

FLED TOOL

uma ferramenta para desenho de cenários de aprendizagem flexíveis

Workshop Semana da Ciência e Tecnologia, 2024

Lina Morgado, Ana Afonso, Isabel Carvalho, M^a João Spilker

Ref. 2022-1-ES01-KA220-HED-000085250



18 > 24
NOVEMBRO

**SEMANA
DA CIÊNCIA
E DA
TECNOLOGIA
2024**

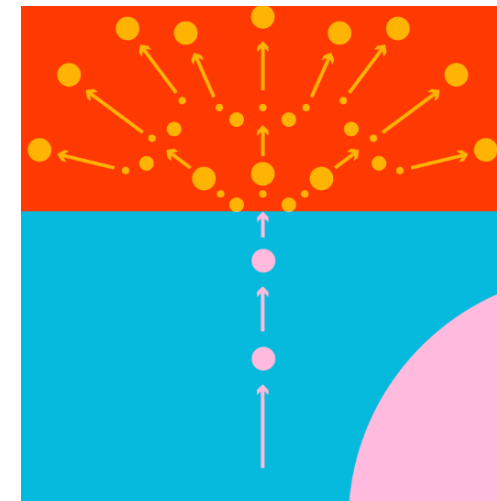
#SEMANACT
#CIENCIAVIVA



Workshop 1

Studio de Playful Learning Design: Desafio da aprendizagem invertida (Flipped Learning)

Workshop Online às 15:00h (Lisboa)
Acesso através do QR code




Workshop 2

FLeD Tool, uma ferramenta para desenho de cenários de aprendizagem flexíveis

Agenda - Percurso do Workshop

1. Breves notas sobre o projeto FLED: *Learning Design for Flexible Education*.
2. Aprendizagem Flexível – o que é?
 - 2.a. Aprendizagem Invertida/ *Flipped Classroom*.
3. Porque criámos a ferramenta FLED (FLED Tool) ?
4. Breve Demonstração.
5. Interação em tempo real.
6. Próximos passos.



