ways they are not adapted to adult learners. In the same way these coursebooks are generic to any country, they must also be generic to any age, from late teens to seniors. Clearly, different age groups do not share the same interests and it is a nearly impossible task to maintain topics and context to exercises relevant to everyone while still meeting the linguistic needs of individuals. For example, in vocabulary, even the most generic of subjects, such as transport, daily routines or hobbies, is likely to draw different needs from learners of different ages. The middle ground found in global coursebooks is likely to please only some learners some of the time,

and it is the teacher's responsibility again to adjust the coursebook to the specific class and individuals.

As described in Appendix 1, most global coursebooks follow CLT and the exercises are learner-centred, but they also present gaps which must be filled by teachers. One of these issues is related with the choice of grammar topics presented. The range of difficulty and the order in which they are presented are based on what is perceived as the progressively more complex or necessary order. This means that Elementary books normally start with verb tenses such as Present Simple and then Present Continuous, and word order in question in included in these items. Articles are generally dealt with at a much later stage, for example. When comparing L1s and taking into consideration what learners perceive as this progressively complex order, the items might not be presented in the same way. For example, the Present Continuous would be seen as easier to process, since there is a closer equivalent in Portuguese, and Present Simple afterwards, since some of its meanings and forms do not correspond so closely. Articles, for example, are also easier to process from a Portuguese perspective than word order in questions, but the latter is always presented first.[21]

Another relevant issue is the context presented. In an attempt to make coursebooks politically correct and more widely purchased, the contexts are so general and non-specific that they fail to portray the realism to which they aspire. The situations, dialogues and examples in coursebooks tend to be as generic and inclusive as possible, doing away with regional or social differences and even, as much as possible, different national varieties. This means that the materials are at once fit to everyone and to no one because these ideal circumstances are rarely found in reality, as pointed out by Humphries (2014). For example, learners who are quite able to fulfil all exercises in class related to ordering food and paying for in a restaurant may find themselves befuddled by the real experience the first time they set foot in a real restaurant in an English-speaking country.

It should also be noted that expectations also play a part here. Any coursebook that is radically different will be branded as experimental and unreliable, and even the learners

[21] In terms of vocabulary, the same is true. Since the starting point is English and not a different specific L1, sometimes there are words in texts highlighted as new challenging words which are easily understood (for example, more erudite words in English which have a Latin origin and are therefore easily understood by Portuguese speakers) together with truly challenging words, like phrasal verbs.

themselves may approach novelty with some suspicion, expecting a certain format of classes even if they are not particularly motivating (Tomlinson & Masuhara, 2017). This is relevant in the Portuguese context because this circumstance is in line with the traditional teaching methods of Portuguese schooling.

Nevertheless and in spite of the flaws, global coursebooks remain a viable option for the English training class, mostly because there is no other and because of the amount of excellent work that has undoubtedly gone into them. The way forward, therefore, seems to be to adapt these coursebooks to the specific context.

Grammar Instruction in EFL Materials

Grammar instruction in coursebooks has followed the trends in methodology of the past decades. For the coursebooks that follow CLT, in its the stronger, original version there was little explicit grammar instruction, but in the last few decades this view has softened, and it has come to include grammar instruction and focus on form (Long, 1991).

Nunan (1999, p. 241) proposes that PPP be complemented with creative tasks as these provide "the opportunity to recombine familiar language elements in new and unfamiliar ways". Therefore, the current trend seems to be a combination of weaker forms of both more grammar-oriented and more communicative-oriented methodologies (Baleghizadeh et al., 2017).

The following concepts can be used to categorise the types of activity for grammar instruction (Baleghizadeh et al., 2017). The activities are positioned in two opposing axes on a grid: one distinction from accuracy-focused activities to fluency-focused activities, and the other from reproductive-focused activities to creative-focused activities (Baleghizadeh, 2012). The first axis ranges between accuracy (related to grammatically correct utterances) and fluency (related to uninterrupted speech), and it remains a controversial one in language teaching research in terms of which should be given priority; the second axis ranges between reproductive tasks, which allow learners to practice the patterns of language, and creative tasks, which promote "the opportunity to recombine familiar language elements in new and unfamiliar ways" (Nunan, 1999, p. 241).

According to Baleghizadeh, Goldouz and Yousefpoori-Naeim (2017), accuracy-centred reproductive activities are the most common activities in coursebooks (activities

such as multiple-choice, gap-fill and matching tasks) but they do not promote realistic communication (Ellis, R., 2009; Ur, 2012).

Fluency-centred reproductive activities are centred on fluency, but their focus is similar to the previous ones and therefore also involve learners using and manipulating only a specific structure to perform a speaking or writing task (in activities such as answering prompted questions using the same structure) (Ellis, R., 2009).

Accuracy-centred creative activities require learners to produce accurate sentences by engaging in creative activities (Baleghizadeh, 2012); an example of this type of activity is directed rewriting of a sentence. Fluency-centred creative activities include tasks in which learners are required to produce language while using a specific structure but in which the structure is not stated; the learners are intended to recognise the need to use the structure, therefore in a creative way (Baleghizadeh, 2012).

It seems that, in current coursebooks and in terms of grammar activities, most of focus is on accuracy-centred reproductive tasks, even when the methodology is communicative. In fact, these tasks should be included but there should be a balance between the various types of activity.

Research also seems to show that different tasks carry different benefits: dealing with concrete familiar information and clear structure, such as can be found in more traditional exercises and tasks involving personal information, promote accuracy and fluency, and interactive, communicative tasks promote accuracy and complexity, creative information manipulation, and narrative tasks also promote higher complexity (Foster & Hunter, 2016).

Addressing a particular aspect of activities performed in class, it is relevant to discuss the benefits of activities which involve the whole class. These should be used as much as possible, and preferred to other more individual activities because the time learners have together in class is limited, and whole-class activities promote extra communication and engagement of the group. According to Brian Tomlinson (2016c) these activities generate positive energy in the group and increase confidence while still promoting more interaction in L2 and collaborative learning. Conversely, a group activity may also allow learners who do not like to be the centre of attention to move to the background and perform their part in the task in a way that is comfortable for them. These can be divided into three types, activities in which learners are the audience, activities in which learners are the performers

and activities in which the learners collaborate. Activities where the learners are the audience are for example task-free activities or extensive reading, listening or viewing. This kind of activity provides a complete narrative which promotes engagement and connection beyond a short-termed, isolated practice, and provides input that is rich, meaningful and comprehensible. Activities where the learners are the performers, such as performing dialogues or storytelling, also promote a feeling of thoroughness of a well-rounded activity which engages and entertains. Finally, activities where the learners collaborate are competitive, such as games, and promote healthy opposition and realistic practice (Tomlinson, 2016c).

It is also proposed that, by introducing pre-task planning time, even just for a few minutes, there is increased fluency and complexity in subsequent production. If learners have time to deal with the details of a task and allow for processing of the answer, they will perform at their best level during the task. If this is not the case, learners may confuse their processing and deliver unfinished, imperfect utterances or nothing at all. By allowing learners time to think that has been built into the activity, it improves their chances of success. Then after the task the learners can perform a post task activity, such as transcription, will promote accuracy because now learners can pay attention to the form without focusing on the challenge of the task and still have a sense of a pedagogical process and intent. Finally, activities which allow learners to repeat the task improve fluency. This is not meant to be a drill, but a repetition of a communicative task in which the exact language will necessarily vary but in which the learner is comfortable enough with the message to move focus to the correct language (Foster & Hunter, 2016).

Adapting EFL Coursebooks

Regarding the question of the adaptation of coursebooks to fit a specific class, McDonough, Shaw & Masuhara (2013) highlight that adaptation is a means to maximise the teaching resources to suit a specific context through processes of evaluation and adaptation such as adding, deleting, modifying, simplifying, reordering, editing, changing the grouping or changing the instruction, for example, to “make learning meaningful, fun, tactile, visual and enduring” (Byrd & Schuemann, 2014, p. 388). According to McGrath (2016), adaptation can be done through adding extra resources to a coursebook or through change, by

replacing the coursebook (Bosompem, 2014). However, and as claimed by Li (2020), there is still a lot to be researched in this area of how materials can be adapted to make them more concrete. This must be a considered, coherent process that necessarily takes time and effort for a teacher to become familiar with the pool of options and make decisions, therefore it is frequently the case that teachers use the same coursebooks because they know how to adapt them, and they also have a pool of extra resources that fit them and they can gauge how to fit the learners' learning styles.

Tomlinson (2016b) proposes a sequence of activities to be used in the L2 class which would match principles for developing fluency, accuracy and complexity. The sequence includes the following activities:

1. Readiness (tell a story);
2. Initial Response (reading);
3. Intake Response (some questions for extension and discussion);
4. Development 1 (talk about);
5. Development 2 (complete predictions, tell a story, discuss, judge);
6. Input Response (Why was this used? What does it mean?);
7. Development 3 (group work, incorporate language with production);
8. Further Reading.

However, Tomlinson himself admits it is not feasible to create a coursebook that would be published following this sequence because the activities are too open-ended and difficult and require texts that are too long, and it is also not easy to test (Tomlinson, 2016b). It seems this is not what teachers want of a coursebook, as they would prefer a sequence of PPP and testing. Tomlinson points out that these preconceptions and habits about what a coursebook should be are shared by the publishers of coursebooks, teachers and learners. Since this is a very strong bias, it is necessary to incorporate new ideas with old ideas, so the solution lies in interspersing these core activities with more traditional exercises such as gap-fill and matching exercises. Tomlinson states these traditional exercises would not add any benefit apart from making the material not look radically different, but it is argued here that these exercises do bring two benefits: for the adult

learners in particular they represent a safe haven to help process high input in a controlled, predictable setting, and they also add to the variety that is desirable to encompass all learning styles and make practice interesting and heterogenous.

The sequence proposed by Tomlinson (and the way to incorporate other exercises) is still a valid one, even if it might still require adjustment from the teacher, because it is desirable to have as many tools as possible which can always be scaled back, rather than start with a limited pool of resources and have to complement at the last minute. Furthermore, it is clear that current coursebooks are not geared for all types of activity, as they tend to have more accuracy-centred activities than fluency-centred activities, especially at the lower levels (as mentioned in Johnson (2015)) so adaptation is normally a necessity.

Other EFL Resources

Since the instruction and practice for grammar is considered incomplete, it is necessary to use other resources to promote more variety and a better balance of practice. These resources are of three different kinds:

- Extra practical resources to be used by the teacher in class to provide further, more beneficial practice in class, such as activity books and games;
- Extra theoretical resources to provide the teacher and learners with further information on any given topic, such as books exclusively for grammar practice;
- Extra assorted resources to stimulate learners to explore L2 beyond class time in the way that most suit their individual needs and preferences, to promote independence in practicing, learning and enjoying L2, such as television, film, online resources, or English conversation groups.

These extra resources serve different purposes. The practical resources serve to vary and focus practice to better adjust to the specific learners' needs and learning styles. The theoretical resources' use is twofold: on one hand, they are used by the teacher to complement the information in the coursebook to the extent that is deemed relevant and feasible to do in class, and on the other hand, they are used as a "supervisor" for the teacher. The learners are informed by the teacher, but they are urged not to trust the

teacher completely and to confirm for themselves the veracity of the information. Therefore, various practice and reference pedagogic grammar books are presented to the learners to allow them to explore different topics which may be more interesting or more challenging individually. Finally, the third kind of resource is a reference of assorted sources for the L2 which might help extend exposure while being enjoyable and relaxed. These resources are extensively described in section 4.6.

1.5 Contributions of Cognitive Linguistics to educational linguistics

1.5.1 Cognitive Linguistics (CGL)

CGL contributes especially to educational linguistics as it supports the usage-based nature of language and the shift of focus from form to meaning (Langacker, 1987) (this can also be seen as a link between linguistics, psychology and social sciences, in keeping with the principle of symbiotic exchange between domains of educational linguistics). Furthermore, it can be said that CGL combines characteristics from other linguistic models, making it a more inclusive and resourceful base which has been progressively developing (Pütz et al., 2001; Achard & Niemeier, 2004; Boers & Lindstromberg, 2006; De Knop & De Rycker, 2008; Robinson & Ellis, N., 2008; Littlemore & Juchem-Grundmann, 2010; Bielak & Pawlak, 2013; Niemeier, 2017; Grygiel, 2017; Achard, 2018; Drożdż & Taraszka-Drożdż, 2020).

CGL is a group of compatible theoretical proposals such as the Conceptual Metaphor Theory (Lakoff, 1980; Kövecses, 2002), Linguistic Categorisation and Image Schemas Theory (Lakoff, 1987; Hampe, 2005), Mental Spaces and Conceptual Blending Theory (Fauconnier, 1994; Fauconnier & Turner, 2003) and Conceptual Semantics (Talmy, 2000). Specifically for the study of grammar, important related theories include Cognitive Grammar (Langacker, 1987; 1991) and Construction Grammar (Fillmore, 1977; Goldberg, 1995; 2006) which also represent current avenues of research. These proposals have in common principles, assumptions and concerns, the most important being, according to several authors (Langacker, 1999a; 2008a; Evans & Green, 2006; Tyler, 2012; Winters & Nathan, 2020):

- Language (and grammar in particular) have a cognitive nature and they are not autonomous from other cognitive functions (such as categorisation and spatial awareness).
- Language is usage-based and interlocutors have rich background knowledge which is distilled through time but also suffers constant change. As mentioned by Talmy (2000), even if humans have the same brain and perceive the world in the same way, the different languages the brain creates represent different ways of packing the same sensorial information.
- Language is an inventory of inter-related linguistic units organised in a system; these units are categories and have fuzzy limits. This characteristic allows for generalisation but also for specificity, making the distinction fluid.
- There is no separation between grammar and lexicon because there is no meaning without form and no form without meaning. Furthermore, different lexical meanings are related to the development of patterns.
- The construction of meaning of language is related to the human body and its physical experience, so this drives several cognitive processes which affect the construction of language, such as metaphor (which is more productive in terms of lexicon), mental imagery with special focus on spatial scenes, ability to categorise in prototypes and peripheral elements in radial categories, and polysemy and memory organised in schemas, for example. (The human nature of grammar implies the use of the terms 'agent' and 'patient' and 'action states', rather than 'subject', 'verb' and 'object', for example).

To these main tenets, the following processes are added, as outlined by Ellis & Wulff (2015):

- associative learning (association of form and meaning in a linguistic item, resulting in a construction);
- constructions (the association of items in a linguistic system);
- exemplar-based learning (development of constructions is based on previous items in the system);

* emergent relations and patterns (the connections of simple constructions result in complex language);
* rational cognitive processing (speakers have a mental model of language based on the relation between form and meaning which allows them to process it).

CGL recognises a human language faculty, not as a singular biological function, but as a combination of cognitive processes. While recognising some modularity in the brain, it highlights that language is connected to other cognitive functions in different areas of the brain and it adds communicative competence as a learnt skill (Tyler, 2012).

Since CGL is based on human cognition, it is relevant to dwell on the human cognitive abilities that play an important and relatively uncontroversial part in language learning (Langacker, 1987, p. 99; 2008b, p. 8). As described in Radden and Dirven (2007) there are several cognitive operations in converting thought into language. Linguistic theories generally take into consideration the importance of memory, for example, or directing and focusing attention, but CGL considers other abilities that are less recognised, as the use of correspondences (corresponding phonological and semantic poles, for example), exercising comparison and carrying out mental transformations – as one conceptualisation is transformed into another through metaphor, for example (Langacker, 1987, p. 138) – and construals (the ability to perceive a situation from different perspectives depending on where attention is focused, in for example saying "The cat is under the table." instead of "The table is over the cat." Langacker, 1987, p. 138; Tyler, 2012, p. 33).

In terms of building an L2 construal system, Nick Ellis (2006) defines a number of relevant cognitive processes, such as: entrenchment, contingency learning, salience and perceptual learning. Entrenchment, as mentioned in the section on memory in section 1.3 on page 41, relates to how a habit a categorisation strengthens a memory route, and transference refers to the influence of L1 in L2 (which can be positive or negative). Contingency learning refers to the process by which the brain learns to associate certain events or stimuli with specific outcomes or consequences. Salience refers to the degree to which a stimulus stands out or captures attention (as mentioned above regarding attention). This can be influenced by a variety of factors, including novelty, contrast, and affect. Finally, perceptual learning refers to the process by which the brain improves its ability to perceive and discriminate between different stimuli through experience and practice; it can involve

learning to detect subtle differences between stimuli that were previously difficult to distinguish.

Apart from a construal with all its dimensions, any situation in discourse evokes a mental space which is a short-lived knowledge space for communication and inferences about the intended meaning, adding meaning beyond the strict uttered meaning and therefore more dependent on the receiver of the communication. Therefore, meaning cannot exist only in the mind of the speaker but it must also relate to the mind of the listener for it to be a communicative act (Langacker, 1987).

Linguistic knowledge of a speaker is described as a network of symbolic units of various sizes and different degrees of systematicity (Langacker, 1987). This will develop prefabricated chunks of meaning and result in an interconnected but also redundant network of concepts and linguistic forms. Idiomatic expressions, for example, may be accessed as a chunk or they may be assembled, if the speaker does not know the idiom (Tyler, 2012).[22]

Bybee & Hopper (2001) assert that units of use are not linguists' units but units of mental storage and access. This implies that knowledge of a language is knowledge of form and function correspondence with different levels of specificity. Bybee (2013) proposes that the nature of these correspondences is explained in the Exemplar Model, stating that memory for linguistic experience is similar to memory for other experiences. Exemplars can vary in size from sounds to chunks of poetry, for example, therefore "linguistic ability resides in established patterns of activity with varying degrees of entrenchment" (Divjak, 2019, p. 43). Tokens are the individual items stored in memory, such as words, syntactic structures or phrases, and repetition facilitates access and memory of these tokens.

This concept is related to the Mental Spaces and Conceptual Blending Theory (Fauconnier, 1994; Fauconnier & Turner, 2003), which may be of help in conceptualising L2 for learners, especially for lexis. This theory discusses the concepts of construal and viewpoint, positioning that:

[22] There are also two types of dimensions in a construal: a) viewing dimensions, which involve viewing frame (a scene or part of a scene), whether the situation is general or specific, objective or subjective (taking part in the scene or not), the viewpoint, mental scanning (related to phasing in time) and fictive motion; b) prominence dimensions, which involve window of attention, or focus, figure and ground, or salient and non-salient features, and profiling (Langacker, 1991).

> (…) humans spontaneously create "packets" of cognitive context (i.e., mental spaces) for the purposes of online [or real-time] conceptualization. The context of the mental space involves the speaker's conceptual representation of the entities in the pertinent scenarios as the entities are perceived, imagined, remembered, or otherwise understood by the speaker. (…) Mental spaces populated with our knowledge about a particular concept are represented as input spaces; knowledge from each pertinent input space can be selectively projected to a new, blended space. (Tyler et al., 2018, p. 18)

Learning consists in building neuronal networks where thought is not mostly verbal but imagistic,[23] thus visualisation is key to learning. In this process, the brain matches words to mental representations of internalised concepts which it then organises, stores and cross-references without any extra guidance (Sprenger, 2005). The same happens with grammar and its patterns, which are identified and stored. However, the issue learners face is not sorting or storing information but retrieving it. If the connections in the brain are strong, information is easy to retrieve, so instruction needs to be diverse, engaging and reinforced frequently to strengthen the connection and promote better learning, especially in the case of adults (Kolb et al., 2003).

Linguistic expressions evoke a frame, a base and then highlight a part of that frame, a profile (for example, in the frame of kinship, the profile of "uncle" can be highlighted in a given utterance). Adding to the concepts of frame and profile there are also the concepts of figure and ground. This relates to a difference in salience when there are two or more related units. The more salient situation will be the figure and the least salient will be the ground (Langacker, 1987). This is particularly strong in subordinate sentences but not so strong in juxtaposed sentences (Radden & Dirven, 2007).

A simple sentence is composed of a grammatical core and grounding, with optional adding adjuncts. Grounding allows the hearer to place and identify the utterance. Grounding elements can be nominal (such as articles, quantifiers and determiners), verbal (such as tense suffixes), modals, aspect markers, or temporal and circumstantial setting. However, complex sentences are more frequently uttered. Categorising main and subordinate sentences is managed by two principles of iconicity: the principle of proximity or distance,

[23] There is an interesting example given by George Lakoff in his book "Don't think of an elephant" (2004). When one hears this instruction, it is very difficult not to think of an elephant, proving that the brain works with visual and not verbal cues.

and the principle of sequential order. The principle of proximity states that closer units in an utterance are closer in reality (e.g., "This is Jane's backpack and that is George's tent.") and the principle of sequential order asserts the order in the sentence reflects the order in reality (e.g., "He opened the door, crossed the room and only then saw the spider.") (Langacker, 1991).

Another central concept to CGL that requires further analysis is the Linguistic Categorisation and Image Schemas Theory (Lakoff, 1980; 1987; Hampe, 2005). This idea goes back to the teachings of Aristotle, whose definition of categories included a binary categorisation with necessary and sufficient criteria for members. However, binary categorisation is not adequate for a cognitive perspective. In a cognitive view, categories are organised around prototypes, which are the items considered the best examples, with all the typical features and resulting from frequent exposure. According to Lakoff (1987) and as mentioned by Radden and Dirven (2007), a category is an abstract concept of a group of similar items or experiences. These could be single words, but they can also be composed of structures; their defining feature is that they must be shared by a group of speakers. Categories are related and their dynamic affects other categories, creating a global system. Although there are limits and structure, the categories are also fluid and fuzzy at their borders.

Items both in lexicon and grammar may have a prototypical, central meaning but peripheral meanings may emerge when the word is used in different contexts, amounting to a radial category, with various representations in the speaker's mind, and which can be attained through metaphoric structuring. Therefore, categories are gradient and change happens in the peripheral elements. This change is organised in schema, templates for this new linguistic form being created through generalisation. In fact, both lexical items and syntactic constructions are thus considered polysemous. The hierarchy of categories, as described by Radden and Dirven (2007, p. 69), involves the concepts of taxonomy, organising the basic level categories, and partonomy, the detailed levels of each item in a broader category. There is also a conceptual frame, which includes the package of knowledge around a category. Finally, the general field to which a category or a frame belong is a domain.

If this system of categories were constantly producing new words, this process would be too productive and there would be vast amounts of words to remember, so

strategies such as metonymy and metaphor are used to extend categories and meaning using the same words. Metonymy implies a conceptual shift of mapping and projecting from one concept to another in part for whole or whole for part correspondence, and metaphor implies a conceptual shift across domains. Building conceptual metaphors is one of the most important mechanisms in language. According to Lakoff (1980), conceptual metaphors map concepts from one semantic domain into another, which means that they help to understand something in terms of something else, and this helps to discern complex phenomena in terms of simpler phenomena, which is very useful for expanding knowledge.

Metaphors allow for understanding of abstract domains, such as emotions, for example, and relate them to more familiar physical experiences. Spatial metaphors, for example, are particularly productive because they are also related to another important base of CGL, embodied meaning.

Embodied meaning expresses the idea that human interaction with the world through perception, especially sight, is reflected in language. For example, syntax is seen as meaningful because it is also a reflection of embodied experience of the world (Tyler et al., 2018, p. 7).

There are two types of embodiment in language, sensorimotor embodiment, which is developmental, based on the cumulative experience of the individual; in the words of Lakoff and Johnson: "the very properties of concepts are created as a result of the way the brain and body are structured and the way they function in interpersonal relations and in the physical world" (Lakoff & Johnson, 1999, p. 37). Bodily experiences, such as perception, movement, and action, shape and constrain cognitive processes. The ability to understand and produce language is closely related to sensorimotor experiences, such as the ability to perceive and produce speech sounds, to gesture, and to engage in social interactions. Sensorimotor embodiment suggests that cognitive processes are grounded in bodily experiences and that humans use their bodies to make sense of the world.

The second type is conceptual embodiment, in the words of Lakoff and Johnson: "the same neural system engaged in perception (or in bodily movement) plays a central role in conception. That is, the very mechanisms responsible for perception, movements, and object manipulation could be responsible for conceptualization and reasoning" (Lakoff & Johnson, 1999, p. 38). This implies that bodily experiences, such as emotions, bodily sensations, and social interactions can be used to understand abstract concepts, such as

love, justice, or freedom. For example, the concept of love may be grounded in the experiences of affectionate touch, warmth, and closeness, as well as in experiences of social bonding and attachment. Again, the influence of embodiment seems particularly relevant for adults, since they have relatively more experience and therefore more ingrained embodiment.

Berger (2012) discusses the concept of embodied simulation, the idea that the mind simulates the experience of a physical act using functions of the brain used for other purposes. This could explain, for example, why stories are such an intrinsic favourite of human beings. This idea is also connected with the above-mentioned concept of embodied meaning of language, the notion that language is adapted to the human body because humans conceive language through their perception of the world. The fact that meaning is based on experiences in human bodies also explains why meaning varies so much from culture to culture, and language to language as well as from individual to individual. "It is not about activating the right symbol, it is about dynamically constructing the right experience of the scene" (Berger, 2012, p. 23). This will have considerable implications in the use of CGL in teaching an L2 because it states that each individual creates meaning in a unique way and this individual perspective is valued because communication is more efficient when using different aspects of cognition.

The processes from general cognition which are useful for language characterisation include, as already mentioned, metaphor and categorisation, but also chunking. Chunks are an important part of language, as there is evidence showing that these associations of words are very common.[24] From a CGL perspective, chunks refer to sequences of words or symbols that are stored and processed as a single unit in the memory. These chunks can vary in size and complexity, ranging from simple word pairs ("thank you") to longer phrases ("as long as") and even whole sentence patterns ("I would rather you didn't"). Chunking is a way for the human cognitive system to manage and efficiently process large amounts of information because, instead of processing each word or element in a sentence individually, the mind processes larger constructions as single, unified chunks. Language processing seems to be faster and more accurate for pre-acquired chunks, and it has been demonstrated for morphology (Sereno & Jongman, 1997), word combinations (Bybee &

[24] For example, according to a study analysing the Lancaster-Oslo/Bergen (LOB) Corpus, 59% of words spoken are part of a chunk (Erman & Warren, 2000).

Scheibman, 1999), idioms (Gibbs, 1980) and whole sentences (Bod, 2001). For example, an idiom may be accessed as a chunk or it might be constructed piece by piece, if the speaker has never heard it before. These units are never completely autonomous but have different degrees of decontextualization because language is always dependent on context (Dabrowska, 2004, pp. 22 - 23).

There are different levels of accessibility to chunks; the more entrenched, frequent, and specific, the more productive an item will be. For example, since in English there is one very frequent morpheme for plural (*-s*) or for Past Simple (*-ed*), these morphemes will frequently be used in novel words by native speakers and also in words that are new to L2 learners (Divjak, 2019). High frequency forms generally become more entrenched in language, but, for the less entrenched forms, the speaker accesses the sub-components and then activates the whole. In the case of items that do not become very productive (as in the case of English in plural endings in *-en* and irregular verbs in Past Simple) they are understood and stored even if they are not usually applied to new words. To take the example of the learning of regular and irregular verbs, it is argued that speakers learn the rule and apply it to all the verbs except for the especially memorised list, therefore using two different ways of computing information. This varied way of processing can account for the apparent flexibility and the robustness of language. This system also helps to understand both relational words, such as prepositions, because they are always connected with other words, and the difference between near synonyms, by connecting them on a scale and activating general concepts in common (Dabrowska, 2004).

It should be noted that a consequence of this system for processing language in chunks is to contradict the idea that languages are highly systematic and mostly regular. This system requires very low-level cognitive analysis and each item is learnt one by one and then grouped into chunks. Furthermore, there is the added benefit of being able to justify irregularities based on specific words and their intricacies and not on overarching structures. Chunks are not just strings of words but also carry meaning, function, and often a set of conditions for their appropriate use. This aligns with the concept of "constructions" in Construction Grammar, which posits that these units of form and meaning are the basic building blocks of language.

Chunking could be considered a practical application or manifestation of the broader Construction Grammar theory, which was first outlined in the 1980s by Lakoff (1987) and

Fillmore (Fillmore et al., 1988) and sees grammar as pairings of form and meaning which are called constructions. Goldberg's study of English argument structure constructions (1995) further advanced the field and generated growing interest in Construction Grammar. One of her ideas was that the constructions which pair form and meaning are the building blocks of language. As Goldberg defines them: "Any linguistic pattern is recognised as a construction as long as some aspect of its form or function is not strictly predictable from its component parts or from other constructions recognised to exist." (Goldberg, 2006, p. 5). Construction grammarians have also proposed that there is no clear distinction between core and periphery, or between lexicon and syntax, and they also suggest that derivations and multiple levels of representation are unnecessary. This results in a very elegant system which can be applied to any language, but Construction Grammar is still in its early development, and it presents some gaps; for example, the basic syntactic patterns of English, such as subject-verb, verb-object, and verb-indirect object, do not support the concept of constructions as pairings of linguistic patterns with meanings. It is argued by Ninio (2011) that core grammatical relations possess a wide variability of semantics, and that children do not learn the syntactic patterns with the prototypical semantics claimed to be associated with them. This is because such pairings are not consistently modelled for them in parental speech. These findings are a challenge to the Construction Grammar theory, which relies on a learned association of form and prototypical meaning in order to set up the constructions said to form the basic units of syntax. Some linguists have suggested that core grammatical relations should be excluded from Construction Grammar, as they are not considered constructions, leaving the theory to focus on idioms and minor patterns (Ariel, 2008).

There is one more characteristic of CGL which may have a surprising benefit for the L2 class: its use of diagrams. This is a constant in defining CGL and it may prove useful in explicit instruction of L2 for its visual component and logical organisation (Tyler, 2012, p. 78).

Finally, it is important to point out some of the different insights CGL brings to educational linguistics which may be considered beneficial, in its perspective of what language is, in comparison to other linguistic models. One differentiating factor is the connection to psychological and neurological areas of research. Even though CGL scholars have not dwelled into this research as much as they could (Peeters, 2001), it must still be

said some work has been developed (Dabrowska, 2004; Fischer et al., 2010) and, according to the authors, it has been given more prominence than in other linguistic models presented (Dabrowska, 2004), and CALT seems to incorporate features of other models harmoniously and cohesively.

Another difference between CGL and a generative perspective is that, as Deacon argues (1997, p. 116), language universals are not stored in the brain (as stated in Chomsky's theory of Universal Grammar) but language evolves as a "response to universals biases in the selection processes affecting language transmission". This leads to common features because general patterns converge; in the words of Divjak: "Grammar is a dynamic system emerging from use. Grammar is not a pre-existing autonomous and fixed system, but a developing one that continuously adapts to usage." (Divjak, 2019, p. 262).

Furthermore, according to CGL, linguistic forms are meant to express meaning, and meaning in this sense includes content and imagery, expressed as an ability to perceive the same content with a different focus, a different perspective or in a different level of abstraction (Bielak & Pawlak, 2013).In his Language Universals theory, Chomsky argued humans learn labels for concepts already stored in the brain but, as is argued in CGL, this connection is based on real life experience because these concepts cannot possibly naturally exist. For example, no one would naturally know what *gossip* or *rent* is if they do not have a certain type of friend or need a flat, but if one does, these concepts are as easy to explain as the concepts of *person* or *sun*. To give another example, locative expressions are also easier to explain and understand from a CGL perspective because they are based on human experience of the physical world (Dabrowska, 2004). Language is developed through cognitive representations built up by encoding and decoding sound and meaning and then categorising information in a personalised system (Divjak, 2019).

Furthermore, for decades after Chomsky presented his generative theory, the use of corpus data and explicit grammar instruction in the L2 class were discouraged by mainstream linguistics, judged as unreliable because these corpora were considered too limited in scope and contained too much ungrammatical material (Divjak, 2019). On one hand, it should be noted that, according to a CGL perspective, native speakers can not only utter what are considered by other speakers to be ungrammatical utterances, but also, throughout time, these ungrammatical statements can become accepted and then grammatical, because language is usage-based. On the other hand, it can be considered that

there is extensive variety within the language produced by native speakers and, in trying to establish what the grammar of a given language is, researchers should use different sources: grammaticality and elicitation as well as corpora collected from usage (Bielak & Pawlak, 2013).

Lastly, whereas a generative model has a dictionary view of grammar and vocabulary, CGL sees them as a continuum where phonological and semantic units are matched to produce symbolic units. This is largely considered more straightforward for lexical items because they are generally more specific in reference and therefore have a lower degree of symbolic complexity, but not as clear in syntactic items. Syntactic items, such as prepositions, are generally more complex because the connections between the phonological and the meaning poles may cover a wider range and therefore be more abstract, but they can still be incorporated in a CGL view. For example, the preposition or grammatical item *of* may be considered not to have inherent meaning (Chomsky, 1981), but, in light of cognitive grammar, it can be said that it expresses an intrinsic relation between two items, as in *the bottom of the sea* or *a woman of integrity* (Langacker, 1999a).

Considering a functional model, it should also be pointed out that, although language is inherently repetitive, so the convention of usual patterns is the basis of grammar, and frequency is a crucial factor, especially in learning words, morphology, and syntax (Divjak, 2019), there is evidence that children learn more nouns than verbs, even if they are generally more exposed to verbs than nouns. If frequency of exposure were the most important factor, then the first word every child would utter would probably be *the*, as mentioned in Lidz, Gleitman and Gleitman (2002). This argues for a functional model that also takes into consideration cognitive processes and not just usage.

In Portugal, CGL has had some expression from its early age, since the first Portuguese related thesis inspired by Wittgenstein and prototype theory was done by Pinto de Lima in 1989 in Faculdade de Letras da Universidade de Lisboa (Pinto de Lima, 1989), and further significant cognitive studies emerged in the second half of the 90s. These included doctoral theses by Almeida (1995) on the conceptions of *opening* and *cutting* in Portuguese and German, and Batoréo (1996) on the linguistic and psycholinguistic expression of space in Portuguese.

However, the most notable scholar working in CGL in Portugal is undoubtedly Augusto Soares da Silva, who started working on CGL in 1995 (Silva, 1995) and has been

developing research ever since. This research spans interdisciplinary studies that integrate insights from linguistics, cognitive science, and cultural studies. His research includes a broad exploration of cognitive linguistics, which examines the relationship between language, mind, and sociocultural context (Silva et al., 2003).

Soares da Silva is also recognised for his pioneering research on cognitive grammar, which explores how language structure reflects cognitive processes; his work initially addressed how cognitive principles shape grammatical structures (e.g., Silva, 1995; 1997). Furthermore, Soares da Silva has extensively explored the role of metaphor in shaping conceptual semantics, examining how metaphorical structures influence cognitive processes and meaning (Silva, 1999; 2003). This includes his analysis of metaphorical concepts in Portuguese and their cognitive implications. More recently, his work investigates how figurative language functions in communication and cognition, emphasizing intersubjectivity and usage patterns (Silva 2021). His editorial contribution highlights his ongoing interest in metaphorical language (Silva & Leite, 2015). Soares da Silva's work on polysemy investigates how words with multiple meanings reflect cognitive and semantic networks and his studies on polysemy in Portuguese, including discourse markers and verb semantics, highlight how cognitive processes underpin semantic variability (Silva, 2002; 2006a).

Additionally, his work in sociolinguistics and cross-linguistic studies explores the variation and convergence between different Portuguese dialects, as well as the influence of cultural factors on linguistic structures (Silva, 2006b; 2006c). Soares da Silva has also contributed to the intersection of communication, cognition, and media. His editorial work reflects his interest in how cognitive processes are influenced by and interact with media and communication practices (Silva et al., 2010).

Alongside Soares da Silva, other academics have contributed to CGL, namely Pinto de Lima, mentioned above as having written the first work related to CGL, has continued to work in the field (Pinto de Lima, 2001; 2006; 2019). Maria Clotilde Almeida has an extensive body of work primarily focusing on linguistics, cognitive science, and multimodal communication (Almeida, 1995; 2001; 2015; 2016; 2021). Another scholar which has made a significant contribution is José Teixeira, whose research in cognitive linguistics primarily covers cognitive models and object orientation (Teixeira, 1999), cognition and categorisation (Teixeira, 2005), and metonymy and metaphor in referential processes

(Teixeira, 2018). His work contributes to understanding how cognitive processes influence language use and the formation of linguistic categories.

In conclusion, within the field CGL in Portugal, several domains have merited attention, particularly Cognitive Semantics, Cognitive Grammar, Grammaticalization and Discourse, and interdisciplinary studies. However, these interdisciplinary studies have not reached the connection between CGL and its application to teaching and learning L2 yet, or to developing methodologies that incorporate the learnings from theoretical linguistics, so the work that has been developed in Portugal up to now remains firmly within the theoretical framework, even as more recent publications continue to appear, such as Batoréo (2022).

1.5.2 Cognitive Approach to Language Teaching (CALT)

From the theory of CGL derives a teaching methodology based on its principles and updated from the original Cognitive Code Approach, the Cognitive Approach to Language Teaching (CALT). This is a relatively new concept and much work is yet to be done to form a robust proposition and to establish it as a method or approach (Littlemore, 2009; Kermer, 2016). CALT is still in early stages of development because the linguistics model it follows, CGL, is itself comparatively new (Hudson, 2008) but in this study the choice was made to preserve the term *approach*.

However, in some senses, this is not such a new idea because there has been interest and recognition of human cognition's importance in language learning for decades. In the 1960s the Cognitive Code Approach was created as a result of a combination of the work of linguists Noam Chomsky in Transformational Grammar (Chomsky, 1965), K. Chastain in differentiating the Cognitive Code Approach from the Audio/lingual Method (Chastain, 1969), and cognitive psychologist J. B. Carroll. In Carroll (1966, p. 102), it is stated that "learning a language is a process of acquiring conscious control of the phonological, grammatical, and lexical patterns of the second language, largely through study and analysis of these patterns as a body of knowledge." The Cognitive Code Approach also asserted that language learning does not derive from behaviourist habit formation but from acquiring rules and patterns that can be recycled to generate new language (Celce-Murcia, 2014).

Learners do not merely respond to stimuli, but they engage in the formulation of hypotheses about the language and infer rules, as stated by Larsen-Freeman and Anderson:

> For a while in the early 1970s, there was great interest in applying this new Cognitive Code Approach to language teaching. Materials were developed with deductive (learners are given the rule and asked to apply it) and inductive (learners discover the rule from the examples and then practice it) grammar exercises. (Larsen-Freeman & Anderson, 2011, p. 80)

This theory created momentum for a few decades, but then it was overtaken by (and partially incorporated into) the Communicative Approach, and it petered out. Later, a new cognitive approach started to emerge; this derived from CGL and presented a different perspective including human cognition, as proposed by Taylor (1990) and Tomasello (2003), for example. While keeping the significance of the traditional principle of deductive or cognitive code-learning in facilitating effective knowledge retention (specifically, when learners are required to actively engage with the material in order to comprehend it, they are more likely to retain the information in the long-term), CALT represents an advancement over the Cognitive Code Approach by shifting the focus from the deduction of grammatical rules to exploring the relationships between meanings. While the Cognitive Code Approach emphasizes rule-based learning and application of grammar, CALT integrates insights from cognitive science to focus on how language is intrinsically tied to meaning and human cognition. It encourages conceptual understanding, and offers a more holistic, intuitive, and context-rich method of instruction that aligns closely with how humans naturally use and understand language. This can be accomplished by prompting learners to engage in discussions regarding the importance of how forms are arranged within diagrams. In doing so, learners attain deeper understanding of the material and more effective retention of knowledge is facilitated (Holme, 2009).

The concept of construal is applied in CALT as a realisation that an L2 may reflect different ways of viewing the world, as mentioned before. For example, the difference between active and passive voice may be seen as a difference in construal, but from the same base information. This difference in perspective may be individual or it may be intrinsic to the language itself, so, in the words of Littlemore, learning a new language may be interpreted as "learning to see things in a different way, both physically and

linguistically” (2009, p. 14). For example, a book is *on* the shelf in English but it is *in* the shelf in Portuguese, representing different ways of “seeing” the position of the book.

Out of the cognitive processes outlined by Nick Ellis (2006) mentioned previously, there are four main ways in which the construal affects language: attention or salience (which part of the event draws more interest or is more highlighted), perspective, constitution (how zoomed in the perspective is), and categorisation. All four types of construal reflect differences in the way in which phenomena are viewed, which in turn affects the way they are talked about (Littlemore, 2009).

A difference in salience may be seen in verbs in Portuguese and in English. Slobin (2000) and Talmy (2000) argue that languages can be verb-framed languages (such as Portuguese) or satellite-framed languages (such as English). Verb-framed languages tend to express the path of motion of a verb using the verb itself, *Ele entrou na casa*. (“He entered the house.”) *Ela subiu a montanha*. (“She ascended the mountain.”) In these examples, the verbs *entrou* (“entered”) and *subiu* (“ascended”) carry the primary information about the path of motion. In English, the path is typically expressed in a *satellite*, which can be a preposition or a particle adjoined to the verb. For example, "He walked into the house." "She climbed up the mountain." Here, the verbs "walked" and "climbed" describe the manner of motion, while the satellites *into* and *up* describe the path. This difference in how motion is encoded can have various implications, including how speakers of different languages perceive and describe motion events. For instance, English speakers may be more likely to specify the manner of motion (e.g., walk, run, crawl) because their language facilitates such descriptions, whereas speakers of verb-framed languages like Portuguese might focus more on the trajectory or path (e.g., enter, ascend, cross). Therefore, these linguistic differences can affect the aspects of context that language learners perceive as relevant or salient. If a feature is downplayed in the learners’ L1 but salient in L2, it may be more difficult to adjust to (Slobin, 2000). This may help explain, for example, why Portuguese learners find it difficult to learn English phrasal verbs, since in Portuguese these verbs tend to be verb-framed items and not depend on the satellite item. Notwithstanding, construals are flexible, and the perspective can be changed, if it is brought on by necessity in a specific context. As according to Schmidt (1993), adjusting to contexts which are defined differently or have different relevant features involves breaking a cognitive habit, but the more different and engrained the cognitive habit is, the more difficult and time-consuming

learning an L2 will be. Especially for adults, and at a lower level of proficiency, learners use mostly L1 conceptualisation. This is less of a challenge for children or advanced L2 learners because children's language habits are not yet deeply ingrained, and advanced learners have developed alternative ways of understanding (or construals) that align more closely with the second language.

The concepts of learned attention and inattention, along with perceptual learning, as mentioned by Nick Ellis (2006) offer a potential solution for overcoming these barriers, especially for adult learners. Learned attention and inattention refer to the way attentional focus can be trained or influenced by past experiences. In essence, learners can be taught to pay attention and to ignore items based on experiences and training. Perceptual learning involves the brain's ability to become better at perceiving subtle differences between stimuli through practice and experience. Highlighting these factors in language instruction might help adult learners break free from the constraints of their first language's conceptual framework and improve their understanding of L2.

Categorisation is the area that has received the most attention from researchers and has a crucial role in CALT: categories are radial and have fuzzy boundaries, with members that can be considered as more or less prototypical and overlap with each other. For example, the word *bowl* has at least two meanings which overlap with the word *taça*, but in Portuguese there is also the word *tijela*, which is placed further away in the fuzzy boundaries of those words. Categorisation also comprises generalisation or schema: language is constructed by grouping units into chunks and progressively increasing the grouping and the connections to form a complex system of categories and constructions in the brain consolidated in long-term memory. Once these categories are created, new information perceived is incorporated into the previously existing system (Tyler et al., 2018, p. 8) in schema: "the building blocks of memory which build a relationship between different aspects of real world, including objects, actions, and concepts. Henceforth, having constructed a receptacle of grammatical knowledge in the mind, learners can fill their schema with new lexical items" (Maftoon & Shakouri, 2018, p. 16). The process of learning an L2 can enable the learner to categorise items in different ways, and therefore represent a real cognitive phenomenon (Cook et al., 2006). However, as mentioned earlier, categorisation systems are primed by L1 in ways that might also interfere with the learning of subsequent languages (Hunt & Agnoli, 1991; Elston-Guttler & Williams, 2008). Therefore,

two conclusions can be drawn: L1 is the pre-existing system which will be used as a base for the new L2 system, and this theory contemplates both implicit instruction of L2, at the level of natural language learning, and explicit instruction of L2, to facilitate at the level of processing. Furthermore, these features of categories and constructions can help emphasise connections between L1 and L2, and therefore it is relevant to analyse the points where this connection can facilitate, but also possibly inhibit, learning.