Challenge 1
Opening the Flexible Gate

Activity 1
"FLeD Bingo"
Create a bond between the participants

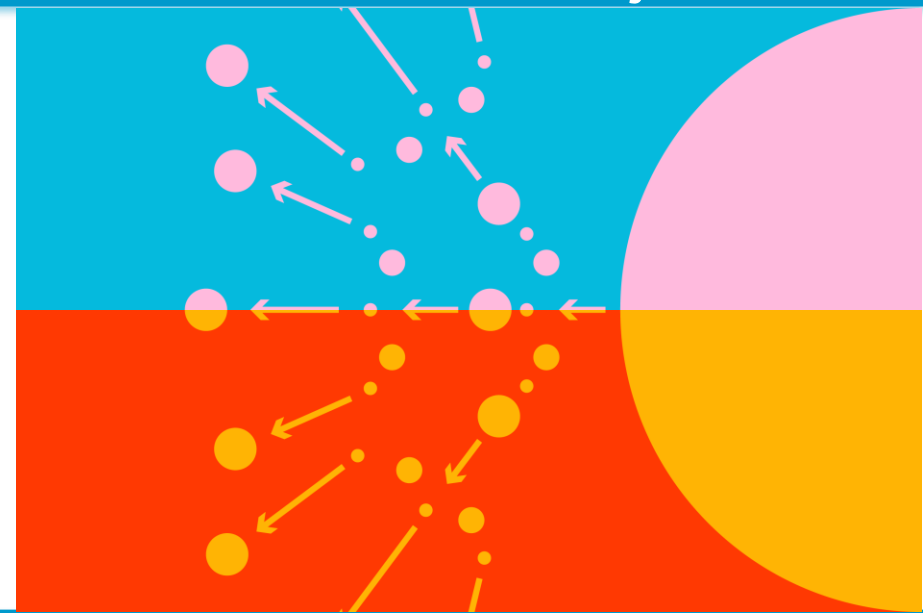
★★★★★

01/11



1. Breves Notas sobre o FLeD: *Learning Design for Flexible Education*

Projeto FLED

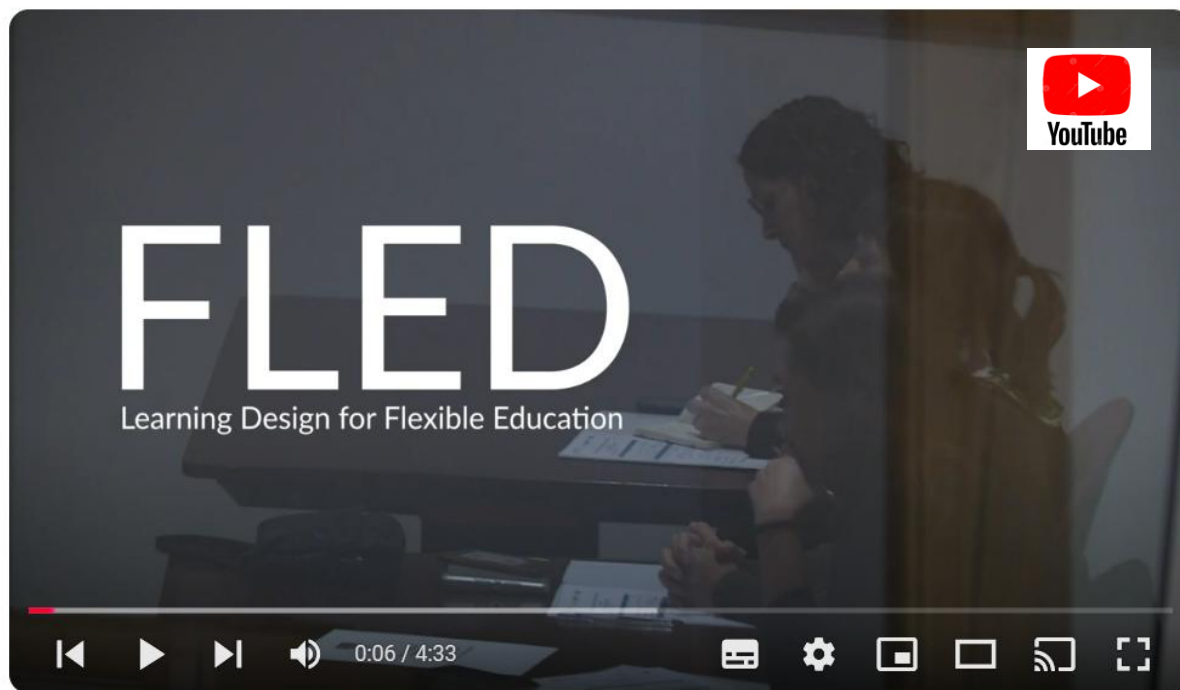


Projeto FLED - o que é?

☰ YouTube^{PT}

Pesquisa

Clique no Link para ver



FLED Workshop Lisboa -Learning design for flexible education



<https://www.youtube.com/watch?v=1SkjP36jDjg&list=PLWIEVSGgpjRO-r8qdHcRRV24edpXyISQp>

1. O que pretende?

Capacitar professores para o design de cenários de aprendizagem flexíveis e eficazes

Design da Aprendizagem Padrões e Inclusão

01

Estruturar e apoiar a conceção de **Cenários de Aprendizagem Invertida Inclusivos** para diversos contextos **mediados por tecnologias**.

Playful Experience

02

Promover **sinergias lúdicas e colaborativas** entre os professores para a conceção da aprendizagem.

FLED TOOL

03

Orientar os professores na **tomada de decisões para uma conceção flexível da aprendizagem** através do desenvolvimento de uma ferramenta digital.

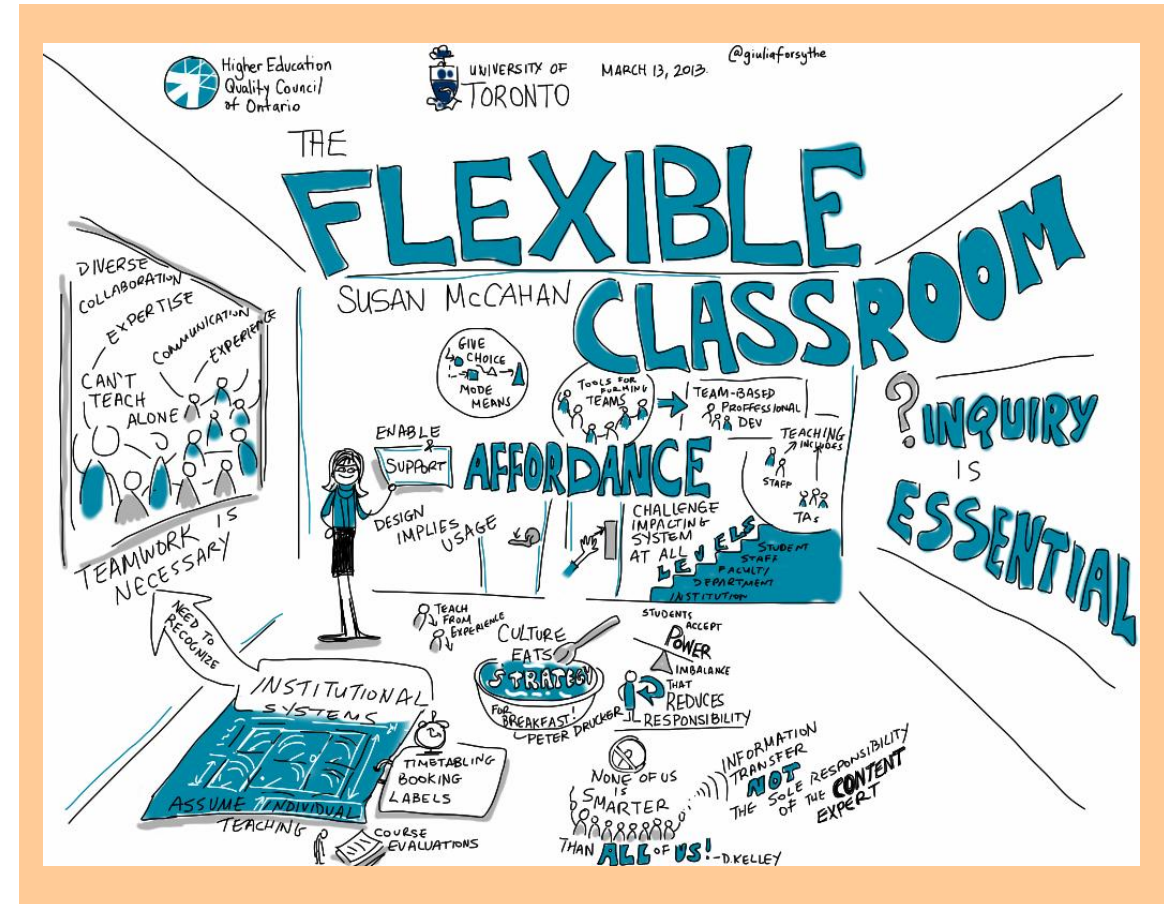
Comunidade de Práticas Virtual

04

Aumentar a sensibilização para a **aprendizagem flexível no âmbito do método de aprendizagem invertida**.

2. O que é a Aprendizagem Flexível? Contributo do Projeto FLED

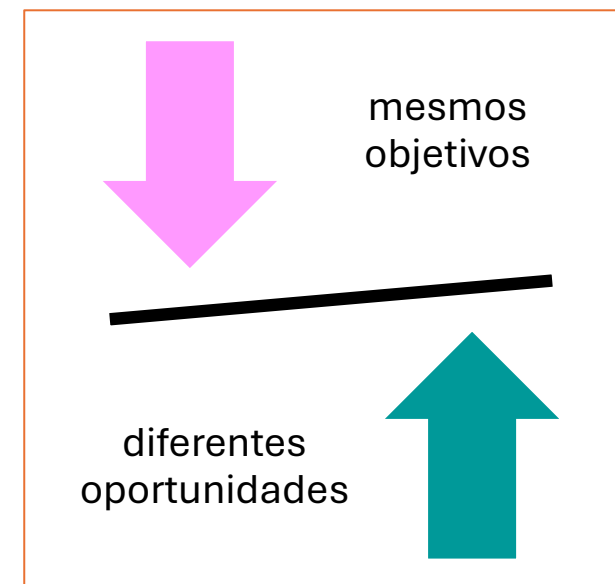
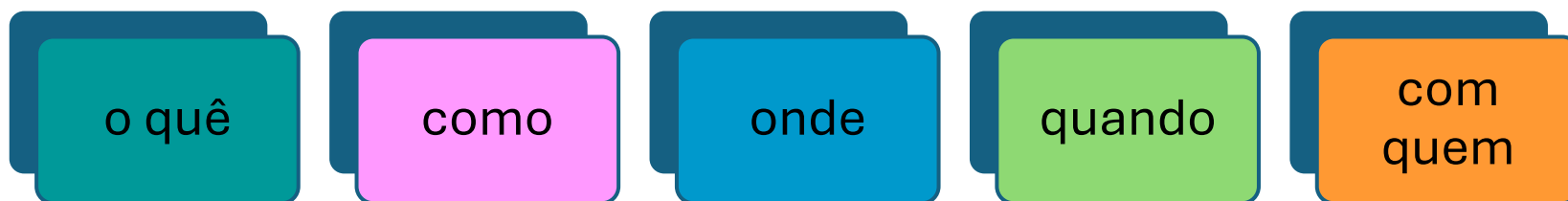
Conteúdo, Tempo, Recursos, Requisitos, Avaliação
Ritmo, Localização, Estilo Cognitivo, Individual ou Grupo
Aberta, Global, Flexível
Processo de aprendizagem Flexível e Aprendizagem Mista
Centrada no Estudante
Adaptação a diferentes cenários