Research into bilingualism has shown for decades (e.g., Ervin, 1961; Bialystok, 2002) that learning an L2 results in a blended categorisation system, not separate for each language, and that speakers can alternate between languages within the same system (Slobin, 2000); furthermore, research also shows that speakers of two or more languages tend to be more flexible cognitively, and develop cognitive capacities that extend beyond language (Gass, 2008). However, learning an L2 requires more than incorporating it to the L1, it requires practice of new rules as interaction with the L2 and experimentation with the limits of the rules. The usage-based nature of language, as argued by CGL, means that pattern-finding skills available in L1 can also be used in L2, but the difference here is that learners have already acquired an L1, and also knowledge of the world. In fact, the relationship between L2 and L1 can almost be described as parasitic at the early stages of learning, but through the use of different cognitive processes and exposure to L2, the construal system is adjusted to L2 (Ellis, N., 2006).

As mentioned before, there is a duality between capacity for storage and computation effort when considering grammar and its rules, but CGL recognises the human brain is still highly plastic so it can change strategy depending on the input and on the age of the learner, for example (DeKeyser, 2007; 2018). This means that instruction and practice in the classroom should be as varied as possible to incorporate as many different learners' styles and processing modes as possible.

Recoding of memory is also an important step in building a linguistic system with intentional organisation, as described in CALT. Every time a memory is retrieved it changes slightly, being adjusted and reconstructed in the brain. This repeated process promotes entrenchment of this information, so this means learners should practice as much as possible for better cognitive processing. However, a strong memory still needs good cues: retrieval is easier if there is abundant practice but also variety in practice. One more important characteristic for successful retrieval from practice is salience of specific topics,

causing learners to focus on a specific grammatical structure. Considering the linguistic system of each speaker is adapted to their environment, it can be said that L1 helps judge how useful a structure is in L2. This judgement may be off kilter in comparison with L2, and this may result in certain grammatical items being judged as useless, so it is the teacher's task to help the learners resist this drive. Regarding entrenchment, since structures which are generally more frequent (in comparison to other competing or isolated structures) are easier to remember, the teacher should once again make sure there is balance and try to promote the adequate amount of practice to take place for each structure.

Another concept relevant to CALT is that of encyclopaedic knowledge. This is a large inventory of knowledge of the world, including knowledge of words beyond their denotation and into their connotations. Therefore, linguistic knowledge is connected to knowledge of world, and semantic knowledge is connected to pragmatic knowledge, forming a complex network (Evans & Green, 2006). Especially in the case of adults, encyclopaedic knowledge will be considerable, and particularly in the case of lexicon, it is not necessary to recreate this knowledge, but to map the L2 lexicon onto to the existing network, readjusting and extending the existing neuronal links for L2 (Littlemore, 2009). This connection between L1 and L2 also contributes to heightened motivation, providing relevance through the combination of using familiar and personal information with novelty information.

Conceptual metaphor and metonymy (e.g., Lakoff, 1987) are two further concepts in CGL that are relevant for L2 learning. These phenomena are a particularly useful feature of language, because of their capacity for multiplication of meaning through the use of limited elements, metaphor through the extension of meaning and metonymy through the substitution of a word or phrase for another word or phrase that is closely associated with it, but not necessarily a part of it. Even though these concepts are relevant to language learning, they are more closely associated with lexicon, and do not seem to provide as much use with grammar for now.

Another essential and novel concept of CGL that is relevant to the L2 class is that of embodied cognition and sensorimotor and conceptual embodiment, or how the perspective of the human body influences perception and perception is influenced by the restraints of the human body (Gibbs, 2006). Embodied cognition states that abstract thought is experientially grounded, as mentioned before, which means a human view of reality is

constrained by the human body and how it is used to perceive its environment. Simply listening or reading language activates perceptual and motor imagery in the brain to understand the language and process it (Bergen et al., 2003). This claim also involves the Mirror Neuron Hypothesis, a theory that has been developed since the 1990s (Rizzolati et al, 1996) and that states these neurons play a key role in a range of cognitive and social functions, including empathy, imitation, and language learning. Mirror neurons are believed to be involved in the ability to understand and predict the actions and intentions of others, and they may also play a role in the development of social behaviour and communication (Gallese et al., 2002) by replicating emotions and actions, therefore it is useful to consider them from the perspective of classroom interaction.

Lakoff (1980) and Langacker (1987) in the latter's seminal work about CGL, defined the idea of embodied experience. In their view, unlike the generative perspective, syntax is seen as meaningful because it is also a reflection of embodied experience of the world (Tyler et al., 2018, p. 7). Talmy also considers embodiment in the use of the concept of force dynamics to express modality. Force dynamics describes how different types of force interactions between entities can be used to express modal meanings in language. It involves the conceptualisation of entities as having varying degrees of force or power, and how these entities interact with each other to express concepts such as obligation, permission, ability, and necessity, as described by Talmy (1988), and later further developed by Tyler (2012). For example, the past tense in English can be extended in its meaning to denote psychological distance (when implying lack of support for an author's work as in *The author showed…* in comparison to *The author shows*…) or politeness (as in the difference between *I was wondering if you could…* and *I wonder if you could…*) (Tyler & Evans, 2001).

An important display of embodied cognition is gesture, and it is now accepted that use of gesture is an important part of learning an L2, and more so than when using L1 (Gullberg, 2008). The claim is that speech and gesture are synchronous because they are grounded in the same thought processes and they probably originate in the same part of the brain (Gibbs, 2006). Gestures can have different functions; they can be communicative, and contribute to the expression of meaning, such as iconic gestures (which resemble the semantics of verbal content), or metaphoric (which extend the semantics of verbal speech), or pragmatic (which are loosely connected to the semantics of the verbal speech but carry a

meaning of their own). Gestures can also be cognitive, which means they support speakers when they are formulating expressions (McNeill, 1992) .[25]

Communication is closely related to gesture and to physical expression, so gesture is also a vital part of language comprehension and consequently crucial for teachers and learners of L2. Iconic gestures help communicate the meaning of verbal expression, metaphoric gestures elucidate metaphors and facilitate access to concepts in L2, and pragmatic gestures help to develop pragmatic competence in L2 (McNeill, 1992). In fact, there is evidence that the development of fluency in L2 is accompanied by the ability to use appropriate gestures of L2 speakers (Gullberg, 2008). Furthermore, teachers exaggerating gestures which accompany verbal production may be a powerful aid to communication and learning through input enhancement (Sharwood Smith, 1993), and the perception of the learners is that this use of gesture by the teacher to disambiguate meaning, to highlight items and aid memorisation makes them more effective (Sime, 2008). Learners using gesture is also an effective practice, as it allows them to negotiate the meaning and obtain feedback their communication (Gass, 1997). Learners using gesture in communication with other learners also drives learning by facilitating the interpretation of the task and the ensuing communication, helping each other notice and internalise information and regulate their learning (Platt & Brooks, 2008).

Finally, the last concept of CGL connected to L2 learning is that of construction grammar (Fillmore, 1977; Goldberg, 1995) which emphasizes the importance of meaningful communication in second language learning, as learners acquire constructions by using them in communicative contexts; it also highlights the role of feedback in second language learning, as learners refine their constructions through trial and error, and by receiving corrective feedback from interlocutors. A construction grammar provides a useful perspective in the sense that it represents middle ground between a categorical and somewhat inflexible traditional grammar approach and the extremely flexible lexical approach (which implies memorising thousands of words). However, as pointed out before, construction grammars have not yet been studied enough to provide robust insight for educational linguistics, but they are likely to prove useful in the future, especially in their

[25] This can be seen for example when speakers use gestures even when no one is looking at them.

connection to TBLT and in allowing learners to explore the relation between form and meaning and why certain words behave the way they do.

CALT provides new insights on how to facilitate language learning, but it is accepted that there is no perfect single methodology. The struggle between theories to become the ultimate answer to effective teaching does not seem to be productive, so the answer seems to be in a more inclusive perspective (Maftoon & Shakouri, 2018). This means there are still different approaches, but the general trend, at least in the Western world, has been towards uniformization. The way forward for teachers seems to be to follow generally accepted principles in language teaching, as defined by Kumaravadivelu (1994, p. 45) and which include:

- maximizing learning opportunities,
- facilitating interaction beyond prompts,
- aligning expectations of both the teacher and the learners,
- allowing for intuitive learning when possible,
- fostering language awareness by analysing L1 and L2,
- contextualising linguistic input,
- integrating all language skills,
- promoting learner autonomy in class and outside it,
- raising cultural awareness of the languages involved, and
- ensuring relevance of the skills and proficiency practiced and achieved in class.

By following these guidelines, the teacher focuses on fulfilling the needs of the specific learners using their own skills and empowering them rather than transmitting established knowledge. However, it is also clear that this may not be possible in every circumstance if the teacher does not have the autonomy to design specific curricula or even choose coursebooks, as previously mentioned.

Finally, CALT can be seen as a novel, balanced perspective because it is not teacher-centred (such as more traditional views of teaching) and neither is it learner-centred (such as CLT), but it is language-centred, as summarised by Kumaravadivelu (2006): the focus of the language class is not on the teacher, as the teacher is not the target for learning, but

neither is it on the learner, as they are not aware of how to reach that target, but it is on the language, which constitutes the real target and the unifying factor for all involved.

1.5.3 Grammar instruction in CALT

When considering how to instruct learners in grammar, it is important to consider how to explain the processes underlying the establishment and usage of linguistic structures in the human mind and within speech communities. As mentioned above, the Entrenchment and Conventionalisation (EC) model, proposed by Schmid (2016), is a theoretical framework within CGL that aims to explain these processes and identifies two aspects of L2 learning in particular: conventionalization and entrenchment. Conventionalisation refers to the social process of language usage within a community. For example, slang or idiomatic expressions are products of conventionalisation; they can be discussed in a classroom setting but are not directly tied to grammatical rules. On the other hand, entrenchment involves the internalised patterns and associations each speaker forms based on language use. For instance, learners might notice that in English, questions often start with *Do you* or *Are you*, and this pattern becomes entrenched in their understanding. Therefore, entrenchment can be actively practiced in a classroom. Additionally, the EC Model encourages learners to engage their cognitive abilities, scavenging for information both externally and internally. For example, a learner might use context clues in a conversation or recall prior lessons to comprehend a new sentence, thereby successfully making sense of their environment and communicating effectively. Therefore, there is a dialectic relationship between language and cognition: cognition helps define language, but language also helps to understand cognition. Grammar is then considered a structured, logical inventory of conventional linguistic units and their relations in their phonological, semantic and symbolic structures (Langacker, 1987).

However, CALT's potential as a pedagogic methodology, and especially regarding grammar instruction and practice, has not been explored extensively, as accepted by Langacker (2008a) and recent researchers alike (Drożdż & Taraszka-Drożdż, 2020). These studies seem to be qualitative and explanatory in nature, lacking empirical testing procedures and contrastive analyses between traditional and CALT treatments. Moreover, these studies frequently cover exclusively single grammar topics, so they are not

comprehensive when compared to the needs for the length of a course. For example, a study by Huong (2005) explored teaching English articles to Vietnamese learners using CALT descriptions. The results showed that CALT had short-term positive effects on learners' language acquisition but did not lead to sustained long-term improvement. A study by Llopis-García (2010) combined Cognitive Grammar concepts with processing instruction to teach mood-selection in Spanish to German learners. The study demonstrated that this integrated approach improved learners' accuracy in applying mood-selection in Spanish. A study carried out by Jacobsen (2012) examined speakers of Chinese, Arabic, and Farsi as their L1 and English as L2) and found that a CALT treatment was more effective than task-based treatment in improving performance on written tests, which included controlled and free production as well as grammaticality judgement tasks, specifically for the learning of conditionals.

Reif (2012) and Bielak and Pawlak (2013) applied CALT to English tense and aspect in L2 settings. Reif's study found that both CALT materials and traditional explanations were effective in improving learners' grammatical proficiency. Bielak and Pawlak's study showed that a CALT treatment had better results compared to a control group in fostering learners' grammatical performance, though the results were not as expressive as expected.

Tyler's research (2012) focuses on teaching modals and prepositions and it does suggest that there is empirical evidence to support the efficacy of cognitive treatments in specific contexts and for particular aspects of language learning. For example, understanding the metaphorical basis of language can help learners grasp abstract concepts more easily than if they were to rely solely on syntactical and grammatical rules.

A study carried out by Sato (2011) explored the efficacy of using schematic diagrams, informed by cognitive linguistics, in teaching English prepositions via a computerized tutorial platform known as the English Preposition Tutor, and it provided interesting results, considering the difficulty learners may experience with prepositions, as described later. Participants were divided into three feedback groups: schematic diagram feedback, metalinguistic rule feedback, and correctness feedback. Only the schematic diagram feedback group showed chaining between spatial and non-spatial senses of prepositions. Effectiveness was assessed through a cloze test and a translation test and all feedback types improved learning, but the schematic diagram group outperformed the correctness

feedback group in the translation test, even if no significant differences were found among the groups in the cloze test results.

Kermer (2016) carried out a study on teaching tense and aspect in English using a CALT treatment which demonstrated that learners who received instruction based on cognitive grammar principles showed a better grasp of the conceptual distinctions between different tenses and aspects compared to those taught using more traditional methods. However, Kermer still argues that empirical data based on experimental research in authentic L2 settings is limited in CALT research, and more rigorous research using quantitative methods is needed to demonstrate its effectiveness.

Cognitive and Construction Grammars have already provided some novel and elegant solutions to the teaching and learning of irregularities, for example, such as in modals (Tyler, 2012) and tense and aspect (Bielak & Pawlak, 2013), which were categorised as exceptions in more traditional descriptions. In most cases, irregularities have points in common and Cognitive Grammar describes these situations by explaining them through schemas in a radial variation from the prototype. Moreover, the traditional view of grammar ignores idioms, conventional expressions and collocations, but these have a place in Cognitive Grammar as prefabricated chunks.

To start analysing how exactly CALT can contribute to L2 grammar learning, it is necessary to consider some of its components more closely. By applying the principle of iconicity (according to which form and structure of language reflect cognitive patterns and conceptual organization) it can be said that word order reflects the prominence or salience of different elements in a sentence. For example, the inversion in word order in questions highlights the focus of the question, and the word order in passive and active voice sentences also change the focus of the sentence.

Another important functional principle is the principle of cognitive economy. This principle is not exclusive to CGL but it is central to it, as it highlights the human inclination to minimise cognitive load and optimise communication using efficient and economical linguistic structures (Divjak, 2019, pp. 5-6). With these tools, learning a language does not have to be about memorising rules, but about understanding meaning and how every distinction, even minor, produces a semantic change. From the point of view of the learner, the centrality of meaning should make more sense than the focus on mere form:

> Conventional use almost always has conceptual motivation. Though it has to be learned, it represents a particular way of construing a situation described. With proper instruction, the learning of a usage is thus a matter of grasping the semantic “spin” it imposes, a far more natural and enjoyable process than sheer memorization. (Langacker, 2008a, p. 15)

There is still little data to further explore these benefits, but from evidence related to modal verbs and idioms in particular (Bielak & Pawlak, 2013), this seems to be of pedagogical use. Grammatical elements are likely to be polysemous, with a prototypical meaning and some peripheral ones, just like items in the lexicon. Semantic and syntactical coherence of expressions is frequently reliant on imagined scenarios and cultural conventions, therefore a usage-based approach is desirable for efficient learning.

Therefore, language is shaped by use, and therefore unique, but it is also driven by general cognitive processes, which are shared by learners of any language. Ellis (2006) mentions cognitive processes at play in learning an L2 that should be taken into consideration, such as over- and under-extension of rules, referring to the tendency to either apply a language rule too broadly (over-extension) or too narrowly (under-extension). Another relevant process is contingency learning, which refers to the process by which the brain learns to associate certain events or stimuli with specific outcomes or consequences due to high frequency; for example, the more often a morpheme is associated with a meaning (such as *-s* for plural) the easier it will be to learn.

Learners tend to organise items according to similarity and difference, categorising and linking concepts according to the characteristics which define an object or concept on a scale from prototypical to peripheral and then linking different categories in a wider neuronal network (Bielak & Pawlak, 2013). Littlemore (2009) also argues that grammar should be presented in the form of flexible radial categories, which can be portrayed as diagrams. This view can be applied to grammar: items of meaning in grammar can be categorised and divided according to characteristics such as meaning and scope - for modal verbs and future forms, for example. The fluidity of the borders allows for several access routes for items to be processed and incorporated (Tyler et al, 2018, pp. 9 - 11). Ellis and Cadierno (2009) assert that, while learning an L2, the learner must recategorize and add to aspects of the world and of language to successfully process and retain the new information.

For decades, methodology has swung between viewing the teaching of grammar as teaching grammatical rules and their exceptions, and teaching pre-fabricated chunks of language because rules are not comprehensive. In the words of Littlemore (2009, p. 62) "the idea that grammar rules operate within flexible radial categories with fuzzy boundaries is useful as it provides a kind of mid-point between these two views. It suggests that there are indeed *rules* at work in language, but that these rules encompass flexibility and change." Furthermore, according to Maldonado (2008), radial categories can also help explain learner utterances that are not grammatical nor ungrammatical, but somewhat strange because they are at the outer borders of the category. Sentences such as "I have been hammering my thumb." or "I will buy a house tomorrow." are not ungrammatical, but they are odd and would not normally occur. By perceiving the use of the verb tenses as radial categories, and considering these sentences as peripheral uses of the verb tenses, it would help explain their oddity.

Another important concept which is an integral part of Construction Grammar (Goldberg, 2006) and which is related to processing and categorising of linguistic units is that of chunks. These clusters may be initially difficult for learners (and teachers) because they are not strictly related to grammar or lexicon, and, since they cannot be constructed from base components, they cannot be invented (or spontaneously generated) by an L2 learner (Ellis, 2007). Nevertheless, they are useful in the language class, because they can be processed as a whole, saving processing time (as, for example, in the interrogative Present Perfect Continuous "How long have you been *Verb+ing*…?"),[26] and they are an instant burst of near native language. However, the scope of chunks does not cover the whole of the necessary grammar, so there must be consideration for variety of technique (Swan, 2006a).

Two other processes which are highly productive in language are those of metaphor and analogy, in which a relationship, concept or idea which is familiar is adapted to an unfamiliar, possibly more complex relationship, concept or idea, making use of the cognitive connection already developed and used as a cognitive shortcut. Using conceptual metaphor, concepts can be mapped from one semantic domain into another. It could be said that when a learner starts learning an L2, because they already have language-specific labels for concepts, construals and categories for L1, this construction can interfere with the L2 and

[26] Chunks can, however, be assembled as required if they have not been strongly entrenched at the cost of processing effort.

cause transfer (for example, in highlighting with word order, for instance, Portuguese is more flexible than English, and this may result in error if the flexibility is replicated in English (Ellis & Cadierno, 2009)). On the other hand, if a cognitive perspective is used in contrastive and error analyses through explicit conscious processing, L2 learners can be helped to perceive and process the input in a more effective way, updating the system through construction and reconstruction (Ellis & Cadierno, 2009).

Considering metaphor used for grammar, it can be said that aspect in verb tenses (continuous, for example) can be used metaphorically by extending its meaning to different uses which were not prototypical (for example, the extended continuous meaning of "He's forever forgetting his keys." which would not be considered in the prototypical uses of the Present Continuous) (Bielak & Pawlak, 2013). In the second case, metaphors used for grammatical items that work in the L2 may work in the L1, if the conceptualisation is similar, and therefore this can reduce processing. Finally, the use of metaphors in instruction by the teacher, comparing an abstract idea to a visual, concrete concept (such as the idea that grammar is like the spinal cord of language), or using mnemonics (such as *fanboys* for a list of connectors – for, and, nor, but, or, yet, so) makes the concept more relatable and easier to understand and to engage with.

As mentioned above, the brain seems to organise information visually as well as verbally, and this relates to another essential characteristic of CGL, the use of visual aids and diagrams. CGL is famous for using graphic organisers to express grammatical relations and deconstruct complex notions, for authenticity and context (Brinton, 2014); prepositions, for example, lend themselves readily to a visual explanation (Ellis & Cadierno, 2009). This is also a common technique among language teachers, together with colour coding, drawings and props, such as cards or realia. All these elements make the learning experience more varied and more visual and embodied, helping learners to convert abstract into concrete and to connect with procedural and conceptual knowledge.

Considering a great deal of this grammar instruction involves explicit teaching and the learner being aware of the underlying processes, it is important to consider that the factors that connect L1 to L2 are likely to interact in a non-linear way, and this means that the process of learning is unpredictable, individual, and learners may not learn what they are taught (Ellis, 2008). Therefore, the role of the teacher is necessarily to facilitate learning further than exposure can achieve (Doughty, 2003).The questions that arise are, then, what

instruction should focus on and what form it should have. Williams (2005) concludes that explicit teaching should make learners aware of categorisation systems and construals in L2 that do not exist in L1. Therefore, comparing construal patterns of L1 and L2 may help predict the types of issues learners might experience in L2. In fact, Taylor (1993) suggested a return to contrastive analysis. The contrastive analysis hypothesis compares two or more languages to identify differences and similarities between them. The theory proposes that a language learner's errors can be predicted by analysing the differences between their native language and the target language they are learning. The basic premise of contrastive analysis is that the difficulty a language learner has in learning a target language is directly related to the differences between the target language and their native language: the more similar the two languages are, the easier it is for the learner to acquire the new language (Lado, 1957).

This theory was criticised by generative linguists, who stated that contrastive analysis overpredicts the type of mistake learners makes (difficulty for learners of each language might not be bidirectional between two languages (Odlin, 1989)) and that contrastive analysis also underpredicts the mistakes (there are mistakes that cannot be explained through contrastive analysis (Dulay et al., 1982)). In fact, as stated by Swan (2017, p. 394), "Lado and his colleagues did not say what their critics said they did: that all language differences necessarily result in learning difficulty; and they did say what their critics say they did not: that some errors are not due to first-language interference". Swan (2017) argues that the objection to contrastive analysis by generative linguists is based on a theoretical preconception that language is based on unconscious mechanisms shared by all languages, and not usage-based. The CGL perspective, on the other hand, is more inclusive in its view, and it considers both the naturist factors of shared cognitive processes and the usage-based specific characteristics of languages. Furthermore, as argued by Taylor (1993), CGL has a different view of contrastive analysis because the focus is on meaning and not on syntax, so tools such as construals or categorisation can be more useful in comparing L1 and L2.

1.5.4 Activities for grammar practice

According to Ellis (2017), EFL activities can be divided into knowledge-oriented activities and use-oriented activities; knowledge telling or discovering activities reflect explicit knowledge, and should be articulated with use-oriented activities providing input and prompting output to help automatise explicit knowledge, but the conditions must be created to allow for the extensive input necessary for this to happen. One way this can happen is when learners notice gaps when attempting to communicate. This is reflected in the previously mentioned Noticing Hypothesis. It remains that, for learners to be able to undergo these processes, they have to be exposed to extensive output, and this must be contemplated in the planning for courses. Considering the class time is limited, this can be achieved by including text-rich workplans promoting reading for pleasure and outside class time so that exposure can allow for top-down processing, the understanding and processing of chunks of text (Ottley, 2017).

As mentioned before, considering the importance of visual cues in cognition, it is beneficial that learning activities use pictures as a base for tasks. Additionally, stimulating spatial memory is also important, so activities which require learners to move around and connect spatial information to verbal information promotes cognitive processing. Finally, if this practice can be done from a personal viewpoint, this brings affect and personal engagement into the class. Summing up, as much variety as it is possible to execute to help learners produce as much output as possible should be brought into the classroom.

It is not necessary that every kind of practice follow a strict productive format, (as there should be surprise, enjoyment and variety) but, according to Divjak (2019) frequent testing not just for recognition but also for retrieval is beneficial, as is to monitor progress to highlight what is not known yet, so the various exercises can be used as testing as well as practice.

Chapter 2. Background to the didactic proposal

Within the field of educational linguistics and further to the previously discussed teaching methodology context, the current study takes into account the additional contexts and the unique aspects of the didactic proposal. The first one is considering the target audience comprises adults who attend training courses as a complement to their professional or academic lives, therefore the context of adult learning should also be considered in its specific guidelines and challenges. Secondly, its location in Portugal and the learners' shared native language, Portuguese. Consequently, on one hand it is relevant to examine English language instruction in Portugal, particularly focusing on official guidelines for English education for formal education and training courses, and available teaching resources. Furthermore, there should also be some consideration for intercultural communication and the part it plays in the EFL classroom. On the other hand, it is also relevant to acknowledge the potential impact of the L1 on the EFL classroom and of the two languages at play.

Finally, considering the target training courses are for level B1 of the CEFR, it is also relevant to analyse the requirements and goals for this level in comparison to previous levels and how they impact on the learners' performance.

2.1 Teaching adult Learners

It is relevant to the study to discuss how adult learners perceive the foreign language class (differently from young learners) and how teaching can be adapted to fit their specific needs. An adult may be defined as an individual who has developed mature biological, psychological and social characteristics, but the finer definition of it is a more complex task than it appears because the variation within these characteristics is very wide. In attempting to outline the variables which affect an adult's learning process, Eyring mentions age, educational background, literacy skills, occupation and educational attainment (Eyring, 2014, p. 569). Long outlines a more detailed list within two larger categories: physiological variables (health - both physical and mental-, vision, hearing, and energy) and psychosocial variables (cognition, personality, experience across sociodemographic trends, learning style and, finally, competing interests, goals, and social roles) (2004, pp. 28 - 35).

Considering all these variables, it is clear that learners are not simple nor uniform (as neither are teachers) so there is no single method or solution for teaching in such heterogeneous environments (Larsen-Freeman & Anderson, 2011). Still, some common features can be found which help define the group, such as that classes tend to be composed of learners who share a language and culture, and that they take English to progress in their career or studies (Eyring, 2014, p. 571). As pointed out by Knowles, Holton, and Swanson (2005, p. 223) adults discover a need in their life and try to fill that need with education.

Other complementary characteristics seem typical for adults: on the one hand, there is a valuable perspective for adults which seems to go beyond the teaching of grammar, vocabulary and functions, namely understanding the views and culture of the language and being able to think critically about it (Johnson, 2015). Adult learners may also be concerned with learning about themselves and how they learn the language, and not just the language itself. Teachers may see the value in this type of information and practice as well, but because it is not typically included in a syllabus, teachers are not sure about how to integrate it. Another concern is that the time of courses is too short to discuss these topics, since there is usually pressure to include more of the traditional items, and learners themselves may expect the teacher to deliver a straightforward, language product in which they find perceived value, as highlighted by Nunan (1988a).

Adults may be more resistant to learning, as can be seen in the Portuguese saying *burro velho não aprende línguas* ("an old donkey cannot learn languages") not just applied to languages but including them. According to a study carried out in a training centre with adult learners of English (Machado Aguiar, 2012), the interest of learners in English varies. On one hand, learners connected to tourism seem to have great interest in learning English, but in other areas they seem less motivated. Trainers all agree that learning English is crucial in the current labour market, but this is not an opinion shared by all the trainees, and some show little motivation, method and desire to learn, even if some are extremely motivated.

Jarvis' Learning Process, which asserts that it is necessary for learners to reflect on a behaviour or concept if they wish to upgrade their knowledge or skill, highlights that the route of the learning process is a decision of the learner (Jarvis, 1987). Especially considering adult learners, in the age of tailoring and personalised courses, it is the learner who seems to know what they need to learn, but it is the teacher who knows what there is to learn;

teacher involvement and learner empowerment may find balance in directing focus to language, as mentioned earlier.

According to Cross' Cognitive-Affective Learning Model, learners are defined by personal features (physical, psychological, and sociocultural) and situational features inherent to adult learners (such as amount of time dedicated to learning or its motivations) which develop continuously throughout their lives; and success in learning anchors on the attitudes learners have towards themselves in these dimensions (Cross, 1981).

As stated in Mezirow's Transformative Learning Theory (Mezirow, 1978; 2003), when learners are exposed to new knowledge, if this is not incorporated, discarded or adapted to previous knowledge, conflict may ensue, and a disorienting dilemma, and therefore there is an opportunity to a change in the learner's perspective through critical thinking, and therefore transformative learning.

Finally, according to Knowles' theory of Andragogy (in opposition to pedagogy as it concerns adult learning) (Knowles, 1962; 1968), adults are more motivated by activities that connect directly to their everyday life, so workbooks done as homework may not produce the expected result and motivation (Knowles et al., 2005). The six principles of andragogy are: (1) that the teacher helps the learner be aware that they are meeting a need they have; (2) that the learner has deciding power and is involved in how learning happens; (3) that the experience, interest and motivations of adults are varied and they can be used as resources in the class to enrich the class; (4) that the teacher highlights the relevance and usefulness of what is taught according to the learners' needs; (5) that learning is based on practical application of the knowledge acquired and (6) that personal intrinsic reasons for learning are taken into consideration. However, it remains that, because adults are indeed varied in their learning styles, these principles may not apply to all learners.

In a study conducted by Johnson (2015), the author concludes that adult learners learnt about language during the course, but also changed their attitude towards learning by becoming more independent and in control of their own studies. Adults are cognitively mature, which helps them understand the terms of teaching and motivate themselves, but this also means they need to establish their own goals to be able to keep motivated (Eyring, 2014). Furthermore, it can be argued that adults are sometimes psychologically fragile because they may feel uncomfortable being in a class again as an adult. This is why it is particularly important for teachers to address learners with some intimacy, as peers and

fellow humans (Johnson, 2015). Furthermore, Eyring (2014) points out the main reasons for adult learners to drop out of courses: life demands, relationships and poor self-determination. Therefore, it is the teacher's responsibility to understand and accommodate the learner's occasional unavailability but also to try to motivate them and facilitate the engagement of the learner with the class and the language.

Johnson (2015) makes the case for experiential learning and transformative learning, asserting that experience is a fundamental source of learning with adults because of their unique perspective: adults are seen as not preparing for the future, but trying to understand and match their past and present knowledge and experience. This should help value the experience of learners, and introduce Kolb's Model of Experiential Learning (Kolb, 1984; 2015): concrete experience leads to reflective observation, then to abstract conceptualisation and finally to active experimentation, which, when proven, can finish the path from experience to knowledge. Kegan (1995) states that, if teachers concentrate on the personal development of the learners, these can then create habits which will allow them to self-direct their study. The process learners experience before new knowledge is attained consists of four experiential modes: experiencing, reflecting, thinking, and acting (Kolb, 1984, p. 51; 2015). Summarising, knowledge is "not an independent entity to be acquired or transmitted" but "a transformation process" (Kolb, 1984, p. 50; 2015) and transformative learning can be considered the ultimate objective of teaching.

In a Portuguese context, the findings of Serronha (2010) in a study of training courses of English in the south of Portugal highlight that most adults recognise the importance to their lives of being able to speak English and the improved self-confidence it brings with the class interaction. However, learners also seem to be generally shy about making mistakes when they speak, which slows down their development. Learners also seem to be interested in the culture associated with the language, but their focus does not go beyond the media in terms of exploring it and using it as a learning resource. They are also aware of using L1 as a learning strategy, but this is used in a non-structured intentional way.

One of the most interesting findings in Serronha (2010) is that learners do not seem to reflect on their learning and its process, and they follow a more traditional perspective used in official children's education. Therefore, it is necessary to motivate learners to be more active in their learning, deconstruct their assumptions about how learning is exclusively about intake and memorisation of facts, and value their skill and knowledge.

However, in the same study it is stated that teachers claim they did not have guidance in how to work with adult learners in their university education and that their education was mostly theoretical and lacked real practice of teaching. Another claim from the teachers is that there is no continuous training. In terms of the teachers' perception of the training adults, the consensus is that it is easier than teaching children and young adults in terms of attention and availability to learn, but harder in terms of lack of flexibility in reasoning and understanding, as well as difficulty in putting aside L1.

It seems the shortcomings reported in training derive from the lack of specific training of teachers to deal with adult learners, but also in the expectations of both teachers and learners of what the class should be and how learning takes place. It is also relevant that the bibliography regarding teaching languages to adults produced in Portugal is so scarce, so what there is comes from Brazil or from English-speaking countries, and this is a definite gap that should be filled.

This lack of resources relating to the Portuguese context may also reflect the lack of balance between the two languages in the perception of the Portuguese researchers, teachers and learners, who perceive the focus should be exclusively on English and not on L1. In fact, it can be said that, in teaching a language, the respect for other social-cultural contexts is as important as acquiring a new means of communication, but adults may see these differences as threats, and they may have beliefs which act as deterrents to learning. Therefore, learning a foreign language can contribute to deconstruct prejudice of acquired beliefs, such as the fear of ridicule or a sense of inferiority, and help see the world with new eyes and be open to new ideas (Tomatis, 1994, p. 57). Furthermore, learning a foreign language is seen as a sign of empowerment because the learner is serving their own interests and not those of other countries (Leffa & Irala, 2014, p. 33). When teaching a language, the teacher also teaches culture and thought, and with them tolerance and understanding. It is essential to develop awareness of these characteristics in a plural Europe, and in Portugal this has also been the route for the past decades, but this investment seems to be made more on children than on adults; English is a privileged language in Portugal, as it is used widely in the media, in business and tourism but, however much investment is made in Portugal, it does not seem to be enough because there are difficulties in applying the theoretical guidelines. Nevertheless, teachers try to motivate the learners by using brainstorming, realia, role-plays, music, film, contact with native speakers,

games and various other resources and practical examples that please the learner and develop their linguistic, functional and grammatical knowledge of the language through their own participation in their learning (Machado Aguiar, 2012). It was also clear in this study that learners are aware that English is important to their professional life but not how it functions in practice (Machado Aguiar, 2012, p. 57).

Much work has been done on identity and ontological and epistemological perspectives of teaching foreign languages (e.g., Galisson, 2009; Scrivener, 2011), and recent research has yielded some principles which demonstrate current and relevant concepts. One of these is that teachers should anticipate learners' needs and respond to them, as claimed by Colliander, Ahn and Andersson (2018). In this study, researchers observed a course of Swedish as a foreign language for immigrant adult learners in Sweden, and it was feasible and effective that the instruction did not follow a coursebook but was assembled by the teachers to fit the learners. Another insight that can be derived from a recent study involving Bhutanese refugees' previous and current experience in Australia is that expressive results are obtained by motivating and enhancing adult learners' abilities and capacity for autonomous work (Koirala, 2019).

The teacher has many roles in the adult learner language class, namely: learning partner, group facilitator, impromptu planner, helper, personal assistant in learning, group leader, group member, instructor, audience, arbiter, feedback provider, manager, designer, learning coordinator and motivator (Rogers & Horrocks, 2010), which implies recognition of the learners' physiological and social circumstances and their experience and knowledge. Considering adherence to any specific method or approach is discouraged, and coursebooks promote homogenous global scenarios (Dörnyei & Skehan, 2003), it seems that the teacher is left with the monumental task of performing their roles and also deciding on a mixed strategy for a methodology while not following the guidelines of a coursebook. Kumaravadivelu (2012, p. 15) suggests teachers should consider "the particular, the practical, and the possible", highlighting the learner-centred philosophy and the teacher's responsibilities and how it seems that the teacher's coping strategies should depend more on personal preference and teaching style than on a teaching method. Furthermore, it should be added that, as mentioned by Michael Swan (1996), a language teacher's first job and concern is to teach the language, and, although social, cultural, pragmatical and psychological matters are relevant, there should be no loss of focus that what is being

offered is a language course, and the teacher may not be trained or may not have the inclination to deal with the larger issues extensively. Keeping focus on teaching language, and grammar in particular, in an intelligent, engaging and entertaining way may provide an entry point for the teacher to start sorting through all the tasks and roles, variables and conditions.

It is relevant also to mention again Isabel Alarcão's definition of didactics "as analytical, rational, interfacing, synthesising, integrating, investigative, reflexive, metacognitive, constructivist, transformative, innovative, projectionist, clinical, awareness-creating, interactive and formative, among others" (Alarcão, 2010, p. 66) which was greatly influential in the shaping of the discipline: it has been mentioned many times and it points to practical objectives with evaluation and training methodologies relating contents with reference knowledge and professional practice. In 1994, Andrade had reinforced the same ideas, and the didactic of languages was outlined as theoretical, practical, integrating various subjects, interpretative, exploratory, promoting analytical and reflexive knowledge (Andrade et al., 1994, p. 21).

These definitions are now a few decades old, but they remain the reference, and it is clear that it has been the trend in teaching to promote an interactive, reflexive approach to teaching rather than just conveying information.

2.2 The role of intercultural communication in L2 learning

Teacher training for language education does not focus exclusively on language, but now includes social aspects and multicultural communication, as is reflected in the CEFR, for example. This change is related to the theory of critical pedagogy, a teaching philosophy and approach to education that emphasises the importance of understanding power dynamics and working towards social justice. It was first developed by Brazilian educator and philosopher Paulo Freire (1970; 1979). Critical pedagogy encourages learners to question and challenge dominant power structures and social norms and it aims to empower learners to become active participants in their own learning and in society, by promoting critical thinking, dialogue, and reflection on social, political, and economic issues. This pedagogy seeks to create a more democratic and equitable learning environment by encouraging learners to engage in dialogue and reflection on their own experiences and the larger

societal issues that shape them (Giroux & McLaren, 1989) articulating a curriculum that is founded upon learners' interests, cultural needs, and community empowerment (McLaren, 2009).

Critical pedagogy addresses social inequalities in education, and this issue is also relevant in understanding multiculturalism and intercultural communication; these provide a framework for valuing and incorporating diverse cultural and linguistic perspectives and experiences into teaching and learning. By combining these approaches, educators can create a more equitable and inclusive learning environment that recognises and celebrates the diversity of their learners (Kramsch, 1993; Byram, 1997).

Although there has been an attempt to include intercultural communication in materials and syllabuses for language courses (Sauvignon, 1983; Kramsch, 1993), as the CEFR considers plurilingualism and multiculturalism, for example, and the population is more mobile than ever (Todeva & Cenoz, 2009), the reality of language teaching is that this view is still largely overlooked. This may derive from a tradition of language teaching which focuses on language rather than communication, and on instructing rather than raising awareness, as is advocated by critical pedagogy (Freire, 1979; Balboni, 2018). Language may be seen as a quantifiable, objective matter, whereas communication includes extensive variation and is therefore more difficult to categorise and highly dependent on the specific languages and people involved. In fact, it can be said that classroom interaction and methodology should fit into a larger social scale (Akbari, 2008). The same issue is reflected in materials, where design and construction of materials are frequently not ruled by effectiveness of learning but by tradition and perception of effectiveness (Tomlinson & Masuhara, 2017).

Incorporating intercultural communication in language teaching syllabuses requires specific evaluation and sensibility on behalf of the teacher or deciding body for syllabus design. Dealing with the specific cultures and languages may not be straightforward, because there may be a tendency to fall into stereotypes and therefore reduce complex cultural profiles to indefinite generalisations. Nevertheless, any issues arising from cultural difference between L1 and L2 should be identified and dealt with by the teacher by discussing it with the learners (Balboni, 2018). In the absence of a ruling body, it is the teacher's responsibility to maintain an equal social standing between L1 and L2 and foster a positive attitude to all languages, as was highlighted before in terms of non-native speaker

teachers and the use of L1 in the L2 class. In the words of Freeman and Anderson (2011 p. 212): "teachers should foster positive attitudes towards all languages and make sure that language learning is additive, not subtractive". It should also be highlighted that, from the perspective of this study, non-native teachers may present an advantage in comparison with strictly native teachers: a non-native teacher may provide their own experience of learning the foreign language and dealing with the cultural differences in a similar way to the learners'.

2.3 English teaching in Portugal

The English language has been pivotal in communication in the world, and its influence is growing, especially in the age of electronic communication, so it is relevant to analyse the perception of Portuguese learners and how that perception is driven by external factors. Decades ago, Cooper (1989) considered that communication networks (how people use language to communicate) is more effective as language policy base than hierarchical relations. These networks present flexibility in definition, since they can be divided into smaller or bigger sets according to cultural, geographical or age definitions, for example. Communication networks also connect to language spread and how it happens naturally, or it can be influenced. In the specific case of English, this spread is continuous and powerful, and therefore it is especially beneficial to consider this when analysing language learning. This has been the case in Portugal, where English has been permeating society on two different levels: from schooling, which is ruled and structured by academics and taught in school, but also, and most importantly, from the flood of information from the media. The communicative scope of language is extremely broad: everything from politics, commerce, academia, technology, and (social) media is now done in a globalised world where English prevails; cultural identity associated with language and geography is being smothered by overwhelming online communication which blurs borders to build the global village. Languages have always fought and there have always been winners and losers, but the role English is developing nowadays is unprecedented in Humankind's history.

What may have been once seen as submission to a foreign culture is now seen as appropriation of a means of communication, adding to the one the learner already possesses in the shape of L1. It is pointed out by Schütz (2004) that monolingualism is the

illiteracy of the future, and being at least bilingual is a necessary requirement in the labour market. English has developed into the lingua franca of the world in the arts, and business and politics and the foreign language more learnt in the European Union (Graddol, 2000). English is also the most taught language in education and training, with 60.3% of European learners, and Moreira (2006) stated it had reached 90% of learners who study it by choice or imposition.

Proficiency in English means a passport to the world, it is associated with wealth and education, and it is now a requirement for almost every aspect of modern life in great part of the world. The question is how multilingualism interacts within linguistic identity. As described by Mark Pagel (2011), language is not only a driver for cooperation, but it also draws borders around cooperative groups. Therefore, proficiency in English is used to draw borders of cooperation, but also, and necessarily, of exclusion. This is what drives many adults into training courses and trying to improve their fluency.

According to a Eurostat data from 2021, Portugal has over 90% of learners in lower secondary school learning two or more foreign languages, but in 2018, Portugal also had the second lowest average[27] learning of foreign languages in upper secondary school, at 0.8 languages per pupil (European Union, 2018) and this becomes a reflection of status (or lack of it) especially in a country with such a small population and the need to assert itself with other partners in Europe.

Concerning specifically levels of English proficiency in Portugal, according to a survey conducted by the Instituto Nacional de Estatística (Instituto Nacional de Estatística, 2009) 52% of the Portuguese population between the ages of 18 and 64 could use a foreign language, and 77.4% highlighted English as the language with which they are most familiar. The survey also refers that proficiency of foreign languages decreases with age of respondents and that there is a correlation between level of education and knowledge of multiple foreign languages. Geographically, it is also relevant to point out that in the Lisbon area and in the Algarve knowledge of foreign languages is higher (60.7% and 56.8%, respectively), and that in general, English is the most popular language and 34.6% of speakers of English can be considered independent users of English, or level B of the CEFR.

[27] Ireland has the lowest average and Luxembourg the highest.

Therefore, the context in which English is taught in Portugal must also be considered. It is not the same to be teaching English to speakers who have a similar linguistic context and similar syntax, and an amenable social context where English is everywhere from subtitles to pop music and television, and speaking a foreign language is considered necessary, desirable and achievable, valued by society and validated by schooling, and to be teaching it in countries where English is indeed a much more foreign object (McCarthy, 2021). Portuguese does not have, for most part, the similar syntax, but the social context is indeed favourable, and this has a positive connection, which promotes an easier access and exposure to English from Portuguese learners. However, there remain some layers of Portuguese society which still struggle with this connection to English, namely older individuals who had their early years of schooling when the foreign language of choice was French and not English.

Education vs Training: Education – Primary and secondary schooling

In terms of formal schooling in Portugal, English was included in the national curricula in 1836 when Passos Manuel reformed the education system.[28] Government policies have promoted the teaching of English: it was made compulsory from primary education in Portugal in 2005, and implemented it as a compulsory course in secondary education.[29] In the *Orientações Programáticas para o Ensino e a Aprendizagem do Inglês no 1º Ciclo do Ensino Básico*, the official guidelines for primary education English curricula, it is highlighted that English is important in building multilingual and multicultural awareness (as shown in the CEFR) and the benefits that an early education in English can bring (Ministério da Educação, 2005, p. 9). These policies' objective was to guarantee sustainable economic growth promoting the development of professional skills, of which foreign languages are a part. This does not mean English alone, but English has been the most popular foreign language in Portugal for the past decades.