2. O que é a Aprendizagem Flexível?

Contributo do Projeto FLED

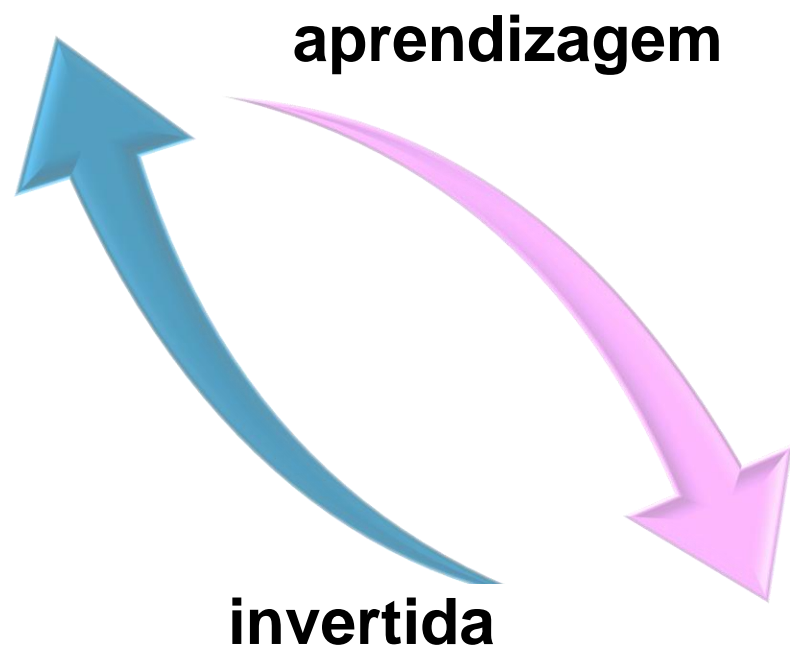
Compreender a Flexibilidade na Educação



flexibilização do ensino

2a. Aprendizagem Flexível Invertida

Contributo do Projeto FLED



características

aprender ao seu próprio ritmo
combinação de interações
presenciais e online
acesso a recursos multimodais

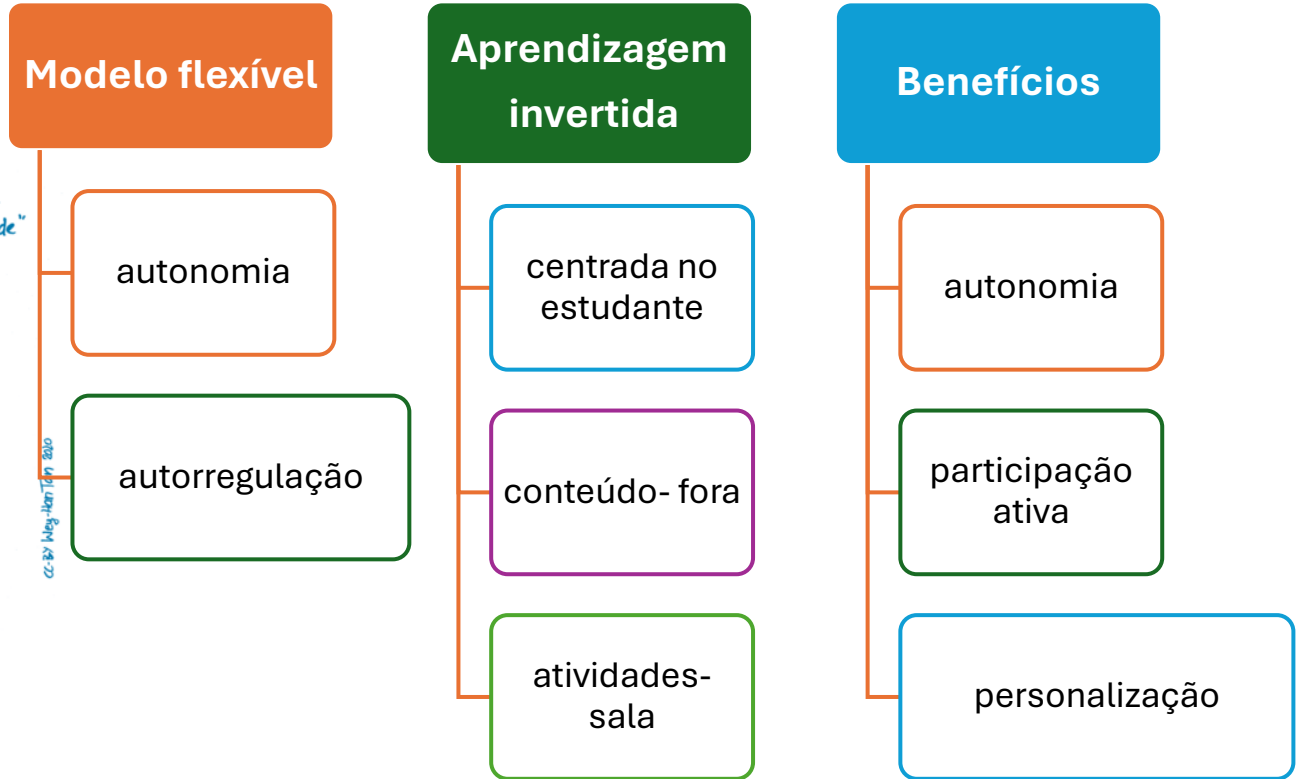
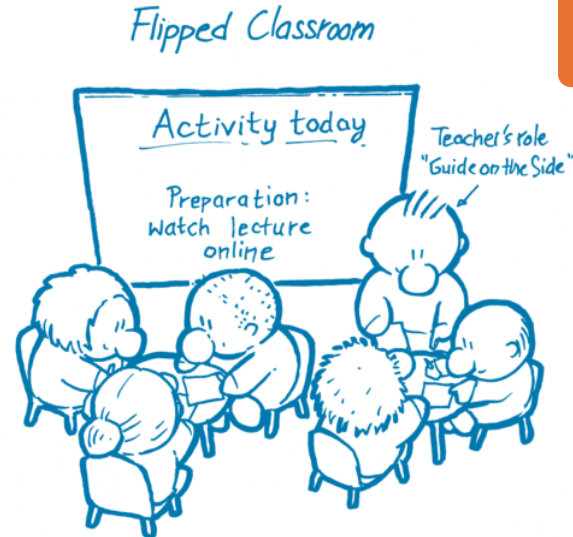
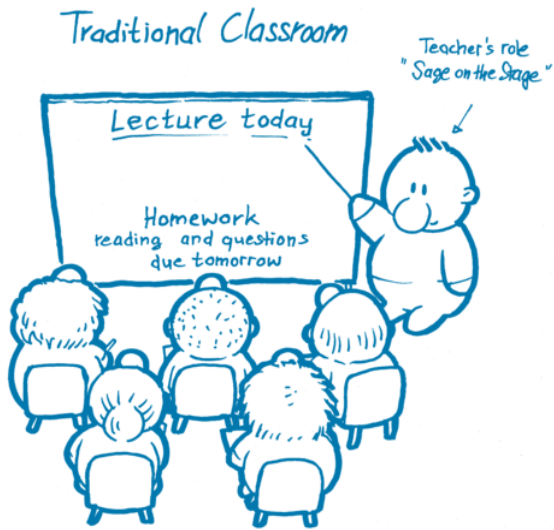