Taking a closer look at the official guidelines, they include, for primary and secondary compulsory education:

[28] *Decreto Real de 17 de Novembro de 1836*

[29] *Revisão da Estrutura Curricular do Ministério da Educação e Ciência (Decreto-Lei n.º 139/2012*)

* Essential learnings, which are based on the CEFR (Council of Europe, 2001) descriptors and levels:

Aprendizagens essenciais - 1.º, 2.º e 3.º Ciclos do Ensino Básico I (artigo 38.º do Decreto-Lei n.º 55/2018, de 6 de julho)

Aprendizagens essenciais - Secundário I (artigo 38.º do Decreto-Lei n.º 55/2018, de 6 de julho)

* Curricular objectives, which are based on the CEFR (Council of Europe, 2001) descriptors and levels, but include more detailed descriptions of the objectives for the four skills and for intercultural competences. For the *Ensino Básico,* grammar and lexicon are included together as one of the categories, and there is a list of lexical and grammatical items to be included, without distinction between them or a specific order, but for the 10th to 12th years there is a greater presence of grammatical items than lexical items on the lists included:

Metas Curriculares de Inglês do Ensino Básico - 1.º, 2.º e 3.º Ciclos

Inglês: Quadro de conteúdos - Iniciação - 10.º, 11.º e 12.º anos

* Syllabuses which include further account of the descriptors and the levels of fluency expected for each year. There is an extensive list of lexical and grammatical items, but it is presumed they are not in the order they should be presented, rather in a categorised order according to their relation to each other, as they would be ordered in a traditional grammar book, for example:

Programa de Inglês do Ensino Básico - 2.º e 3.º Ciclo

Programa de Inglês / Iniciação e Continuação - 10.º, 11.º e 12.º anos

* Materials to support of the practical application of the curricular objectives, which provide teachers with engaging and varied activities to complement their classes, but which focus on the four skills exclusively and not on grammar practice.

Caderno de Apoio à aplicação das Metas Curriculares de Inglês do Ensino Básico (1.º, 2.º e 3.º Ciclos)

Summarising, in these documents, there is extensive and continuous work on the skills learners are to develop at different stages, namely: communicative competence (oral and written production and comprehension), intercultural competence, strategic competence (working with the group, using electronic resources and communicating in context) (Ministério da Educação, 2018). In the curricula established for the levels up to the 9th year of compulsory schooling there are six areas established, namely: writing, reading, speaking, listening, intercultural domain and lexis and grammar (Bravo et al., 2015). In these curricula, grammar is included with lexis and as one sixth of the content at all levels up to B1, even if the extension of the topics varies from level to level.

In terms of methodology, across all levels and documents which include it, the guideline is to follow CLT and TBLT, centred on the learner and aiming to develop their communicative skills but also their social, affective and moral skills through cultural awareness and realistic scenarios. Furthermore, it is highlighted how it is the teacher's responsibility to manage the class to promote a pleasant and stimulating environment conducive to learning.

Education vs Training: state and private training

The regular primary and secondary educational route is one of the official routes to English learning in Portugal. The other is training (official training provided by IEFP, or by private entities such as language schools) aimed at enhancing specific skills and competencies necessary to perform a particular task. Training is typically focused, short-term, and practical in nature, designed to meet immediate needs and improve job performance, therefore mainly aimed at adults. (Ministério da Educação, 2007).

In defining training overall, there are three categories of focused learning activity:

- Formal learning (in a teaching institution leading to a training or education certificate);
- Non-formal learning (learning done apart from teaching institutions and not necessarily leading to a certificate, which can be done at work or through or civil society organizations, such as the language schools mentioned above);

* Informal learning (a natural process deriving from daily life, which may not even be recognised by the learner as enriching their knowledge).

It can be said that most learners that attend formal training course have also had contact with informal learning and even non-formal learning with regards to English, because of the language's presence in Portuguese media and society in general. Moreover, most people going through training courses have had contact with English through the regular education system, since they are usually adults and attended compulsory schooling at some point. Generally, adults who feel the need to attend training courses in English later in life are motivated because their education was not sufficient for their needs and aspirations, not successful or not available when attending primary and secondary school. Although in recent decades English has been overwhelmingly present in secondary education in particular, there are still cases of people who had only very limited English instruction during compulsory schooling.

Therefore, the route of training can be done as part of a programme for career development with official bodies such as IEFP, but it can be done for professional or personal reasons in a private institution, such as a language school. The official bodies, like the formal education system, are subjected to official rules and guidelines but the private endeavours have very little regulation in terms of structure, content and methodology of courses. There is certification available for private endeavours, but it is related to more formal, management aspects, such as DGERT (Direcção Geral do Emprego e das Relações de Trabalho) certification (https://certifica.dgert.gov.pt), which focuses on general aspects of the structure of the organisation and the quality of training in development of courses and their evaluation. The single national official certificate available to teachers in training is the *Certificado de Formação de Formadores*, a certificate for trainers which provides base information about teaching (or training) in terms of administration and dealing with learners (or trainees), but it is not specific to any area of studies or type of training.

Some schools have indeed a well-established method and structure because they are mature or international schools with consistent methodology and practices, such as International House, or because they are well established in their country and have developed a reputation of excellence through word-of-mouth of satisfied clients, such as Cli or ILNOVA, two language school where the pilot courses for this study were integrated.

Some of these schools also have a connection with Cambridge University through their CELTA – Certificate in Teaching English to Speakers of Other Languages, or DELTA – Diploma in Teaching English to Speakers of Other Languages, through staff which has attained this internationally recognised certification (https://www.cambridgeenglish.org/teaching-english/teaching-qualifications/). However, it must be pointed out that there are many schools that are not certified and that teachers at these schools have a variety of backgrounds, experience and qualifications. In fact, there is little awareness of how many schools function and what standards and methodologies they follow because these are private concerns dependent on word-of-mouth and their reputation with paying learners.

The current system for professional education in Portugal, particularly for training courses outside formal primary and secondary schooling, has its roots in historical policies dating back to 1850 with the establishment of technical-professional education by Minister António Augusto de Aguiar. According to Cerqueira e Martins (2007), significant developments occurred during the Estado Novo regime, notably the 1948 reform of technical, professional, industrial, and commercial education. Despite these reforms, adult education in the mid-20th century mirrored the curricula and methodologies intended for children (Silva, 1990).

By the 1970s, efforts began to address adult education more earnestly, gaining political support following the 1974 revolution. Subsequent decades saw the development of technical and professional secondary education routes for mature learners and the introduction of night classes to accommodate working adults. The 1986 *Lei de Bases do Sistema Educativo* recognized adult education as equivalent to traditional education but governed by distinct guidelines that considered the prior knowledge and experience of learners (*Lei nº46/86*). Further, *Decreto-Lei 74/91* emphasized the necessity for specially trained teachers for adult education. In the late 1990s, *Resolução do Conselho de Ministros nº 92/98* led to the formation of the Grupo de Missão para o Desenvolvimento da Educação e Formação de Adultos, which established the Agência Nacional de Educação e Formação de Adultos (ANEFA) and its successor, the Agência Nacional para a Qualificação (ANQ). These agencies advocate for the adaptation of educational systems to meet the needs of individuals rather than forcing individuals to conform to the systems and provide certification for training centres. In Portugal, as in the rest of the European Union, state policy has reflected the increasing relevance of professional training (European Union,

2016), and this type of teaching has been growing (Cerqueira & Martins, 2007, p. 123). Portugal is in fact investing in this type of training as an alternative to regular education (Organization for Economic Co-operation and Development, 2018).

Courses specifically for the education and training of adults appear in 2000 and they are widespread in 2006; they are structured to have autonomy in terms of building and management of the curricula, featuring the trainer as a guide and mediator but the overall structure of the course is tailored and structured around the specific groups (Quintas, 2008).

There has been a trend to increase professional training, practical skills of performing a job to introduce professionals in the labour market who are competent to promote the economic development of the country, and this is valued by companies who employ them, as well as by society, promoting social benefits (Barbosa, et al., 2019).

The teaching of English in Portugal took on a central role in official training, promoting the centralisation of the learner, constructing knowledge and experimenting procedures to promote a more effective teaching practice (Cabral Pereira & Mendes Silva, 2019, p. 327). Hutchinson and Waters (2005), discussing the development of the English for Specific Purposes, highlight the following three factors that connect to the development of training: the first one is the desire to share knowledge, technology and products through a common language in an ever-developing world; the United States assumed a particularly relevant role in this development and therefore English became more relevant as well. The second factor is the shift in theoretical linguistics, and therefore in teaching, to a communication-centred perspective. This shift was promoted by the development of other areas, such as Educational Psychology, and this brings about the third factor, the shift to a tailored approach to the needs of the specific learners, increasing their chances of success.

The scope of professional or technical training is broad and varied, but it has an underlying social and economic relevance in improving the learner's life by providing them with higher professional training. UNESCO (2016), for example, highlights a contribution in education to promote social justice and lifelong learning. This takes into account economic growth and the ability to meet the needs of the labour market, the access to higher salaries and more career prospects, to name a few, so the professional benefits of training are varied, as well as the social benefits of promoting social cohesion, better intergeneration relationships and higher personal satisfaction and motivation, according to Centro Europeu para o Desenvolvimento da Formação Profissional (CEDEFOP, 2011).

Furthermore, as stated in a communication to the Commission of the Council of the European Parliament, to the Economic and Social Committee and the Regions:

> All adults should be encouraged to pursue the learning of foreign languages and, to this effect, easily accessible structures should be made available. Workers should be given the opportunity to improve their linguistic skill relevant to their professional life. Cultural activities focusing on foreign music, literature and cinema, holidays abroad or volunteering should be promoted as opportunities to get to know other languages and other cultures. (Comissão das Comunidades Europeias, 2003, p. 9)

In February 2010, ANQEP (Associação Nacional para a Qualificação e o Ensino Profissional) published a document "Reference of Key Skills – Adult Education and Training" referring to EFL courses (foreign languages are included in the areas of Language and Communication for primary education and Language, Culture and Communication for secondary education) regarding procedures and guidance for processes of recognition, validation and certification of skills at a secondary education level, based on the following tenets: there must always be evidence of skills in foreign language; demonstration of proficiency in a foreign language must be incorporated into a broader concept of skill, always associated with a linguistic dimension; in the area of Culture, Language and Communication, a competence that refers to Portuguese language and/or foreign language should be demonstrated through mobilising both languages (ANQEP, 2010).

However, these documents are only guidelines to the mediators and trainers, and it is specified that there should be constant adaptation to specific target groups, so new guidelines are frequent and the teachers must also adapt frequently. One interesting point in the guidelines is the standpoint that Portuguese is considered part of the teaching process for a foreign language, a concept that is usually not present in private English language teaching schools (ANQEP, Catálogo Nacional de Qualificações, n.d.)

In 2022, new guidelines for the training of adults came into force (*Portaria n.º 86/2022*, of the 4th of February), and these include even greater flexibility of training routes, answering the specific training needs of adults with lower qualifications. In the catalogue of courses offered by the ANQEP (ANQEP, n.d.) courses of EFL have two levels, each with 50h of training, and the syllabus is organised for both comprehension skills - listening (and visualising) and reading - and production skills - speaking and reading. There is

no mention of vocabulary or grammar beyond the mention to familiar topics, telephone conversations or current activities and, in terms of the objectives of the courses, it is stated that the rationale for choosing the skills has the occurrence of the language in the context realised as a reference, and it does not include specific aspects of the workings of the language, since these vary depending on the language (which is in line with the CEFR guidelines).

It is also mentioned that the levels outlined are for beginners, and that there should be the assumption that learners have no knowledge of the foreign language. However, in the description of skills, and considering the length of the training courses, it is expected that learners achieve a level and variety of skills which would require a much more extensive study and exposure, as can be attested by language courses in private schools, which tend to have 120h courses to complete one full level. Furthermore, in the description for the second level, there are items which seem beyond attainment of most learners when completing 100h of a foreign language, such as dealing with literary texts or producing language connecting information from various authentic sources.[30]

As mentioned in Chiaro (2009), young people and adults perceive the knowledge of English as an important skill across different strata of society to have general access to information in a world of globalisation. Conversely, the lack of this knowledge is seen as a sign of ignorance and isolation. This scenario forces many adults into language schools in search of the knowledge they are lacking, but there are also some presuppositions that generally follow, such as the doubt that someone who reaches adulthood without learning English is able to learn it anymore. It is frequent that learners prepare themselves for failure because they have this predisposition, and they associate the new classes to their previous experience with language classes in primary and secondary school. Therefore, once the learner has joined the class, it is the responsibility of the language school and the teacher to change this perception and preconception.

[30] The difference between the duration and content of courses in training courses and courses in regular education is clear, and it seems that a lot more content and more vague content is present in training courses. This could be because there is the expectation that, because learners are adults in training courses, they will not need as much time or guidance to attain the skill being taught. However, and according to Instituto Nacional de Estatística (2009), this may not be the case.

2.4 Portuguese EFL Coursebooks

To complete the picture of EFL teaching in Portugal, it is necessary to analyse the materials and particularly the coursebooks produced in Portugal for the national market, considering the majority of learners in the courses in this study have been living in Portugal and they attended formal education in Portuguese primary and secondary schools. This is the backdrop to the training courses learners later attend, and are very likely to influence their expectations. Below are outlined the general objectives and the guidelines for English teaching in formal Portuguese education, with special focus on coursebooks.

Firstly, the coursebooks used for primary and secondary school classes in Portugal follow guidelines from the Ministério da Educação e da Ciência in terms of the curricula (http://www.dge.mec.pt/lingua-estrangeira-i-ii-ou-iii-formacao-geral) and, although there are several publishers of coursebooks (national and international), the content and the methodology are cohesive and bound to the guidelines.

Considering the information present in official guidelines for the teaching of English in primary and secondary school in Portugal, it seems that decisions about the syllabus involving the distribution of tasks related to skills and grammar activities is left to the coursebook writers. Therefore, the next step is to analyse how the coursebooks make this information concrete and develop a syllabus, especially regarding grammar instruction and practice. As examples, three coursebooks for the 9th year, which is the equivalent for level B1 CEFR are briefly presented as samples:

- *New Wave Revolution 9* (Frias et al., 2015) which includes a Student's Book and the extra resources Revolution Plus (resources), Extensive Reading, mp3 files, Workbook and Teacher's Resources. This coursebook consists of six units divided into three sections which contain sub-sections of Introduction, two Read/Listen/Speak/Watch combinations, Grammar, Vocabulary, Culture and Write.
- *Link up to you! 9* (Martins et al., 2015) includes a Student's Book, Workbook, Extensive Reading, Audios and Videos, Teacher's Resources, Teacher's Audio and 20 Digital Classes. This coursebook consists of four units divided into two sections which contain sub-sections of Introduction, Reading, Listening, Vocabulary, Grammar, Writing, Speaking, Cultural Knowledge and Literature and Art.

* *Insight Intermediate* (Wildman, 2013) includes a Student's Book, Online Workbook, Workbook, Teacher's Book and Resource Disk, iTools, Class Audio CDs and Test Bank Multi-ROM. This coursebook consists of ten units divided into seven sections of Reading and Vocabulary, Grammar and Listening, Listening, Speaking and Vocabulary, Culture, Vocabulary and Grammar, Writing, Vocabulary Insight and Review.

These coursebooks are published by national and international publishing companies (Texto Editora and Porto Editora, and Oxford University Press, respectively) and, as mentioned above, they follow the official guidelines for content but they also design the instruction and practice. Regarding the purpose of the coursebook for education, Magalhães (2006) adds that the coursebook is a starting point of reasoning and of paths to reach further information and explore other sources. In fact, the coursebook has many functions and these are adapted to "the sociocultural environment, the time, the subjects, the level, the methods and their uses" (Choppin, 2004, p. 553). According to Gérard and Roegiers (1998, p. 74), the coursebook has different functions for the teacher and the learners, and in the case of the learner, these are twofold, a function of learning (conveying more traditional knowledge, developing skills and competences through methods and attitudes to learning, consolidation of learning and evaluation of learning from the perspective of the learner and their awareness of learning) and a function of interface with daily and professional life (help integrate the content dealt with in class outside the class, reference for correct information, social and cultural reference regarding "knowledge about others' behaviour and relationships and life in society in general" (Gérard & Roegiers, 1998, pp. 73-84).

In terms of the functions these coursebooks have for teachers, there is a function of scientific and general information to support the teacher in their professional performance, of teaching teaching, as coursebooks usually follow the most recent methodologies, helping with class and learning management and helping with evaluation (Gérard & Roegiers, 1998, pp. 89-91). However, according to Bento (2000), the coursebook goes beyond these functional purposes and has now a plural purpose that spreads and allows for much variation. For example, there are now exercise books, websites, reading recommendations, extra resources with various purposes at the disposal of teachers and learners to pursue their own proactive path in reflecting and learning. This is a comprehensive list of resources

which derive from an equally comprehensive list of objectives and descriptors for various skills related to language.

Nevertheless, as mentioned before, teachers still feel the need to draw special focus on the formal rules of grammar, and young learners still perceive grammar as an essential part of a language course because, in order to fulfil other objectives, like carrying out a discussion or analysing a text, there must be preliminary understanding of some of the grammar (and vocabulary) of the language, especially at lower levels. For teachers dealing with the practical side of teaching, it becomes clear that grammar requires more time and investment. Firstly, because it is an integral, essential part of language and secondly because there does not seem to have been the same evolution in the practice of grammar as there was for practicing other skills, just as in global coursebooks. The grammar practice generally found in these coursebooks consists mainly of the same type of exercise: fill in the blanks, multiple choice and matching exercises, which is not as challenging and engaging as the more engaging and motivating exercises directed at other topics in the syllabus. There seems to be an unbalance in the proportion and quality of topics covered in the planning which is then reflected in the materials.

As further comment on Portuguese-produced coursebooks, it should be added that, although these are mostly intended for Portuguese learners, there is practically no mention to the Portuguese language or culture in them. For example, when presenting information about different nationalities, Portuguese is missing, or when discussing food vocabulary, there is no mention of any traditional Portuguese food, even when there is of traditional food of other countries. As far as was assessed, the only presence of Portuguese found in the syllabuses was a list of false cognates English-Portuguese (Frias et al., 2015).

There is an extensive choice of coursebooks for English for the primary and secondary school but, in terms of materials used for training courses in states organisations, it was not possible to get sufficient information on coursebooks used for official training courses, although it was suggested by professionals in the areas that these courses use the same resources as state primary and secondary schools.

However, regarding privately organised courses at private institutions, the resources used are generally globally produced coursebooks. Furthermore, apart from coursebooks, there is also a panoply of other resources, both in the shape of books (such as extra vocabulary or grammar practice, activities and games books, reading and writing) or online

and media resources, as well as resources for English for Special Purposes, which cover specific areas such as English for IT, the pharmaceutical industry, presentations or negotiations, to name but a few.

In the case of training courses taught in language schools, the issues many teachers are faced with are that there is far too much choice in terms of coursebooks and extra resources, and their price, which, if not covered by the school, makes it impossible for teachers to have a broad awareness of what is available in the market, as it is made clear from looking through the various publications from the main international publishing houses. These companies have largely taken over control of how coursebooks are designed and of what picture English has for millions of English learners around the world.

2.5 The role of L1 in L2 classroom

Focusing now on the use of Portuguese in the English class, as it has been mentioned before, the use of the L1 and any form of translation in the L2 class has frequently been considered old-fashioned; translation in particular is commonly considered suitable for teaching only dead languages, and therefore highly discouraged in the living L2 class,[31] in which the teacher should use L2 only when trying to clarify the meaning of concepts (Cook, 2007, 2010). However, codeswitching in particular remains the oldest technique in language teaching, and it is ingrained in its fabric. For example, as pointed out by Macaro (2009a), teachers frequently use L1 when explanations using L2 require more effort than the target language is worth, or when the subtle pragmatics of certain lexical items (related to formality, for example) are more time-consuming to explain in the L2 than to give an equivalent in the L1. In situations where learners and teacher have knowledge of L1, it is common to use codeswitching as an aid to save time and keep focus in class. Learners, especially at a lower level, cannot help but codeswitch and translate new concepts into L1 because they are connecting it to what is known to them and part of their neuronal network, even if it is not prompted or even encouraged by the teacher. It is common for learners to ask for the meaning of a word and the teacher paraphrases, gestures and

[31] The exception is the translation class, where the focus is exclusively on translation, and not learning an L2.

exemplifies, only to have the learners translate the word back to them for the teacher to confirm (Nenopoulou, 2006; Ellis & Cadierno, 2009).

It is understandable that, when the teacher does not know the learners' L1 or learners have different L1s, codeswitching may become more of a hindrance than an aid, but teaching methodology should fit the specific conditions, and if codeswitching is a useful tool, then there is no reason not to use it. It seems that, although one of the major trends in language teaching is to customise courses to fit the specific needs of learners to improve motivation and results, customising the teaching experience to a specific linguistic background tends to be forgotten. CLT, the most prevalent methodology in Portugal, generally opposes the use of L1 and teachers are discouraged from using it, but the majority deem it necessary or at least admissible, especially to convey the meaning of new lexical items. In fact, it is argued that L2 learners should be encouraged to behave like bilinguals in the way they articulate L1 with L2, not as inadequate imitators of L2 (e.g., Moore, 2002; Liebscher & Dailey-O'Cain, 2004; Edstrom, 2006; Levine, 2011; Tian & Macaro, 2012).

If the use of L1 not just in codeswitching but also in translation are always present and represent useful tools, it is important to analyse why they have all but disappeared from the L2 class. According to Lopriore (2006) the reason for this switch against translation had much to do with the generative theory, whose supporters upheld that learning an L2 would require maximum exposure to linguistic input, allowing the brain to process and reanalyse the information of a specific language in order to retain it. Therefore, contrasting languages or translation of any kind was eliminated; all available resources should be spent on the practice of realistic use of L2 in listening, speaking, reading and writing to exercise grammar, vocabulary and pronunciation without the intrusion of L1, in a naturalistic environment, similar to the one which allows children to acquire a first language, as described for the minimal position above.

A second motivation for the rejection of translation in particular and the general use of codeswitching lies with the allegiance of official policies for a virtual position of L2 use in the classroom, which have a strong influence in educational policy in many countries (Dailey-O'Cain & Liebscher, 2015). This influence extends to the perceived value from researchers and teachers alike of the native speaker teacher to the detriment of the non-native speaker teacher (Macaro, 2009b). The native speaker teacher was valued as the gold standard and a source of authentic L2 input. However, the non-native speaker teacher is

now beginning to be seen as a bridge between L1 and L2, with valuable insight into the learners' needs and possible difficulties in classes where learners have the same L1.

Translation can then be used in two ways in the L2 class: as part of the panoply of exercises available to promote learning, improving writing and promoting the understanding of the linguistic systems of the two languages to further strengthen the connections between L1 and L2 in the brain, and also as part of the instruction of the teacher. Also regarding translation, Cook (2007) argues a strong case for its inclusion in the future of educational linguistics. The author expresses surprise at translation being seen as an outdated practice, as mentioned before, linked to authoritarian teaching, because of its persistent use by learners and its naturalistic practice. In the words of Widdowson (2003, p. 150) "while in the classroom the teachers try to keep the two languages separate, the learners in their own minds keep the two in contact". In CLT, if translation is considered in class, it is mostly viewed as an exercise of reading and using dictionaries (unilingual or bilingual) to focus on the form of the lexical items; according to Macaro (2009b) this same process could be applied using teacher discourse instead of written text in an aural rather than written context. In this case, teachers assume the role of dictionary, providing the necessary information for a better, faster, more effective understanding, considering the specific learners and context in place and time. Cook (2007) also highlights that translation should be considered as fifth skill in language learning, alongside reading, writing, listening, and speaking (Nenopoulou, 2006; Cook 2007).

Another argument for translation is pointed out by Nenopoulou (2006): the skill of writing is not acquired in a naturalistic way, so it can be connected to translation in allowing learners to observe, analyse and compare languages and systems. This must clearly be adapted to the learners' age, level and needs, but it is a valuable tool (also in accordance with principles of CALT) to vary the type of task as much as possible to allow for different types of cognitive processing. Translation allows for a critical examination of two linguistic systems and, although this information is processed in short-term memory, research shows it is still available for retrieval later if it involved analysis (Lopriore, 2006).

Considering how translation is executed, the starting point is frequently words, such as in a dictionary, but Nenopoulou (2006) takes a broader view and describes the use of units of translation and their relationships as bricks with which to build the practice of translation. The choice is between word, phrase or expression and it could be as broad as

clause or, if we consider languages such as Mandarin, as narrow as morphemes. Therefore, Nenopoulou (2006) proposes a definition of units of translation as utterances which compose the units of the text between the level of word and clause, and have linguistic, pragmatic and intercultural cohesion. This is useful when considering that grammar, and not just lexicon, can be translated.

Regarding codeswitching, one more area of contention is how the teacher is to intervene in learner codeswitching in class, and how much codeswitching the teacher is to engage in. As argued by Dailey-O'Cain and Liebscher (2009), that teachers do not have to model codeswitching practices, which allows them to maximise the modelling of L2, and learners should be allowed to use codeswitching naturally in class (Levine, 2011). However, Levine (2011, p. 82) states that the laissez-faire approach to learner codeswitching is too loose and there should be a "curricular architecture" to raise awareness to the changing of code in class, especially at lower levels of fluency. This architecture can be found in the optimal position, as described below.

In an attempt to categorise the use of L1 in the L2 class, Macaro (1997; 2009a) proposes three perspectives teachers take: the virtual position, the maximal position and the optimal position. The virtual position has its origins in the contrastive analysis, which stated that the majority of problems in learning L2 lay in interference from L1 (Lado, 1957) and in CLT, since its supporters claim that L1 should be as limited as possible in the L2 class because language learning is done through massive L2 input, based on the Comprehensible Input Hypothesis (Krashen, 1982) and Swain's Output Hypothesis (Swain, 1985), for example. Supporters of this view have a very strong stance, possibly also due to the prevalence of CLT:

> Among many communicative foreign language and immersion instructors, there is a blind acceptance of the notion that exclusive target language is the best practice that refuses to entertain any kind of meaningful dialogue about this hegemony, about the realism or desirability of the position or about the potential usefulness of the first language for learners. (Turnbull & Dailey-O'Cain, 2009, p. 3)

This position that prescribed the minimum use of L1 reflected the aim to divide L1 from L2 in the learners' minds as a sort of coordinate bilingualism (Cook, 2001). However widely spread this idea seems to be, especially in a CLT context, some disapproval arose: research shows that L1 is used in class by teacher and learners in different amounts and for

different purposes, but it cannot be eliminated, especially since it is the most efficient way to explain complex concepts (Celik, 2003) especially when learners' level of proficiency is low (Macaro, 1997). Furthermore, two different areas of research contributed to further analysis of using L1 in the L2 class: language pedagogy focusing on sociocultural theory and ecological[32] perspectives to teaching, and sociolinguistics perspectives of codeswitching. The result of this analysis was a connection between bilingual codeswitching and classroom codeswitching, as mentioned above (Moore, 2002; Liebscher & Dailey-O'Cain, 2004; Edstrom, 2006; Levine, 2011; Tian & Macaro, 2012).

It seems to be currently agreed among scholars of related fields that L1 should not be banned from the L2 class for several reasons: firstly, using L1 helps learners think about language learning (Macaro, 2005) and aids in cognitive processes, such as negotiating meaning (Swain & Lapkin, 2005) and target language intake (Long, 1996b). Secondly, using the primary language allows for natural codeswitching and provides learners with multilingual communication models (Cook, 2005; Levine, 2011). Finally, multilingual classrooms allow for identity development that considers both monolingual pasts and bilingual futures (Kramsch, 1995; Liang, 2006), and codeswitching can be a tool for identity construction (Liebscher & Dailey-O'Cain, 2004; Fuller, 2009; Fuller, 2012).

The resulting softer view is that of maximisation of L2, or the maximal position (Turnbull & Dailey-O'Cain, 2009). The maximal position states that L1 has its place in the L2 class, but it also warns against overusing it. Still, L1 can help process information and speed up cognitive processing, so "judicious and theoretically principled first language use can facilitate intake and thereby contribute to learning" (Turnbull & Dailey-O'Cain, 2009, p. 5). A further theory which links to the maximal position is that of codeswitching in naturalistic environments: this theory upholds that switching between languages is a natural process outside the classroom. However, it still must be considered that in L2 class there should be mostly L2, so Macaro (2009a) proposes a distinction between focusing on utterances, when L1 should not be used, and focusing on meaning and form or function and form, where L1 can be used for a faster result.

However, in the maximal position it seems difficult to predict and quantify the amount of L2 necessary for a more effective class (Macaro, 2009a). As Macaro points out,

[32] An ecological perspective of teaching involves recognising the multiple influences on student learning, including the classroom environment, school culture, community, family, and broader societal factors.

the maximal position still does not offer an adequate position because it is insufficiently grounded in research, and because its stance is still of perception of L1 as an intruder, with a negative connotation. Therefore, Macaro (2009a) proposes the optimal position. This position originates from concepts present in CGL, such as the Cognitive Processing Theory (Ellis N., 2005) which states that language is perceived, stored and processed in the same way as other type of information, and that L1 and L2 are not stored separately but they are connected. The activation of connections which are not language-specific may help processing of the L2 (e.g., Kroll 1993; Libben 2000; Ellis N. 2005). This position also relies on sociocultural theory, which suggests that private speech in L1 is crucial to learning an L2 (Vygotsky, 1986), and on research comparing code-switching in foreign language classrooms to codeswitching in bilingual communities, which suggests that codeswitching is common in naturalistic environments and not stigmatised among fluent bilinguals (Liebscher & Dailey-O'Cain, 2004). Macaro points out that "optimal use is where codeswitching in broadly communicative classrooms can enhance second language acquisition and/or proficiency better than second language exclusivity" (2009a, p. 38). This involves a judgement on behalf of the teacher about the effectiveness of the process and the situations when L1 is beneficial. What also follows from this position is the consideration that L2 teachers should be proficient enough in L1 to be able to use it as an aid when necessary, and the role of the non-native teacher, which is discussed below.

Studies show that learners have different reactions to codeswitching depending on its context. Research done with Chinese learners learning English lexicon shows that learners respond positively to codeswitching if there is a near-equivalent high frequency word in L1 and L2, and learners can recall these lexical items correctly (Macaro, 2009b; Wang & Kirkpatrick, 2012). This seems to show that the association of near-equivalent words accompanies the L1 concept and is therefore more easily processed and stored in the mind, and also argues for the case of teaching cognates early on in the learning process because it represents an easy path of association and a guarantee of early fluency.

However, learners did not react so well to codeswitching when confronted with concepts which required a phrase or circumlocution in translation. In these cases, learners reported L1 as interference when trying to understand the concept in L2. For this type of concept, learners seem to focus more on form, meaning and cultural background and this triggers deeper cognitive processing of semantic links, therefore imprinting them further in

their memory. In fact, for these lexical items, there was less recall but more partial recall than for near-equivalent items, suggesting that the focus is on form, thus creating a visual or an affective association which might promote better understanding of these items and therefore better storage and retrieval (Macaro, 2009b). What seems to be suggested here is that there is no single path to codeswitching, but different issues are solved using different means.

Therefore, there are no conclusive findings regarding the use of codeswitching, either that it helps nor hinders learning (Lee & Levine, 2020), but a notion that codeswitching cannot be banned from the L2 class clearly emerges because this would decrease the cognitive and metacognitive opportunities for learners. In fact, it could even be the case that the learners themselves have a biased towards using L1 to understand L2 regardless of the teacher's methodology, and using L1 in L2 class may contribute to a sense of familiarity, and therefore have affect and independence attached (Macaro, 2009a, p. 49).

Viewing L1 from the perspective of L2, this can be categorised in three ways: L1 can help, hinder or step aside in the process of learning. L1 interference in L2 performance is generally seen as a problem in the language class, but, as argued above, this difference allows learners to process the comparison of L1 and L2 with little need for further explanation. The categories and labels for the world view present for L1 are likely to remain largely unchanged for L2, but this connection should be explored to expedite L2 learning in acknowledging the similarities and analysing the differences. Speakers view the world through the perspective of their language, and they have been trained in categorising and organising the world by their L1; therefore, some difficulty is to be expected when L2 does not conform to those rules.

> As a learning process, transfer supports the learner's selection and remodelling of input structures as he progresses in the development of his interlanguage knowledge. As a production process, transfer is involved in the learner's retrieval of this knowledge and in his efforts to bridge linguistically those gaps in his knowledge which cannot be side-stepped by avoidance. (Kohn, 1986, p. 22).

Considering then the presence of transfer in the early learning process, it can be argued, according to Kohn (1986), that the first grammatical items to convey in the L2 class should be cognates, or "true friends". Even considering meaning might not correspond as the most accurate translation or that form may not be entirely similar, for the lower-level

classes, the reassurance of being able to use a word or structure that is familiar and easily retrieved and recognised is beneficial to the learning process. However, "true friends" cannot be taught in isolation, as is it also necessary to teach some very high frequency words and structures which are "strangers" (items from which meaning in the L1 is unrecognisable from form in the L2), but learners benefit from this L1 association, nonetheless. Even if these studies focused mostly on lexical items, as it is proposed in CGL that lexicon and grammar are set on a continuum, the joint use of L1 and L2 for lexicon can also be applied to grammar, and that "true friends" and "false friends" (false cognates) in grammar should be pointed out and analysed as well. Taking the example of focusing on near-equivalent high frequency lexical items as an effective way to teach these items, and using the same principles for teaching grammar, there is added benefit in highlighting the structural similarities between L1 and L2 to help learners associate these items. This way, learners categorise items of grammar as they would lexical items, as "true friends", "false friends" and "strangers" (structures with different form and meaning) (Ellis N., 2008). In case "true friends" are found, this should be noted and moved aside, as they are a help, so more attention can be paid to "false friends" (structures that are predicted to present an issue) or "strangers" (structures which are unknown and require fresh processing).

Although not as plainly done because of the involvement of structure rather than lexicon, this correspondence still translates in the mind of L2 learners. The issue here is translation and how it is used by the learner. There should also be specific care with "false friends" because they can cause communication breakdown. However, "false friends" may not be as difficult to process as "strangers" because, by raising awareness to their "danger", the cognitive processing is deeper and therefore more easily retrieved. Such is the case with some irregular verbs for example, as pointed out by Dabrowska (2004, p. 119), which are easily memorised even though they are "strangers".

If the use of "true friends" is considered as use of literal translation, it is important to highlight, as claimed by Gottesman (2006), that "literal" is a fluid concept, that is not on or off, and that translation is graded on a scale. Since concepts are attached to cultural identification and language is the reflexion of that identity, literal or any other kind of translation could be said not to exist. Apparently simple concepts like "tree", "house" or "bread" will have different meanings, visualisations and associations in different cultures, for example. If we consider the concepts of present or past or plural, the association may

vary even more. However, and for the sake of the argument presented here, we assume the objective of translation in L2 class is to find an equivalent which learners can associate with a concept they already have in their neuronal network and therefore benefit from the previous associations that concept developed. If the form of the word or expression is similar, this association is made faster and retrieval is easier. Macaro (2009b), for example, states that learners have a high rate of success in storing and retrieving near-equivalent high-frequency lexical items in L2.

In terms of the regulations regarding the use of L1 in the L2 class, as pointed out by Kirkpatrick (2007, p. 184) countries and organisations choose an exonormative native model of the language, or an endonormative nativized model. In the exonormative model, the native speaker teacher represents the gold standard with internationally recognised prestige and legitimacy, bringing context and history to the classroom and the standards and codes of the L2. Furthermore, the native speaker assures only L2 is used, even if, as according to Cook (2001) and as pointed out above, there is no principled reason for L2 to be the only language used in class. As also pointed out before, in some instances, being a native speaker is seen as the only requirement for teaching the language (ibidem, p. 185). In this perspective, the non-native speaker is seen to be at a disadvantage, no matter how trained and legitimate they are.

The nativized speaker model proposes that knowing the learners L1 is an advantage because these teachers possess the knowledge not only of the L2 but also of knowing how to learn it: this wider linguistic knowledge and privileged standpoint is beneficial, as they empathise with the learning process learners are undergoing and can share valuable insight on their difficulties and conquests. Even though non-native learners and teachers are frequently compared to an unattainable level of linguistic and cultural knowledge, which can be extremely demotivating, as pointed out by Kirkpatrick, learners usually need to use L2 to "compare, relate and present their own culture to others" (2007, p.188), so such extensive knowledge of L2 is not always required. From a cultural perspective, non-native speakers can also build a bridge between L1 and L2 by discussing the characteristics of both languages and how they are culturally driven, and also point out idiosyncrasies that can be the cause of misunderstanding or help establish common ground. Of course, this can also be done by native speaker teachers, but in many teaching circumstances, it will require extra

effort from the native teacher to get to know a foreign culture which is not the focus of their work, unlike the non-native teacher.

Non-native teachers can also act as dictionaries, as described above, but also dictionary designers, as argued by Palmer (1998), as non-native teachers: due to their experience and understanding of both the target language and their students' native languages, they are well-positioned to choose information that caters specifically to their learners' needs, thus serving as dictionary designers in a broader pedagogical sense. These teachers can effectively pre-empt problems (and solutions) learners encounter and map out the relationships between concepts using a variety of resources, such as choosing an equivalent, circumlocution, paraphrase, contextualisation or exposition as the shortest and most accurate path of meaning, using their own associations as non-native speakers (Gottesman, 2006).

Language learners possess a language and knowledge of the world already, so, by and large, and particularly at a low level of fluency, the meaning of an utterance can be perceived and translated to L1 because it is evident. Learners should be given the opportunity to interact intellectually and analyse the L2 (Johnson, 2015). Furthermore, and in relation also to social sciences affecting educational linguistics, it must be said that factors that are external to the classroom also affect teaching. The mobility of populations has increased multilingualism (Todeva & Cenoz, 2009) and the CEFR promotes teacher awareness and taking advantage of learners' L1 by considering they already have a degree of competence in at least one language (Paradowski, 2007).

Existing teaching materials also play a part in the absence of L1 in the L2 class. Lopriore (2006) points out the role of the major publishing houses as promoters in eliminating L1 and translation from the L2 class is very important. Major publishers of materials for L2 learning, particularly in the case of English, take only L2 in consideration and shy away from referring to any L1 for the sake of authenticity of the materials in the guidelines of CLT, but the commercial value of publishing books which can be used throughout the world must surely come into play as well when following these principles. If Portuguese is taken as a specific L1 for learners of English L2, there must be a reassessment of what is taught and how, and the teaching materials and programmes must be changed accordingly, as they would have to be for other languages with their own idiosyncrasies.

Summarising, the use of L1 has been removed from the L2 class for decades but it seems that, in doing so, some learners have been denied a valuable resource for learning. In general, by allowing learners to add to their mental construct of language by introducing a new language as a comparable system to the language they have already mastered, teachers allow learners to feel more empowered in their learning, particularly lower-level learners with fewer linguistic resources in L2. The strategy of hierarchical teaching of "true friends", "false friends" and "strangers" is in line with the principles of CGL, which state that concepts are associated in a neuronal network where cognition is reinforced by frequent and meaningful connection. The practice of this strategy from both the learners and the teacher (in the shape of codeswitching and acting as a dictionary and dictionary designer) would assure faster, more accurate processing of information and therefore learning in the L2 class for same-L1 learners.

Context of pairing L1 Portuguese – L2 English

When analysing the two specific languages in this study, it is important to consider the similarities and differences between them. English and Portuguese have considerable similarities in terms of lexicon; throughout the history of English, there has been a constant presence of Romance languages in its fabric, usually associated with prestige and power, namely Latin and French. From 1500 onwards, the loanwords from French and Latin origin continued to be associated with prestige, education and political power, and these two languages continued to be the main source for loanwords in English up until 1900 (Durkin, 2014). Development of science and the arts, for example, later produced autochthonous but romance-based vocabulary words. Strict figures are impossible to calculate due to the complexity of the intake, usage and loss throughout time and space, but a rough calculation defines 58% of the English lexicon is French (29%) or Latin (29%) in origin. The other sources are Germanic (26%), Greek (6%) and others (10%) which still include other Romance languages like Italian, Spanish and Portuguese (Finkenstaedt & Wolff, 1973; Gorlach, 1993). In absolute numbers and regarding part of the Oxford English Dictionary the intake of loanwords in English, the highest contributors are French and Latin, at roughly 20.600 words, followed by Greek, at 2.300 words and German at 1.800 words (Durkin, 2014).

There is, therefore, proximity between these two languages in terms of lexicon, but there are grammatical differences. Old English grammar was more inflected, as Portuguese is, but the structure of English changed throughout centuries. Some characteristics are similar, such as inflection (for plurals, for example), articles, and some similarities in the verbal system, such as the previously mentioned comparison between Present Continuous and the periphrasis *"estar a"*+Verb, the existence of irregular, auxiliary and modal verbs – even if they do not work in the same way – and past, present and future tenses (Swan & Smith, 2002).

Certain features can be quite disconcerting for learners because of their difference. For example, it is very different that attributive adjectives are placed before nouns (and not after, as in Portuguese), or that word order is essential in questions in particular, but also in all types of sentence, as English tends to have right-branching sentences (Subject-Predicate-Complements) with a stricter order than Portuguese. Especially in writing, Portuguese speakers tend to put complements of time and place at the beginning of the sentence, and link them with commas, or reverse the natural order of the sentence.

The construction of questions and especially the use of auxiliary verbs should be noted as particularly different from Portuguese. In fact, from a perspective of pedagogical grammar and to highlight the comparison between Portuguese and English, it can be said to learners that in Portuguese the verbal system is more synthetic and in English more analytical. Taking two sentences as examples, "Trabalharemos amanhã." is a perfectly formed sentence in Portuguese with a minimal number of words. This sentence can be translated as "We will work tomorrow." (or "We are going to work tomorrow.") which is different in two ways from the Portuguese version: Portuguese needs only one word to contain all the verbal inflexion whereas English needs at least three words, and this information is presented in the opposite order (Portuguese: *Verb+tense+person* / English: *person+tense+Verb*). When considering questions, for example, word order is also a source of considerable difference, as word order is not marked in Portuguese and it is essential to English. This could be pointed out as probable L1 interference in sentences produced by Portuguese learners such as *"He goes there?", as mentioned in the next chapter.

Pointing out to learners that this L1 interference is taking place may not prevent them from repeating errors or making mistakes, especially in fluid, quick conversation, but by raising awareness of the issue, learners are better prepared to notice and correct

themselves, especially in a less time-restricted situation, such as when writing. This awareness and repetition of practice contributes to narrowing the gap between declarative and procedural knowledge.

2.6 The CEFR for languages and level B1

Finally, one more contextual aspect that must be described refers to the linguistic level in question for this study, level B1 of the CEFR. It is important to clarify the scale of levels and also the level in particular. The CEFR for languages "was designed to provide a transparent, coherent and comprehensive basis for the elaboration of language syllabuses and curriculum guidelines, the design of teaching and learning materials, and the assessment of foreign language proficiency" (Council of Europe, 2022).

The first document dates from 2001 and it was extended in 2018, and again in 2020 (with minor changes to the 2018 document); it was first produced by the Council of Europe as a guideline to describe language proficiency of learners of European languages in 6 levels (A1, A2, B1, B2, C1, C2) to promote and facilitate communication between institutions and languages and provide transparent and coherent guidelines for learners, teachers and institutions related to language teaching.

As indicated in the original document (Council of Europe, 2001), learners must attain competences to communicatively use a language, namely general competences (declarative knowledge, skills and know-how, existential competence, ability to learn) and communicative language competences (linguistic competences, socio-linguistic competences, pragmatic competences). These competences are then activated in three main dimensions: language activities (communication themes, communication tasks and purposes, communicative language activities) the context in which the language activities occur (domains, situations, conditions and constraints, learner metal context, mental context of the interlocutor) and the competencies on which a learner relies when they engage in them (productive, receptive, interactive and mediating activities and strategies, non-verbal communication, communicative language processes, texts). Linguistic competence is described as comprising lexical competence, grammatical competence, semantic competence, phonological competence and orthographic competence.

The reference level for this study is B1 and the general linguistic range of this level is described as:

> [The learner] has enough language to get by, with sufficient vocabulary to express him/herself with some hesitation and circumlocutions on topics such as family, hobbies and interests, work, travel, and current events, but lexical limitations cause repetition and even difficulty with formulation at times. Has a repertoire of basic language which enables him/her to deal with everyday situations with predictable content, though he/she will generally have to compromise the message and search for words. (Council of Europe, 2001, p. 110)

And since the focus of this study is on the teaching of grammar, it is relevant to present the descriptor of grammatical competence, which is characterised as:

> Formally, the grammar of a language may be seen as the set of principles governing the assembly of elements into meaningful labelled and bracketed strings (sentences). Grammatical competence is the ability to understand and express meaning by producing and recognising well-formed phrases and sentences in accordance with these principles (as opposed to memorising and reproducing them as fixed formulae). The grammar of any language in this sense is highly complex and so far defies definitive or exhaustive treatment. There are a number of competing theories and models for the organisation of words into sentences. It is not the function of the Framework to judge between them or to advocate the use of any one, but rather to encourage users to state which they have chosen to follow and what consequences their choice has for their practice. (Council of Europe, 2001, pp. 112 - 113)

In the same document, some grammatical parameters and categories are identified, but not assigned to a level: “It is not considered possible to produce a scale for progression in respect of grammatical structure which would be applicable across all languages.” (Council of Europe, 2001, p. 113) These are described as a list, as follows, and it is also pointed out that the choice of grammatical items to be used and the choice of theory of grammar to be followed is done at the user’s discretion (Council of Europe, 2001, p. 113):

• elements, e.g.: morphs
morphemes-roots and affixes
words

• categories, e.g.: number, case, gender
concrete/abstract, countable/uncountable
(in)transitive, active/passive voice
past/present/future tense
progressive, (im)perfect aspect

• classes, e.g.: conjugations
declensions
open word classes: nouns, verbs, adjectives, adverbs, closed word classes

• structures, e.g.: compound and complex words phrases: (noun phrase, verb phrase, etc.) clauses: (main, subordinate, co-ordinate)
sentences: (simple, compound, complex)

• processes (descriptive), e.g.:
nominalisation
affixation
suppletion
gradation
transposition
transformation

• relations, e.g.: government
concord
valency

It is also relevant to point out that the CEFR category for semantic competence, although mentioning the concept of meaning, directs the user to describe what they consider the necessary morphological and grammatical "elements, categories, classes, structures, processes and relations" (Council of Europe, 2001, p. 115), as listed for grammar, and there is no specific characterisation of semantics as meaning.

Specifically for the descriptor for grammatical accuracy for level B1, the level considered for this study, the CEFR describes the requirements as: "Uses reasonably accurately a repertoire of frequently used 'routines' and patterns associated with more predictable situations." (Council of Europe, 2001, p. 114)

The CEFR Companion Volume of 2018 was the first revision, which was completed with the CEFR Companion Volume of 2020. This revision extended the original document in its original description and it included new descriptors for mediation, online interaction, plurilingual and pluricultural competence and sign language competences (Council of Europe, 2018; 2020). It is stated that "this publication marks a crucial step in the Council of Europe's engagement with language education, which seeks to protect linguistic and cultural diversity, promote plurilingual and intercultural education, reinforce the right to quality education for all, and enhance intercultural dialogue, social inclusion and democracy." (Council of Europe, 2022, p. 4).

In the new table of overall language proficiency, there are three new branches:

- General competences: *savoir, savoir-faire, savoir-etre, savoir-apprendre*
- Communicative language activities: reception, production, interaction, mediation
- Communicative language competences: linguistic, socio-linguistic, pragmatic.

In the new document, linguistic competences within language competences are described as general range, vocabulary range, grammatical accuracy, vocabulary control, phonological control and orthographic control.

The general linguistic range of level B1 is described in the reviewed document as:

> [The learner] has a sufficient range of language to describe unpredictable situations, explain the main points in an idea or problem with reasonable precision and express thoughts on abstract or cultural topics such as music and films. Has enough language to get by, with sufficient vocabulary to express him/herself with some hesitation and circumlocutions on topics such as family, hobbies and interests, work, travel, and current events, but lexical limitations cause repetition and even difficulty with formulation at times. (Council of Europe, 2020, p. 130).

Regarding grammatical accuracy for the same level, the new table describes how the learner "communicates with reasonable accuracy in familiar contexts; generally good control though with noticeable mother tongue influence. Errors occur, but it is clear what he/she is trying to express. Uses reasonably accurately a repertoire of frequently used

‘routines’ and patterns associated with more predictable situations.” (Council of Europe, 2020, p. 132).

It is highlighted in the 2018 companion volume that the objective of the document is not to standardise, but to facilitate (Council of Europe, 2018, p. 26) and that an action-oriented approach is promoted, since the social nature of language is recognised. Learners are encouraged to follow a communicative approach but also to be perceived as plurilingual, and therefore “allowing them to use all their linguistic resources when necessary, encouraging them to see similarities and regularities as well as differences between languages and cultures” (Council of Europe, 2018, p. 27). There is a distinction made between plurilingualism, a flexible, mutable repertoire of different languages of a specific individual which combined with their various competences, and multilingualism, which the coexistence of various languages in a stable social or individual context (Council of Europe, 2018, p. 28)

Finally, it should be noted that the changes initiated in the 2018 Companion were complete in the 2020 Companion, but no more relevant changes were added regarding the relevant areas to this study.

Chapter 3. Methodology proposed for the pilot study

This section comprises the description of the methodology applied in the pilot study. First, the general teaching guidelines are presented in terms of planning the course and its logistics, such as coursebooks and other materials or feedback and evaluation, including specific indications for application of CALT. Secondly, guidelines in terms of cognitive processes and psycho-social conditions are also presented. Finally, the specific guidelines for grammar instruction and practice according to CALT (for level B1.1 and for Portuguese L1 speakers) and the lesson plans for grammar for the entire course are presented. The full description of the activities is included in Appendix 5 and there is a sample of materials for practice in Appendix 6.

3.1 Planning the courses

Planning the study courses, as mentioned in section 1.4.2, involves integrating information about teaching, learning, and the learners, considering EFL theories, methodology, skills to be developed, audience characteristics, focus, and context. Richards (2002) emphasizes analysing learners' rights, needs, motivations, strategies, and the roles of teachers, along with methods and materials, to enhance learning. In the methodology for this study, all these factors are taken into account, and planning aligned curriculum and materials with specific outcomes, categorising them into skills and learning experiences, as noted by Richards and Bohlke (2011). However, plans should always be flexible to accommodate unexpected events and leverage them for alternative learning opportunities. The teacher should also strive to consider individual learner differences and adapt plans to create a cooperative learning environment, taking into account diverse cognitive styles and attitudes (Richards & Bohlke, 2011; Dörnyei, 2001), as mentioned in section 1.3 and 1.4.2.

The teacher should also plan in excess of the time allowed to ensure there can be options for the practice, and the management of time and activities follows a flexible plan within the time allotted for class, including intervals. Therefore, the planning does not involve strict timing and sequencing of activities, but the guiding principles within the available resources involve a variety of cognitive process, sufficient practice to promote

memorisation, and mood to promote affect, as per the principles of CALT, as is described in detail in the extra grammar practice.

It is acknowledged that this practice also depends greatly on the experience the teacher has of the materials and activities in terms of sensing the time necessary and the probable outcome, but familiarisation with the materials is more structured and predictable than a group's reaction to it, so the teacher should start by focusing on the gathering of materials. However, even if learners are not as easy to predict as materials, it is possible for an observant teacher to read the group and manage the levels of interest, productivity, and tiredness at any given moment, and adjust the class procedure accordingly. For example, learners may be generally more prone to eliciting information or to explicit grammar instruction at a given point, or an activity planned for five minutes may take twenty if it is productive and the class is engaged; this decision must be based on the teacher's perception of the group in general, and if there are alternatives to an activity that does not succeed, progress will be much more easily attained.

When adapting existing materials, a few guiding principles can help teachers, as mentioned in section 1.1.4.3: linguistic input should be rich, recycled, meaningful and comprehensible (Tomlinson, 2016b). This means that information dealt with in class is at once varied and repetitive, accessible, and relatable to each learner. Realistic examples of language from the coursebook and other resources should be presented and independent analysis and interaction with the material should be promoted, not always drawing firm lines of purpose around every activity. As noted by Johnson (2015) and Tomlinson and Masuhara (2017), learners frequently value more and see more benefit and enjoyment in "free" activities than in strictly explicit exercises, even if they see the need for both kinds of activity. This is a guideline for the current study, and the balance between the various exercises and practices is attempted.

This attitude is also in line with other principles stated by Tomlinson (2016b), that learners should be affectively and cognitively engaged, which can be achieved through activities which relate directly to learners' experiences and perspectives, using different cognitive skills, and especially through analysis and comparison of structures in the L2 or between the L1 and the L2. This connects learners to the topic studied by promoting emotional engagement as well as intellectual engagement, empowering learners by acknowledging their capabilities in attention, analysis and memory, and allowing them to

create their own constructions about languages, their structures, and idiosyncrasies. This is attempted in the courses in question by promoting impromptu discussion of the topics covered in the coursebook beyond the instruction therein, and by promoting the linguistic analysis of grammar. Learners are helped to pay attention to form with meaning and then practice it, with a communicative intent. The practice prescribed in this study contains a varied pool of activities, most conducive to authentic, communicative practices, and there is special focus on whole-class activities. Therefore, learners are also emotionally and intellectually engaged with competitive activities and games, and discovery-oriented cooperative activities.

Also, according to Tomlinson (2016b), learners should be given extensive opportunities to communicate, or as much as can be done in the class, and then motivated to pursue self-study outside the class. This is why it is argued here that homework is a crucial part of learning in adults, and it takes on many shapes. Homework has several purposes, but the main one is to extend the contact learners have with the L2; therefore, the most effective homework is to find real life examples of the L2 and read, listen, speak or write in any context possible to promote exposure and cognitive processing.

Notwithstanding, there is also benefit in doing exercises such as gap-fill exercises as homework because these add to the variety of exercises done (and also increase the range from lower-level thinking to higher-level thinking) and they can be useful tools to review concepts presented in class and test for retrieval and understanding in a different context and time, through individual reflection.

Another purpose for homework may be to introduce a topic and help learners develop their own ideas about it before sharing them with the class. This can be done, for example, through the reading of a text, answering a set of questions or preparing a story to tell. This helps especially the more hesitant learners because it allows them to prepare in their own time and it increases their confidence. Their investment should always be rewarded by the teacher in acknowledging and praising the learners' effort and in promoting the sharing of experience in class. Consequently, teachers should always keep track of regular homework set to reward and promote the engagement of the learners.

Homework can be less structured as well, and more reliant on the learner. As mentioned earlier, one of the best tasks to improve L2 fluency may be to watch television in English with English subtitles. This activity means exposure to native language in context,

thereby providing both meaning and form, and with the added benefit of being exposed to the phonology of English while seeing the flow of speech in writing and learning spelling and the division of words and sentences; this makes it a complete practice involving personal interests and enjoyment, which can be prolonged without feeling like a chore. The learners are encouraged to fulfil this task as much as possible outside class. Another task learners are encouraged to pursue is that of internal dialogue, in which the learners are encouraged to "talk to themselves" in English. This practice is mentioned in the coursebook adopted in the pilot study (Latham-Koening & Oxenden, 2018, p.42) and it should be highlighted as a stress and labour-free activity that all learners can practice, and which helps them to acknowledge gaps in their knowledge and provides extra practice.

The teacher should also include recommendations for assorted extra materials for areas of study relevant to particular learners, which may not include the whole class, and generic materials for extra practice of grammar, vocabulary or the four skills, as referred below in extra practical and theoretical resources for the class. This is provided but not checked, therefore making the learner responsible for their own learning in their own time. If the learner is motivated to do extra work, their progress is likely to be more noticeable in and out of class, and the teacher should always welcome questions brought to class derived from this extra work (or any other contact the learners may have with L2 that causes them to reflect and question) if the class can benefit from the discussion. However, since other learners may not be motivated by this extra practice and not be driven to do it, it should not be imposed.

3.2 Feedback and evaluation

Regarding evaluation, throughout the course the teacher must establish clear targets and plan instruction and overall experiences to help learners to reach the established targets (Purgason, 2014) (assuming the teacher determines what needs to be learned and they create their own assessment). Richards and Bohlke (2011) stress the need for planning for evaluation, using the coursebook as a guideline, and taking into account learners' expectations and needs. However, teaching should aim for enduring understanding and sustained language development rather than merely high test scores. Therefore, evaluation should be designed in a dual way: on one hand there are formal assessments, an objective

quantifiable measure learners can accept as a one of the criteria for the final evaluation, and on the other hand there should be a more subjective form of evaluation, based on the development of performance of the learner throughout the course. The teacher must take responsibility for the subjective part of the evaluation, and that is more easily done when the teacher is experienced and has had the opportunity to grade learners frequently, but even for the inexperienced teacher, the written test is usually a good stepping stone for comprehensive evaluation. Evaluation addresses why objectives are chosen, how they will be achieved, and what evidence will show learners' understanding. By including both types of evaluation, it can be assured that the evaluation comprises both real-world applicability and conceptual understanding (Sprenger, 2005; Taylor, 2012; Katz, 2014).

It should also be made clear to learners that linguistic levels for an individual (such as B1.1 or A2.1) are averages of different competences, and every learner will have an individual combination of strengths and weaknesses; no two people will have exactly the same starting point (some learners may be more proficient in grammar, or listening, and less proficient in writing or speaking, for example) and therefore progress may be relative to that starting point. Still, some learners will start with an overall higher or lower level, but still within the scope of the level assigned to the course, as is mentioned above in the description of the learners. It should be strenuously highlighted to the learners that this difference in level at the start of the course does not reflect capability, intelligence or even aptitude to succeed in the present level, but just past levels of exposure, motivation, and practice (even if some learners will be more prone to language learning).

Three types of motivational feedback (Sprenger, 2005, pp. 84 - 88) are present in class, as the teacher always gives as much positive feedback and as regularly as possible, and for different achievements, such as completing a task or experimenting with new language. Negative feedback is also given when learners do not perform at the level expected, especially when related to topics which are central to the level or when the flaw causes a breakdown in communication, but this negative feedback is always done in a supportive, professional way, and frequently given solely with an inquisitive facial expression, for example, to signal to the learner that there is an issue through embodiment of the correction, to prompt self-correction. The question of error will be addressed later, in connection with the principles presented to the learners in the introduction.

Sometimes there may also be absence of feedback, especially when there would be negative feedback but the topic of this feedback is different from the topic at hand. For example, if a learner makes a mistake with the Past Simple when practicing the Present Continuous, it may be more productive to keep the focus on the relevant topic and leave feedback on the second topic for another time.

Evaluation is discussed from the beginning of the courses and learners should be aware of the expectation for completing the level at the end of the course. Evaluation is carried out throughout the course by establishing short-term goals of various kinds and providing regular feedback on the performance. As much as time allows, learners are encouraged to self-correct and to analyse the error to drive conceptual understanding. Evaluation also includes a final written test at the end of the course, which includes sections on grammar and vocabulary for isolated testing of specific areas to identify stronger and weaker areas. Apart from this, the final test can also include sections for listening comprehension, reading comprehension and writing, depending on the practice during the course and the individual judgement of the teacher.

3.3 Teaching methodology including CALT

In terms of teaching methodology, it includes CLT and TBLT, since these are applied in the coursebook and companion materials, as stated by the authors (Latham-Koening & Oxenden, 2018, p. 6). However, the coursebook also includes practices which are in tune with structuralist views of language teaching (for example, in most of the grammar instruction) and notional-functional views of language teaching (for example, in the *Practical English* units).

The main methodology used is CALT, applied especially to grammar instruction and practice through tailored additional instruction as well as complementary exercises and activities from various ELT resources (described below). CALT represents a new perspective on previous methodologies while still profiting from established practices and principles. Like CLT, CALT also advocates for a variety of practice activities and stimuli (there should be variety in the exercises, as well as variety in their purpose and variety in the skills needed to complete them) but with a focus on cognitive processes that influence language learning,

including imagery, embodiment and an encyclopaedic knowledge. Activities include not only communicative tasks but also tasks that promote deeper processing of language, such as understanding conceptual categories, exercising memory, problem solving and exploring the cognitive underpinnings of grammar, especially by comparing L1 and L2.

Regarding frequency of practice, CALT recognises the importance of repeated exposure to language structures for internalisation and mastery, therefore, in this study, high-frequency language input through authentic materials is provided and learners are engaged in activities that involve repetitive use of specific language patterns to reinforce learning, such as drill-like activities.[33]

CALT views affect as a very important factor (as does CLT) so positive emotions and motivation are seen as crucial for learners to construct meaning and retain linguistic structures, and therefore promote effective learning, but there is more account for individual difference and learning style in CALT. This may be realised using storytelling, humour, and real-life examples to trigger positive emotions and engage learners affectively with the language, and varying technique according to the general mood. Additionally, in CALT, there is a focus on making the learner independent from the teacher by incorporating their previous experience of the world, reflecting on the topics presented, finding their own solutions, and developing a relationship with L2, using L1 too. This is particularly important for adults, from a perspective of andragogy, to create new interpretations of meaning through reflection.

Since CALT argues that the structure of L2 is connected to the structure of L1, grammar instruction includes consideration of Portuguese L1 in the English B1.1 class, regarding grammatical items, as described later in grammar instruction, based on:

a) typical errors from Portuguese learners, including aspects of contrastive analysis (Lado, 1957; Fordham, 1997; Swan & Smith, 2002, pp. 113 – 128; Swan, 2007);

[33] Traditional drills are not considered very productive or interesting to learners, but when they are done, for example, as part of an exercise such as "Find someone who….", these frequently involve the repetitive practice of a structure which is similar to a drill but more communicative, as it engages learners in a competitive activity.

b) similarity to Portuguese grammar (how useful L1 knowledge is in L2[34]) (Lopriore, 2006; Nenopoulou, 2006; Cook, 2010; Durkin, 2014);
c) typical range of difficulty of each grammar topic for the level (which impacts on the ordering of the topics and on how much time is spent on each one).

The use of L1 in the L2 class is a distinguishing feature of CALT, and it advocates the optimal position, which states that L2 should be used as much as possible but L1 should be used when the effort of using L2 is considered (by the teacher) to be disproportionate for a specific item. For example, when there is a true friend in grammar, such as most of the more stereotypical uses of the Present Continuous, the translation of the item can be used to assure the learners the meaning is very similar. It derives from this that the use of L1 be mostly restricted to instruction and limited in practice, but it can be used in practice as well, if it is not the focus of the exercise. Furthermore, L1 is considered inevitable because much of the inner dialogue of learners will still happen in Portuguese, even if they are at a stage of development that allows them to use L2 with some fluency. It should be stressed also that the non-native teacher is not more lenient towards the use of L1, but does not disregard a clear advantage in having been through the same learning process as the learners in class, and how the connections between L1 and L2 can be valuable.

The techniques for structuring lessons used in this study vary from PPP to TTT and ESA, as mentioned in section 1.4.4: PPP is considered effective in the sense that explicit knowledge is considered important, as stated above, and factual knowledge is the basis for conceptual and procedural knowledge (as a reflection of practice and production, respectively). Furthermore, as it seems that information is stored in different areas of the brain and they require different cognitive activities to promote long-term retention of the information, different techniques should be used in the linguistic practice to access these areas, from drills to more creative exercises.

Techniques are chosen depending on the topic and the necessary practice for the average learners in each group. The more traditional structure of PPP is used for most topics, and sometimes can be preceded by a meaningful activity about the same topic (as

[34] For example, the concept of the Subjunctive use in the sentence “If I were a rich man…” is more easily understood by Portuguese speakers than by native English speakers because there is extensive use of the Subjunctive in Portuguese with various forms and tenses.

according to Masuhara) and succeeded by practice of establishing connections with prior knowledge, leading to a more complete practice of questioning, reflecting, recoding and checking. As an example of how this technique can be applied, the teacher first introduces the rules with examples (presentation), then provides controlled practice to reinforce the form and meaning, such as a gap-fill (practice), and then a role-play to use the structure more freely and creatively. This structure provides a clear, progressive path with a practical application that can be extended further at any stage, and can be easily complemented with extra activities such as the ones mentioned before.

TTT is also used, in particular for topics which are not as challenging for the learners and can be dealt with in a more confident manner by diagnosing issues. This allows for more focused teaching, avoiding redundancy and providing a quick application and reinforcement of knowledge. An example of the application of this technique would be that the teacher first provides a short diagnostic quiz or a short writing task involving the target structure. Then error in the task is addressed and clarification is provided for form and meaning. Finally, the teacher gives a follow-up task such as writing or role-play to check for improvement.

Finally, the ESA can also be considered for its flexible approach and because it is in tune with CALT principles. The first step is to engage the learners' interest and motivate them, the second step is to elicit and manipulate information (including discussing explicit instruction). Finally, the third step allows learners to practice in a meaningful and communicative context to consolidate learning and to build confidence. For example, the teacher starts with a whole-class discussion about the topic, and then asks the class to do a comparative task in pairs or groups about meaning and form. Finally, the knowledge is activated with an interactive activity such as role-play or a mingling activity to collect information. This strategy could be more appropriate for topics which are challenging and complex for the level, and where what is possible is a broad view of the topic without aiming for solid accuracy across the board (as in the case of the future tenses).

All these strategies have some overlap, and they can all be used in coordination depending on the specific characteristics of specific groups, time and topic, so it should be the teacher's prerogative to choose what the most suitable strategy should be.

Tomlinson (2016b) also presents a more detailed sequence of activities for instruction and practice which is as follows:

- Readiness (e.g., listening to a story)
- Initial response (e.g., reading)
- Intake response (e.g., questioning)
- Development 1 and 2 (e.g., discussing, telling another story)
- Input response (e.g., questioning meaning of the story)
- Development 3 (e.g., group activity)
- Further reading

This structure can be adapted (and summarised) for some grammar topics, especially the ones the teacher can predict will be more problematic. For example, when introducing the difference between the Present Perfect Simple and the Past Simple, a similar structure including initial exposure to the two tenses (Readiness), followed by their identification and analysis (Initial response and Intake response) and then discussion (Development 1) and a whole-class activity (Development 3) is advocated in the instruction in this study.

Finally, it is relevant to point out that, in the perspective of applied or educational linguistics, the focus is on prescription, not description of language, therefore learners are exposed to explicit grammar instruction, as is recommended by guidelines of KAL (Hudson, 2004) , a structural view of language teaching (Swan, 2005a, p. 566; Mitchell & Myles, 2013), and especially CALT (Tyler, 2012, p. 17; Bielak & Pawlak, 2013, p. 100), designed specifically for adult native Portuguese learners (Fordham, 1997; Swan & Smith, 2002, pp. 113 - 128).

3.4 Guidelines related to cognitive processes

In the case of the cognitive processes at hand, one of the most relevant principles is that cognitive activities are primordially imagistic. Furthermore, as is claimed above, information is more likely to be organised in a visual way rather than verbal way (even if when it is translated to social interaction it is highly verbal). This is applied in class through the profuse use of pictures in activities, diagrams in instruction and, moving from visual to physical practice to stimulate procedural learning, as much movement and physical activity as is comfortable for the specific group.

The visual and physical characteristics of CALT also connect to another of its most important cognitive features, embodiment. Language is seen as reflecting the human body as a reference, and this is expressed as embodied meaning. This affects notions of space and time, for example, and therefore it is reflected in instruction (in describing the present as here and the future in front and the past in the back, in describing comparatives and superlatives, or in the meaning for prepositions, for example). Embodiment is also reflected in practice (in portraying meaning through simulation or telling stories) and it plays a crucial role in developing mental imagery. It is relevant to highlight here the connection between embodiment and gesture. For example, it is argued that the teacher's practice of exaggerating gesture and expression is beneficial as an input enhancement, and this may carry into learner behaviour as well, helping to strengthen the connection between form and meaning of language.

Embodiment also drives metaphor, as described in CALT. These strategies allow for meanings to be extended not just within L2 but also with L1, as is mentioned below. For example, the use of the modal auxiliary verb *could* is used to mean the past, but it can also be used instead of *can* to express greater social distance, as a metaphorical extended meaning for the distance in past, or the use of *will* for personal predictions, promises and spontaneous personal decisions, in a metaphorical extension of meaning that relates to the self, rather than the more external *be going to* structure. Another example of metaphorical extension of meaning can be seen in morphology as well: the Present Participle form *-ing* is usually associated with a continuous meaning for every verb tense it is associated with, and, similarly, it can also be associated with a more continuous meaning when it is a Gerund used as a noun, when compared to the use of Infinitive in the same context (e.g., "He likes picking fruit." vs "He likes to pick fruit.").

Two important principles supporting the CALT view are cognitive economy and iconicity. Cognitive economy refers to the idea that the human mind tends to optimise cognitive processes to minimise effort and maximise efficiency. In language learning, this means learners prefer understanding and using general patterns and concepts over memorising numerous specific rules. For example, instead of teaching each tense as a separate rule with exceptions to memorise, the teacher explains the concept of time frames (past, present, future) and aspect (simple, continuous, perfect) as a unified system. The principle of iconicity, as it expresses a connection between form and meaning, as described

in section 1.5.1, may be particularly useful in analysing longer sentences with complex nominal or verbal groups by grouping words according to proximity or sequence.

Another set of principles that have practical relevance in the L2 classroom is Leow's model of the cognitive processes involved in language learning (Leow, 2015, 2019) that describes how learners interact with and process language input to eventually produce output. This model outlines several stages:

- Noticing or the Search for Meaning: for example, when learners realise there are forms for the plural that are not *-s*, and this is noted in class.
- The Product of Intake: for example, after noticing the different plurals, learners check for forms like *teeth* or *children*.
- Processing of Intake: for example, learners encounter different plural forms over time and recognise them as plurals.
- The Product of L2 Knowledge: for example, the learner now has a solid understanding of the meaning and use of plurals. This knowledge becomes a part of their L2 repertoire.
- Processing of L2 Knowledge to Produce Output: for example, during a conversation with a native English speaker, the learner confidently uses plurals in conversation.

Each stage in Leow's model is crucial for understanding how learners move from initial exposure to fluent usage. The process involves conscious and unconscious cognitive efforts that facilitate the transformation of input into output, ultimately leading to effective communication in L2.

Another related concept is that of Swain's Output Hypothesis (Swain 1985), which states that producing language (speaking or writing) helps learners notice gaps in their linguistic knowledge, test hypotheses about the language, and consolidate their linguistic knowledge. This can be operated in class into three stages, one of producing language (e.g., learners write a short story about the past), then one of noticing gaps (e.g., the teacher gives feedback and instruction), the third one is of hypothesis testing (e.g., learners present the story orally and attempt to correct past mistakes), and finally a stage of consolidation of knowledge (e.g., learners rewrite the story). This process is suited for homework and

revision, and it can be done in pairs, for example, promoting peer correction and again dismissing the teacher at some stages.

3.5 Guidelines related to psycho-social conditions

The general objectives of language teaching, as mentioned at the beginning of chapter 1, should be considered. Especially in the case of adults, there is more awareness of culture and socialisation, and how these vary in different languages, so there should be some consideration for intercultural communication in class. However, these comparisons between cultures can deviate into stereotypes, and therefore it is important the teacher maintains a balanced view of both L1 and L2 cultures. In this particular case, since the comparison is between Portuguese and English, and Portuguese is less spoken than English, and English has a much higher perceived value as the language of globalisation, learners may be alienated from this L2 or, on the other hand, learners may be submissive to it, or especially adult learners may have stronger, more ingrained insecurities. As with the formal aspects of language, it is important that learners reflect and rationalise in class and the teacher should make sure that information is more constructive than reductive. This practice may also promote skills of self-management and self-actualisation in line with critical pedagogy guidelines and the teacher can create a more culturally sensitive classroom, legitimising learners' experience and culture by including significant information and therefore develop learners' cross-cultural awareness, sharing positive experience, discussing stereotypes and asking for the learners' cooperation (Dörnyei, 2001).

Another result of adults' experience is that their social interaction with each other and the teacher may be more complex; it may be difficult to predict what can make an introverted learner want to share, or gauge the interest and engagement derived from controversial topics; it seems that the more controversial topics may attract healthier, more fluent discussion than apparently safer topics, as pointed out by experienced teachers (e.g., Johnson, 2015) so the teacher must be aware of this variety and adapt accordingly.

One characteristic that should be included when teaching adults which may help deal with its complexity is using critical pedagogy and considering how adults may change through language by challenging their beliefs (Freire, 1979). By introducing cultural notes, discussing information beyond strict lexical and syntactical information and venturing into

pragmatics, sociolinguistics, history and culture associated with the languages at play, even beyond what is mentioned in the coursebook, adults are stimulated to gain further, more solid understanding of the language. Furthermore, social sciences in educational linguistics argue for a consideration for multiculturalism and multilingualism to foster respect for different languages and cultures and keeping this global view in mind when considering more pragmatical everyday behaviour. It is argued in this study that this learning through discussion about L2 and L1 and their respective cultures, as well as using personal experience and cultural identity in exercises should be encouraged, so learners develop awareness of their own language, and English.

Regarding social influence and usage-based nature of language, according to CALT and as argued by Schmid (2016), language learning derives from the EC model, which states that learning is symbiotic between nature and nurture, and the teacher promotes nurture for natural abilities. This model encourages learners to accept different means to access language, to be more tolerant of apparent irregularity and to scavenge for information internally and externally.

Long-term memory retention is enhanced in various ways by using different strategies, according to Sprenger (2005). Among the practices outlined by Sprenger to promote specific types of memory, the most relevant are:

- Semantic memory: Timelines
  Peer teaching
  Practice tests
- Episodic memory: Seating arrangement
- Emotional memory: Storytelling
  Role play
  Debate
- Procedural memory: Role play
  Movement while learning
- Conditional response: Flash cards
  Quizzes

It should also be taken into consideration that adults are likely to have diminished brain plasticity but also have more stability in neuronal networks, so are also likely to have more developed strategies for dealing with information as well as study habits, ways of organising their time and managing their tasks with focus, creativity, and discipline. For adults, writing information down, both copying the teacher and for themselves is an important activity and it should be encouraged, as it helps to structure and lends a sense of reality in the recording of facts, ideas, and points of interest (Sprenger, 2005). Learners should also be encouraged to develop metastrategies which are useful in dealing with learning, such as controlling attention, considering strategy in dealing with tasks, or monitoring progress, and which can help the learner control cognitive strategies (by using their senses and rational thinking), affective strategies (generating a feeling of support and motivation) and sociocultural interactive strategies. The teacher should recognise and foster these strategies as they help learners construct, transform and apply L2, create positive emotions, and communicate effectively, as mentioned in section 1.3. The teacher aims to promote awareness of these factors and shares their perspective of those metastrategies and strategies as a learner, given that they are not a native English speaker. Additionally, the teacher strives to highlight common ground for everyone in the class, a practice that is especially important for heterogeneous adult groups.

To develop motivation, and considering the learners are adults, firstly, the teacher should create the necessary conditions for a pleasant classroom environment from the outset, then generate initial motivation by creating an expectancy of success among learners and fostering social motivation within the group. The tasks performed in class are designed to be motivational, making learning stimulating and enjoyable, setting realistic goals, and promoting self-confidence, autonomy, and cooperation, as described in section 1.3. As mentioned in that section, the teacher also develops a positive learning experience by presenting information that is novel and perceived as relevant, connecting these tasks with the L2 and selecting appropriate teaching materials to achieve these goals. Finally, the teacher encourages positive self-evaluation among the learners.

3.6 General grammar guidelines

Firstly, some general observations regarding grammar instruction are presented in this section, as background to the present proposal, based on CALT and the concept of an educational grammar. Secondly, this section describes guidelines for teachers carrying out the instruction and the activities that derive from it and how they fit with the overall objectives, also considering the materials used. Furthermore, the coursebook is a British publication, and therefore standard British English was used a main reference throughout the courses in the study.

3.6.1 Strategies for extra grammar instruction according to CALT

When addressing grammar instruction to learners, there are two questions that must always be answered regarding any grammar topic:

- How do I build it? / What does it look and sound like? (form)
- When do I use it? / Why do I need it? (meaning)

According to the CGL principle of the centrality of meaning, it should be stressed that any change in meaning carries a change in form, and vice versa. Learners should be aware of the meaning of what they want to express to then consider the form, and they should be aware of form when dealing with receptive skills, listening and reading, to interpret form with the correct meaning. Considering Larsen-Freeman's (2014) characterization of grammar as having three poles of form, meaning and pragmatics, it is considered in this study that the poles of form and meaning are the most relevant for this level, and therefore are the most explored. This is because it is considered that, at level B1, the repertoire of language of the learner is still reduced enough for there not to be much alternative in terms of what form to use. There is some issue with modal verbs and politeness, for example, but dealing with issues of understanding and using appropriately the correspondence between meaning and form is sufficiently challenging for the learners at this level. Furthermore, it is possible that some pragmatical issues are solved by the knowledge the learner has of the

world as an adult, and therefore it is not necessary to teach it, as highlighted in Swan (1985b, p. 4), for example.

It can be claimed that, as described by Larsen-Freeman, what is presented to learners are not rules, but reasons for construction, highlighting the connection between form, but for the sake of simplicity, these were named as rules for the learners. Furthermore, the rules presented follow Swan's guidelines in terms of being true and accurate, and showing the limits of a construction, but not necessarily complete, as they have to be adjusted to the level. The rules are also chosen as relevant and are presented in a hierarchical fashion, clear and understandable for learners, considering their linguistic level, and they should be simple and economical in their description.

Another important concept in CALT is that of linguistic units, as units of mental storage; these can be individual words but can be chunks too. These stereotypical chunks of meaning can be presented as sequences and practiced as sequences in a cohesive way, promoting entrenchment and resulting in efficient access and retrieval of the chunk. For example, the Present Perfect Continuous can be presented and practiced as a chunk because the words show very little variation, as mentioned below.

Grammar topics should be presented in comparative form, that is, there is a definite attempt to always compare two items and outline differences and similarities between them, as well as differences and similarities between L1 and L2; for example, comparing Present Simple and Present Continuous and their differences and similarities in form and meaning, as well as differences and similarities in how these are used in L1 and L2. This guideline takes into consideration the Feature Reassembly Hypothesis, which states that learners acquire L2 features more easily is they can reassemble features from L1. This methodology is also related to contrastive analysis and the building of categories with stereotypical elements (based on similarities) and peripheral elements (based on differences), and it is explored mostly in terms of comparison within L2, and how concepts are different because meaning is different and therefore form is different (and vice-versa).[35] This is a complex task from a cognitive perspective because it requires recognition and application of opposing rules of meaning and form within the L2, rather than just

[35] Comparison between L2 and L1 is also done, but in terms of instruction to the teacher, and it is not necessary to convey it to the learners unless there is a specific comparison that is beneficial to highlight, such as the fact that a Portuguese equivalent to the Present Perfect Simple is not used.

acknowledging the characteristics of one rule. For example, the practice of the difference between when to use the Present Perfect Simple or the Past Simple is a more complex but more cognitively productive task because it requires memory (of the rules) and judgement in application of the correct rule. If practice were exclusively about the Present Perfect Simple, for example, there would be no border of this category to test its limits, and no contrast to be made, but only a dichotomous assessment of correct or incorrect.

If category members can be prototypical or peripheral, these qualities provide more complete understanding of the nuances of a category in comparison with a neighbouring category. Through comparison and metaphor, it is possible to build generalisations and recode information according to these distinctions. For example, in the case of the schema for future tenses, it is possible to distinguish a prototypical meaning for *will* as being used in personal predictions, and a peripheral meaning when used for spontaneous decisions, where *be going to* is used prototypically for decisions and peripherally as universal predictions. The difference in aspect of Simple, Continuous or Perfect or traditional modals versus modal constructions such as *have to* or *be able to* can also be considered as inter-related linguistic units connected in radial categories with more or less fuzzy limits.

The concept of salience is closely related to categorisation as it influences how information is perceived and prioritized within a category. Salience refers to the relative prominence or importance of a particular feature, attribute, or aspect of an object or concept, such as a morpheme at the end of a comparative or superlative form of an Adjective, or the variation of irregular Past Participles, and it is instrumental in defining stereotypical and peripheral members of a category.

One further relevant concept in CALT derived from CGL is construal. Since construals can affect how the world is perceived and organised, there is an attempt in this study to use the concept of construal to define perspectives in grammar that help with cognitive processing. For example, the concepts of tense or aspect, as described in instruction, represent subjective interpretations and mental representations that are not the same from language to language. Construals are articulated with concepts such as categories and salience to describe the structure of language in a way that is accessible to learners who are not experts in the field.

Finally, summarising cognitive processes that drive language, having extensive and varied practice (to promote both procedural and declarative knowledge) promotes

consolidation of memory, avoids distraction and provides salience of the common topic. This extensive practice causes learners to produce extensive output, making cognitive processing deeper. For example, learners are presented with a memorable visual formula to drive conceptual knowledge and then recode the information with practice to build generalisations. The teacher presents a short description, elicits examples and tries to connect with prior grammatical knowledge, knowledge of the world and L1 when relevant. This process promotes recoding of the information and a personal organisation, causing the learners to feel engaged and in control of the process. Learning depends on a gradual construction of meaning in associative learning with form, which requires a lot of repetition and a clear context for correct interpretation in pragmatic use. Practice and variety also help entrench memories in adjusting and adapting them every time they are retrieved. In fact, since it is considered that memories are reconstructed every time they are retrieved, it can be said that the variety of intensive practice promotes intensive cognitive processing, and therefore drives faster, more effective learning. Practice should represent a challenge, including controversy and fun and finally, the teacher should be silent as much as possible, to allow for learner engagement.

3.6.2 Strategies for extra grammar practice according to CALT

The base for the choice of topic covered and the main resource in the courses should be the coursebook (as it frequently also required by the school). The coursebook is used as the source of the lineup of topics[36] and the base instruction and practice, and it is complemented with the extra instruction and the extra practice described below.

For a more complete picture of the reasoning behind the inclusion of this topics in the coursebook, it is desirable to have an awareness of how the distribution of topics is usually done across preceding levels in materials similar to the ones used for the current course. In the case of this study, it is important to establish what the grammar of B1.1, as a first intermediate level, is in general, so it is relevant to compare how grammar is selected and organised through Beginner to Elementary levels in a variety of global coursebooks. The

[36] This is decided as a unifying factor even if the order presented in the coursebook may not be the most appropriate or natural for Portuguese L1 speakers; the coursebook is a global coursebook, and therefore accounts for no specific L1s.

analysis in Appendix 1 comprises a description of a sample of well-established books by experienced publishers, some of which have very recent editions, some not so recent but still considered up-to-date and sold nowadays, and an older coursebook. In this way, it is possible to complete the picture of an entry level for B1 and to assess what should be attained at the following level.

Since learners are adults, it is considered that the expectations of materials may be diverse to those of children. Adults have a wider range of backgrounds and complex relations with the world, and they may not be comfortable or familiar with the classroom environment and its components, like coursebooks. Especially in the case of adults, it is important to tailor the materials and make it clear to learners this is being done, as adults are more motivated by practice that they are instrumental in building and that is connected to their daily life, according to principles of andragogy.

It should also be mentioned that this study is meant to provide instruction for teachers in an educational context, and not to provide extensive linguistic analysis of the topics covered, so the words used to describe the necessary concepts, such as tense, comparative or modal are those used by teachers in a classroom context.

In the same way that extra grammar instruction is added to the instruction in the coursebook, extra grammar practice is added too to promote variety of cognitive focus, tailoring and meeting different expectations, circumstances and learning styles.

The criteria for the collection of activities are mainly to maximise variety and learning opportunities and allow for intuitive learning while contextualising linguistic input and output. It is also attempted to generate interaction between learners that goes beyond the prompts and promote learner autonomy and individuality while still raising cultural awareness of the self and others.

As mentioned above, activities can range from reproductive to creative and from promoting accuracy to promoting fluency. The practice in the coursebook is more focused on reproductive practice oriented to accuracy, as are most coursebooks analysed for this study (Appendix 1), but this is considered unbalanced practice from a CALT perspective (and a CLT and TBLT perspective too). The sequence proposed by Tomlinson (2016b) a more complex arrangement of seven steps as presented above, is considered too loose in terms of grammar and it is admitted by Tomlinson himself that it is impossible to build a coursebook around this structure. It is stated that the expectations of learners and teachers

alike require more traditional accuracy-based activities, especially in the case of adults. It is also proposed that, according to CALT principles, the widest variety of activities possible should be the aim, as different activities and the possibility to play different roles in activities cater to different personalities and learning styles. The benefits of the different activities are varied and abundant: traditional activities promote accuracy whereas communicative tasks promote fluency, for example. It should also be noted that whole class activities such as were performed in this study are especially beneficial because they provide more communication, engagement, and a positive energy of the group while still allowing for individual expression. As is the case in the study, there should be opportunity for learners to play different individual roles in class: as the audience, listening and reading, as performers, for example in acting out a situation based on a prompt, and as collaborators, in games and competitive activities.

There is an effort to include as many cooperative and interactive tasks as possible, where the learners must engage with the task and each other to complete the challenge. There is also an attempt to have variety in the type of communicative task, for example, there are tasks of collection of information from the group (asking for information from everyone in the group, carrying out a survey, interviewing another learner, for example, and then with the option of reporting to the whole class, or drawing conclusions on the information collected), cooperative or competitive games (solving a puzzle together, competing in a debate or a game of dominoes, for example) or other various surprising and engaging activities, but always focused on a specific grammar topic. Furthermore, there are also activities proposed which tend to introspection and personal reflection, to cater to different cognitive processes and learning styles.

It is important to note that the resources for these exercises are not in the coursebook or given to the learners beforehand to assure the novelty of the activity, so occasionally it is necessary to allow for some time for the learners to learn how to perform the activity and familiarise themselves with the materials, but this meta activity is also productive, as the language is used as a tool, in an implicit way, to understand and perform the activity, and is never more complex to understand than the general level of the learners allows. It is also interesting to note the effect that using pictures, diagrams, board games, colour, cardboard and assembled materials and props that are not on an A4 white page or in

a coursebook can have on stimulating learners, as it was discussed regarding the importance of embodiment and the imagistic quality of language advocated by the CALT perspective.

The overarching categories of activities are summarised below including their CALT rationale.

1. Competition (competitive interaction with other learners) – accuracy and fluency with a creative focus

Competitive behaviour emerges from the interplay of cognitive, emotional, social, and motivational factors, and it involves a range of cognitive processes, such as appraisal, goal setting, decision-making, response selection, monitoring, and evaluation. Furthermore, real exchanges may be competitive and time sensitive, so adding competition to practice may be a way to add a realistic fast-paced practice where several cognitive processes help language processing. However, CALT also focuses on creating a supportive and collaborative learning environment as well, emphasising personal growth and progress.

2. Creativity (using new language) – fluency with a creative focus

CALT recognises the importance of creativity in language use as language is grounded in conceptual knowledge and is an expression of human cognition. Language learners are encouraged to explore and manipulate conceptual structures (such as exploring creative expressions, playing with metaphors, and using analogical reasoning) to enhance their understanding and production of language.

3. Discussion (expression of opinions and facts) – fluency with a creative focus

Discussions provide language learners with opportunities to engage in meaningful language use and draw on personal experiences and their encyclopaedic knowledge to enrich their contributions. Role-playing, problem-solving activities, or debates provide opportunities for learners to apply language knowledge and negotiate meaning in authentic immediate contexts.

4. Gap-fill (retrieval of form in a meaning-sensitive context) – accuracy with a reproductive focus

According to CALT, these exercises promote cognitive awareness by prompting noticing of language patterns and structures. This heightened cognitive awareness helps learners recognise and internalise the patterns, leading to improved language processing. Furthermore, this type of exercise can encourage learners to actively construct language patterns and concepts, and it can include meaningful contexts to make the language use more relevant and authentic. It can also enhance error analysis, promoting improved metalinguistic awareness and more targeted language instruction.

5. Matching (corresponding items) – accuracy with a reproductive focus

Matching exercises can encourage learners to make connections between different linguistic elements and their corresponding meanings or concepts, promoting conceptual mapping and, through analysis and cognitive processing, enhancing learners' metalinguistic awareness and deepening their understanding of language structures. Matching exercises can also aid memory and retrieval of language knowledge by building associations and differentiation between words and structures.

6. Information exchange (registering and retrieving information) – accuracy with a reproductive focus

In information exchange exercises, learners negotiate meaning, clarifying and confirming their understanding of the information being shared. This process of meaning negotiation mirrors real-life interactions and emphasizes the importance of comprehension and effective communication. CALT also emphasizes the creative use of language and conceptual blending, which is facilitated by information exchange exercise, providing opportunities for learners to blend different conceptual domains to express their ideas and thoughts. According to CALT, language is dynamic and context-dependent, so learners may also take on different roles or perspectives, allowing them to see a situation from various viewpoints or construals. This perspective-taking skill is essential for understanding how language and meaning can vary based on the speaker's perspective, and can be used flexibly to adapt their language use based on the communicative context and interlocutor.

7. Memory (retrieval of a correct form in a meaning-insensitive context, similar to a drill) – accuracy with a reproductive focus

Memory recall exercises using cognitive strategies like chunking, spaced repetition, and connecting new information can help learners consolidate their knowledge of grammar by strengthening their memory connections, promoting better retention and long-term learning. Active retrieval helps solidify language knowledge and makes it more readily available for future use, form cognitive patterns and connections between different language elements, connect new language knowledge with what they already know, fostering deeper understanding and building meaningful associations contributing to their overall language proficiency. Moreover, these exercises can enhance metacognition because learners become more aware of what they know and what they still need to work on.