benefícios

aprendizagem inclusiva
aprendizagem autorregulada
aprendizagem personalizada

2a. Aprendizagem Flexível Invertida

Contributo do Projeto FLED



2a. Aprendizagem Flexível Invertida

Contributo do Projeto FLED

FOCO NA APRENDIZAGEM ATIVA

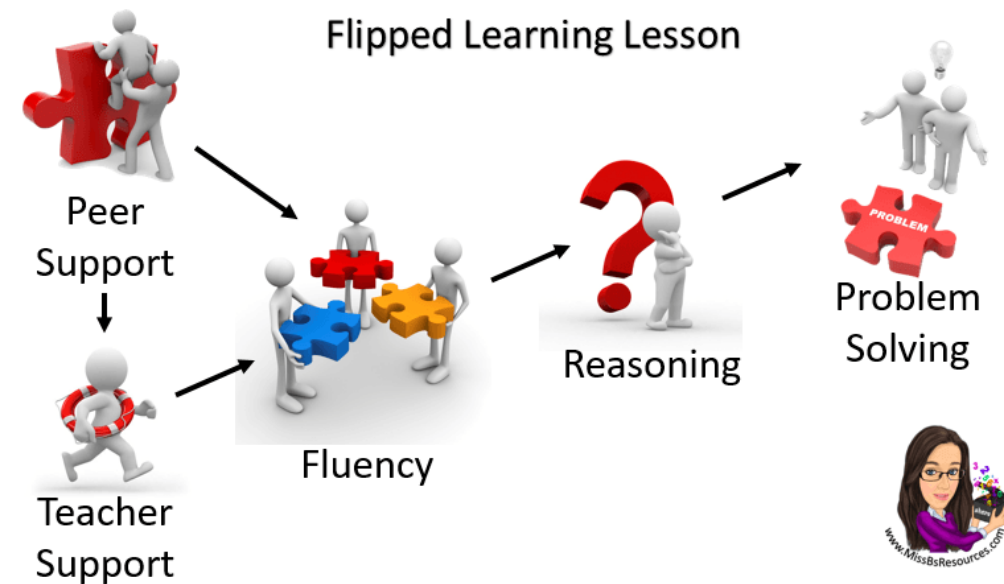
- * Prioridade à participação ativa dos estudantes
- * Incentiva a resolução de problemas, discussões em grupo e a aplicação prática do conhecimento.