8. Negotiation (expression of opinions and facts with intent to persuade) – fluency with a creative focus

During negotiation exercises, learners need to process incoming information, respond appropriately, and adjust their language use based on the communicative context. Learners may take on different roles or viewpoints and this perspective-taking skill is essential for understanding how language and meaning can vary based on the speaker's perspective. This cognitive processing reflects the complexity of real-life communication and helps learners develop their language skills in natural and adaptive ways. Negotiation exercises also often involve expressing ideas, opinions, and preferences, which can lead to the blending of different conceptual domains and lead learners to engage in creative language use. Finally, this practice also involves collaboration and cooperation among learners to achieve mutual understanding and shared goal, stressing the usage-based nature of language and a supportive and communicative classroom environment.

9. Personal information exchange (sharing information) – fluency with a reproductive or creative focus

During personal information exchange, learners need to process incoming information, understand the emotional content, and respond appropriately. This type of

communication is meaningful and relevant to learners' lives, fostering engagement and motivation in language learning. Furthermore, personal information exchange encourages learners to make use of metaphors, analogies, and vivid imagery to convey meaning effectively. This cognitive processing mirrors the complexity of real-life communication and helps learners develop their language skills in natural ways. Additionally, this practice implies sharing and discussing experiences, opinions, and emotions and drawing on cultural backgrounds, promoting the use of language in context-rich situations, simulating authentic communication. This aligns with the CALT perspective, which emphasises language as a usage-formed tool for understanding and expressing experiences. These exercises also have a dual effect of empowering learners to use language to express their individuality, promoting autonomy and self-expression, and building a sense of community in the language learning environment.

10. Problem solving (negotiating solutions within a closed context) – fluency with a creative focus

Problem-solving exercises encourage learners to think critically, analyse information, and synthesize ideas while also considering different perspectives and viewpoints to arrive at solutions. This type of exercise also involves connecting different conceptual domains to identify and evaluate potential solutions. CALT recognises conceptual blending as a central aspect of language use, and this cognitive processing as essential for effective language use and comprehension. Furthermore, problem-solving exercises are often interactive and collaborative, requiring learners to work together to analyse problems and generate solutions. This interactive learning environment fosters social interaction and communication skills.

Finally, there are three techniques which are not considered practical applications of a principle, such as the previous techniques, but overarching categories that are included in practice and define it. These are not fluency or accuracy oriented, nor reproductive or creative oriented, but they are features which are deeply ingrained in CGL theory and which affect the effectiveness of the activity and are therefore included in the list.[37]

[37] These are, in fact, some of the most frequently used techniques in the study.

11. Embodied practice

Embodied learning is a central concept in CALT as it argues physical experiences and sensorimotor interactions shape language understanding and use. Learners can create stronger mental representations by linking abstract concepts to bodily experiences, so they are encouraged to use gestures, enactments, or simulations to reinforce conceptual understanding. Furthermore, by engaging multiple sensory modalities, embodied learning enhances memory and recall of language knowledge; this approach empowers learners to not only understand language structures but also embody language, making it an integral part of their cognitive and experiential world.

12. Visual interpretation, image schemas and conceptual mapping

Integrating image schemas into practice can involve using visual aids, illustrations, and concrete examples to convey abstract idea and illustrate the relationships between concepts, using the most likely way information is organised in the brain. This helps learners organise and integrate new information into existing mental frameworks, including of L1. Furthermore, image schemas can be a useful tool for learners who are exploring a new language since understanding shared image schemas can help learners find connections and similarities between languages, facilitating language transfer and providing universal identification.

13. Encyclopaedic knowledge

By leveraging learners' existing knowledge, including their L1 and knowledge of the world, language teaching can be more effective and meaningful. CALT acknowledges that learners often transfer conceptual knowledge from their L1 to the target language. This transfer can help learners understand new concepts and structures in the target language by relating them to familiar concepts in their L1. CALT recognises the interconnectedness of language, cognition, and experience, and it promotes language learning environments that embrace and build upon learners' diverse linguistic and cultural backgrounds. For example, learners can be presented with situations or problems that challenge their existing beliefs or knowledge structures. By creating cognitive dissonance, learners are motivated to reconcile

inconsistencies, leading to deeper learning and the restructuring of their mental representations.

These techniques are identified in all the 159 proposed activities listed in Appendix 5. The activities are presented with their name in the original resource, followed by the source material reference. All the activities described are meant to be a resource and not a requirement (and there may be other possibilities deemed more suitable by a specific teacher for a specific group of learners), and the ones presented here have been extensively tested for decades and have been found to provide effective, engaging and entertaining practice for learners. There are learners who do not adapt or enjoy certain activities, but it is argued that, if the teacher has a choice and considers the interests, personalities and learning styles of each learner, as well as their interaction within the group, most learners will be engaged most of the time.

The list of activities covers nine grammar topics from the coursebook, with the distribution shown in Table 1 below.

Grammar topic	**Number of activities (/159)**
Past Simple & Present Perfect	39
Present Simple & Present Continuous	24
Future tenses	24
Comparatives & Superlatives	20
Prepositions	15
Modals Obligation	14
Present Perfect Continuous	9
Modals Ability	9
Articles	5

Table 1: Distribution of extra activities proposed per topic

The Past Simple and Present Perfect present the highest number of activities for two reasons: one is that the coursebook does not include specific practice for the Past Simple alone, and it considered necessary to extend the practice of this tense for its prevalence and

because it represents a challenge for Portuguese speakers, especially in irregular verbs. The second reason is that the Present Perfect also represents a challenge for Portuguese speakers, for the reasons outlined in instruction. The Future tenses also represent a considerable number of activities because this topic includes various tenses and it requires more extended practice to cover all of them. The same reason applies to Comparatives and Superlatives, which require 20 activities because this topic covers a variety of information.

The Present Simple and Present Continuous also have the same number of activities as the Future tenses, but for a different reason. It is considered that, since this is the first topic covered, and it sets the tone and showcases the method for instruction and practice in particular, it is important to provide varied and multiple practice to allow learners to adjust to the routines with a topic that is not as challenging as some of the following ones.

At the opposite end of the scale, Articles and the Present Perfect Continuous require a low number of activities because these topics are considered less challenging in terms of the complexity of their description and because they are relatively easy to understand for Portuguese speakers, for the reasons outlined in instruction. The same is true of Modals of Ability, with the added reason that modality and its specific characteristics and issues have already been outlined in the previous topic of Modals for Obligation.

Before analysing the distribution of technique per grammar topic, it is relevant to consider the overall use of the various techniques and which are more frequent in the proposed activities, especially since some activities use more than one technique. Table 2 presents this distribution.

TECHNIQUE	**Number of times used in 159 activities**
11. Embodied practice	52
12. Visual interpretation, image schemas	41
13. Encyclopaedic knowledge	39
2. Creativity	35
1. Competition	33
7. Memory	30
4. Gap-fill	30
5. Matching	29

9. Personal information exchange	25
6. Information exchange	11
3. Discussion	8
8. Negotiation	6
10. Problem solving	5

Table 2: Number of times techniques are used in 159 activities

Table 2 shows that techniques which are foundational to CALT, namely involving creativity, embodied practice, visual interpretation/image schemas, and encyclopaedic knowledge, are the most frequently employed in the activities because these are considered the most effective. It is also clear from the table that accuracy-focused techniques such as gap-fill and matching, which are more associated with a structuralist methodology, have a relevant position in the middle of the table. However, this is also in line with a CALT perspective, as this type of practice promotes the use of different cognitive functions, such as memory, reasoning or problem-solving, and variety in terms of lower and higher-level thinking.

At the bottom end of the table, it may be surprising that the least used techniques are problem solving, negotiations and discussion, as they are valuable for promoting realistic, engaging exchanges. However, the reasons for the comparatively reduced use of these techniques lies with the fact that their practice can be difficult to direct to a specific grammatical topic with sufficient focus without adding too much noise from various other topics, especially at a B1.1 level, where this may cause confusion in the learners. In fact, these techniques are frequently used in class, but within a practice of vocabulary, so they play a role in the overall methodology but not as expressively as for grammar practice.

Table 3 below identifies the distribution of techniques used in each activity and it crosses them with the grammar topics covered, and the most frequent techniques per topic have been highlighted.

As in Table 2, it is clear that embodied practice, visual interaction/visual schemas, encyclopaedic knowledge and creativity are the most frequently used techniques, but in this case it is also clear that these techniques are also more prevalent for the Present Simple and Present Continuous, Future tenses, Past Simple and Present Perfect and Comparatives and Superlatives, as this is the intersection of the most relevant techniques for CALT and the most important topics, as mentioned above. Creativity and embodied practice in particular

are relevant to the practice of Modal verbs as a means of making the nuances of meaning in these verbs more visible and realistic. Moreover, it can also be said that the information exchange technique is useful for Modals of Obligation because it refers to experience of the world and convention. The personal information exchange technique, however, can be more useful for the practice of the Past Simple and Present Perfect because it is more suitable to convey past personal experience. Finally, it should also be pointed out that the practice for Prepositions is the only one that relies heavily on memory exercises. This could be explained because prepositions are notoriously difficult to rationalise and therefore their practice relies more on frequent exposure than conscious handling of the information.

TECHNIQUE	1. competition	2. creativity	3. discussion	4. gap-fill	5. matching	6. information exchange	7. memory	8. negotiation	9. personal info exchange	10. problem solving	11. embodied practice	12. visual int., image schemas	13. encyclopaedic knowledge
Present Simple & Present Continuous													
	4	3	1	3	3	1	4	1	3	2	3	**10**	**7**
Future tenses													
	5	6	2	4	**9**	4	0	3	3	1	**11**	5	**10**
Past Simple & Present Perfect Simple													
	8	**9**	2	5	6	0	7	1	**9**	2	**10**	**15**	6
Present Perfect Continuous													
	2	2	0	2	2	0	2	0	1	0	3	**5**	1
Comparative and Superlative Adjectives and Adverbs													
	4	**6**	1	4	3	0	3	1	3	0	**8**	3	4
Articles													
	1	0	0	**4**	2	0	2	0	0	0	2	0	0
Modal Auxiliary Verbs for Obligation													
	1	**7**	1	2	0	**5**	1	0	3	0	**5**	1	8
Modal Auxiliary Verbs for Ability													
	1	2	1	2	0	1	1	0	3	0	**5**	0	3
Prepositions													
	7	0	0	4	4	0	**10**	0	0	0	5	2	0

Table 3: Number of times techniques are used per grammar topic in the available extra resources

Chapter 4. The pilot study

4.1 Description of contributors and application of guidelines

This section comprises the description of the pilot study where the principles described above are applied. First, the four contributors in the training courses which are the object of this study are described: the school, the learners, the teachers, and the teaching methodology, which is realised in the materials used. The first three contributors are described below, as is the coursebook used for courses A to F (study and control). This section also includes the guidelines presented to learners in the Study Groups, including information about materials. Secondly, the general teaching guidelines are presented, and finally the lesson plans for grammar for the entire course are presented.

4.1.1 The language schools

Starting with the schools, there are two main language schools involved: CLi, the language school at the Faculdade de Letras da Universidade de Lisboa, and ILNOVA, the language school at Faculdade de Ciências Sociais e Humanas da Universidade Nova de Lisboa.[38] The courses are available to any paying learner, with classes taking place within the facilities of the faculties, in the centre of Lisbon. Learners do placement tests on enrolment to establish a linguistic level, or they progress from the previous level on to the following level course. The logistics of establishing groups of similar linguistic level in similar numbers across the various timetable choices is a complex one, and it is sometimes the case that the linguistic level is in a wider range than strictly described by the target level.

The school is involved in the process of preliminary evaluation to place learners in specific classes through placement tests done internally by one or more teachers, and the teacher of each course is responsible for the continuous and final evaluation for their respective courses. The criteria for evaluation can be decided by the teacher, but there is usually a final written test and a quantitative mark attributed to each learner on a scale of

[38] One of the control groups is composed of students in Faculdade de Letras da Universidade de Lisboa doing an English course towards their BA and not attending a training course, and the rationale to include this group is discussed later.

0/20 and both schools in the study provide certificates for levels according to the CEFR. In both schools the learners also have the opportunity to evaluate the teacher and the general features and conditions of the course and the feedback is provided to the teacher.

Classrooms have traditional seating in rows (although this can be adapted to different outlines) and they are equipped with a computer which allowed for audios to be played, a projector which also allowed for video projection, whiteboards, and they provide a calm, comfortable environment.

4.1.2 The learners in the Study Groups and the Control Groups

The learners in this study attended a training course of General English B1.1 (the first half of level B1) of the CEFR (Council of Europe, 2001, 2020). Courses in the study and control courses were of 60 hours, taught by native and non-native teachers with experience in training. Timetables for the classes in question were:

- weekly classes of 4h on Saturday morning in Cli:
    - 10 learners – Group A (study)
    - 8 learners – Group B (study)
- twice-weekly classes of 2h on Tuesdays and Thursdays/Mondays and Thursdays at Cli and ILNOVA:
    - 6 learners – Group C (study)
    - 9 learners – Group E (control)
    - 5 learners – Group F (control)
- Monday to Friday classes of 4h for an intensive course at ILNOVA:
    - 6 learners – Group D (study)
- twice-weekly classes of 1.5h on Tuesdays and Thursdays at FLUL:
    - 6 learners – Group G (control)

The courses in question took place between October 2021 and January 2023, and group A in particular was still affected by Covid-19 restrictions, especially in attendance. Attendance was an issue especially with the courses taking place on the Saturday (A and B), as missing even one class involved missing a considerable number of hours of training. This

fact can be attested in Appendix 4, which includes information on attendance of the Study Groups.[39] It should also be noted that it was important for the teacher of the Study Groups to show understanding of absence or failure to complete homework, include the absent learners in the flow of activity, and offer extra coaching to make sure they did not lose track of the class. However, any learner who was not fulfilling the minimum requirements for participation, homework and attendance was made aware of the situation, and help was offered to try to solve the problem in time.

It is believed that both course formats that involve 4h long classes (A, B and D) are more taxing and less pedagogically suitable than the 2h class courses because, although a variety of activities is possible in such long sessions, the introduction of more than one new topic per session without allowing for the time for reflection, revision and individual study may be damaging. Furthermore, neither having only a few hours between classes nor having a full week between classes promote regular work and exercising of the skills learnt in class, even when there is homework assigned. Therefore, it is argued that the best format is the 2h classes twice a week for having shorter classes more spread out in the week. Nevertheless, it was also observed that the 3-week intensive course, although very little time for extra work was possible, also showed good recall in the short term and a more comprehensive view of the topics covered because they were done so close together. However, considering the results of each group, it is analysed later how the different distribution of hours in the different courses affects the learners' performance.

There are three Control Groups in the study: one group in Cli (9 learners – group E), one group at ILNOVA (5 learners – group F) and a group of students at Faculdade de Letras da Universidade de Lisboa (6 learners – group G). Groups E and F consisted of a variety of learners similar to the Study Groups and were taught under very similar conditions to groups A to D, but group G was a group of students doing a bachelor's degree who tested at entry level for B1.1, and they are not doing the English course as training but as part of their formal education, together with other academic subjects. The number of hours is also different, as they have just over 40 contact hours instead of 60h, and the teacher of this course does not follow the same coursebook or the same structure of evaluation. However, it was considered that this group exhibits very similar characteristics to the other groups in

[39] No information is available regarding attendance of the control groups, but it is accepted that learners are required to attend 50% or 75% (depending on the school) of the course to be evaluated.

the study: the learners are adults, they are native speakers of Portuguese, and they were placed at the beginning of level B1.1, like the other learners in the study. Furthermore, this group was taught and tested having in mind the descriptors and the requirements for level B1 according to the CEFR, just like all the other learners in the study. For all these reasons, this group was judged to provide a valid comparison. Moreover, as it is shown in section 4.2.3, the results of Group G are within standard deviation of the other Control Groups, therefore Group G is in line with the other Control Groups.

Participation in the study was voluntary, and learners were given a questionnaire together with the Pre-test to draw their linguistic profile and to establish more information about them, namely the years of English instruction received, information about other L1(s) and any disability they might have in terms of cognition (Appendix 2). Their names were not registered but the questionnaire includes information about age, native languages and years of formal instruction in English to establish the extent of instructional contact between native Portuguese and English L2. The learners were also asked to provide information on any hearing, speaking or cognitive impairment which may influence language learning.

Learners were all adults and their ages varied between the late teens to 60s, but the majority were in their 20s and 30s on an average age of 33 years old for the Study Groups and of 29 for the Control Groups, of various backgrounds (including Portuguese, Brazilian and one Angolan learner), all native speakers of Portuguese. Some learners were students, and most were professionals, and they all intended to learn English to further their professional or academic careers, but still considered that a General English course was more suited to their needs than a specific Business or Academic English course. In terms of learners' years of English instruction, learners had between one and ten years of instruction, on an average of five years for the Study Groups and between three and twelve years, on an average of seven years for the Control Groups (Appendix 8).

The second characteristic the learners in the pilot study share is that they are native Portuguese speakers, even if of different varieties of Portuguese, such as Brazilian Portuguese. These varieties do have grammatical differences, which may have an impact on the level of connection with L2: for example, the Present Continuous has a very close equivalent construction in Brazilian Portuguese but this construction in European Portuguese is not as common (e.g., EP: "I am eating." corresponds to BP: "*Eu estou comendo.*") but it has a more common translation in European Portuguese (e.g., EP: "*Eu*

estou a comer.") where the previous sentence is possible but not standard or as common. However, the grammars of European Portuguese and Brazilian Portuguese are sufficiently close for there to be understanding between varieties, and English grammar is sufficiently different to both for there not to be an issue of closer proximity to one of them. Therefore, it is considered that all learners in the group are Portuguese L1 speakers and they would make similar connections between L1 and L2 in the same way, with only minor exceptions, as the example above.

Learners came to the courses either from a previous A2.2 course or by doing a placement test with a B1.1 result. The exact mark for placement tests and for previous levels is unknown, but the learners completed a Pre-test before instruction at the beginning of the course (Appendix 2) discussed below.

Learners were also asked about their native languages and all the learners in the study and the Control Groups stated that Portuguese is their only native language. They were also asked about their L2(s) and the data is as follows (also in Appendix 2).

L2(s)	Number of learners
Spanish	7
French	4
Italian	1
German	1
Ubumdu	1
None	14
Total	*28*

Table 4: L2(s) in the Study Groups

L2(s)	Number of learners
French	7
Spanish	6
Japanese	1
None	7
Total	*20*

Table 5: L2(s) in the Control Groups

It can be seen from the data above that most learners in both study and Control Groups studied Romance languages as L2, if they did indeed study an L2 in addition to Portuguese, and only one learner in a Study Group had learnt German, which is in the family of English, but it did not differentiate this learner's performance from the others'. However, it can be said that, in general, these L2s had little influence on English learning as the results of various learners are comparable, as may be seen in section 4.2.

Learners were also asked if they had at the time any cognitive, hearing or speech impediment that could influence learning, to which all but one answer was negative; one learner in one of the Control Groups suffered from mild dyslexia, but this did not hinder their results in the course, as also seen in section 4.2.

Learners across the board were slightly different in linguistic level, and age, as noted previously, but the differences were not considered outstanding since they all the learners were considered adults and the overall level is still B1. A factor that is taken into consideration is that, since adults have had more time to vary their experience and interests, they are also more likely to have more varied interlanguages (Corder, 1981). This means that there is no feasible way to guarantee that the instruction and the practice provided will fit all the learners at all times, but an attempt should be made to cover as much variety and intensity of practice as possible within the general target level.

4.1.3 The teachers in the Study and Control Groups

The teacher for the Study Groups is a non-native professional with 25 years' experience with teaching training courses of General English and Business English for adults. Most of this experience was obtained in Portugal, teaching mostly learners whose L1 is Portuguese. She is a General Linguistics graduate and holds a CELTA certificate. She has worked with different-sized classes, from one-to-one to groups of 40 learners, and with learners varying from students to professionals from an extensive variety of business areas and functions.

The teachers of the Control Groups are British, Polish (both speak Portuguese fluently) and Portuguese. They are trained professionals who hold CELTA certificates and have 14 to 25 years' experience in teaching training courses for various schools. They follow current trends of CLT and use current teaching materials within the CLT methodology. There

is no information about specific extra methodologies or resources used by the control group teachers but all but Group G used the same coursebook as a main resource.

4.1.4 Materials: the coursebook

Concerning the materials used in this study, the main resource presented to learners is the coursebook "English File – Intermediate Student's Book" (Latham-Koening & Oxenden, 2018) as it is the resource required in one of the schools where the courses are carried out. The Control Groups also use the same resource, except for Group G. As mentioned above, all the courses in the study follow a CLT methodology, as is present in the common coursebook to groups A to F. "English File – Intermediate (B1)" is a British English resource pack in a series that covers levels A1 to C1; the version used is the most recent, 4th edition, which claims to "have tried to provide contexts for new language that will engage students, using real-life stories and situations, humour and suspense." (Latham-Koening et al., 2019, p. 8).

The "English File – Intermediate Student's Book" (Latham-Koening & Oxenden, 2018) is organised in 10 A and B units of four pages each and after two units there are alternating units of *Practical English* (with exercises of a more functional nature) and *Revision* (for the previous two units).

As a complement to the coursebook, there is an "English File – Intermediate Workbook" (Latham-Koening & Oxenden, 2018), which is a watered-down version of the coursebook: it has the same structure of units and topics but most of the exercises are gap-fills and there are fewer listening and writing exercises. Apart from the coursebook and workbook there is also a "English File – Intermediate Teacher's Guide" (Latham-Koening et al., 2019). This resource presents a detailed lesson plan for the activities in the coursebook and extra resources for grammar, vocabulary, and communicative activities.

The coursebook follows a mixed approach of more traditional exercises (gap-fills and multiple-choice feature greatly) and communicative tasks, but its methodology is mostly intended as communicative. It covers three of the four skills (listening, speaking, and reading) as well as grammar, vocabulary, and pronunciation in the main body of the units, and writing practice is included as an extra at the end of the book. Functional practice with some listening and speaking practice are dealt with in extra units (*Practical English*).

Specifically in terms of grammar, the coursebook has an extra section (*Grammar Bank*) with grammar rules and two exercises for each unit, and there is also an *Extra Grammar* exercise for every sub-unit in the "English File – Intermediate Teacher's Guide" (Latham-Koening et al., 2019) and a section of *Communicative Activities* which frequently provide at least one more exercise related to the grammar dealt with in the unit. A website is also available for learners, and teachers can access these extra resources and the audios and videos related to the activities.

There is also a specific book with information on grammar and vocabulary, "English File B1 – Pocket Book for speakers of Spanish" (Walker et al., 2019). This Pocket Book is intended to suit the needs of specific speakers and help with understanding the grammar and vocabulary mentioned in each unit of the coursebook, but its construction is very simple, in the sense that it only adds further examples and Spanish translations of the items mentioned in the *Grammar Bank* and *Vocabulary Bank* sections and pronunciation exercises of the coursebook. It does point out a few interesting comparisons (for example, that in the situations where English uses the Present Perfect Simple tense to express a past action continuing into the present (e.g., "I've lived here for 10 years.") Spanish would use the Present Simple equivalent, just like in Portuguese ("*Vivo aqui há 10 anos.*"). Some of these comments are useful because they point out sources of typical error which are the same in Portuguese, but they are not always useful because the grammars of Portuguese and Spanish do differ as well, but mostly because the descriptions do not add much information. For most part, they are introduced with "Remember that…" followed by a comparison of grammar or vocabulary (e.g., "Remember that: *igual que*=the same as", "*Tu camera es igual que la mía!* – Your camera is the same as mine! /NOT - Your camera is the same than mine!" (Walker et al., 2019, p. 6)) but do not attempt to analyse or expand on the contrastive analysis of the items. As is shown in the grammar instruction for this study, contrastive analysis does have a place in the L2 class, but this practice should be sourced mainly from the learners and the teacher, with other books and resources being used to provide the variety of sources for practice and credibility of what is being claimed.

The "English File B1 – Pocket Book for speakers of Spanish" (Walker et al., 2019) proves that some attention is being directed towards the use of L1 in teaching L2, but its content also proves that the extent of comparison does not include specific instruction or analysis of the L2 structures considering L1, as is provided in this study, but it only provides

side by side Spanish translations of sentences using the target structures. Therefore, although publishing houses have started to acknowledge that tailoring the teaching of English to specific L1s is beneficial, the way it is done does not contain specific instruction or practice based on the principles of a framework for educational linguistics, such as is presented in this study.

The coursebook is built in a modular way, and this is seen as an advantage, since it is possible to add or remove exercises to adapt easily to the need of the class, and there is still enough variety in the type of exercise presented and topic discussed. This allows, for example, for extended and more varied grammar practice.[40]

The guidelines for planning in the previous chapter were followed in the present study: planning was made before the course and adjusted as necessary; classes followed strict routines but also surprising, challenging steps. As mentioned before, the guidelines are in tune with a CALT view in that they account for both innate cognitive abilities and language usage, rational and emotional investment, consistency and variety.

4.1.5 General guidelines presented to learners in the Study Groups

The introduction to the course in the first class included a description of the methodology and the general guidelines for the course, not just regarding the present study but an overall introduction, including areas and skills covered and evaluation, and since it impacts the general mood of the class and expectations of the learners about the course, it is relevant to describe this introduction. The teacher informed the learners of the different components of the course (as mentioned above) but also tried to impress upon them that the methodology is based on consistency and regularity (in the use of a coursebook and predictable progression of topics and components, in the way new information is analysed, and in mood and attitude to and in the class) but also on variety and novelty (in methodology and technique, type of practice and resources). The goal is to have interaction between the learners, the teacher and L2 in an adult, and realistic way, where L1 is an available resource if there is a need for it because the learners (and the teacher) share an L1, and this can be a shortcut to comprehension. The teacher also tried to motivate learners

[40] The object of this study is exclusively grammar instruction, so the work done on vocabulary and the other areas included in the programme will not be discussed.

by arguing that language is not a foreign body, it is knowledge they are capable of understanding and using, but it must be given attention. To ensure this, it is essential that the environment in class is as welcoming as possible but also that exposure to the language is as frequent as possible, so there should be extra opportunity for practice and general exposure. Finally, the teacher stressed that perfection (in language use) is not the objective of the class, but rather understanding of the L2 and progress in fluency and communication.

A discussion about error and mistakes in class was also included in the introduction. From the perspective of what is presented to the learners, and because they might be insecure in their linguistic performance, the teacher discussed mistakes as acceptable and inevitable in the learning process. The teacher always stressed an understanding, analytical perspective of error and tried to get the learners to self-analyse and self-correct. Learners find themselves at a different stage of their interlanguage, while L2 is still not a complete linguistic system, and the way to allow learners to move from that point is for them to feel comfortable to risk making mistakes and find their own solutions. Learning can derive from self-correction, from peer-correction and the teacher can also model the correct language.

Three types of mistakes were outlined for the learners: utterances that are wrong according to the rules of the language but which do not get in the way of comprehension, such as duplicating an inflection morpheme, (e.g., *"He doesn't knows that."); utterances which are wrong because they are incomprehensible, such as mixing markers for different verb tenses, (e.g., *"She will going to go there.") and finally, utterances which are wrong because the intended meaning is different from the expressed meaning, (e.g., *"I go on holiday to France." for an occasional plan). Out of the three, it was highlighted to the learners that the first kind is the least serious, as it does not get in the way of comprehension, the second kind is more serious because it will cause confusion and incomprehension, but since this is clearly signalled (if the receiver is proficient enough to understand), it causes communication to break down and one of the participants will have to clarify meaning. The last kind is the most serious type of mistake because it will be understood as correct, but the meaning is not the intended one, so communication can be misleading.[41] Considering the different types of error, the teacher may intervene more or less frequently depending on the type, relevance and the timing of the utterance.

[41] Although it may be the case that, if learners share the same L1, they might make the same mistake and intelligibility is still achieved, even if the utterance is grammatically incorrect.

4.1.6 Guidelines about EFL materials presented to the Study Groups

The learners were introduced to the coursebook, the main resource and guideline for the organisation of topics presented to all the groups, Study and Control, as described above, and they were made aware of the three types of resources to use in class and apart from the class, as mentioned below:

- Extra practical resources to expand the scope of specific grammar practice in class;
- Extra theoretical resources to expand the scope of specific grammar practice beyond class;
- Extra assorted resources to stimulate learners to explore L2 beyond class in an independent way.

The extra practical resources were sourced from various practice books and selected for each topic based on criteria described below. These resources include "Intermediate Grammar Games" (Hadfield, 2003), "Grammar Games – Cognitive, Affective and Drama Activities for EFL Students" (Rinvolucri, 1985), "Grammar Games and Activities" (Watcyn-Jones & Howard-Williams, 2001), "Grammar with Laughter" (Wooland, 1999), "The Grammar Activity Book" (Obee, 1999), "Games for Grammar Practice" (Zaorob & Chin, 2001), and "Grammar Practice Activities" (Ur, 2009). The teacher does not create exercises, but only selects them, and strives to research the theoretical background and the practical application of the extra resources used in class; these in particular were chosen for being in line with principles of CALT, such as resorting to different types of cognitive process, from lower to higher level thinking, variety and flexibility of practice.

The extra theoretical resources are a crucial part of the present methodology, in making the learners more responsible and more engaged in the learning process. The various reference grammar books and resources were presented to the learners to allow them to explore different topics which may be more interesting or more challenging individually. This was also to make learners aware of the organic structure of language, and how descriptive grammars are necessarily incomplete because they cannot quite keep up with the innovation of native speakers. For example, in the practical and theoretical

grammar books referenced for this study, stative/state/non-action verbs are described as verbs which cannot be used in any continuous form because they describe states and not actions, and therefore can only be dichotomous.[42] This specific list of verbs in the lexicon includes the verb *love* in the practical and theoretical grammar books referenced for this study, but it is easy to point out that a major fast food chain's slogan is *I'm lovin' it,* and therefore this must be an acceptable utterance in English. Rather than ignore this kind of discrepancy or cover exhaustively every topic to include every possible variation the learner may encounter, it is more profitable to make learners aware of the fluid boundaries of correct or acceptable language, and of the authority of the native speaker (and arguably, and as far as it is still within the realm of effective communication, the non-native speaker) and allow them to explore and analyse at will, by providing them with tools and guidance.

Learners were motivated to explore L2 using reliable academic resources sanctioned by the teacher and their own skill and interest, as someone would explore a new country using a guidebook but checking with their own eyes to make sense of what they see, and reconcile theory and practice. This allowed not just for more emotional engagement with the L2 and empowering the learner, but it also provided extended exposure to the L2 with a focus that may lead to intake and not just input. Resources include "A Communicative Grammar of English" (Leech & Svartvik, 2003), "Practical English Usage" (Swan, 2009b) and the practical grammar books mentioned below.

The third type of resource is of a broader variety and purpose, such as books of short stories which may or may not include exercises, for example Leslie Hill's "Stories for Reading Comprehension" series (Hill, 1988), "Stories for Reproduction" series (Hill, 1965) and "Steps to Understanding" series (Hill, 1980), series of graded books for learners of English such as Pearson English Graded Readers, Oxford Graded Readers and Penguin Graded ELT Books, or websites such as www.bbc.co.uk/learningenglish.

This category also included resources for practising grammar, which some learners enjoy without the pressure of having to do work for the class, such as "How English Works" (Swan & Walter, 2000), "The Good Grammar Book" (Swan & Walter, 2003), "Understanding and Using English Grammar" (Azar & Hagen, 2009), "English Grammar Course –

[42] To exemplify, states described which do not involve specific verbs and are clear to most learners can of being dead or being pregnant, as both these states are generally perceived as dichotomous: a person is or is not dead or pregnant at a given time.

Intermediate" (Swan & Walter, 2011), "Developing Grammar in Context" (Nettle & Hopkins, 2003), "English Grammar in Use" (Murphy, 2012), "Grammar Practice for Intermediate Students" (Walker & Elsworth, 2000), "Longman Intermediate Grammar Practice for Intermediate Students" (Alexander, 1990) and "My Grammar Lab" (Foley & Hall, 2014), which includes online resources and a mobile app.

Within the introduction of the course, the learners were also made aware of the structure of the classes: at the start of the class the teacher writes on the board the summary of the topics to be covered in the lesson, then conducts a warm-up activity which is generally a discussion about some current topic proposed by the learners or the teacher, in which everyone is asked to participate. Sometimes these discussions provided alternative topics in grammar or vocabulary, or they in fact derived from questions the learners had, but they could also provide interesting comparisons and cultural awareness of L1 and L2 and they help promote a sense of comfort and trust as well as easing into the practice of the L2. This practice was used as a task-free activity, as described before (Tomlinson, 2016b). This was then typically followed by homework correction. Homework proposed was of three kinds, the first being one of extra task(s) from the previous lesson to reinforce individual practice and promote retention of a topic covered in class, or reading or listening necessary to prepare and expedite the following class (in which case homework is checked in class and never takes more than ten minutes to complete). A second kind of homework was sourced from the extra practice resources mentioned above, and not checked in class unless the learner was left with questions after checking the answer key. A final extra activity which learners were encouraged to pursue is to use English in their leisure activities, as also mentioned above.

Finally, it was highlighted that learners should be able to ask any questions (although the teacher also noted she may not have all the answers but would try to find out) and express any doubts or anxieties they may have, including regarding methodology and the materials, and that the class is a safe place to discuss issues and be supported in learning.

In this study, the teacher tried to participate in the tasks when external monitoring and supervision was not necessary and tried to include equal-standing tasks, these being tasks where the teacher does not have an advantage based on language knowledge. For example, in a task where learners got random cards to assemble a story about a holiday and the objective was to judge who had the best holiday (included in Appendix 6), this is related

with creativity and luck, and not linguistic skill, so the teacher could participate and model the answers without intimidating the learners. Another example can be that of conducting a survey, where the teacher could get involved in the activity – especially if the class had an odd number of learners – to make sure all learners are involved, to model the answers, to allow learners not to feel constantly controlled by the teacher (even if there is some monitoring done at the same time), and to show interest in the activity.

During the introduction, the learners were also informed of the plan for the whole course in terms of units of the coursebook (even if it was stressed this was a plan which could be altered depending on the speed of the progress of most of the learners) and regarding evaluation. It was stressed that evaluation is continuous, and individual progress is more important than performance in a written test. The courses included a preliminary assessment, a Pre-test, which is also seen as a needs' assessment tool at the beginning of the course, an optional progress test in the middle (for courses over a few months or when there is any substantial break in the middle such as a Christmas break, for example), a mock test just before the final test and a final test.

The Pre-test was applied in all the courses in the study as a tool for comparison with the final written test, and was intended to assess the learners' existing knowledge of covered topics at the start the course. The Pre-test was taken from "English File – Intermediate Teacher's Guide B1" (Latham-Koening et al., 2019), where it is presented as a grammar entry test. It covers more topics than the ones strictly covered by the B1.1 course, because it refers to the entire coursebook, but it was considered appropriate as a diagnostic of the overall grammar entry level of the learners because it has the same source as the instruction in the coursebook and the final test, so it is comparable (See Appendix 2).

Should there be one, the optional progress test should optimally be composed of extension of exercises done in class (same type, or completing sections started in class) or exercises that require reading or writing, for their absence of communicative value. In the case of this study, the progress test was applied in courses with extended brakes and was mainly sourced from the extra activities, especially less communicative activities, such as gap-fill exercises. These were frequently handed out in class when the corresponding topic was dealt with, but left behind at the time and then gathered up for the intermediate progress test. Correction of this intermediate evaluation was done in the first class after the break, and it should be done quickly, focusing only on the mistakes, and not covering all the

exercises, but making sure there is clarification on any topics that require it. Learners who did not do this evaluation were still included, but the focus should remain on the mistakes of the learners who did the exercises, not doing the exercises comprehensively in class.

Just before the written test, learners were given a mock test (and its answer key), sourced from *English File - Tests* online teacher's resources in https://englishfile4e.oxfordonlinepractice.com/app/dashboard. The mock test was sourced from the *Quick Tests*, which are composed exclusively of multiple-choice questions. For this study, these tests included as many questions as are available, even sometimes covering items that had not been extensively explored in class. For the learners who did the mock test (and also, to a certain extent, to the learners who did not but were present in the class when the mock test was corrected and discussed) this represented a valuable opportunity to review, reinforce and clarify any issues they may have had before the final test. In going over the questions individually and thinking about their choice, learners practiced the recognition of the correct answer and were more inclined to question their mistakes when checking the answer key. Since the mock test includes topics from the entire the course, it is always particularly useful to review topics that have not been done for a while, and therefore refresh their memory and improve retrieval for the final test. Even if learners do not do the mock test, they always benefit from the questions other learners have in class, and therefore this is considered an overall valuable step.

At the end of the course, the learners did the written test in class (Appendix 3), the content for which was adapted from the *English File - Tests* online teacher's resources (mentioned above) adjusted to the topics covered in the course. The reasoning behind the inclusion of this test in its format were made clear to the learners. Firstly, this is necessary for administrative purposes, secondly, it represents a traditional measurable outcome that can be used as a benchmark for comparing learners' performance in the course, their position on the overall linguistic level scale, and comparing them to previous or simultaneous courses. Furthermore, it is believed that having a traditional formal evaluation at the end of a course is important for the learners, as it represents an expectation, and it provides a sense of closure. However, the importance of this written test is lessened because overall evaluation is continuous and because the test is merely seen as a part of the continuous assessment. The written test should not weigh as much on the final assessment

because this kind of formal evaluation is necessarily limited by its format (short gap-fill sections and similar items in a very strict timed and written context).[43]

The final test comprised a section on grammar, a section on vocabulary and a section on listening. The rationale behind focusing on these areas is that speaking and reading evaluation was done regularly in class, while pronunciation and writing were not intensively covered in classes and therefore were not included in the test. Once again, since this study focuses on grammar, only that part of the test is analysed here.

4.1.7 Grammar Instruction

Grammar instruction and exercises were included over 15 lessons of 4h or over 30 lessons of 2h and it followed the topics of the first eight units of the coursebook. The distribution of units per class and the grammar topics covered are presented in tables in Appendix 4. This variation in distribution of hours affected the lesson plan and therefore the activities that were chosen for each class. Although there was an effort to keep the same activities from the coursebook, and the instruction was done in the same way for all the courses, the extra activities are dependent on circumstance, as is described above in the criteria for choosing activities.

The instruction given in class followed the instruction in the coursebook but it was presented as described in the next section. This instruction was also complemented with diagrams and other visual aids to be written on a whiteboard or projected in class, which are also mentioned in the next section, and included in full in Appendix 7.

The nine topics covered (one for each unit and one extra especially for prepositions, which are dealt with in the coursebook at different stages) are described next, with the specific instruction to be given to the learners.

1. Present Simple and the Present Continuous tenses, including stative verbs

The first topics covered were the Present Simple and the Present Continuous.

[43] In this case, learners were not preparing for an examination or other form of external, formal test, but, should that be the case, it must be included as an objective in planning and incorporated in instruction.

The first step is to consider the definition of form and meaning and how they are not separate, but interdependent. The diagram for the Present Simple should be presented with the form and meaning, as described in Appendix 7 in full. The form in particular should not be unknown to learners at this level, and the intention is to present familiar information (including, for example the information about the different types of sentence) in a summarised, visually memorable way to set the template for grammar instruction throughout the course. The diagram for meaning is particularly important, as presented below, because this reflects a CALT instruction of the difference between the two tenses.

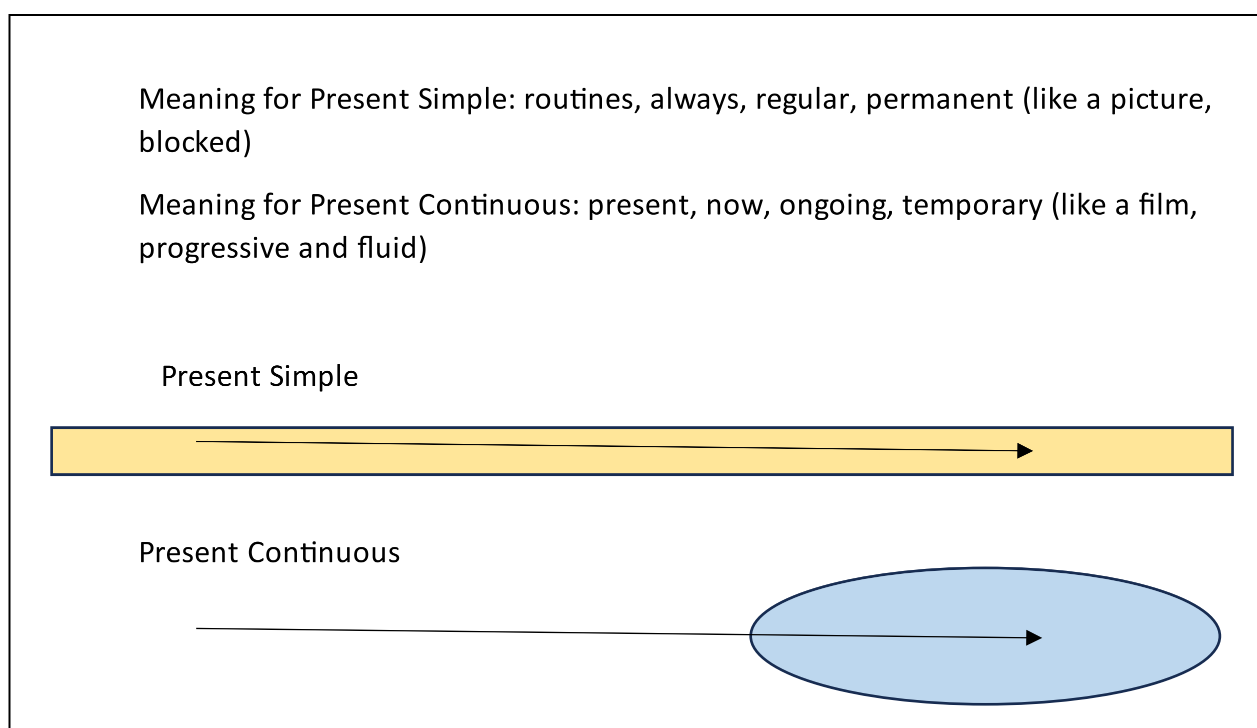

Figure 1: Meaning for Present Simple and Present Continuous

The form of the Present Simple presents some issues for Portuguese speakers because inflection may be positioned differently (not at the end of the main verb but before it, in the auxiliary). Adding to this, there is the issue that adding *-s* to the end of a word may easily be confused with a plural morpheme by Portuguese speakers. Because of these differences between the structure of Portuguese and English, this tense tends to take more processing effort and therefore more time to learn, but since it has normally been covered extensively in previous levels, it may not require such extensive practice at this level. It could be that, because the different features, which can be considered peripheral (such as

the morpheme *-s* for the third person singular) could draw focus and salience and be easier to process, but this may not be the case for Portuguese speakers, possibly because of identification of this morpheme with the plural, and therefore the categories are confused. The variety of processing and the reorganisation of information justifies extra practice and discrete teaching of each characteristic and item with cumulative presentation of the features.

The meaning of the Present Simple is simpler in its correspondence because, just as in Portuguese, it is used to describe timeless truths, permanent situations, or events that happen regularly, repeatedly or all the time; this means it is placed around the present but not at the time of speaking (Swan, 2009a). Events are presented as a whole and do not allow further development (Larsen-Freeman & Celce-Murcia, 2016). However, a note should be made of the name of the tense, and pointed out how *Present* (or *Presente* for the Portuguese tense) does not mean the same as the lexical item, because it is not associated with *now* or *at this moment*, but it is associated with permanent or stable actions and states.

The Present Simple can also be used in a peripheral meaning to express the future, for events which are on a timetable and therefore predictable and categorised as regular (Swan, 2017a) (e.g., "Classes start at 5pm next week."). Apart from this particular situation, the Present Simple is not used to express the future, but this is different from Portuguese, because the equivalent Portuguese form can be used to express the future, where in English *will*, *be going to* or Present Continuous is used, as in "*Eu viajo para Itália no próximo mês*." > *"I travel to Italy next month./ I will to travel to Italy next month./ I'm going to travel to Italy next month./ I'm traveling to Italy next month.".[44]

The Present Simple is also used in demonstrations, commentaries, instructions and present-tense stories (Swan, 2017a), and this meaning also has an equivalent in Portuguese, so it does not present additional processing effort.

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[44] The Present Simple is often used instead of *will* or in combination with it in subordinate clauses that refer to the future, but this is considered a more advanced distinction covered at higher level instruction. Moreover, this use of the Present Simple may correspond to the use of *Presente do Indicativo* or *Presente do Conjuntivo* in Portuguese, (e.g., "I'll phone you when I get home." – "*Telefono-te quando chegar a casa.*", "Anyone who wants to see it can ask." – "*Quem quiser ver, que peça*.")