TECNOLOGIA COMO FERRAMENTA

- * Integração de recursos tecnológicos
- * Fundamental para viabilizar a aprendizagem invertida.

ADAPTAÇÃO CURRICULAR

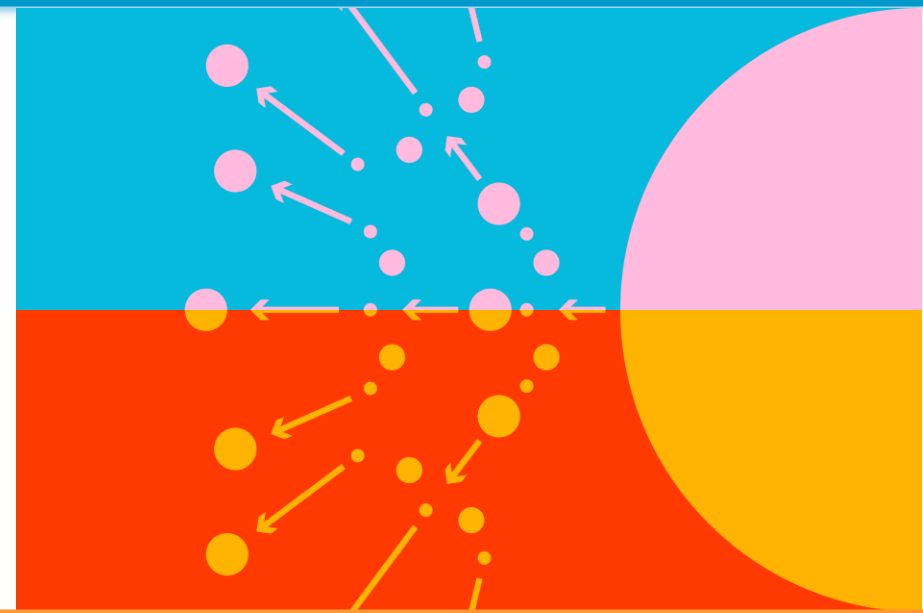
- * Requer uma adaptação curricular significativa
- * Foco na criação de materiais didáticos de qualidade.





3. Porque criámos a Ferramenta FLED?

Contributo do Projeto FLED



Contextualização | Registo | Desenho da aprendizagem | Experimentação | Discussão

3. Porque criámos a FLED Tool?



UNIVERSITÀ
DI TRENTO

SOFIA UNIVERSITY
ST. KLIMENT OHRIDSKI



<https://fledtool.upf.edu>

3. Porque criámos a FLED Tool? Contextualização

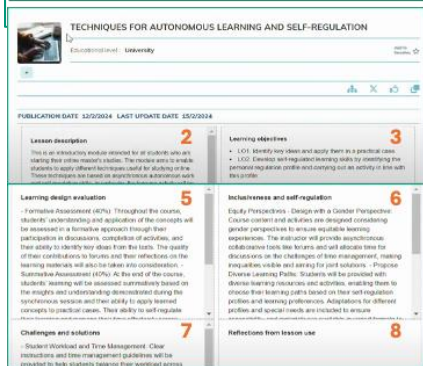
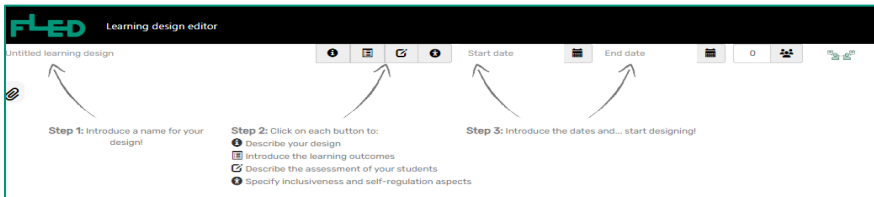
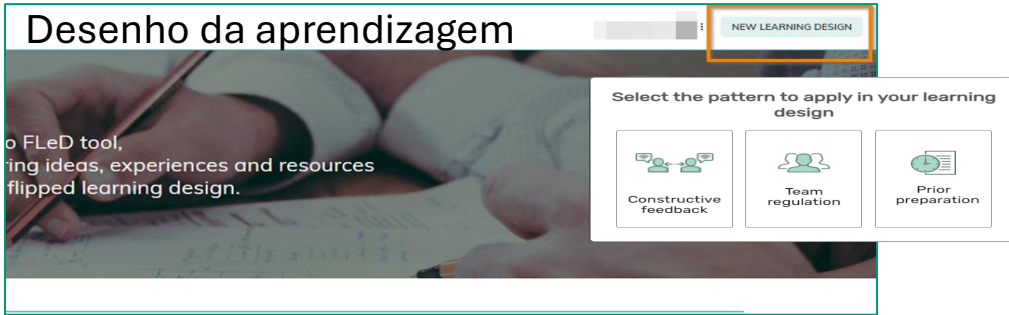
- **Desafio:** Capacitar professores para a **conceção de cenários de aprendizagem flexíveis** através de **uma abordagem estruturada**.
- **Solução:** Ferramenta **FLeD** para apoiar desenho da aprendizagem invertida e flexível.
- **Foco:** **Scaffolding à conceção** com base em **Padrões de flexibilidade** na aprendizagem invertida.