The form of the Present Continuous does not generally present a challenge for Portuguese speakers because there is an equivalent in a verbal periphrastic construction (e.g., "I'm studying English" – "*Estou a estudar Inglês*."). Presuming the Present Simple of the verb *be* has been learnt at an earlier stage, the only challenge remaining is the change in word order for negative and interrogative sentences.

In terms of meaning, the Present Continuous tense is traditionally defined as belonging to the Progressive aspect category. Regarding the definition of aspect, this was traditionally categorised as either perfective or imperfective; the imperfective aspect is further subdivided into habitual or continuous, and continuous is divided into non-progressive or progressive (Comrie, 1976, p. 25). Furthermore, aspect is a grammatical category that reflects how an action, event, or state, as expressed by the verb, extends over time and allows speakers to convey temporal features, such as whether an action is ongoing, completed, habitual, or has relevance to another time. English primarily uses two aspects: the progressive aspect and the perfect aspect and these can combine to form the perfect progressive aspect (Quirk et al., 1985).

The Present Continuous is used to refer to temporary situations that are going on now or around now, as if seen through a keyhole (Tyler, 2012; Bielak & Pawlak, 2013): before, during and after the moment of speaking (Swan, 2017a) – even if this is not the only tense with this meaning (Parrott, 2005). The continuous, or progressive, aspect is imperfective: it portrays an event in an incomplete, ongoing or limited way (Larsen-Freeman & Celce-Murcia, 2016). The Present Continuous can refer to repeated actions and events, if these are just happening around the present, and it is also used to talk about developments and changes (Swan, 2017a).

As mentioned before, this use of the Present Continuous does not usually present a challenge for Portuguese learners of English because it corresponds to the use of the verbal periphrastic construction *estar a + Verb* in Portuguese; however, the Present Continuous can also be used to express the future, when arrangements have been made, and it is usually followed by a time reference such as *next week* or *tomorrow* (Parrott, 2005). This presents more of a challenge for Portuguese speakers because this meaning tends to be expressed by the equivalent of the Present Simple or Future with *be going to+Verb* in Portuguese, as mentioned above. The Present Continuous can also have a meaning that is

not progressive but subjective, such as when expressing emotional content on a present habit (e.g., "He's always acting up.") (Larsen-Freeman & Celce-Murcia, 2016).

In terms of the comparison between the Present Simple and Present Continuous, as mentioned earlier, these are representative of a difference in aspect, and the distinction between them is illustrated by Michael McCarthy, referring also the Simple aspect:

> In English, simple aspect locates the speaker as observer, like an astronaut standing on the moon, from where planet earth looks like a perfect circle, the circumference of which forms a boundary around all the goings-on down there on the surface, yet the planet is still moving in time from its past to its future. The person down there on the planet is 'continuously' immersed in its events and is observing them from the inside looking outwards, and they can choose how to express the temporality of those experiences. From their perspective, the earth is moving through time, but has no boundary; one can move in any direction without falling off the edge. (McCarthy, 2021 p. 132)

From a CALT perspective, it can be said that the Continuous aspect presents an action or state as if looking at it through a keyhole, as mentioned above: it is undefined at its edges, limited in time and it "allow(s) a view of only a restricted subpart of a given process" (Bielak & Pawlak, 2013, p. 159) or as a film that is being played in front of the viewer, to use metaphor. The Simple aspect is seen from a complete perspective, as a block action or state, or as a picture taken at a specific moment in time.

One last important issue is that of stative verbs. These verbs are a lexical category of words which are not usually used in the continuous form, and which may vary in different varieties of English. It is relevant that this is a matter of vocabulary and not in fact a grammatical issue, because the issue is only for a specific number of words because of their intrinsic meaning, not related to tense or aspect in general. These verbs can be categorised under different types such as mental and emotional states, use of the senses, communicating and causing reactions (Swan, 2017a) or as verbs classified as event verbs, state verbs and both verbs and events (Parrott, 2005). These verbs generally express a meaning of a situation where there is no progressive change but a dichotomous assessment of a state as positive or negative. Adding to these characteristics, it is also the case that some of these verbs have a different meaning when they are used as stative verbs or non-

stative verbs (e.g., "I think it's a good idea."/ "I'm thinking of buying a car."). This definition may lead to error from Portuguese speakers because, although some of these verbs' translation is very close, including in stative meaning, some are categorised differently, they have different meanings and are not stative in Portuguese (and are therefore false cognates) (e.g., "*Eu estou a prometer.*" - *"I'm promising."/ "*Eu estou a compreender-te.*" – *"I'm understanding you."). Furthermore, and as has been mentioned before, some stative verbs have a flexible nature and have acquired new meanings which are not stative, as in the case of the verb *love*, which can now be used in a continuous form in current English.

2. Future tenses: Future Simple, Future *be going to* + Verb, Present Continuous as Future, Present Simple as Future, *Shall* + Verb

The future tenses in English present quite a variety of different meanings, mostly unrelated to matters of time but related to matters of perspective. The different strategies for relating the future sometimes overlap and the system is considered complex (Swan, 2017a, p. 186; Larsen-Freeman & Celce-Murcia, 2016, p. 125). To create simpler categories for B1 level, it is possible to divide the different ways of expressing the future in different strategies according to frequency of use and meaning. These different ways the future is constructed can be said to represent different construals. This is the process of mentally construing or constructing meaning based on various factors, including personal experiences, cultural background, beliefs, and cognitive processes, and the difference between Simple and Continuous aspect is usually given as an example of a different construal. However, it can also be said that the different couplings of form and meaning for the future are also defined in terms of perspectives, beliefs, and intentions, so can be viewed as different construals as well. The first two most relevant forms are Future Simple and *Be going to + Verb*. The construals based on these forms are associated to two main meanings of planning and prediction. The Future Simple is associated with personal predictions, an umbrella term which includes promises and threats, and generally predictions that are made on a personal level. For example, "I will pay you back tomorrow." "You will catch cold if you go out like that.". The structure *Be going to + Verb* is associated with planned decisions for the future, which involve reflection, for example, "I am going to buy a car next year.", "We are going to visit my parents this week.". These meanings are

referred as the most frequent and should be highlighted and practiced as most relevant (Swan, 2009a, pp. 187-189). They can also be said to be the stereotypical forms for these meanings, because both forms have another, more peripheral meaning which crosses with the other form: the Future Simple can be described as referring to unplanned or spontaneous decisions for the future (e.g., "I'll get the door.", "I'll help with the housework.") and *Be going to + Verb* can also mean predictions not on a personal level, but seen as external and almost certain, or "the world's predictions" (e.g., "It is going to rain, the clouds are very dark.", "Prices are going to rise because of inflation."). Therefore, the Future Simple can have the primary meaning of personal predictions and *Be going to + Verb* has the secondary meaning of external predictions; *Be going to + Verb* has the primary meaning of planned decisions and Future Simple has the secondary meaning of spontaneous or unplanned decisions. This categorisation is necessarily a simplification of the uses of these tenses, but it is considered appropriate for level B1 because it provides a cohesive categorisation that covers the most frequent uses and therefore it is simple to process and memorise.

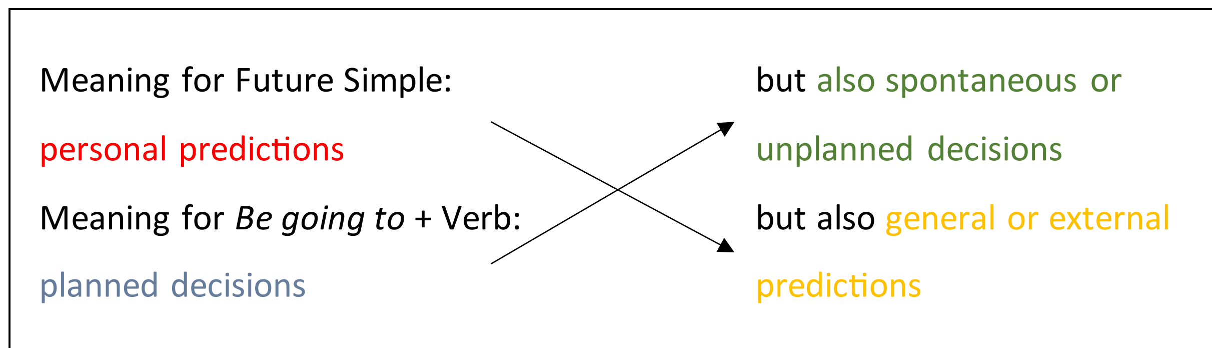

Figure 2: Main and secondary meanings for Future Simple and Be going to+V

The next relevant tense to express the future is the Present Continuous. This future use of the tense is differentiated from the more stereotypical use of the tense because there is always a future time phrase accompanying it or implied (e.g., "I'm staying with my sister.", "I'm staying with my sister next week/ tomorrow/ later today."). The use of Present Continuous with a future meaning seems to somewhat overlap the meaning of *be going to + Verb*, as it is described as scheduled or planned arrangements (Larsen-Freeman & Celce-Murcia, 2016, p. 125). It seems the difference here, if there is one, is that the Present Continuous used with future meaning seems to be tied more closely to the present, as a

present reality (Swan, 2009b), that is, it does not seem to be used with what is perceived as a distant future. For example, whereas it is equally possible to say "I'm going to have lunch with my mother tomorrow." and "I'm having lunch with my mother tomorrow." with very similar meanings, it is not equally possible to say "He is going to buy a house in 20 years." and *"He's buying a house in 20 years.". This use of the Present Continuous as the near future can be said to be a peripheral meaning for the Present and a peripheral meaning for the Future, as it shares characteristics of both.

The Present Simple with a future meaning is also mentioned in the coursebook, for scheduled events and timetables, but these would still fit in the category of habitual events, so it still chimes with the use of the Present Simple for routines.

Finally, in this unit there is mention of the use of *shall + Verb* as a future tense, so, in spite of it being a modal verb, it should be included in instruction at this point, even if further instruction on modal verbs is given in Unit 4 A and B. *Shall + Verb* is also considered a less relevant tense because its use is very limited. In the context of this level, it is relevant to highlight that *shall* had more extensive use in the past, but these uses have now become largely outdated.

Furthermore, within the framework of Construction Grammar, *shall* can be considered a construction, as it reflects a conventionalised pattern of language use that has emerged through repeated instances of usage in specific contexts. Constructions are seen as units of meaning that consist of form and function. The construction with *shall* can be analysed in terms of its form, which includes the verb *shall* itself, its position within a sentence, and its relationship with other elements (Goldberg, 1995; Tyler, 2012). Additionally, its function or meaning can be described, such as expressing future intention, making offers or suggestions, or indicating obligation.

The future tenses present various challenges to Portuguese speakers for their sheer variety and because Portuguese does not have a similar system. In Portuguese, the two main tenses to express the future differ in formality (*Futuro do Presente Simples* is generally more formal and the periphrasis *ir + Infinitivo* for the near future is less formal[45]), which is very different from the complexity of meaning of the English structures, so the typical mistake learners make seems to be to simplify this system and to reduce the future options

[45] For exemple: "*Levarei os documentos hoje*." vs. "*Vou levar os documentos hoje*."

to the Future Simple.[46] Learners may need extensive practice of the various forms and uses of the future, but still, because there is some overlap, for example, the Present Continuous + *future time phrase* and *Be going to + Verb*, some alternatives are acceptable, and this should be taken into consideration for each case.

3. Past Simple and Present Perfect Simple

The Past Simple expresses finished actions and states, and it is the default tense for the past (or prototype) unless there is a specific reason to use another one (Swan, 2017a, p. 394). Like the Present Simple, it presents a statement of fact (Larsen-Freeman & Celce-Murcia, 2016, p. 111) and it can be included in the construal for Simple aspect, indicating complete, block statements. The meaning of this verb tense does not present a challenge to Portuguese speakers in general because there is an equivalent with the *Pretérito Perfeito do Indicativo*. However, for the same reasons pointed out above regarding the Present Simple, the form can sometimes be confusing because of the use of irregular verbs and because of the lack of inflection for the Past in the main verb for negative or interrogative sentences. Although learners at this level tend to be familiar with the form, and the meaning, the typical mistake is to utter sentences such as *"I didn't went there." by doubling the mark for the Past Simple. It should therefore be highlighted for Portuguese speakers that the marker that signals past can only occur once (in the main verb in affirmative sentences, and in the auxiliary verb in negative and interrogative sentences).

[46] Other meanings for the future tenses and other tenses in Portuguese are not considered in this description because their equivalent in English has a very close meaning, as it is the case between *Futuro Composto* and Future Perfect (e.g., "*Às 6, eles já terão chegado.*" "They will have arrived by 6pm.") or because their meaning is not strictly related to the future (e.g., "*O carro está perfeito apesar de velho, custará mais do que um novo*.")

Past Simple						
Affirmative	Subject	+	VerbED / 2nd column			
			Irregular Verbs List			
Negative	Subject	+	DID	+	Verb	
			Past Auxiliary verb			
Interrogative	DID	+	Subject	+	Verb	?
	Past Auxiliary verb					

Figure 3: Form for Past Simple

It is timely at this point in instruction to highlight a generalisation about the role of plain auxiliary verbs; they deal with the time and person part of the simple tenses, while the main verb deals mostly with meaning, and, whenever an auxiliary verb is present, it should manage time, while the main verb is preserved mostly for managing meaning – it is when there is no auxiliary verb that the main verb has to take over that function. Changes signalling time and person occur mostly before the main verb, and the only markers that are attached to the main verb are those of *-ing* (Present Participle) for all the Continuous forms and Past Participle (*-ed*/3rd column of irregular verbs list) for all the Perfect tenses and Passive Voice.

This is also an opportunity to raise awareness to differences between the Portuguese and English verbal systems: the verbal system in English is more analytical than the Portuguese system, where more inflection for time and person is included at the end of the main verb, whereas in English this inflection is expressed by including separate words before the main verb. The example of words such as *FALA-re-mos* > *we will TALK*.

Another concept that is relevant to the verbal system is the physical embodiment of time, as seen in CALT, where the past is seen physically as behind, and therefore there should be a physical backwards gesture, the present is seen as here, and therefore signalled as close to the body, and future is ahead, so physically positioned away to the front of the body. This is relevant when establishing the difference between the Present Continuous, the Past Simple, and future tenses for example, but also when considering the difference between the Past Simple and the Present Perfect Simple.

Although it is not included in the coursebook, this could also be an opportunity to mention the Past Continuous tense, as in the previous unit there was the comparison

between the Present Simple and Continuous. This is a chance to focus again on the differences between the Continuous and Simple notions (a complete block of meaning compared to a fuzzy transient meaning, as seen through a keyhole) but also to reaffirm the difference of the Present tenses (temporary or permanent compared to past tenses) (Tyler 2012, Kermer, 2016). However, the Past Simple can also be compared to the Present Perfect Simple, the next tense to be taught.

The Present Perfect Simple tends to be one of the most troublesome verb tenses for Portuguese speakers, because neither its form nor its meaning is familiar. Although a similar form coupled with a similar meaning exists in other Romance languages, such as in Spanish and Italian, this form has lost this particular meaning in Portuguese (e.g., "*He terminado mi tarea.*", "*Ho finito i compiti*.", *"*Tenho acabado os meus deveres*."> "*Acabei os meus deveres.*", respectively). In Portuguese, this form does exist, but its meaning relates to a continuous action which does not correspond to the same meaning of the Present Perfect (e.g., "*Temos saído tarde todos os dias*.").

Starting with its form, it combines the Present Simple tense of the auxiliary verb *have* with the Past Participle, which means there are two variables, and it requires knowledge of the irregular verb forms, which comprises more variation than in the Simple tenses and therefore requires more processing.

Present Perfect						
Affirmative						
Subject	+	Present Simple HAVE HAS	+	Verb ED/3rd column of Irregular Verbs List Past Participle		
Negative						
Subject	+	Present Simple HAVE HAS	+	NOT	+	Verb ED/3rd column of Irregular Verbs List Past Participle
Interrogative						
Present Simple HAVE HAS	+	Subject	+	Verb ED/3rd column of Irregular Verbs List Past Participle	?	

Figure 4: Form for the Present Perfect Simple

Intensive instruction in this tense would be a required step if it were a staple of the necessary tenses for communication, but, as argued here, it can most frequently be replaced by other tenses which are more easily processed by Portuguese speakers, so intensive instruction is not necessary but this tense should be discussed nonetheless. This leads to the description of the meaning of the Present Perfect Simple, and the other reason why this tense represents a challenge for Portuguese speakers.

The Present Perfect Simple reflects (as its name indicates) the connection between the present and the past, so it is a mixed tense in terms of its category for time, or , and it has two main meanings: that of an action which started in the past and continues up to the present time, or up to here (in an embodied version) (e.g., "I've lived here for 2 years.") and that of an action in the recent past, or behind (in an embodied version) (e.g., "I've just had a cup of coffee.")[47] (Larsen-Freeman & Celce-Murcia, 2016, p. 113).

[47] There are deviations from these main meanings, such as actions that happened at a specific time in the past but do not continue onto the present, such as "I've visited China.", but these do not justify going into more description of less prototypical meanings at the expense of valuable time for other, more worthwhile topics.

Meaning for the Present Perfect:

1- recent past

2 - past until present

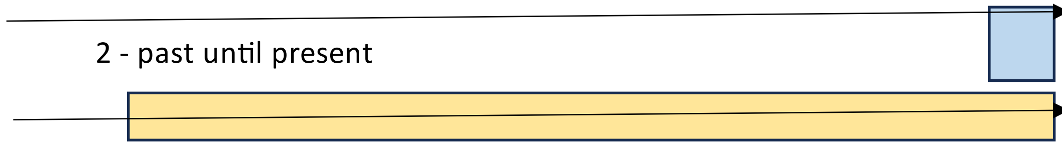

Figure 5: Meaning for the Present Perfect Simple

In terms of the second meaning, the use of the Present Perfect Simple is more frequent in British English, and in American English, for example, in the same circumstances the Past Simple is the preferred tense (e.g., "I've just done my homework." (BrE), "I just did my homework." (AmE)) (Swan, 2017a, p. 444). This is because the recent past is still the past, so the simplification to use only the Past Simple does not contradict the use of the Present Perfect Simple. It could be said that the prototypical category of the Past Simple can include the peripheral category of the Present Perfect Simple (for one of its meanings). In Portuguese, as in American English, the tense used would be closer to the Past Simple, the *Pretérito Perfeito Simples*[48]; therefore, it would be possible to reduce the importance given and the time spent on the Present Perfect Simple tense when teaching Portuguese speakers, because this tense requires more time and cognitive investment than its benefit in terms of use. However, this is included in all British coursebooks as early as Beginner or Elementary levels because it is considered an essential part of British English, which means that it is necessary to adapt the organisation of the coursebooks. What is proposed here is that the Present Perfect Simple is dealt with in class, but that it should be stressed that it is important to understand it more than it is to produce it. This means that learners should be able to have it as passive knowledge, to understand it in receptive skills, reading or listening, but it may be easier and equally efficient to replace it in active knowledge, in productive skills, writing, or especially speaking.

Returning to the meanings for the Present Perfect Simple, the other sense it can have is that of a past action that continues up to the present time (or from behind until

[48] It is also possible to use in Portuguese the construction *ACABAR DE+ Verbo* with an equivalent meaning to the Present Perfect Simple for recent past (e.g., "I've just arrived." – "*Acabei de chegar*.") but this is a construction that would not work in every instance (e.g., *"*Acabei de tomar um café*.", ?"*Acabei de perceber o que disse.*")

here, from a cognitive perspective). In this case, the Portuguese equivalent is the *Presente do Indicativo* (e.g., “I’ve lived here for 10 years.” – “*Vivo aqui há 10 anos*.”) so it is a common mistake for Portuguese speakers to say *”I live here for 10 years.” when trying to express the meaning of the Present Perfect Simple. It is also possible to use a structure which is equivalent in form to the Present Perfect Simple, but with a meaning closer to the Present Perfect Continuous (e.g., “*Tenho vivido em Lisboa*.” – “I have been living in Lisbon.”/*?”I’ve lived in Lisbon.”). In this case, it is proposed that the Present Perfect Continuous should be presented as an equivalent form. Since the meaning of the Present Perfect Simple here is a continuous action from the past until the present, it is possible to replace it because this is the meaning attributed to the Present Perfect Continuous as well (e.g., “I’ve lived here for 10 years.” – “I’ve been living here for 10 years.”). It can be said that the only difference between the Present Perfect Simple and Continuous is that the Simple form reaches the present time and may continue in the future, but this is not expressed (e.g., “I’ve lived here for 10 years.”> it is possible it has stopped) and the Continuous form is almost certain to continue at least into the near future (e.g., “I’ve been living here for 10 years.”> the action will probably continue into the future). Although there is this nuance of difference derived from the difference in aspect, the match is very close for this specific meaning of the Present Perfect Simple and therefore it is not important to dwell in it for this linguistic level.

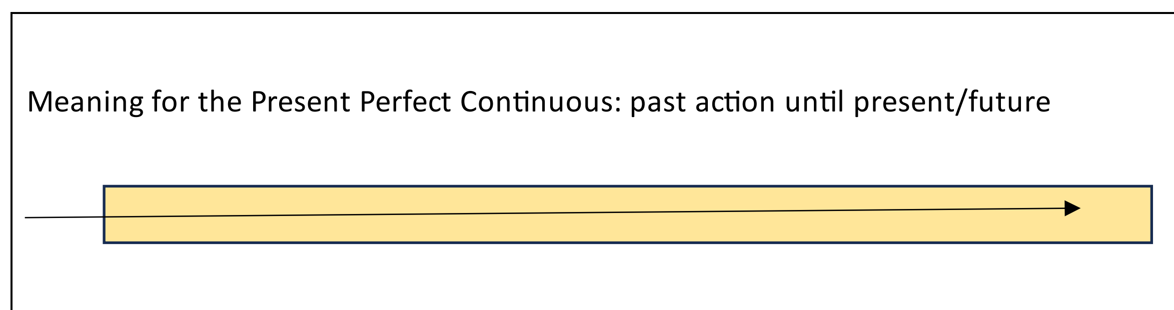

Figure 6: Meaning for the Present Perfect Continuous

However, there is an important issue with this strategy of replacing the Present Perfect Simple (with the meaning of past time until present time) with the Present Perfect Continuous, that this is not possible where stative verbs are concerned (e.g., “I’ve known John all my life.”, *”I’ve been knowing John all my life”) because these verbs, due to their intrinsic continuous nature in BrE, do not allow a keyhole perspective. However, considering

the frequency of these specific verbs and considering that the recommendation is still that learners should be aware of the Present Perfect Simple for receptive skills (even if they avoid it in production), it is claimed here that the avoidance of the Present Perfect Simple is still preferable for speakers of Portuguese.

One more useful guideline in terms of identifying the Present Perfect Simple (in both its uses) and the Past Simple is the identification of the adverbs that go with them. For the meaning of recent past, it is frequent to see the adverbs *just*, *already* and *yet*, for the meaning of past action until present it is frequent to see *for, since, ever* and *never.* The Past Simple is generally associated with specific moments in the past such as *yesterday*, *last week, five minutes ago*, highlighting the difference between a complete blocked action in the past and a past action that is somehow connected to a fuzzy present moment.

4. Present Perfect Continuous

The Present Perfect Continuous can be seen in contrast to the Present Perfect Simple, as mentioned above, and it presents less of a challenge for Portuguese speakers than the Present Perfect Simple. Its form has less variation and it is simpler, as it does not include the Past Participle of the main verb. This tense can be viewed and practiced as a chunk because of its reduced variation and the consistence of use.

The meaning is very similar to one of the meanings for the Present Perfect Simple, and it expresses a notion which is easier to grasp for Portuguese speakers because there is a construction with similar meaning in Portuguese: *vir/ter + Gerúndio* (e.g., "*Vens/Tens vindo a melhorar*." – "You have been improving.") which, even if it is not suitable for every instance of the Present Perfect Continuous and it may sound a little unnatural in EP, it is still a ready-made connection which will help Portuguese speakers to grasp the meaning.

Again, it should be noted that stative verbs do not take this form, and that the actions described with the Present Perfect Continuous necessarily have an aspect of ongoing, temporary actions (Swan, 2017a, p. 447). This aspect, as described before, means that the Present Perfect Continuous is more likely to express an action prolonged into the future than the Present Perfect Simple, as it is suited to the construal of a continuous tense.

5. Comparative, Superlative and Equality Degree of Comparison for Adjectives and Adverbs

General considerations about adjectives and adverbs are not included in the coursebook, but it was thought relevant to give some context to this topic of comparison, so some brief instruction was given on the characteristics of adjectives and adverbs. It is necessary to mention the difference between adjectives and adverbs, but this should be adapted to the level so as not to go into too much detail and spend too much time on this topic, in relation to others. Therefore, it is suggested to describe adjectives as qualifiers for nouns, adding qualities to a noun, and adverbs as qualifiers for verbs (or sentences), describing how, when or where an action is performed, for example. As a related issue, there should be description of the position of adverbs and adjectives in sentences (adverbs in a neutral position at the end of sentences and frequency adverbs before the main verb), and especially of adjectives as attributive or predicative. There should also be consideration for adjective order when there are two or more adjectives and the special treatment of emphatic or intensive adjectives (in terms of not allowing for further intensifiers, such as *very*) (Swan, 2009a).

Most of this information will be seen as revision, since learners will have dealt with most of these issues before, but it is profitable to organise the information in a structured, categorised way as a base for the subsequent instruction, and to account for any variation on these topics that appears later. It is probably also necessary to go into the distinction of the two categories of adjectives and adverbs, and define each one. This may be a particularly difficult task regarding adverbs, since they are not a consensual category and so many subcategories can be found that the variety can be daunting, but information should be kept at a relatively superficial level, adapted to B1. Therefore, it is proposed that adjectives be identified with qualifying or characterising a noun, and possibly formed with the morphemes *-ed* or *-ing*, and adverbs qualify or characterise a verb (or the whole sentence by extension of meaning), and are frequently formed using the morpheme *-ly*. This is a necessarily reductive way of describing the two items and their use, but it is suitable to many very frequent occurrences; conversely, teachers should make sure learners get the information that this is not such a simple distinction, and discuss exceptions such as the adverbs *fast*, *hard* and *hardly*. Again, this is not the focus of the unit, but it is important to

clear the basic distinctions from the start of instruction, for information to be presented in a more structured and intuitive way.

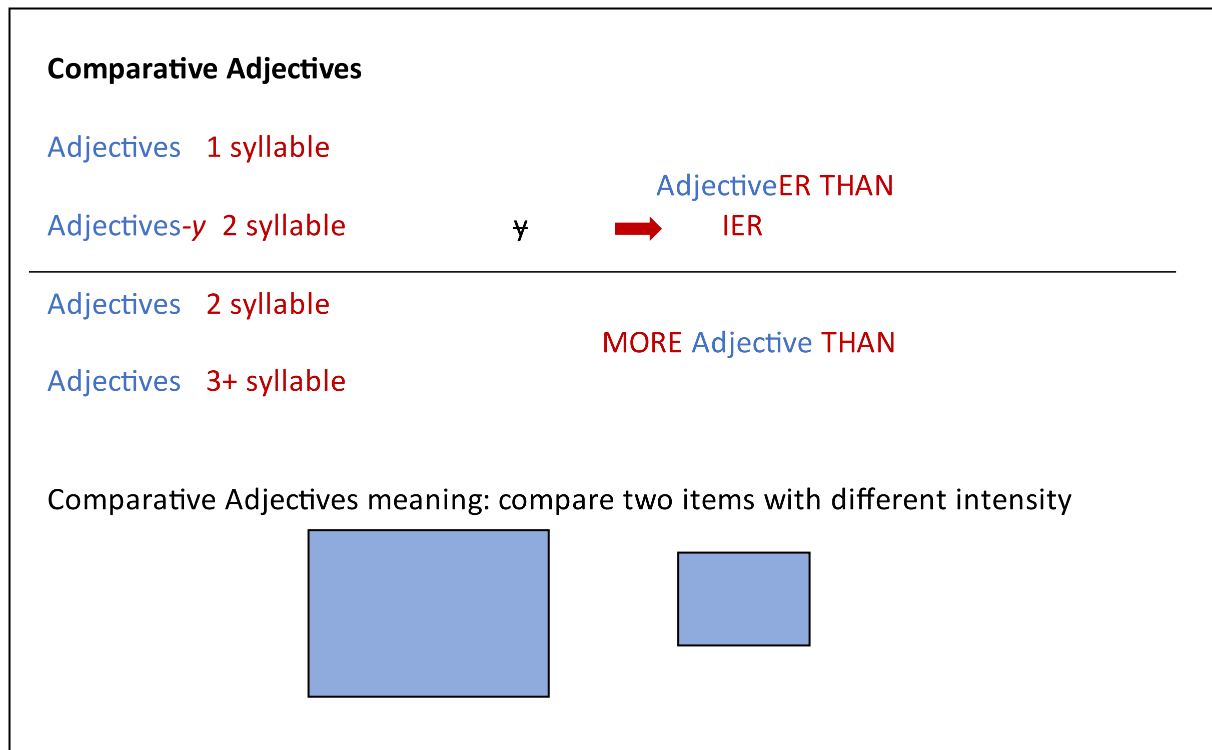

Figure 7: Form and meaning for Comparative degree of comparison of Adjectives

Comparison ranges across many different parts of speech and formats and degrees, but the coursebook covers mostly comparative and superlative degrees of comparison for adjectives and adverbs. In terms of the meaning of comparison, from a cognitive perspective it is interesting to highlight the connection with the embodied meaning and the visual perspective of the comparison, as these may help perceive the concepts of comparative as similar and side-by-side, and of superlative as hierarchical. These concepts are shared between English and Portuguese and provide an instant connection also because the same notions of embodiment apply similarly in the two languages: physical experiences and perceptual understanding can influence interpretation of these comparative and superlative forms. Embodiment can apply to comparison with adjectives through bodily experiences of height, size, or quantity. For instance, the definition of *taller* can be shaped by the embodied experience of looking at something that is physically higher. Similarly, embodiment can apply to comparison with adverbs: embodied experiences can shape understanding of the

degree or manner being described. For example, the concept of *faster* is connected to the embodied experience of speed and movement (Radden & Dirven, 2007).

The comparison between adjectives expresses the inequality between two items, and it is generally done with the degree morpheme *-er* or with quantifier words *more* or *less* before the adjective, both followed by *than* after the adjective. This sequence of words can be considered a chunk, and therefore it should be presented as a string of words that occur together. There is a metrical tendency, although it has some exceptions, based on English syllable structure, that in many cases helps decide when to apply the *-er* inflection and when to use the periphrastic comparative form *more* (Larsen-Freeman & Celce-Murcia, 2016). One-syllable gradable adjectives normally have comparatives ending in *-er*. Two-syllable adjectives that have a stressed first syllable and an unstressed second syllable ending in *-ly, -ow,* or *-le* also take *-er* [49] and other adjectives of two-syllables or more make the comparison by preceding the adjective with *more* or other quantifiers. Some compound adjectives like *good-looking* or *well-known* can take the two comparative strategies (Swan, 2009a).

The periphrastic comparative with *more*, used in the other adjectives with two syllables or more, is similar to the strategy used in Portuguese, therefore it represents no problem for Portuguese learners, but the same cannot be said of the *-er* morpheme. Because this strategy does not exist in Portuguese, there may be the common error of substituting it for the *more* strategy or using both strategies at the same time (e.g., *"This is more big.", *"This is more bigger."). It can be said that English has two categories that correspond to the single Portuguese category, therefore learners will tend to associate all instances to a single category, so attention should be drawn to the distinguishing features that require extra processing.

Some adjectives have irregular comparative forms (such as *good - better*), which may present difficulties to learners because they add to the variety of forms and therefore to processing effort, but it can also be said that they are easier to learn because of their high frequency, so they are not processed, but have been memorised at this point.

It should also be mentioned that there is extensive individual variation in native speakers in the choice of comparative structure, and that *more* is becoming more frequent, possibly because of a move towards regularity (Larsen-Freeman & Celce-Murcia, 2016, p.

[49] These two-syllable adjectives take the same inflections even if they take a prefix that increases the number of syllables (e.g., *unfriendlier*)

779). However, the rules described in current pedagogical grammars are taught in this study as there is no attempt to be comprehensive in the description of grammar at level B1.

As for a superlative degree, the comparison is made not between two items but highlighting one item over others, therefore the form is different but the cases in which it is used are formally the same, meaning that, where the morpheme *-er* is used for comparatives, there is now *-est*, and where *more* was used, *most* is now used (or *least*). *Than* after the comparison is also replaced with *the* before the comparison (*stranger than*> *the strangest*) and this string of words can also be considered a chunk and practiced as such.

Superlative Adjectives

Adjectives 1 syllable

Adjectives-*y* 2 syllable ~~y~~ ➡ THE AdjectiveEST / IEST

Adjectives 2 syllable

Adjectives 3+ syllable → THE MOST Adjective

Superlative Adjectives meaning: highlighting one compared to all others

Figure 8: Form and meaning for Superlative degree of comparison of Adjectives

The coursebook also includes a degree of equality in comparison, with the use of *as…as…*, but this does not generally present an issue in its more common use for Portuguese speakers, possibly because it is a repetitive form and it is not as frequently used, so it is not extensively practiced.

Regarding adverbs, most follow the same rules as longer adjectives[50] (Swan, 2009a), so the form using *more + Adverb* (*than)* and *the most + Adverb*. There is not extensive

[50] The exceptions, which follow the rule for shorter Adjectives, are few and frequent enough to be recognised, for example, *fast, early, late, hard, long, near, high, low, soon.*

practice of adverbs in the coursebook, possibly because some uses of adverbs are dealt with at A levels (such as adverbs of frequency) or because some uses of adverbs are considered too complex or not relevant for the current level, and therefore dealt with later.

6. Articles

Articles tend not to present a great challenge for Portuguese speakers, as there are equivalents of definite and indefinite articles in Portuguese. However, there are a few minor instances that can cause mistakes, namely the use of *a* or *an* and the overuse of *the* where zero article is more appropriate.

In the first example, it should be pointed out that *a(n)* derives from *one*, therefore it is exclusively single, and that *an* is used before vowels exclusively. This is not too challenging in general, but learners should be reminded of less frequent occurrences, like words starting with semi-vowels [w] and [j] (like *unit* or *one-euro coin*), which are not considered vowels, and consonants like *h*, which can be voiced or not, but it is typically unvoiced in Portuguese and voiced in English, and this influences the choice of article (*a house*, *an hour*) (Swan, 2017a, pp. 51 - 66).

Regarding the second example, it is common for Portuguese speakers to use *the* for general abstract concepts (e.g., *"The society is unfair to the women."), and it is convenient to remind learners to remove as many of these articles as possible in most instances (e.g., "Society is unfair to women.").

There are more instances when articles can be difficult to process for Portuguese speakers, for example in the inclusion of articles before forms of entertainment or jobs (e.g., *a teacher, the theatre*). These can be described as part of a construal that is different between Portuguese and English, where the characteristic of an item being one among many is perceived as being more relevant and having more salience in English than in Portuguese (e.g., "He is a teacher." – among many). The second case could be explained by the definite article including an abstract quality that is specific in its abstraction, as opposed to the vagueness of indefinite articles (for example, *the theatre* is an abstract specific entity, different from *a theatre*, which is more concrete and physical).

Articles		
ARTICLES	Definite	Indefinite
Singular	THE	A(N)
Plural	THE	zero article

Figure 9: Form and meaning for Articles

7/8. Modal Auxiliary Verbs (*can, could, shall, should, must/have to, be able to*)

Modal verbs should be presented as a category of word which share formal features with plain auxiliaries (they have the same position in the sentence, and exhibit the same behaviour with negative and interrogative sentences, for example), but modal verbs have more varied meanings. These are dealt with in the coursebook in two separate units, 4A and 4B. The first important piece of information to be highlighted to learners regarding form is that modal verbs are auxiliary verbs and behave formally in the same way as plain auxiliary verbs – *do*, *be* and *have* – when it comes to their role in forming sentences and their relation to the main verb, but they have a special role when it comes to meaning (Larsen-Freeman & Celce-Murcia, 2016). Plain auxiliary verbs are used primarily to form different tenses, aspects, and voices of the main verb and modal auxiliary verbs express various modalities of the sentence, including necessity, possibility, permission, ability, and obligation. They modify the mood of the main verb, providing nuances such as likelihood, willingness, and necessity (Azar & Hagen, 2009). As instruction to the learners, and for the sake of simplicity, it should be highlighted that plain auxiliary verbs function mostly indicate time and aspect of the main verb, but they do not influence its meaning, whereas modal auxiliary verbs affect the meaning of main verbs and therefore the sentence, but do not change time. This is reflected in the creation of extra strategies, phrasal modal verbs, to fill the time gaps modal verbs have, thus creating a sort of first-class and second-class modal verb distinction (Larsen-Freeman & Celce-Murcia, 2016).

Modal verbs are grouped in terms of meaning, and the meanings covered in the two related units of the coursebook are those of obligation and ability (4A) or possibility (4B). In view of a cognitive methodology, equal sentences varying only modal verb should be

presented for comparison, and discussion of meaning should ensue. This aim of this discussion is to establish the terms in which modal verbs are categorised from a cognitive perspective in a construal. As referred before, it is asserted by CALT that humans frequently construe events and experience in a conceptual domain through a different domain, or "think metaphorically" (Tyler, 2012, p. 100). In the case of modal verbs, for example, "observations of the external, physical–spatial world, such as basic force dynamics (e.g., movement of entities (…) and types of forces that propel forward movement), provide important event schemas that we use to reason and talk about the non-physical" (Tyler, 2012, p. 100). This is reflected in notions such as how *must* expresses a strong external force that imposes a barrier, *can* expresses internal force that can overcome a barrier and *may* expresses both internal and external force, in the sense that the barrier is removed and that internal force can act. These classifications in terms of physical space and movement can be expressed as diagrams and they can help teachers clarify the motivations for the distinctions between classes of modal verbs, as stated by (Tyler, 2012, p. 105), if the learners need explicit instruction on this item.

The modals referred for obligation are *should*, *must* and *have to*, but there is a distinction. The first two are canonical modal verbs, here considered original members of the category, while the last one is a phrasal modal verb created to fill the time gaps of *must*. Even though *could* can be used as the past tense of *can*, for example, does not have a form for the past nor the future, for example. Hence, *have to* compensates for this time gap because it contains the flexibility of the auxiliary verb *have* to be inflected in other tenses. Phrasal modal verbs can also be described as peripheral members of the class.

Firstly, it is important to consider the meanings of these verbs and the different verbs that can be used to express those meanings. Considering a scale of obligation which ranges from weak external force (advice) to medium-strong internal force (necessity) to strong external force (obligation), it is possible to place the verbs *should*/*ought to*, *need to/have to*, and *must*/*have to*, on the three points of the scale, respectively.

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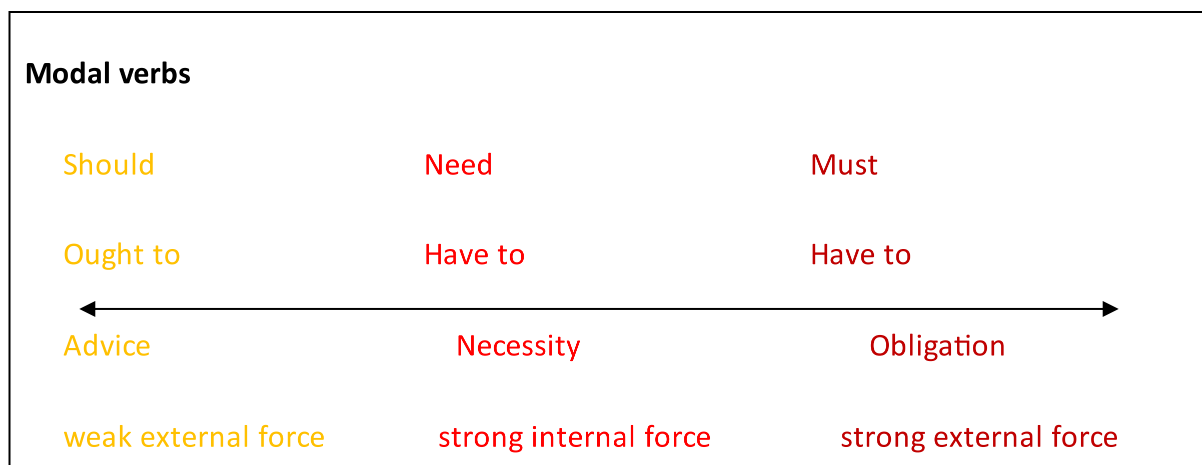

Figure 10: Meaning for Modal verbs for obligation

Only *should*, *must* and *have to* are included in the coursebook, so only these will be considered in the description here. *Should* expresses advice, so the obligation is milder than for the other verbs. *Must* expresses strong obligation, as does *have to*, and it is pointed out in the coursebook that the distinction between these two derives from where the obligation is issued (Swan, 2009a) or, in a CALT perspective, on whether the force is internal or external; however, it is proposed here that the difference in the use of modal and phrasal modal verb derives from the fact that *must* has little flexibility of time. When expressing past obligations, and because *must* cannot be conjugated in different times, it is necessary to resort to have to, independently of whether the obligation, or force, is internal or external (e.g., "I must study today and I had to study yesterday too."). This is also true of future, conditional, infinitive or any other verb tense, because *must* can only be used in one form. When it comes to expressing the past for *should*, it can be expressed by *have* + Past Participle (e.g., "I should have studied yesterday."). However, there is an exception in negative sentences, which is addressed later.

It is not necessary to describe the full picture of modal verbs at level B1, but it is important to mention these categories to prepare learners for a more complete, definite picture of modals. Furthermore, these notions tend not to present much of a problem for Portuguese speakers beyond the issues already presented by the use of auxiliary verbs. This is probably because *must* and *should* are high frequency words and are dealt with at a level lower than B1. They also have close translations in Portuguese, as *ter de* for *must* and *have to* (e.g., "*Eu tenho de estudar*." > "I must study."; "*Eu tive de estudar*." > "I had to study."), and *dever* for *should* (e.g., "*Devias deixar de fumar*." > "You should quit smoking.").

There is one more detail which should be explored and which is covered in the coursebook; the difference in negative sentences between *must* and *have to*. In the first, and because this is a canonical modal, and therefore more definite, the negative represents negative obligation, or prohibition, and in the second the negative represents absence of obligation, or availability of choice (e.g., "You mustn't leave yet." has a meaning of prohibition and "You don't have to leave yet." has a meaning of choice). From a CALT perspective, this could also be explained by the difference between external force (*mustn't*) and internal force (*don't have to*) action, which is not reflected as clearly in the affirmative sentences but it is underlying.

The final unit of the coursebook dealt with in this study covers the modal verbs *can, could* and *be able to*. These verbs have more than one meaning, but in this case the unit covers the meaning of ability. *Can* is used for present ability and *could* is used for past and conditional ability. There is a semantically complex extension of meaning here, extending into offers, requests, permission and suggestion, but these finer differences will not be explored here because they are not included in the coursebook. Either their level of complexity is considered higher than desirable for exploration at this level, or many of these are already known by learners at this level and do not usually present issues for Portuguese speakers.

Meaning	Informal Close ←→ Ability		Formal Distant Possibility
Making a Request	Can/Will Would		Could
Asking for Permission	Can Might	Could	May
Making Offers **Making Suggestions**	Can Shall		Would

Figure 11: Meaning for Modals of ability

One final remark regarding modals is that *will* is considered a modal verb but it has moved away from their traditional definition because it now refers more strictly to future time, as is attested by the description of *will + Verb* as the Future Simple. This makes *will* not a prototypical modal verb because it affects mostly the tense of the main verb and not its meaning.[51] This could be derived from the flailing use of the verb *shall* as well, which in the past was used at the same level of *will*, but this balance has shifted as the language has evolved, as noted in the section about future tenses.

9. Prepositions *in, on* and *at* with spatial and temporal meaning in a Preposition + Noun context

This topic is only included in a short section of vocabulary in unit 3B of the coursebook, but it was discussed more extensively in class at the request of learners, and it is considered relevant because it is the source of frequent questions for B1 learners. The prepositions *in*, *on* and *at* are chosen because these are among the most common prepositions[52] and because they are singled out in the coursebook. Prepositions are connectors to express relations between other words and have little lexical meaning, so it is possible to say they are associated with grammar as well as lexicon. Prepositions are also the source of many issues for language learners, therefore additional instruction and practice is included here.