FLED Tutorial Video Channel



<https://acesse.dev/fled-tool>

3. Porque criámos a FLED Tool?



1. Título do módulo e nível educacional
2. Descrição da lição
3. Objetivos de aprendizagem
4. Cronograma das sessões
5. Avaliação do desenho educacional
6. Inclusão e auto-regulação
7. Desafios e soluções
8. Reflexões sobre o módulo



Apoiar os professores com orientação pedagógica e designs adaptáveis.

Design de aprendizagem flexível através de ferramenta disponível online.

Testar: 20 professores europeus em 6 universidades em 5 países

Criar um sistema de “andaimagem”: facilitar a adaptabilidade dos planos de aprendizagem a diversas componentes (digital, inclusão e regulação da aprendizagem)

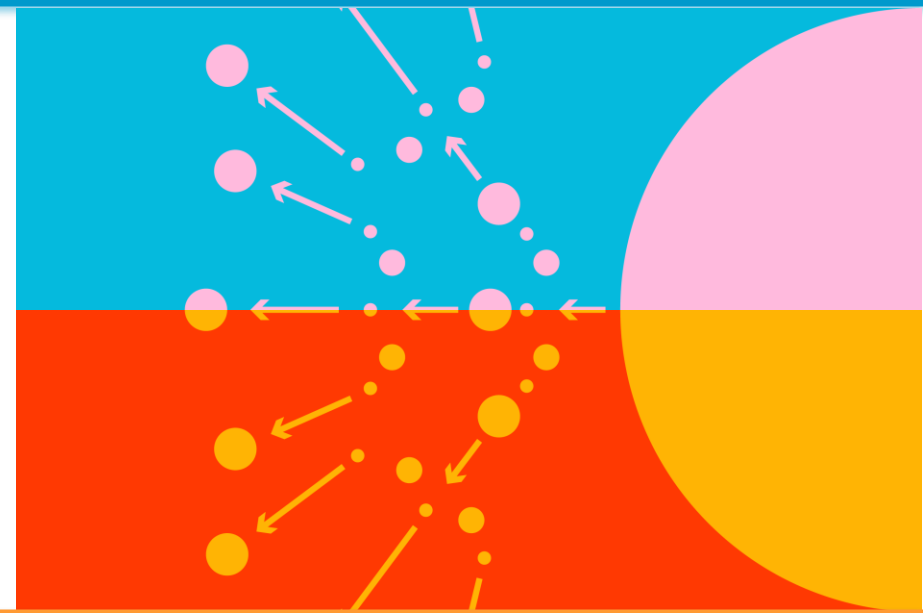
Apoio contínuo: fornecer **recomendações** automáticas e facilitar partilhar/reutilizar designs