Prepositions are renowned for being difficult and, like stative verbs, they can belong in a study of lexicon and not grammar. However, prepositions are a good example of how grammar and lexicon are not separate but function in a continuum, as argued in CGL, so it is also relevant to include them. This is an attempt at drawing rules for a limited number of prepositions in a limited context and specific meanings, namely the prepositions *in*, *at* and *on* in a context of *Preposition + Noun* with meanings of time and space.

The reasons for prepositions being so unwieldy seem to be varied, namely that the work of prepositions is often performed in other languages through inflection, or that, in their spatial meaning, prepositions do not always match up well from one language to

[51] It should be noted, however, that the nuances of *will + Verb* as Future Simple affect meaning rather than time, as seen in the section about the future tenses.
[52] Furthermore, there is not sufficient time to cover all prepositions in one course of B1.1 level.

another, or even that prepositions are polysemous: one preposition can have multiple meanings or senses to the extent that they seem almost empty of meaning. English prepositions are free morphemes, rather than bound inflectional affixes as sometimes their counterparts are in other languages (Larsen-Freeman & Celce-Murcia, 2016). Adding to these circumstances, prepositions can occur in various contexts and be dependent on different parts of speech, before and after the words that subcategorise them. This makes prepositions seem like hinges which have very strict measures and contexts but have very little substance in comparison to the other items surrounding them. The fact that many prepositions are very small and easily confused because of similar form also contributes to the difficulty in dealing with them (Parrott, 2005).The prepositions covered in this study are among those which are both more common and also more easily confused, but they can be considered to have a concrete meaning regarding time and place, and in this case they are defined by the nouns following them.[53]

It can be argued that prepositions prototypically deal with locating objects in space because most prepositions have a core meaning that signals a relationship between physical entities and there are at least two entities in the relationship (Larsen-Freeman & Celce-Murcia, 2016). As argued by the principles of CGL, spatial awareness and the embodiment of language are crucial in perceiving and creating language, and it is easier to understand a concept if it can be spatially linked. Therefore, it can be said that these meanings of prepositions are linked to spatial awareness and, even if their meaning can multiply, these base meanings remain as a prototype for the main meaning of the preposition. For example, *in* is not always associated with physical containment, but it is frequently associated with some type of containment.

Accordingly, there is a distinction between the use of *in* – containment in three dimensions, *on* – physical contact between a trajector and a landmark, where the landmark is a one-dimensional line or two-dimensional surface, and *at* – requiring a point of orientation from the landmark, in a general, abstract area (Larsen-Freeman & Celce-Murcia, 2016).

[53] Other contexts which may be relevant to explore for prepositions are *Verb + Preposition* and *Adjective + Preposition*, but these were explored in the course as part of vocabulary, and therefore not included in this study.

The spatial meaning of these prepositions cause confusion for Portuguese learners because in many instances these three prepositions correspond to only one preposition in Portuguese, *em* (loosely translated as *in*) (e.g., *em casa, na (em+a) prateleira, em Lisboa – at home, on the shelf, in Lisbon*). They can be represented in the diagrams below.

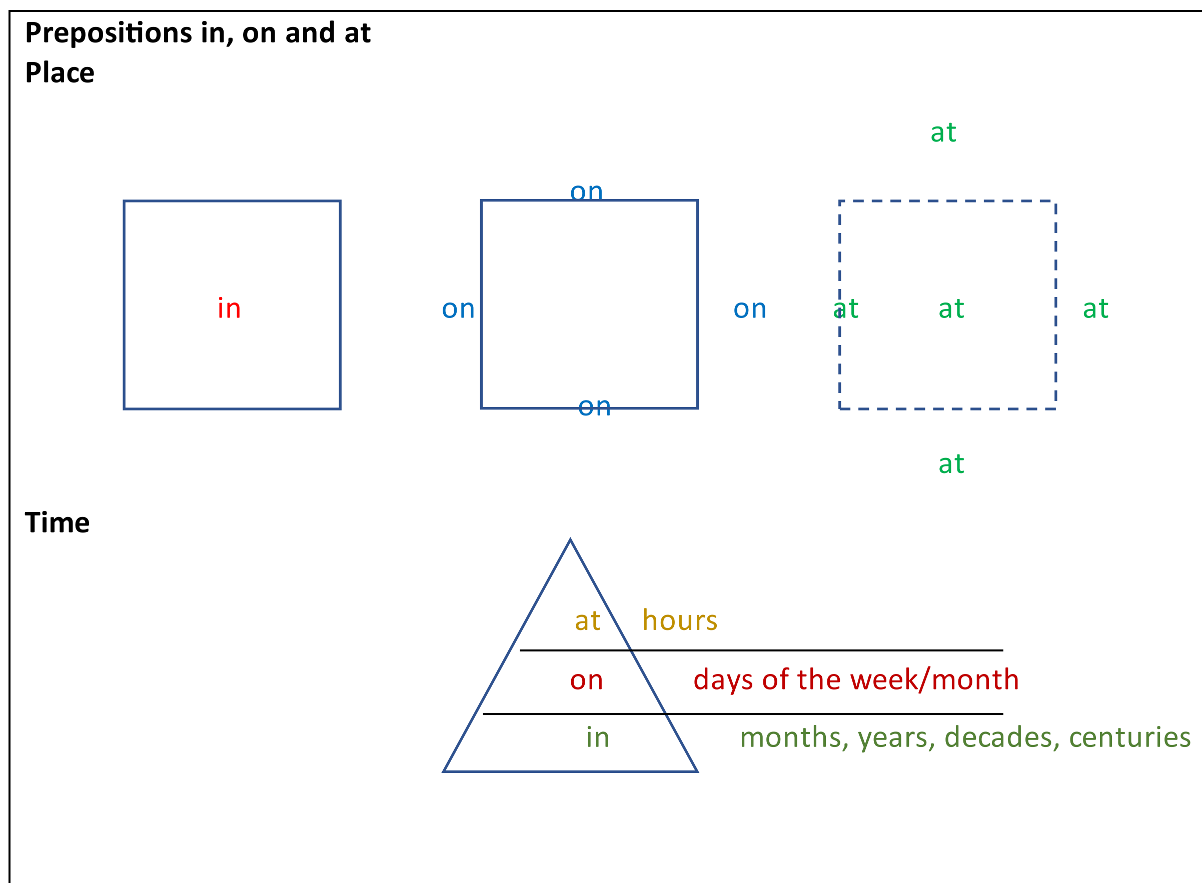

Figure 12: Place and time meanings for Prepositions in, on *and* at.

The different uses of these prepositions of time are admittedly not in accordance with the uses outlined for the same prepositions for space in a cognitive perspective, but it is still considered beneficial to use the cognitive instruction if it is useful to understand the overarching concepts. As pointed out by Tyler (2012, p. 159) regarding a study of the prepositions *for*, *to*, and *at*, "the fact that two hours of instruction could result in improvement for all but one of these learners indicates that a C[ognitive]L[inguistics]-based explanation can make valuable contributions to advanced learners' understanding of the prepositions.".

It is also accepted that this classification is not complete and there are instances that do not comply, such as *in the morning,* or *at night*, but these instances may be seen as

peripheral items that have not yet been completely explored in their features. Moreover, the three categories presented cover many of the most frequent occurrences and could contribute to some adjustment of learners to the difficult world of prepositions. Since there is no literal translation, and prepositions seem to be of very fluid meaning in this context, it is natural for Portuguese learners to struggle, but as mentioned before for the Present Simple, prepositions are unavoidable, so they must be included early on in instruction; however, this should be done incrementally and with extensive practice and promotion of noticing.

4.1.8 Extra practice activities

Appendix 5 contains the description of all activities selected for the pool of extra activities recommended in this study and how they are used in class, and Appendix 6 contains a sample of these extra activities which are representative of the techniques central to the methodology, included with the original instruction (when available) and all the necessary materials from the original source.

In Appendix 5, activities are ordered according to the different grammatical topics presented but also in a logical, incremental way, to promote cognitive scaffolding. The first activities are the simplest to understand and execute, and their complexity increases. Some of the first activities are classified in their original sources as suitable for Elementary learners, but it is considered here they may still present a challenge and an interesting task to Intermediate learners. Conversely, there are also some activities which are classified as suitable for Upper-Intermediate or Advanced learners in their original sources, but they were considered appropriate and feasible for the learners in the B1.1 courses in question, sometimes with some adaptation. At the end of every grammatical topic, the activities presented are suitable for homework and individual study (as most of them are gap-fill and matching activities), and as extra practice in case the learners require or need it as reinforcement. Occasionally, it is suggested that some activities are used in a different way from what is proposed in the original resource, and in this case, the alternative instruction is presented. Finally, all the activities on the list have been tried in B1 training courses for adult Portuguese speakers and achieved their goals of engagement and understanding of the grammatical topics. However, it is not possible to use all the activities (particularly in a

60h course). Therefore, as mentioned before, it should be the responsibility of the teacher to select the right activities to complement or substitute the coursebook.

The criteria that influence the choice of a specific activity from the pool are presented here. The first is variety of practice, as it is attempted to practice activities that promote different kinds of skill and cognitive process. For example, a gap-fill exercise can be done after an activity of collection of information to provide a memory exercise after a highly communicative one. The second is connection with the previous activity, or whether this is a sequitur in terms of difficulty or topic, as the connection may provide a natural increment. For example, after activity 62 *Detective alibi* (Granger & Plumb, 1993)[54], it is usual to do activity 63 *Murder at Gurney Manor* (Hartley & Viney, 1978) because they cover the same grammatical topic and the same overall topic: activity 62 requires learners to find information and conjugate verbs in the Past Simple, but activity 63 further requires learners to recognise the past tenses and use them orally. The criteria also include level of difficulty of the activity, where it is the prerogative of the teacher to judge which activities are appropriate according to their difficulty for each group considering their average performance and skill, so as to not make the activity frustrating or unattainable. For example, in some groups which show a better initial understanding of a given topic, some initial induction exercises may not be relevant. Conversely, if a topic is seen as particularly difficult, it may be advisable to start with simpler activities which require less cognitive involvement.

Another criterion is interest and productivity of the activity: activities that create more interest and are more productive should be allowed to run their course, as this may prove a more complete and rewarding exercise for the learners. In this case, it is not so relevant to have extended variety, but to recognise what works and allow learners to enjoy an activity without so much concern for the strict balance of time. For example, while doing activity 111. *Debate pros and cons*, usually learners get involved and spend considerable time discussing the topics, not only using the necessary comparative structures, but also speaking more freely and using more language.

Level of tiredness and alertness of learners is also part of the criteria, as some activities may prove easier to execute depending on the energy of the group in general. For

[54] All activities mentioned in this section are fully described in Appendices 5 and 6.

example, if the teacher feels the group is tired, it may be worth introducing some simple and physical activity that provides a quick reward, and if the group is still fresh and willing, more labour-intensive activities may be adequate.

Another criterion is the time available in relation to need for practice, as it is not possible to spend indefinite time on a topic until the performance of all learners is near perfect; this would not leave enough time for enough topics to be discussed, but neither should the teacher rush through topics to meet a programme. There should be a balance between how much time is spent on topics and how much need there is for time on that topic to have an average overall improved performance according to the level. For example, in the Study Courses, more time is spent on Future tenses than on Present tenses because the Future is considered a new and challenging topic for learners at B1.1 level, and it is not dealt with sufficiently in previous levels, unlike the Present tenses.

Also part of the criteria is time between lessons: some activities may be repetitive if done too close together but they can be used repeatedly if not done in sequence ,but as a repeated technique to engage the learners, and therefore provide safe, known paths established previously. For example, some groups enjoy a certain type of game more, for example the noughts and crosses activities 53 *Irregular noughts and crosses* and 155 *Four-in-a-row prepositions*, and since this game is easily adaptable to different topics, learners enjoy repeating the activity.

Finally, the criteria also include current mood and coincidence of topic, as some activities are more appropriate because of chance occurrences, providing a connection with real life topics relevant to the learners. For example, a learner may have an interesting question or topic to discuss which engages all learners, and the teacher should make time for this if it is relevant and interesting to the group, even if it is not part of the plan. Furthermore, if learners adapt activities themselves and are active in the decision of what to do in class, provided this is judged productive by the teacher, it should be incorporated in the class. For example, sometimes learners prefer to do gap-fill exercises individually and check together at the end, and some groups prefer to do them in pairs and check as they progress. Again, it is up to the teacher to take the pulse of the class in the moment and assert what is the best course of action.

4.2 Results and outcomes of the study

The results of this study are based on the units covered in the courses in the study, which, for the first half of a B1 level, should cover half the book (5/10 units), but for all the courses in question, the first half of the B1 level, 4/10 units were covered. The reasons for this were twofold: there was the need to spend more time on some units, either because the classes generally needed more time and practice with specific topics, or because a few learners had been absent and there was need for revision and extra practice for some topics.

All the courses were carried out without issue, and the learners completed the course successfully. Standards of behaviour and expectations were high and personal interaction between teacher and learners was positive and constructive. In the groups in this study, the learners showed the ability to work together for a common goal using different strategies and tapping into knowledge and experience of younger and older learners to enhance their own learning outcomes.

There were six learners in three of the groups who were not native speakers of Portuguese. They were given the same tests and included in the course in the same way as the remaining learners, but their data was not considered for this study.

Both the Pre-test and the Post-test were sourced from the *English File* materials: the Pre-test from the "English File – Intermediate Teacher's Guide" (Latham-Koening et al., 2019, pp. 147-148), and the Post-test from the *File Tests* (Units 1 to 4) from the *English File* website mentioned above. These sources were chosen for three reasons: firstly, because the coursebook is the main resource, and therefore the testing tools should be used as well whenever possible, for coherence; secondly, because these were seen as unbiased towards the study as they were not produced specifically for it, and thirdly, because they were available to all the teachers in the Study and Control Groups.

All the tests in the Study Groups were done in class, with a time restriction and under the supervision of the teacher, and without resort to aids. Tests for Group G were also done in person under supervision of the teacher. The tests for the Control Groups E and F were done online.

4.2.1 Results of the Pre-test

The Pre-test (Appendix 2) was applied to all groups at the beginning of the respective courses and before any instruction had been given. This test is meant to be used as a diagnostic for the course and it covers most of the areas of grammar dealt with in the main units of the coursebook. For the purpose of this study, there are 14 questions which cover the relevant grammar topics. (They are marked at 1 point per multiple choice question and 2 points per fill-in-the-gap question for a total of 22 points). However, there are two relevant grammar topics which are not covered in the preliminary test: Present Perfect Continuous and Modals for Ability. The reason for the exclusion of Modals for Ability could be that this topic is regarded as having been covered at earlier levels more exhaustively (as can be seen from the lists of grammatical topics included for the previous levels in Appendix 1), and therefore not necessary in the preliminary test.[55] Conversely, the Present Perfect Continuous is considered as a new topic at this level (as seen by its absence in the list of grammatical topics covered in previous levels in Appendix 1) and therefore it is expected that it cannot be tested early on.

The grammatical items covered in the Pre-test are as follows:

- Present Simple and Present Continuous (questions 1.2 and 2.8)
- Future tenses: Future Simple, Future *be going to* + Verb, Present Continuous as Future, Present Simple as Future, *shall* + Verb (questions 1.4, 1.8 and 1.9)
- Past Simple and Present Perfect Simple (questions 1.5 and 1.6, 1.11 and 2.3, respectively)
- Comparative and Superlative Adjectives and Adverbs (questions 1.12 and 1.13)
- Articles (question 2.9)
- Modal Auxiliary Verbs for Obligation (*should, must/have to, be able to*) (questions 2.11 and 2.18)
- Prepositions (question 2.12)

[55] However, this would not explain why other topics covered in previous levels are included in the Pre-test, but it is only possible to speculate as to the reasons behind this decision.

The results of the Pre-test yielded an overall average of 43% accuracy rate for the Study Groups and 57% accuracy rate for the Control Groups. The detailed results according to grammar topics are presented in Chart 1.

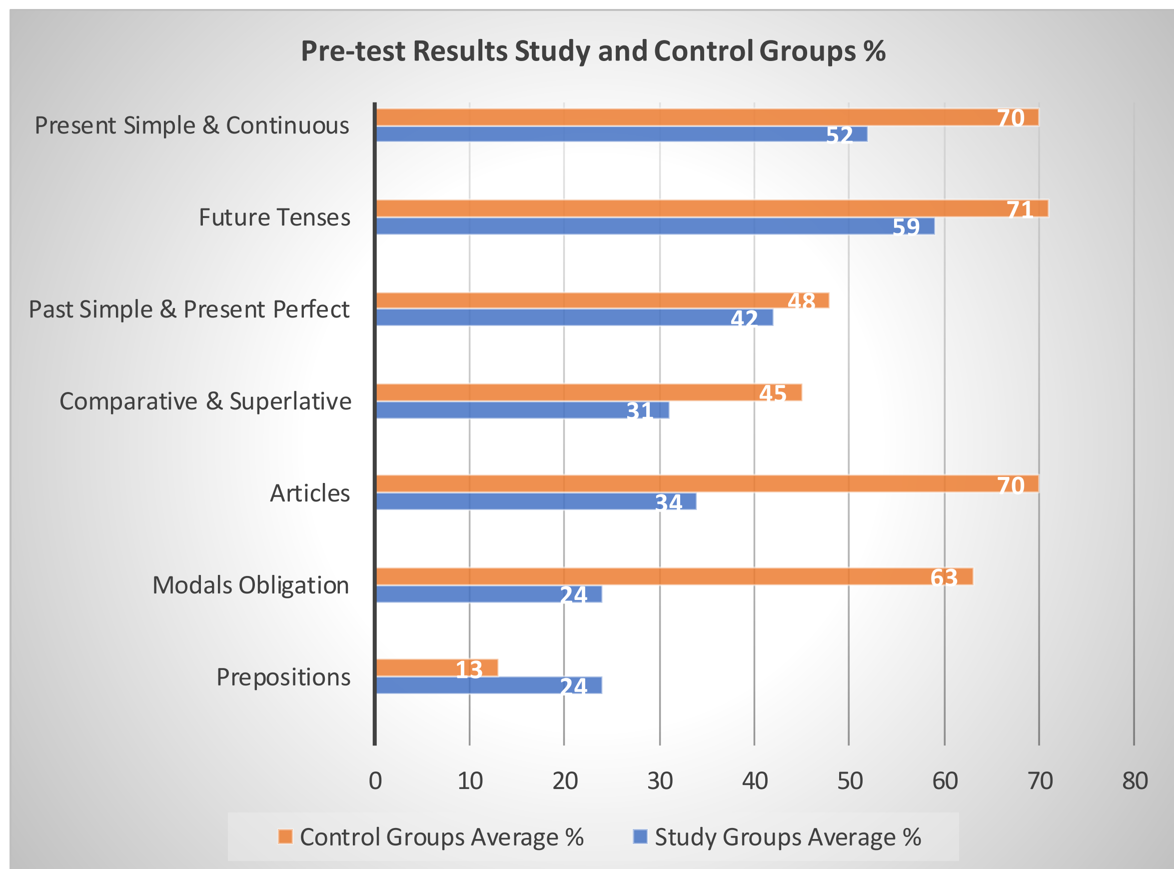

Chart 1: Pre-test results (in percentages) for Study and Control Groups for the grammar topics covered

In Chart 1, a marked difference is evident between the two groups, with a considerable advantage observed in the Control Groups, consistently rating above 50% in key areas (Present Simple and Continuous - 70%, Future - 70%/75%, and Articles - 70%). In contrast, the Study Groups obtained a more modest general score, averaging around 50% (Future tenses - 59%, Present Simple and Past Simple - 55%). These results could be attributed to the frequent exposure to and extensive coverage of present tenses and future tenses at lower language proficiency levels, leading to reduced difficulty at the B1.1 level. Notably, both the Control Groups and the Study Groups scored lowest in Prepositions (13% and 24%, respectively), while the Study Groups also obtained their lowest scores in Comparatives and Superlatives and Modals of Obligation (31% and 24%, respectively). It is

unsurprising that the topics of the Present Perfect and Prepositions yield the lowest scores, as Prepositions are notoriously challenging due to their variety and frequency, while the Present Perfect poses a particular challenge for Portuguese speakers, as previously mentioned.

Additionally, the limited number of relevant questions in the Pre-test may result in specific questions posing varying levels of challenge within their context, which is unrelated to the effective use of the grammar item.

Overall, the Pre-test results for both the study and Control Groups align with what is expected at the entry level of B1, especially considering that most learners are new to the course and were tested for their level just prior to its start, rather than progressing from a lower-level course.

4.2.2 Results of the Post-test

The Post-test (Appendix 3) was sourced from the *File Tests* in the *English File* website*,* and it was part of a wider test which included other topics for other areas of language. The Post-test analysed in this study is the final test's grammar section (and two sections from the vocabulary part about Prepositions) and it was administered to all groups (both study and control).

The Post-test comprises twelve sections for the pertinent grammar topics, containing between six to eight questions in each section. Multiple-choice questions are scored at 1 point for each correct response, whereas gap-fill questions carry a weight of 2 points per item, as they pose a higher level of challenge.

- Present Simple and Present Continuous (question 1.1x1 point)
- Future tenses: Future Simple, Future *be going to* + Verb, Present Continuous as Future, Present Simple as Future, *shall* + Verb (question 1.2x2 points)
- Past Simple and Present Perfect Simple (question 2.1x2 points)
- Present Perfect Continuous (question 2.2x1 point)
- Comparative and Superlative Adjectives and Adverbs (question 3.1x2 points)
- Articles (question 3.2x2 points)

- Modal Auxiliary Verbs for Obligation (*should, must/have to, be able to*) (questions 4.1x2 points)
- Modal Auxiliary Verbs for Ability (*can, could, be able to*) (questions 4.2x2 points)
- Prepositions (question Vocabulary 2.5, 3.4x2 points)

The results of the Post-test yielded an overall average of 64% accuracy rate for the Study Groups and 55% accuracy rate for the Control Groups. The detailed results according to grammar topics are presented in Chart 2.

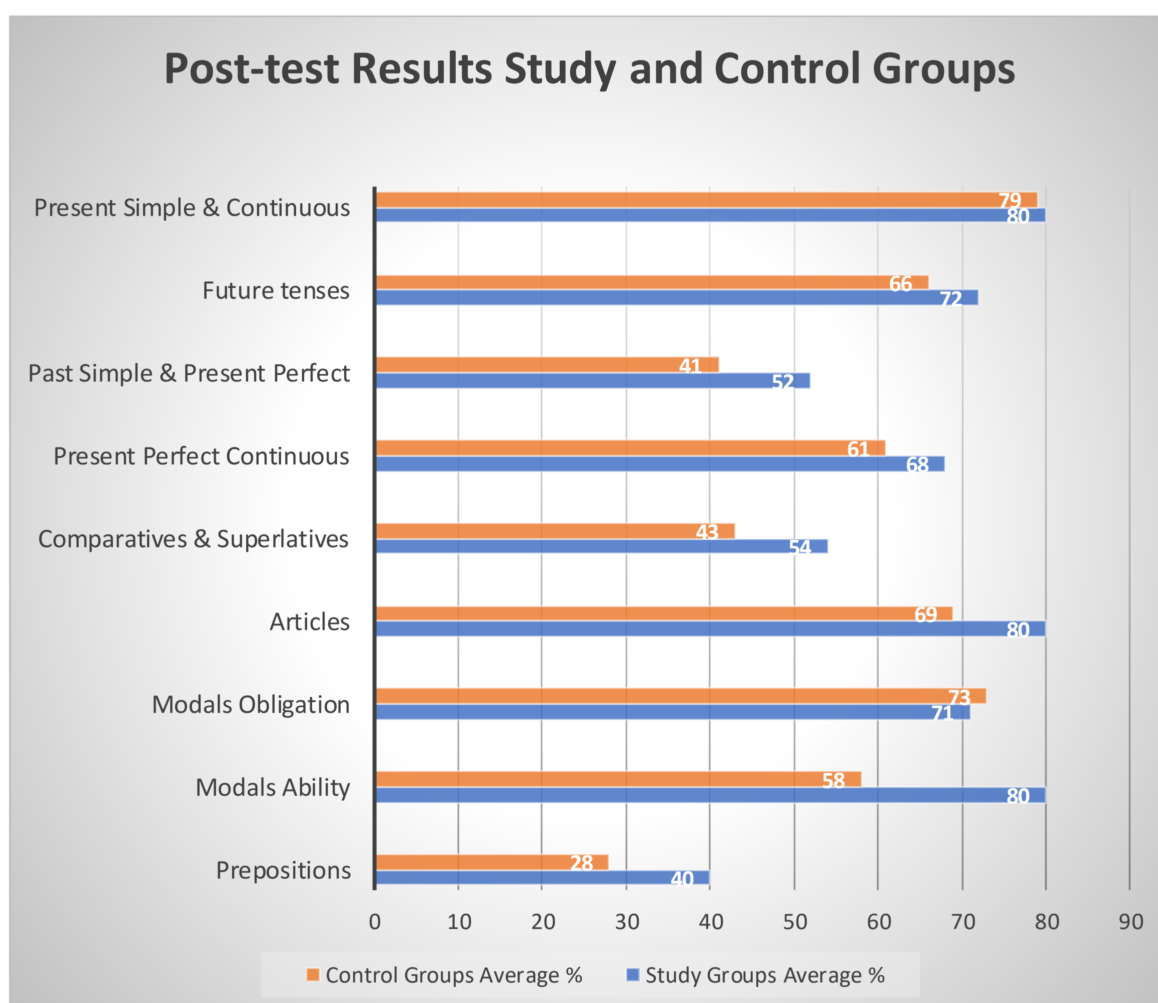

Chart 2: Post-test results (in percentages) for Study and Control Groups for the grammar topics covered

In the Post-test, it is noteworthy that the Study Groups exhibited a significant improvement compared to the Pre-test, where the initial level of accuracy was 43%. The overall score of 64% accuracy indicates substantial progress in linguistic proficiency.

Consequently, learners in these groups demonstrated the necessary grammatical competence to advance to the next level course.

In detail, the results reveal several differences from the Pre-test. Firstly, the Study Groups displayed a considerable increase in accuracy, achieving 80% accuracy in areas such as Present Tenses, Articles, and Modals for Obligation. The only area in which they did not show such significant improvement was Prepositions, which is not surprising, considering the difficulty learners generally experience with Prepositions, as was mentioned before. At the lower end of the improvement spectrum for Study Groups, the scores for Past Simple and Present Perfect was 52%. This might be attributed to the ongoing challenge posed by the lack of a direct equivalent of the Present Perfect tense in Portuguese, but it still represents significant progress. Similarly, the Present Perfect Continuous also presented a challenge, but the results were still quite positive (68%), indicating that this tense does not represent significant difficulty. Overall, the Study Groups demonstrated impressive progress in their language proficiency regarding the grammar topics covered in the level, and a generally better performance when compared to the Control Groups.

One intriguing aspect is the relatively low average score for Comparatives and Superlatives (54%), considering that it is an area typically covered at lower language proficiency levels. However, this could be attributed to the inclusion of several items in this exercise, some of which are less common (for instance, this section comprises questions related not only to the comparison including adjectives but also adverbs and the "*as...as....*" structure, which are less frequently encountered structures and may pose greater challenges in processing and retrieval).

The Control Groups' performance did not match that of the Study Groups, and their scores did not exhibit significant improvement from the Pre-test (57%) to the Post-test (55%), even when accounting for the added difficulty of the Post-test. However, the Post-test results still demonstrate sufficient progress in the learners' linguistic proficiency, indicating that these groups attained the necessary grammatical competence to complete the level.

While certain items still reached relatively high scores (e.g., Present tenses - 79% and Modals for Obligation - 73%), the improvement in comparison to the Pre-test was not substantial (previously 70% and 63%, respectively). Moreover, some items showed insufficient progress, namely Past Simple and Present Perfect (41%) and Comparatives and

Superlatives (43%), which aligns with the Study Groups' findings concerning the difficulties posed by these items for Portuguese speakers, regardless of instruction. The majority of items scored between 40% to 60%, indicating lower or comparable rates of accuracy to the Pre-test. However, there was notable improvement in the Prepositions section, despite it remaining the item with the overall lowest score.

When comparing the combined differences between the Study Groups and the Control Groups, as well as the differences between the Pre-test and the Post-test, it is clear that the Study Groups demonstrated considerable progress compared to the Pre-test and also outperformed the Control Groups in all items except for Modals of Obligation, where the difference in the Post-test scores between the study and Control Groups was only 2%. For the items not included in the Pre-test, the Study Groups maintained higher performance in the Post-test: Present Perfect Continuous (61% for Control Groups and 68% for Study Groups) and Modals for Ability (58% for Control Groups and 80% for Study Groups). As mentioned earlier, the improvement was more pronounced in certain areas, such as the Present tenses and Articles, while Prepositions remained the item with the lowest overall score.

Furthermore, there could be an underlying structural reason the Study Groups did not show the same progress in the Post-test in Prepositions as in the other topics. Apart from the well-known challenges associated with prepositions, the exclusive focus on grammar in this study could also have contributed to this discrepancy. Prepositions are not considered part of grammar in this study or in the coursebook; rather, they are considered as part of vocabulary. The techniques and practice described in this study are particularly suited for grammar instruction, whereas vocabulary instruction would possibly need a distinct study and potentially a different instructional approach, and that may explain the low results for prepositions.

It should also be noted that, since the Post-test is longer and more complex than the Pre-test, the level of accuracy required for the Post-test, as a final evaluation, is considerably higher. This may be reflected in the results of the Post-test, as they may show progress but not expressive progress, or even regression, due to this difference.

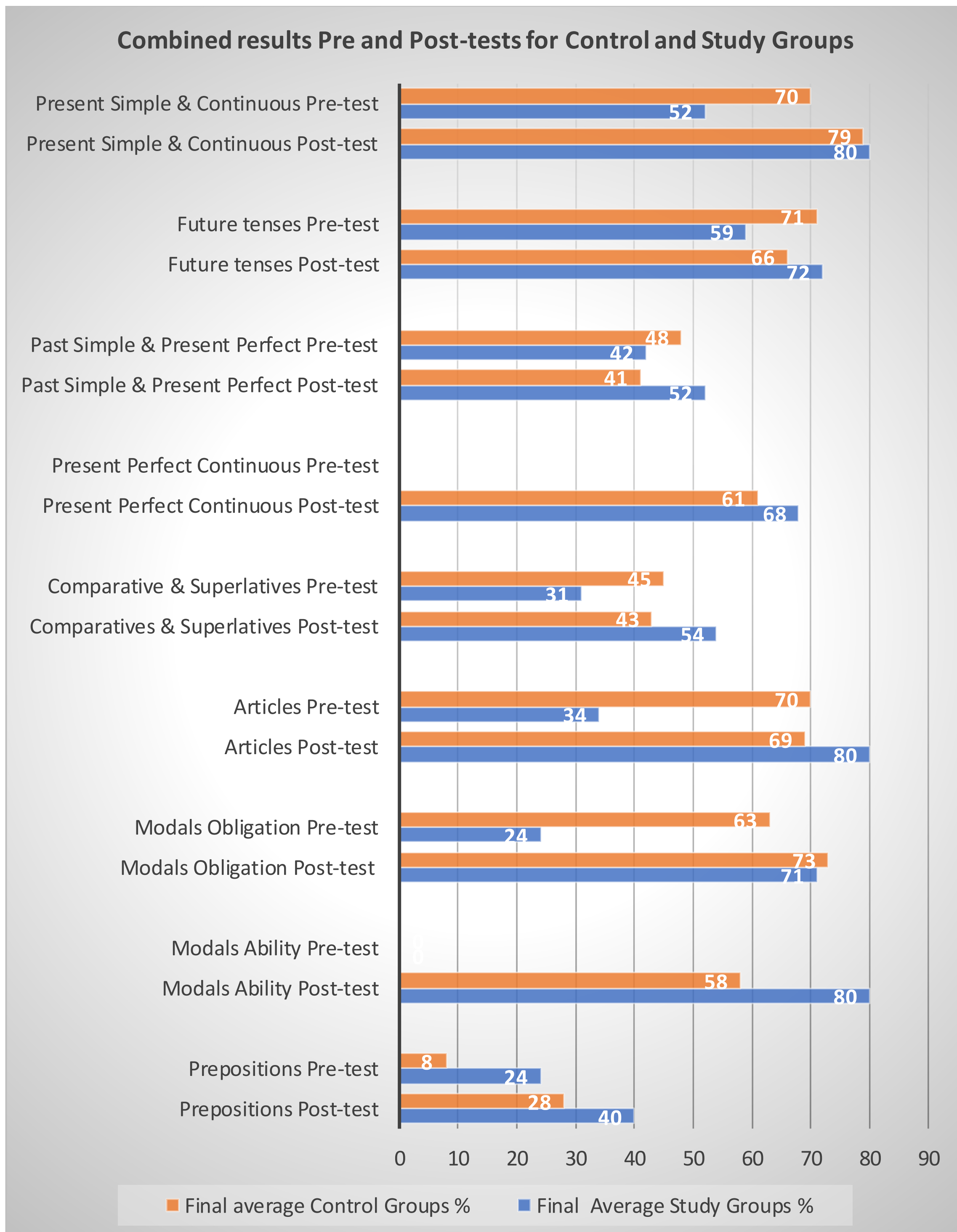

Chart 3: Pre and Post-test results (in percentages) for Study and Control Groups for the grammar topics covered

Comparing both Study and Control Groups for the Pre and Post-test, there is a significantly more pronounced improvement observed in the Study Groups compared to the Control Groups in all grammatical topics except for Prepositions. Several factors could account for these marked differences.

Firstly, it should be noted that the good results in this study must derive from the methodology used, as the differentiating factor. This methodology is novel because it includes, but not exclusively, CGL at its base. It is in this variety and in the intention of being flexible and inclusive truly distinguishes the methodology of this study. Furthermore, CGL is itself a very inclusive set of theories, as it reaches out to different areas, namely the different areas that inform educational linguistics, and it coexists well with other linguistic and teaching theories that have been historically opposed to each other. This provided a principled approach but still including variety and flexibility that made the methodology tailored.

One of the main principles applied in the methodology was that, since learners have a mental model of language connecting form and meaning which allows them to process it intuitively, this should be brought to the surface and used in promoting conceptual understanding of patterns and relations in L2, as in language in general. This process was useful in instruction as it went beyond mere explicit instruction and tried to promote linguistic analysis from the learners, turning them into budding linguists.

In fact, variety being one of the central drivers in this methodology, one of the questions asked of the learners at the beginning of the courses was if they considered themselves more inclined towards humanities or hard sciences, like mathematics. Learners with a natural inclination to languages would naturally engage with the communicative practice and the dynamics of the language class, but, for learners with a learning style more suited to hard sciences, the analogy was made between mathematics and linguistics. It was highlighted that language, like mathematics, is a system of symbols that represent reality to which a set of rules is applied. The examples of a correctly formed simple sentence and correct mathematical operation are given, followed by a small change to make them incorrect.[56] This illustrates how symbols such as numbers and words represent reality, and how the rules of language can be recognisably used correctly or incorrectly, so language can be seen as a logical, organised system, as well as an organic, fluid, unpredictable organism. Bringing forward this natural ability all learners possess to deal with language and its multifaceted properties, even if they might not be aware of it, was one of the differentiating factors of the methodology. This was particularly used in instruction, where opportunity was

[56] For example: "The cat is black." – "2+2=4", "~~The cat are black.~~" – "~~2-2=4~~"

given to learners to contribute to the discussion in a varied way, thinking together with the teacher to describe and understand the system.

Another factor in the good results obtained was using the above-mentioned adapted treatment of grammar instruction, but still relying on mature materials, resulting in a balanced use of resources, between variety and principled use, which led to more effective instruction and practice, and ultimately improved retrieval of information in the test. Therefore, the success of the learners must also derive from the tailored practice during the course. The teacher used existing materials, adapting them according to theoretical principles of CALT applied to a concrete set of learners. CALT dictated the variety and flexibility of activities, such as providing practice that varied from gap-fills to negotiation, thus catering to different learning styles and allowing for different cognitive functions to be used in practice. For example, extensive use of embodied cognition in practice helped reinforce the connection between language and the environment, underpinning the notion that language is usage-based. Furthermore, substantial use of visual interpretation and image schemas (also combined with embodied cognition) at every step in instruction and in practice also contributed to differentiate the study courses and improve their results.

Another key differentiating factor related to CALT which is likely to have contributed to the success of the Study Groups was the use of L1 in the L2 class and the use of learners' encyclopaedic knowledge to provide helpful context and scaffolding. By not excluding L1 from the L2 class, but rather including it in instruction of L2, learners were able to fast-track the understanding of target structures. Furthermore, promoting practice that relies on learners' knowledge of the world and using it as a driver for L2 expression also seems to have promoted entrenchment in memory of information regarding the target structures, and therefore better retrieval in the Post-test.

However, analysing Table 3 of activities and techniques and comparing it to the results from the Post-test does not yield as clear-cut outcomes as the analysis of Charts 1, 2 and 3. The distribution appears irregular, and there is no evident correspondence between the most frequently employed technique for a given topic and a consistent result in the Post-test for the same topic. Moreover, since not all activities were uniformly applied across all courses, it becomes particularly challenging to attribute specific outcomes to individual activities within the pool. This is the disadvantage of tailoring a course in such a specific way that it cannot be replicated, but it is still considered that the benefits outweigh the

indistinctness of categorisation. Furthermore, all the courses in the Study Groups shared the same grammar instruction and the only difference was in the choice of practice from the pool, so it can be said that the methodology plays a significant role in the overall improved results observed in the Post-test, as evidenced by the comparison with the results of the Control Groups.

4.2.3 Further results

Apart from the overall results of the Pre-test and the Post-test for the study and Control Groups, there are further detailed results and comparisons that are relevant to the study. Firstly, it is important to confirm if the different characteristics of Group G affect their results in comparison to the rest of the groups, and if they are within standard deviation. Secondly, it is also relevant to inspect individual results for learners with different characteristics. It is also pertinent to compare the results of courses with different timetables and, finally, analyse the results according to the age of the learners.

Group G compared to other Control Groups

As mentioned above, Group G did not share all the characteristics of the remaining groups, and therefore it is relevant to analyse the results of the Pre-test and the Post-test of this specific group in comparison with the results of the remaining Control Groups to establish if it lies within the acceptable standard deviation. The results are presented below in Table 6, with the average results for Control Groups E and F, from which the standard deviation was drawn, in comparison with Group G.

Grammar topic	Pres Sim & Cont Post-t	Future tenses Post-t	Past Sim Pres Perf Post-t	Pres Perf Cont Post-t	Comp &Sup Post-t	Art Post-t	Mod Oblig Post-t	Mod Ability Post-t	Prep Post-t
Average Groups E/F	**81%**	**68%**	**37%**	**62%**	**46%**	**75%**	**74%**	**64%**	**30%**
Standard Deviation	17.12%	23.22%	22.91%	16.44%	28.42%	22.47%	12.22%	30.56%	17.79%
Percentage within upper or lower standard deviation	>64%	>45%	<60%	>46%	>17%	>53%	>62%	>34%	>13%
Average Group G	**75%**	**60%**	**52%**	**57%**	**35%**	**56%**	**70%**	**43%**	**22%**

Table 6: Standard deviation and Group G results

Table 6 shows that Group G is within the standard deviation for this data set in all the grammar topics. For example, Groups E and F have an average of 81% for the Present Simple and Continuous. The standard deviation, considering the individual results of Groups E and F, is of 17.12%, which means that a result as low as 64% is still within standard deviation, and therefore the result of Group G is acceptable at 75%. For all the grammar topics except for the Past Simple and Present Perfect, the results of Group G are lower than for Groups E and F, but, even if deviating to the higher end, for this particular topic, the result is still within the scope of standard deviation. Groups E and F have an average of 37% for the Past Simple and Present Perfect; the standard deviation considering the individual results of Groups E and F is of 22.91%, which means that a result as high as 60% is still within standard deviation, and therefore the result of Group G is acceptable at 52%.

Specific learners and individual results

There were two learners in the Study Groups that required special analysis due to their responses in the questionnaire given with the Pre-test (Appendix 2). One learner stated to have learnt German as well as English as an L2, and this could change their results because English and German are in the same language family and it could therefore benefit this learner in the English class (presuming their knowledge of German could be extensive). However, this learner (Student 6 in Group C) performed at a lower level than the rest of the learners in the other Study Groups for five of the nine grammar topics covered, and for three topics the difference between this learner and the group average was of

approximately 10%, which leads to the conclusion that the knowledge this learner possesses of German did not affect their overall result in an expressive way.

Another learner who requires attention is one which stated they suffered from mild dyslexia in the questionnaire given with the Pre-test. This condition could affect language learning and therefore influence the results the learner attained in the Post-test, particularly because this was a written text. However, it can be seen from the results in Chart 4 that this learner not only was not affected by their condition but they even achieved better results that the group average on every grammar topic tested, so it is therefore concluded that the dyslexia did not have an impact on their language learning.

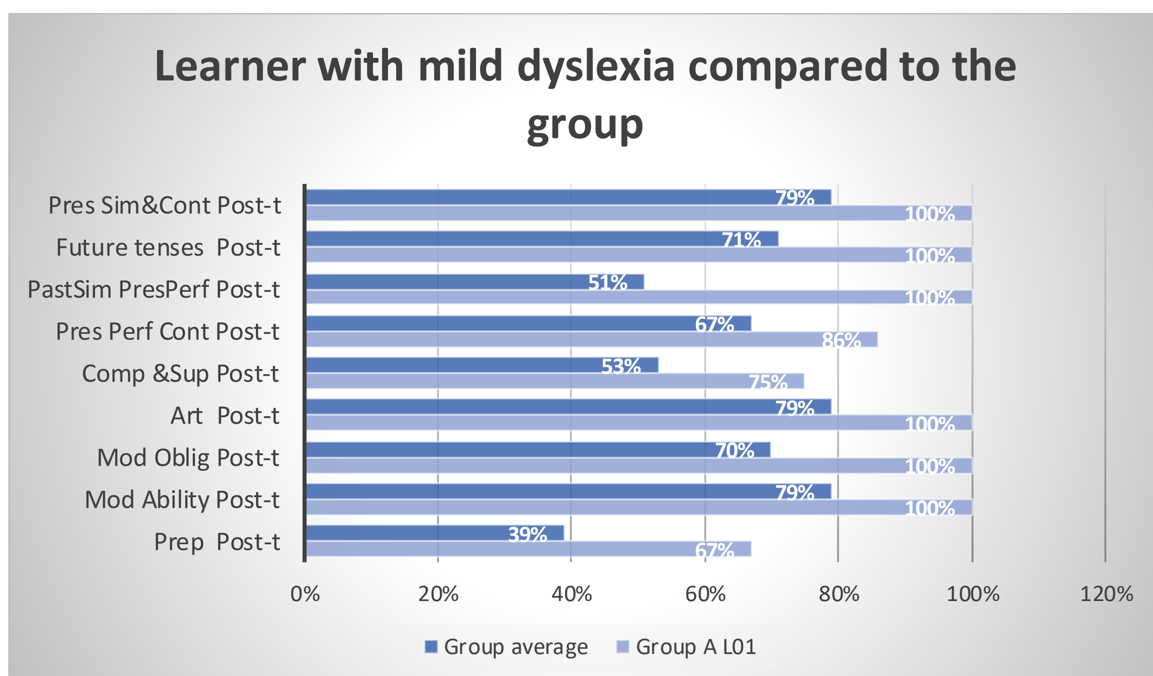

Chart 4: Results of learner with mind dyslexia in comparison to the overall average of the Study Groups

The information for these specific cases and the individual results in Pre and Post-tests for each learner in the study and Control Groups is included in Appendix 3. As mentioned before, the progress shown may be less than expressive in the comparison between the Pre-test and the Post-test, but it is still relevant to analyse the differences between the Study and Control Groups. From the Study Groups, only five learners out of 28 did not improve on their results from the Pre-test to the Post-test, and the majority achieved considerable results, as can be seen in Appendix 3. For the Control Groups, the results show that nine out of the 20 learners did not improve on their results between the

Pre-test and the Post-test. This is nearly half the learners who did not attain the expected development by the end of the course. The reason for this must lie with the methodology for the courses or with the preparation for the tests and their content, but the reasons cannot be established since there is no information about the specific methodology and practice for the Control Groups.

Timetable differences

One further difference between the groups which was analysed was their timetable. As stated before, a timetable distribution of 2h-classes or 4h-classes over a few weeks or a few months could affect the overall performance of the learners, and have an impact on their performance in the Post-test. However, comparing the results, it is clear that there is no clear benefit to having 2h bi-weekly classes, 4h once weekly classes or even 4h daily intensive classes for Study and Control Groups combined. The results vary from group to group throughout the grammar topics and the overall accuracy average of the 4h-class groups and the intensive group is the same, 67%, and the 2h-class groups is lower, at 59%, but these differences are not considered relevant. In fact, unlike what was predicted, having shorter and more frequent classes did not make them more efficient for learning, but it could also be the case that the small sample size here could affect the results.

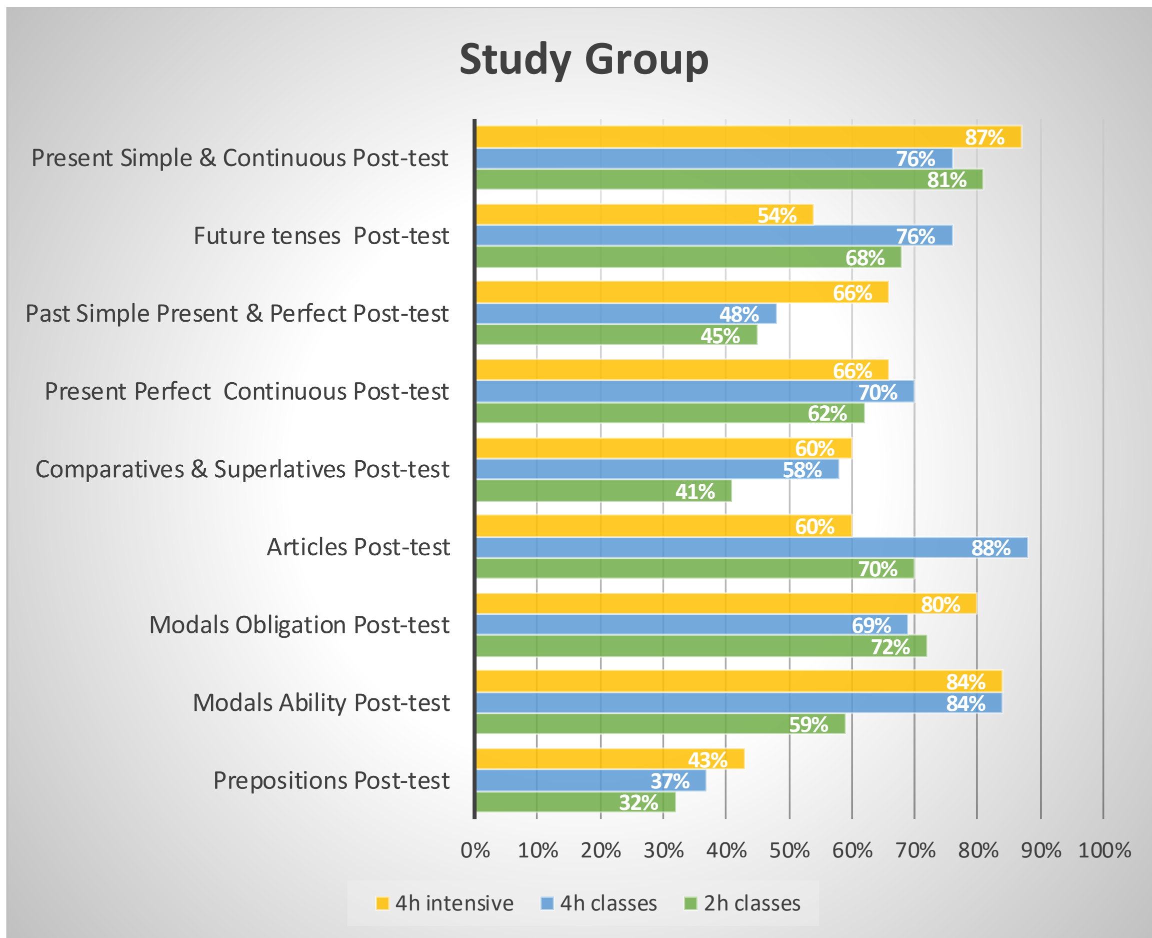

Chart 5: Comparison of results for different timetable distribution for Study and Control Groups

Finally, the difference in ages of learners was also taken into consideration to make a comparison between the results of younger and older adults. The learners in this study are all adults, but there is a wide range of ages and therefore it was considered relevant to compare the results of adult learners over and under 25 years of age. This is because it is considered that adults up to the age of 25 have recently reached the end of their schooling, and therefore are still familiar with the classroom environment, and because they are also considered to have recently consolidated their knowledge of their L1 as fully proficient language speakers. Adults over 25 are considered to more frequently pursue a professional career, further distanced from school and its habits, and they are considered to have had consolidated their L1 further in the past, and therefore this cut-off point was defined. However, the results for the Study Groups show there is no considerable difference for any of the grammar topics regarding age, with the possible exception of Prepositions (here the difference is of 13%, which is not considered relevant but it should be noted for the special

nature of prepositions and because the differences in other grammar topics were under 10%). This could be a result of the instruction, which is as appropriate for younger adults as it is for older adults, and the practice being effective across the board of ages of adulthood.

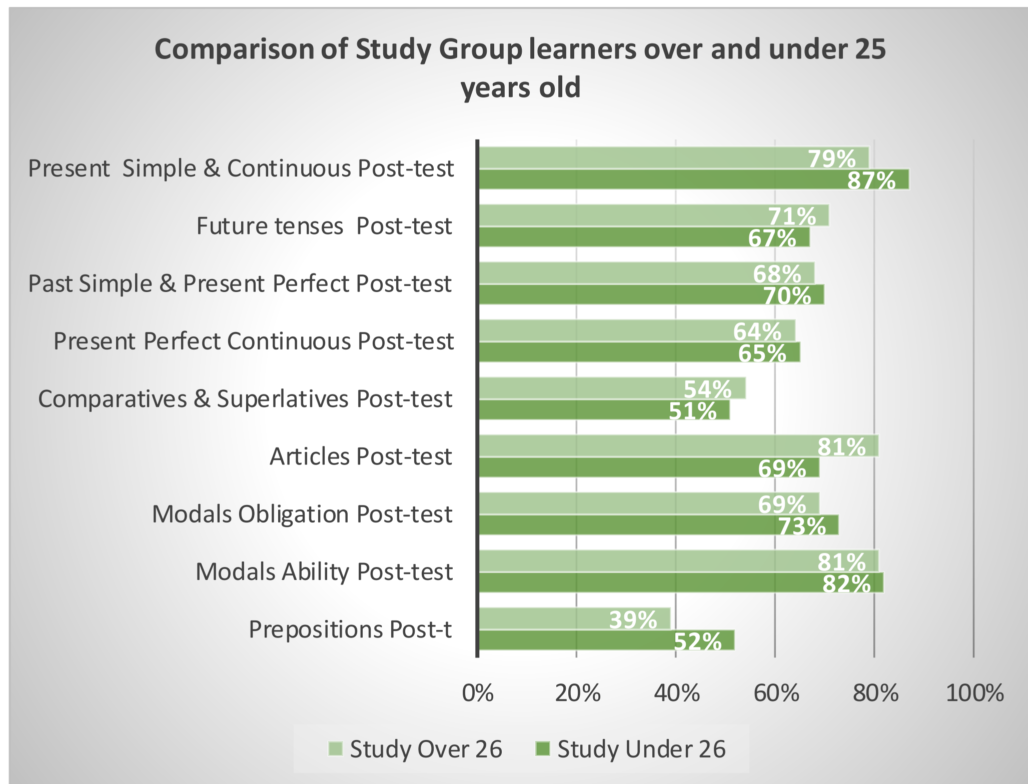

Chart 6: Comparison of learners over and under 25 in the Study Groups

For the Control Groups, the differences were equally negligible, where the over 25s and under 25s show differences of accuracy of around 10%, and the only topic for which there was a marked difference is the Present Perfect and Past Simple, in which the under 25s did better by almost 20%. This could be a difference in instruction or practice, but it cannot be analysed as it is part of the Control Groups.

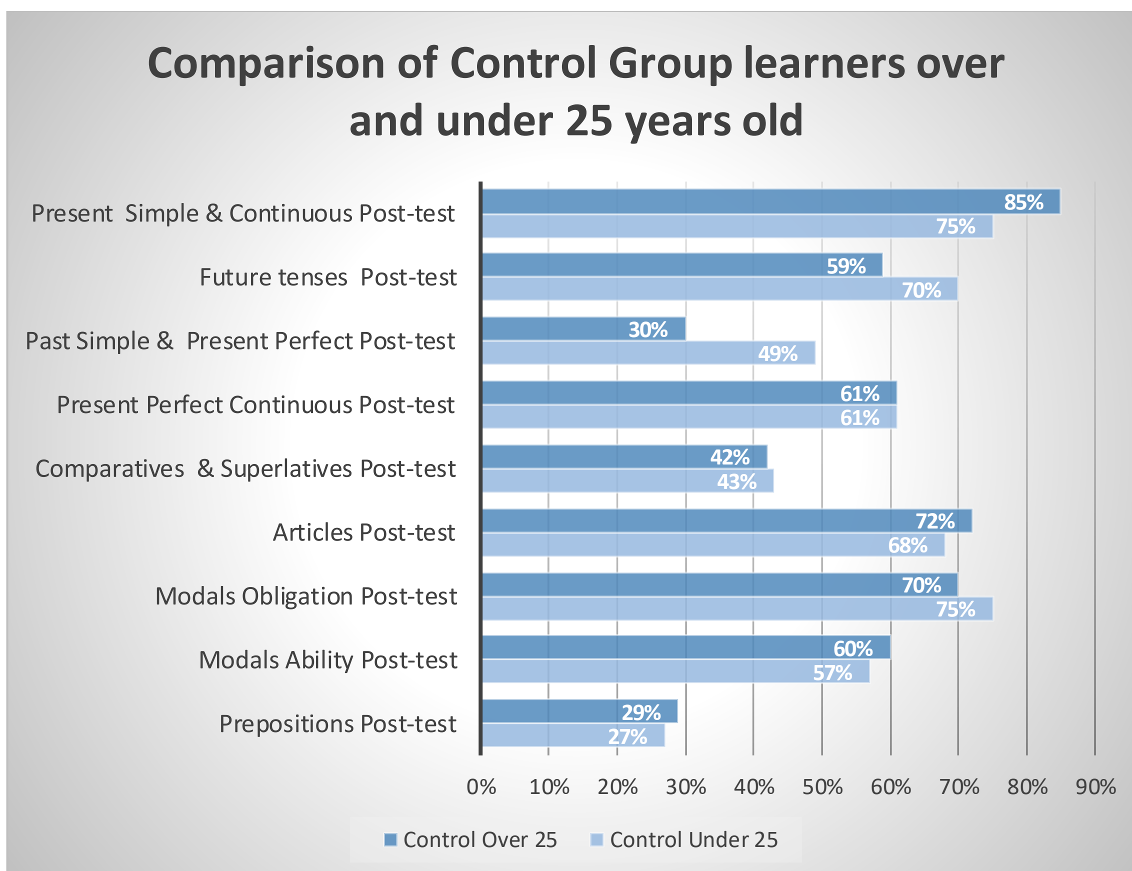

Chart 7: Comparison of learners over and under 25 in the Control Groups

The comprehensive data serving as the basis for the charts mentioned above can be found in Appendix 8.

Finally, part of the evaluation for grammar was the participation of learners in the class activities and revision activities, and it is noted by the teacher that in all the Study Groups fluency in every learner increased as they became more comfortable with the class but also as they developed their ability to communicate and use the structures. A dynamic of nearly constant speaking and listening (in whole-class activities, in groups and in pairs) in various activities also helped to promote fluency and experiment with more or less control from the teacher. This was noted down as evaluation of fluency, but it does not have the formal accountability of the Post-test, it is only present in the final evaluation for the course. It should be noted that the final evaluation of learners was generally higher than the single mark obtained for grammar which is the focus of this study because the final evaluation for both the Study and Control Group courses extended beyond a grammar test or a written assessment, as such an approach would be limiting in understanding linguistic proficiency.

Nevertheless, it is important to recognise that the level of accuracy in grammatical structures holds great significance for level B1, as it represents a threshold level where learners should communicate effectively and precisely on familiar topics using essential language structures, as described in the CEFR (Council of Europe, 2020).

4.2.4 Overall evaluation of learners' performance

The intention of this study was to have a concrete, measurable reference for progress in the written tests, but the final evaluation of the performance of the learners, which resulted in an overall mark for the B1.1 level course, was not based exclusively on their results in grammar, nor on the written test, but on progress in the fluency of English and accuracy appropriate to the level, including areas such as the four skills.

Furthermore, the goal was to create sustained development and to raise learners' awareness to linguistic knowledge not only of the newly explored L2 but also, to some extent, of their own L1 and, and how two languages represent different perspectives of the world, in the sense that languages can be said to reflect culture and have an individual way of portraying the world. Also, in a broader sense, the goal was also to raise awareness of what language is, how it works and how human beings are able to use it. To achieve this, the teacher engaged the learners through instruction and activities based on CALT methodology, and promoted an open, judgement-free ground for discussion. This was attempted in all the Study Courses, and signs of success were apparent in the Post-test, but also in the overall assessment. Some learners were very shy at the beginning of the course and took some time to feel comfortable, so there was a definite effort not to force people into participation, and to vary the type of practice to accommodate different behaviours and learning styles, never imposing but asking for cooperation. Learners were also given some freedom to establish work groups, which made them feel more comfortable, and since there were different types of grouping for exercises, there was always opportunity to vary work partners and group size. Learners were invited to personalise their participation as much as they felt comfortable with, in ways that they considered productive to improve their linguistic performance. The group dynamics always evolved progressively, and every learner found their place in the group, respecting their own personality, learning style and preferences, accepting difference and willing to try something new. The result was that, by

the end of the courses, behaviour had become cohesive and learners showed an overall improvement not only in producing the language but also in analysing it, questioning it, and finding their own solutions. This is considered the greatest achievement of the present study.

Some learners performed at a lower level than the average in their grammar and overall evaluation, and this could be because they started from a lower standpoint than others, in which case their progress was seemingly shorter but relevant, or that they could not fully commit to the course and therefore did not engage as well with the group. It was generally the case that learners who attend more regularly integrate better in the group dynamic (regardless of other differentiating factors they may have) and this inclusion is harder for learners who attend irregularly, but not impossible. As already mentioned, learners missed classes because of personal or professional commitments, for holidays, or because they had to stay home in confinement because of Covid-19. However, the vast majority who finished the course did well and their final marks echo the results of the Post-test.

All learners were asked to evaluate the logistics, the methodology, the teacher, the materials and the overall course. These evaluations are anonymous, voluntarily and submitted directly to the schools, so the teacher has no access to individual assessments, but the evaluation of the teacher and the course was 100% positive.[57]

The teacher also discussed this overall evaluation of the course in class and asked for learners' cooperation in stating what they considered the positive and negative aspects of the course. Learners stated that they felt comfortable with the class and mentioned that they did not feel overly tired after long hours or late classes, as would have been natural; learners enjoyed the variety of exercises, such the ability to solve a puzzle, to compete with each other, or to talk to several people to find out more about them and share something about themselves too. Learners also mentioned enjoying the focus on visual cues and humour. Learners also stated that they enjoyed the focus on speaking in class and manipulating the language, even if this was not imposed on everyone, and the freedom to choose to speak or to listen. As a result, learners generally felt that speaking and listening practice was more relevant than other skills and that this helped them feel more confident

[57] The questionnaires were filled in by 70% of learners, and learners who do not participate in the study also participate in this evaluation. The evaluation of the factors decided by the teacher was of 100% or 5/5.

and improve their overall fluency, accuracy and complexity of language, even if they acknowledged flaws in their communication. Finally, most learners mentioned that they found the methodology different and interesting, including the explicit grammar instruction: the exploration of meaning related to form of CALT and the contrastive analysis between Portuguese and English, which they had not considered or done explicitly before. For example, the learner who is dyslexic stated that he had always done poorly in language class but later expressed his enjoyment for the class, commenting that he had never understood grammar as he did at that point. This learner increased his confidence and fluency gradually throughout the course and had one of the highest overall marks at the end.

As a negative aspect related to areas which are in control of the teacher, some learners mentioned that there could have been more writing practice, which was discussed and justified by the teacher within the general methodology of the course. Generally speaking, learners seemed to consider that the goals for the language course were achieved both in terms of formal and informal evaluation, and their language proficiency was successfully improved.

4.2.5 General outcomes and results related to the research hypotheses

The purpose of this study was to outline a framework to help teachers plan and execute grammar instruction and practice more effectively by providing them with available resources and guidelines; however, since grammar cannot exist apart from the other aspects of language teaching, guidelines were extended to other areas of the language class. The framework described here included a strong reliance on linguistic awareness and KAL, but it also included broader areas, not as quantifiable, such as identity, personal experience and culture. More specifically, through the methodology used in the study courses, there was an attempt to develop in the learners processes of self-actualisation, of socialisation with others, and of awareness of multiculturalism. This also implies that there cannot be strict borders around what is said and done in class, but it requires an organic, flexible structure to be adapted *in situ* by the teacher, considering the circumstance of the class. This was done in all the study courses, and the structure reflected this flexibility, which was perceived as successful. It was also relevant that the variety and nature of the practice facilitate better cognitive processing, as learners were able to perform at a higher level. It

should also be noted that better long-term memorisation was both revealed in enhanced fluency throughout the course, on one hand, but also in the final test on the other, which was comprised almost exclusively of gap-fill items, and this shows learners were able to recall specific language structures under controlled conditions but also able to use the language more freely and spontaneously. The ability to navigate both gap-fill exercises and more open-ended communicative tasks suggests a robust internalisation of language, leading to a deeper and more flexible understanding of the material. This comprehensive approach to language learning ensures that learners are not only able to remember and reproduce language in a testing scenario but are also prepared to use it effectively in real-world situations.

In this study, it is considered that the development of personal relationships in class is crucial, and the teacher always strived to have a positive working environment that extended to the areas of identity, experience and culture, as stated above, and also considered all sources of motivation, such as relevance, novelty, attitudes and relationships, and establishing common ground, for example, making learning stimulating and enjoyable while providing positive feedback and setting learners up for success with attitude and materials. This was very successful, as every group became cohesive and there were never issues of cooperation or respect. Attendance for most of the courses was very high[58], and so was active participation in class. One further aspect cohesive with CALT was the use of L1, in an optimal perspective, and resorting to code-switching. The freedom to use L1 in instruction of L2 when this comparison and connection are considered beneficial, such as at some steps of instruction, allowed not only for better processing of L2, as described by CGL, but it also provided context and a cultural connection for the learners. This did not mean that learners resorted to L1 at every step, but it made them feel more intellectually included and relaxed in class. It is therefore argued that the explicit instruction of L2 including L1 (and not just implicit) is beneficial to a faster processing of these structures, also allowing for more time to be dedicated to more challenging structures.

Furthermore, the guidelines for grammar instruction in this study are more comprehensive than the instruction in the coursebook, partially because of the mention to the specific L1. This was meant to provide a path for teachers to follow but which can still be

[58] The exception was Group A, which was still affect by Covid-19 quarantines.

adapted. This instruction is prescriptive and limited to the needs of learners at a given stage of their development, so this had the effect of representing an achievable challenge to the learners in question, and it made them feel empowered to be able to understand points of language without feeling the need to grasp the full system and by being able to resort to their L1, as previously mentioned. Through this balance of strict instruction and flexible practice, the learners felt engaged and stimulated, and contributed continuously to the class. The teacher assumed a role as both facilitator but also conveyor of language, adjusting her role to the learners but also to her teaching style, allowing the teacher to feel motivated and engaged herself.

The study courses included a global coursebook, and the same resources were available to the all the teachers in the study; in the Study Groups, the coursebook was used as a base for practice and as a guideline for instruction, but it was adapted and complemented to suit the needs of the learners according to the guidelines outlined by the teacher of the Study Groups. The coursebook was sufficiently used that it provided a safe base for the learners, and many of its activities were used. Learners were happy to have the physical anchor of the coursebook, but it was clear that it was not necessary or desirable to cover the coursebook comprehensively, and learners were happy to have the variety of instruction and practice proposed, which they found more tailored in one case, and more novel in the other. In fact, as according to Tomlinson (2016a), learners were exposed to rich (varied and authentic), recycled (suitable for repeated use), meaningful and comprehensible input, they were affectively and cognitively engaged in various ways and the instruction and practice they experienced included an explicit connection between form and meaning, but also extensive practice of the structures for communication. This once again provided enough stimulation and personalisation to engage the learners effectively, as seen in the results of the Post-test (and also in their final overall evaluation).

Research Hypotheses

The focus in recent decades in mainstream teaching has continued to be on CLT and TBLT, and CALT has not yet been sufficiently explored for its potential in L2 teaching. Therefore, the proposal in this study is to provide teachers with a practical procedure, using the available resources but adapting them in accordance with a comprehensive

methodology of L2 teaching, as described above, with a special focus on CALT. This is meant to allow teachers to consider the theoretical framework but also see it applied in the classroom; this example can help teachers reflect on how to change and adapt the application of the theory to suit their own needs and style, rather than starting from scratch.

Considering the first hypothesis presented in the study, that CALT entails principles that promote effective foreign language learning, the first conclusion is that CALT principles (such as the usage-based nature of language, promotion of maximal exposure and learner output and manipulation of language, and using a human perspective to describe, explain and practice language) provide current teaching methodologies with a theoretical background that supports effective classroom practices. From the concepts of CGL that have an application in CALT, this study includes the use of categorisation and the notion of construal and metaphor in instruction, and the notions of encyclopaedic knowledge, embodiment, chunking and visualisation (including diagrams) in practice and instruction. Furthermore, CALT also brings forward factors in learning which are not as relevant in other methodologies, such as attention, memory and frequency, when considering the relation between the learner and L2. Therefore, it can be said that CGL and CALT make a significant contribution to educational linguistics because they connect with all of its areas. CGL and CALT relate to theoretical linguistics and teaching methodology, respectively; neurological and psychological aspects of language learning are incorporated in the basic tenet of CGL that language is viewed as a cognitive process because it involves the use of general cognitive abilities, such as perception, memory, and conceptualisation, to create and understand meaning, with linguistic structures emerging from and reflecting these mental processes. Additionally, the social aspects of language learning are related to the basic principle of CGL that language structure and knowledge are shaped by the frequency and context of usage, with patterns emerging from repeated, meaningful interactions in communication. language is the product of constant use.

Moreover, it was seen in this study that CALT provided not only solid bases for instruction and practice, but that it articulates well with other methodologies (rather than choosing more mature and more restrictive methodologies) because it provides the flexibility to use a wider variety of technique, but it also allows to scale back to basic common cognitive processes; since CALT has not been widely developed for use in the classroom, it is fertile ground to explore in terms of educational linguistics.

The second hypothesis was that adult foreign language learners benefit from an explicit grammar framework with declarative metalinguistic teaching. In this study, grammar instruction was explicit and learners were always motivated to make the connection between meaning and form and to analyse grammar as a complex but necessarily logical system – as it can be learnt – trying to find logical links and categories, rather than just memorising rules, thinking along and even challenging the teacher and the information provided in class. This is also in line with the EC model, which encourages learners to consider entrenchment and conventionalisation to understand language according to cognition and vice-versa. Learners could then analyse language and try to understand its workings against their own cognitive processes, with the assurance that language is a human product and therefore must be subject to these cognitive processes, in spite of the differences it may present. It can now be concluded that it is possible to adapt and extend grammar instruction from a global coursebook and also that the teacher can also promote long-term learning by, firstly, providing the learners with a varied choice on how to explore and expand their own language competence beyond the class through access to resources such as books, films and websites. Secondly, the teacher can promote long-term learning not just by teaching L2, but also teaching how to deal with information in L2 and how to learn individually, providing learners with the necessary tools to analyse language and become more independent in their learning.

This engagement of learners with L2 created a feeling of familiarity and capability in learners which is particularly important for adults, as they have sometimes a more reduced tolerance to the unknown. In fact, it can be considered that this attitude in class caused transformative learning and it was in line with the principles of andragogy in including the learners in understanding their needs and giving them the power to decide what is more effective and relevant in the language class. The environment of trust and active engagement allowed the learners in the Study Groups to take responsibility in their individual and the group's progress, allowing for the good results attested. Furthermore, this multifaceted approach allows for the benefit of engaging not only the learners but also the teachers: by allowing the teacher to have the ultimate decision on what to do, it is proven that the teacher feels supported but also responsible and engaged in their job and in how they want to define their teaching style.

The third hypothesis is that L1 grammar and cultural background are important resources in learning a foreign language; progress in L2 learning will be facilitated by incorporating the learners' L1 (if they share one) and their age, in this case adult speakers of Portuguese L1. Regarding the adjustment to Portuguese L1 speakers, a conclusion can be drawn that more time should be spent on the topics which are predictably more difficult for Portuguese speakers, such as Future tenses, Present Perfect and Prepositions, even at the cost of heavy editing of the coursebook, redistributing time and resources to the most needed areas within the B1.1 requirements. This consideration and evaluation are a valuable investment the teacher can make in the preparation stage to establish goals and facilitate learning throughout the course, and this knowledge can always be enriched and extended for use in different courses. Furthermore, as asserted by CALT, the L1 can be an asset in the understanding of L2 through the connection to the already established neuronal network for L1, especially for adults. This connection, enhanced by practice, can promote better processing of new information and expedite learning.

Finally, a conclusion drawn from the study is that, since the variety of learners may be much higher in an adult class, it is essential to make learners comfortable enough to engage emotionally so that they are tolerant to new challenges and cooperation. Although in other methodologies it is said there should always be a focus on the learner, this is realised in terms of demanding from the learners' extensive participation, asking for cooperation in the practice but not really asking for analysis and real shared cognitive engagement. In this study, it is therefore proposed that focus be moved from the learner (and previously, the teacher) to the language. Instead of relying on learners to grasp the rules implicitly or eliciting them, or relying on the teacher as the conveyor of language, the focus should be on unravelling the puzzle that language is, analysing it together, trying to understand it explicitly and practicing it as one learns the rules of a game before practicing it. Also, by making the practice of language as varied as possible, the full complexity, variety and organic nature of language is made clear, as is its psychological, social and cultural aspects and implications. By getting learners and teachers to effectively focus on language and its many-sided contributors and results, learners and teachers may feel more connected and engaged with it and therefore be more motivated to learn and practice it.

Conclusion

The reason behind the present study derived from noticing a gap in the professional environment of private training in language schools and the difficulties teachers feel when working in this area. In the context of formal education and in official professional training, there are guidelines and rules; teachers have training themselves, and a higher education background, all of which are especially designed to support their performance in class. However, in the case of teachers working for private language schools in a private training context, the control of the organisation of the teaching practice can be variable and unregulated, and present several issues.

When working in training, teachers are frequently responsible for planning the courses they teach as well as executing and evaluating them. This might involve different stages, from evaluating the initial level of the learners, to the choice of materials and outlining a syllabus, as well as teaching it within its conditions and timings. However, especially in a training context, it was noted that there is little supervision of the conditions under which teaching takes place and there are no general requirements a teacher must meet to become a teacher. Furthermore, apart from method schools, there is no in-house training, presuming that teachers come fully trained when entering the job. Furthermore, when there is training, such as the CELTA course, and guidelines to follow, such as the CEFR, this may not provide sufficient guidance. Teacher training courses such as the CELTA provide future teachers with valuable information about logistics and practice of teaching, but they lack theoretical background in linguistics and teaching methodology to help the teacher understand why these guidelines should be followed, as well as consideration for cultural and social aspects, due to its necessarily generalist nature. These teacher training courses endorse a prescriptive uniformization of practice, so there is little encouragement for teachers to explore outside the current practices of CLT and TBLT and to discover their individual way of teaching. Furthermore, CLT and TBLT, the prevailing methodologies, are focused on communication and the same vague concepts as the CEFR but they disregard the context of the classes, the psycho-social conditions and the individual and the groups' characteristics. CLT also dismisses most explicit grammar instruction and bases all instruction on eliciting and practice, but this practice assumes learners are uniformly and consistently communicative and willing to participate and engage from the start, which may

not always be the case. This emphasis on extroversion reflects a broader trend valuing extroverted behaviours and constant group activities. While such activities are undoubtedly beneficial, a balance that accommodates various learning styles and activities is necessary.

In terms of guidelines like the CEFR, these provide guidance that is vague and abstract, even for specific levels, and objectives that are too broad to be directly applied in class, where all focus is on communication but there is no support for this communication in specific language and structure to be taught, also due to its generalist nature, therefore these guidelines do little in terms of helping an inexperienced teacher outline specific objectives for a class. Finally, considering that training is mainly aimed at adults, these represent an extremely wide variety of learners who can be present in class, and therefore pose difficulties for the teacher in finding solutions that please the whole class. The one unifying factor which may be present in class is the learners' common L1, but this is also mostly ignored by current teaching methodologies, and teachers are highly discouraged from using it, for fear of regressing to old fashioned practices that were deemed ineffective. In conclusion, the vague guidance and structure of training courses allow teachers a lot of freedom to decide what to do with the courses, but not enough training to make that decision.

In this particular context, teachers learn mostly not from training and theory but from experience, and generally build their teaching methodology around teaching resources and their experience in class, both as a teacher and as a learner in their past. As teachers develop in their careers, they gain experience and instinct for what works, but the theory that lies beneath is often unknown, as there is little time to study teaching methodology, theoretical linguistics, pedagogy, andragogy, social and psychological issues, and other matters that influence teaching. Furthermore, the easiest and safest path to planning and executing a course is frequently to use a coursebook as a syllabus, but these also present an issue, because coursebooks available for this purpose are frequently produced under global guidelines for a global market and are not suited to specific learners, and therefore require adaptation from the teacher, who may be ill-prepared to make the decisions about the adaptation.

Therefore, this study proposes to help teachers improve efficiency in language training classes by providing a methodology that is based on consistent and comprehensive theoretical background but also practical in the application of these principles: specifically,

to provide principled instruction that draws a guiding line but allows the line to be flexible, permitting leeway for the teacher to be responsible for the structure of their class while supported in their decisions.

The framework which provided the theoretical background to this proposal is that of educational linguistics. Educational linguistics, as framed by Bernard Spolsky (2003; Spolsky & Hult, 2008), is informed by four key areas: theoretical linguistics, teaching methodologies, psychology and neurolinguistics, and social sciences. It is proposed in this study that CGL and its application as CALT provide undeniable benefit to language teaching due to their flexible and inclusive nature.

In the field of theoretical linguistics, CGL, as first outlined by Langacker (1987), provides a robust theoretical background supporting effective teaching and learning. These principles include the concept that language is deeply rooted in human cognition and is inherently tied to bodily experiences and sensory perceptions. Secondly, CGL suggests that linguistic structures and meanings emerge from patterns of use in real communicative contexts; language learning and competence are seen as dynamic processes influenced by exposure, practice, and social interaction. Finally, another important principle in CGL is the centrality of meaning and how words and sentences encode underlying conceptual structures, including construals, metaphors and schemas.

CGL also connects with the psychological and neurological aspects of educational linguistics in their focus on understanding language as a cognitive function, and in incorporating aspects such as motivation, attention and novelty, for the former, and also memory, categorisation and salience for the latter (e.g., Hunt & Agnoli, 1991; Dabrowska, 2004; DeKeyser, 2007).

Therefore, CGL provides stable elements to the framework of educational linguistics because it considers language a common feature to human beings, and that cognitive processes together with use allow human beings to learn, use and develop language.

CGL has also an especially important contribution in informing the framework of educational linguistics in the field of teaching methodology, as CALT. In a CGL perspective, language is perceived as "one of a number of inter-related cognitive functions we use to learn and make sense of our surroundings and experiences." (Gianovelli, 2015, p. 26). Therefore, general principles of cognition can be applied in the language classroom to promote better learning. For example, CALT involves using embodied practice, visual

interpretation/image schemas, and incorporating encyclopaedic knowledge and individual learning styles in the L2 class (e.g., Boers & Lindstromberg, 2006; Broccias, 2008; Reif, 2012; Tyler, 2012; Bielak and Pawlak, 2013; Kermer, 2016; Achard, 2018; Drożdż & Taraszka-Drożdż, 2020). These techniques in the CALT methodology enhance learners' cognitive understanding and learning of grammatical structures (e.g., Langacker, 2008a; Littlemore, 2009).

CGL and CALT contribute to two nodes of educational linguistics, but they also have a connection with the other nodes of educational linguistics. In terms of neurological and psychological factors, two aspects of CALT which are extremely relevant, and essential to this study are the use of explicit grammar instruction and the use of L1 in the L2 class. These practices are not aligned with current teaching methodologies, such as CLT and TBLT, but, within a CALT methodology, and according to the authors mentioned above, it is considered beneficial for learners to not only be aware of the explicit meaning and form of language, but also that L1, as a constant presence in the L2 learner's mind together with encyclopaedic knowledge, must be taken into consideration. This inclusion has been proven effective by this study, and it is therefore strongly recommended in the methodology proposed.

Regarding the contribution of social sciences to educational linguistics, there are also principles in CALT which connect to social sciences, such as the usage-based nature of language and the importance of acknowledging the encyclopaedic knowledge and the L1 and its cultural identity learners bring to class. As language is seen as a social product of experience and conventionalisation as much as a psychological construct, these two areas are seen as interdependent from a CGL perspective. CALT also advocates the usage-based nature of language, and acknowledges that each society, group and individual may have a different approach to language and its learning and use. This principle is shared by other teaching methodologies, like CLT, in the importance given to using language with a communicative intent, but, as mentioned before, CALT is inclusive of other theories, and there is no conflict. Furthermore, in acknowledging the possibility of different approaches to language, CALT is inclusive not only of practices directed at communication, but also practices that include reflection or mechanical practices, which are identified with more structuralist methodologies for language teaching. Moreover, social sciences are relevant to this study when considering that the target learners are adults and this is also taken into

consideration as part of the framework of educational linguistics. Adults bring to the class different challenges but above all much variety in terms of not just age but also background, motivation, expectation and availability, to name a few. (e.g., Knowles, Holton, & Swanson, 2005; Eyring, 2014; Johnson, 2015).

Although the application of CGL to language teaching has not yet been extensively explored, this study intended to provide further evidence that CALT enhances language learning beyond what is done with current widespread methodologies such as CLT and TBLT. Studies in the area of CALT have continuously, even if not extensively produced (such as the above-mentioned studies) but the context of the current study is different for two reasons: firstly, it aimed to cover the grammar instruction and practice for an entire course of level B1.1, whereas other studies covered specific grammar topics. Secondly, other studies used a cognitive treatment of grammar exclusively, and developed differentiated materials and assessment. In this study, the methodology included exclusively pre-existing materials and it aimed at using CALT as a principled addition and an enhancement of good practices of current methodologies, such as CLT and TBLT. The objective was to achieve a balanced and inclusive methodology that can be adapted to learners for more efficient and faster results.

Regarding materials, which represent another aspect of methodology, it is proposed in this study that existing mature materials should be used; these materials represent decades of pedagogical development and practical use in real classrooms, and the pool of resources is extensive. Therefore, the most efficient course of action is to analyse and evaluate these resources, and choose or adapt them to specific circumstances according to pedagogical goals and teaching methodology (e.g., Foster & Hunter, 2016; Tomlinson, 2016b; Ellis, R., 2017; Tomlinson & Masuhara, 2017).

The theoretical framework and its practical application as described above was used in a pilot study conducted on seven English training courses of level B1.1 (Study and Control Groups), specifically for the area of grammar. This is considered particularly important because this area of language has frequently been maligned and set aside by recent and not so recent methodologies. Using a global coursebook as a base to ensure a structured learning experience, grammar instruction for the courses was adapted and complemented to include CALT principles such as are mentioned above, and including adaptation to the learners common L1, Portuguese, and the fact that they are adults, as also mentioned above. Additionally, as the practice in the coursebook is considered insufficient and lacking

variety, tailored grammar practice from available resources and also following CALT principles was included. The techniques involved in this practice varied from gap-fill, matching, memory exercises, more structuralist in nature, to communicative practices, such as information exchange, discussion, negotiation and problem-solving, and also techniques and practices firmly based in a CGL perspective, such as embodied practice, visual interpretation, image schemas and conceptual mapping, use of encyclopaedic knowledge and creativity. This extra practice followed in the CLT and CALT principles also in the sense of providing as much variety of cognitive processing and as much communicative value as possible, underscoring the value of making learners comfortable to engage emotionally and cognitively, promoting tolerance to new challenges and cooperation. Moreover, tools for independent learning and language analysis beyond the classroom were provided to facilitate long-term learning.

The practical solution proposed in the pilot study is adapted to groups of learners and circumstances, so it was not possible to provide here a complete description of step-by-step instruction and practice because this is a tailored decision that should be made by the teacher, based on the specific group. What is provided is information of how to gather a pool of resources from which to choose and criteria to make that choice. This is not a prescription but it provides guidance simultaneously allowing for enough flexibility to fit the teacher and the learners. The criteria for choosing activities were presented so teachers can make an informed decision based on the specific circumstances and they included variety, context, accuracy, affect and time.

The results of the pilot study were shown through the comparison of tests applied to the Study and Control Groups before and after instruction for the duration of the courses, and they showed the effectiveness of the CALT methodology. In their formal evaluation, the Study Groups showed a marked improvement from the Pre-test to the Post-test, achieving higher accuracy rates across the vast majority of grammar topics. Control Groups showed markedly less progress. In fact, in the Study Groups, only 5 out of 28 learners did not improve from the Pre-test to the Post-test; in the Control Groups, 9 out of 20 learners did not improve.

Therefore, it is proven that, as proposed at the beginning of the study, CGL provides current teaching methodologies with a robust theoretical framework which connects to the main areas of educational linguistics and supports highly effective classroom practices

through CALT. The addition of CALT principles to teaching methodology and its articulation with practice that is tailored to specific learners has shown to enhance retrieval of information in testing and learning of the grammatical structures covered in practice.

The study further highlighted the significance of allowing for flexibility of plans in an organic, flexible class structure, which facilitates enhanced cognitive processing, long-term memory retention, and spontaneous language use. Therefore, CALT has significantly contributed to effective foreign language learning, providing a flexible and comprehensive methodology.

As also hypothesised at the beginning of the study, it is shown that explicit grammar instruction with declarative metalinguistic teaching promotes a deeper understanding and retention of language structures, and leveraging learners' L1 and previous knowledge enhances L2 learning, especially for adult learners, by connecting new information to established neural networks and strengthening retrieval. Furthermore, learners proved to have been able to convert the variety of practice – ranging from more limited, structural exercises to more creative, fluid exercises – into communicative skill. This was accomplished by using the language fluently in class, but also using it to fulfil a strictly formal test such as the Post-test, in which the Study Group attained considerably better results, compared to the Control Groups.

Additionally, it is concluded that providing teachers with theoretical guidelines to adapt grammar instruction to specific learner needs, such as challenging topics specific to learners' L1, and to balance focused instruction with flexible practice, contributes to empowering them to navigate available valuable resources, fostering responsibility for their choices, aiding teachers in learning from their experiences and learners, enhancing their teaching styles and contributing to greater professional fulfilment and achievement.

Summarising, the main contribution of this study was to provide evidence that a theoretical framework from educational linguistics that applies the CALT methodology in a flexible way to adapt instruction and practice of grammar to specific circumstances while using available resources (in this case to teaching training courses of adult Portuguese speakers of level B1.1 using a global coursebook) results in improved learning, as attested in formal written evaluation.

In a spirit of inclusiveness and duality, the present study was based on two guiding principles, the first being that of variety. Variety is expressed firstly in no allegiance to any

specific methodology, but rather evaluating which theoretical principles should be applied for specific learners at specific times based on their usefulness. This allows teachers who design their syllabuses to be free of restrictions imposed by external factors, and also makes them more responsible for finding the right solutions for each class and tailoring the course to fit their own teaching style and their classes' learning styles. Teachers might have to follow guidelines from the teaching institution regarding materials and evaluation, and it is also accepted that there should be cohesion in matters such as linguistic level categorisation (using levelling tools such as the CEFR), the inclusion of the four skills (listening, speaking, reading and writing), and topics such as pronunciation, vocabulary and grammar. However, there is still room for manoeuvre and personalisation within this general framework. It is proven here that general guidelines and individual preference can and should meet halfway and that it is the responsibility of the teacher to use all techniques and tools available to benefit the learners involved (and the teachers as well, in the feeling of accomplishment in every attempt at effective learning). These techniques may derive from tried and tested practices, or insights from recent cognitive theory and theoretical linguistics, namely CGL. Variety is present in practice as well as in theory: the teacher, the learners, the resources and physical conditions of the class will also bring about a unique combination that cannot be fully predicted but must be taken into consideration.

The second guiding principle is that of consistency. Even though as much variety as possible is desirable in teaching and learning, there should be consistency as well to provide a solid base on which to build knowledge. It is argued here that consistency should be present in the structure of the syllabus, teacher attitude towards the syllabus, the materials, and especially in the relationship with the learners. It is essential the teacher establish a relationship of trust with the learners and show stability in knowledge, methodology and personality. This brings the reassurance needed to promote learning by establishing conditions for learners to focus attention and develop motivation for learning, since establishing positive emotions derived from safety of context and variety of practice facilitates learning.

The study also presented some limitations that should be acknowledged. Firstly, the sample is small, allowing only for a pilot study. Secondly, Control Groups and Study Groups were not entirely comparable in some respects. Specifically, the number of learners differed between the control and Study Groups, with 28 subjects in the former and 20 in the latter.

Finally, as the conclusions presented here relate to a pilot study, the next step would be to apply these principles to more courses and get further data for the principles and activities proposed. Another area which could be expanded is the application at different linguistic levels, as this particular study is aimed at B1.1 learners. It is possible to construct a similar, varied syllabus for Beginner, Elementary, Pre or Upper-Intermediate levels following the same principles of CALT and adapting grammar instruction to Portuguese L1 speakers. It is also possible to adapt this instruction to native speakers of languages other than Portuguese L1, and, conversely, it is also possible to adapt this instruction to teach languages other than English L2. Since one of the tenets of CGL is that there is a continuity between grammar and lexicon, one further area of research could be to expand the principles applied here to lexicon. Another possible area of research is oral expression and pronunciation, since one of the aspects of language some learners find most difficult, apart from grammar, is comprehension, especially as adults and when dealing with various accents. This is one of the main challenges when using a foreign language, precisely due to the speed at which information needs to be processed. The key seems to lie in analysing, categorising and practicing listening to target accents, both native and foreign.

Teaching can be the most rewarding of experiences, but this is the case because teachers can experience learners developing their skill and their confidence. In a language class, this is tantamount to inviting someone into a different home, in the shape of a new language with its culture, idiosyncrasies and personality. This connection is not always peaceful, and, from the perspective of adults, more set in their ways and frequently with very ingrained expectations and biases, there is an even higher likelihood of this happening. It is the responsibility of the teacher to create an environment of cooperation and tolerance to allow the learners to think, analyse and dwell in the language they are trying to learn, connecting it to themselves and their experience, resulting in an engaging, productive and hopefully entertaining experience for all involved, including the teacher. In fact, by investing in planning and tailoring the instruction, the teacher is more likely to feel prepared to manage the class and be able to enjoy the experience as well, in the knowledge that they have done their best and that the ultimate goal has been met if the learners perceive value in the course they have paid for. For the teacher, the goal should always be to "translate" the learners' expression, in the sense that their expression in L2 reflects their personality in a foreign language, considering aspects of the culture of this language, too. For example, if a

learner is introverted, or if they tend to be very formal or emotional in the way they express themselves in L1, it is likely they will preserve these characteristics in their expression in L2.

In the words of Michael Swan:

> Good teaching involves a most mysterious feat – sitting, so to speak, on one's listener's shoulder, monitoring what one is saying with the listener's ears, and using this feedback to shape and adapt one's words from moment to moment so that the thread of communication never breaks. This is art, not science, and there is a great deal of such art in the production of successful pedagogic language rules. (Swan, 1994, p.55)

English remains a useful tool in the global village, but for the non-native speaker to acquire it, the way can be unpredictable and fraught with difficulty, especially if this route strays from formal education. The heterogenous training course represents a challenge in the variety of learners and teachers, but it can also represent an opportunity. Training courses gather people of different ages, backgrounds and experience, bringing to the class richness and different perspectives, and providing opportunities for personal growth beyond strict linguistic skill. This context is fertile ground to explore the intricacies of languages and their cultures, their structure and their use, their paradoxes and beauty. Learning should not be difficult for anyone in possession of an average brain, what it takes is for their curiosity to be piqued into taking the first step of looking at something different, understanding how it works, and making it their own.

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