Comunidade: disponibilizar recursos disponíveis na comunidade

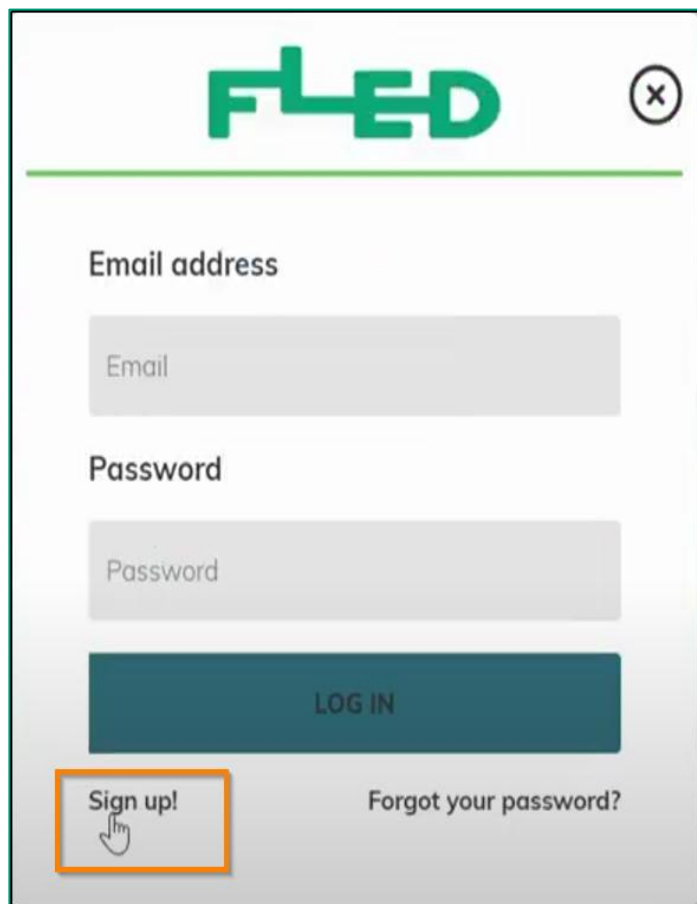


4. Breve Demonstração da Ferramenta FLED

FLED TOOL



Demonstração: Registo e Loguin

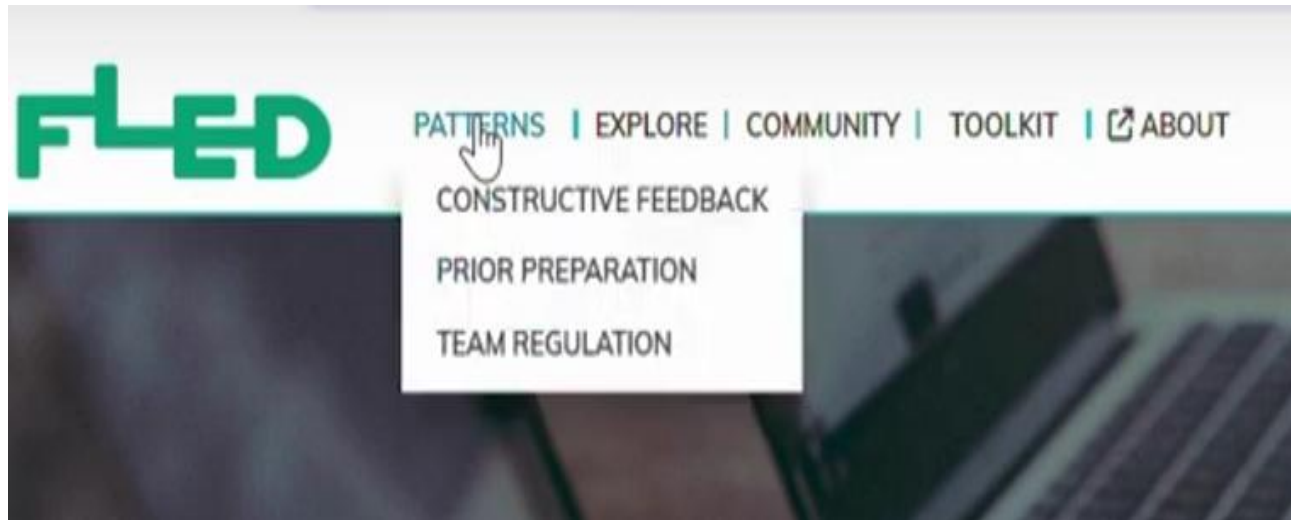


The screenshot shows the FLED login interface. At the top left is the FLED logo in green, and at the top right is a close button (an 'x' in a circle). Below the logo is a horizontal line. The main content area has two sections: 'Email address' and 'Password'. Each section has a corresponding text input field. Below these fields is a dark teal button labeled 'LOG IN'. At the bottom left, there is a 'Sign up!' button with a hand cursor icon, which is highlighted with an orange border. To its right is a link that says 'Forgot your password?'.

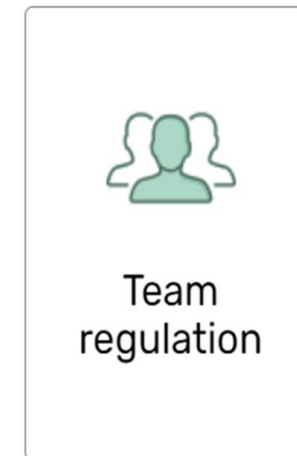
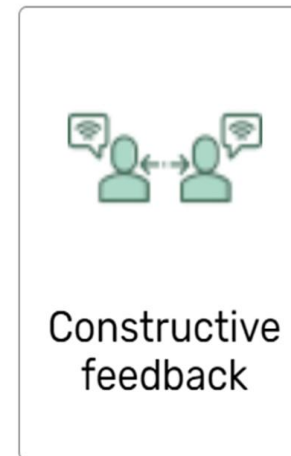


The screenshot shows the 'REGISTRATION FORM' interface. The title 'REGISTRATION FORM' is centered at the top. Below the title are several input fields arranged in two rows. The first row contains three fields: 'Email address*', 'Password (6 characters minimum)*', and 'Repeat password*'. The second row contains three fields: 'Name*', 'First surname*', and 'Second surname'. Below these fields is a large, wide text area labeled 'Personal or entity description'.

Demonstração: Padrões de Design da Aprendizagem Flexível e Decisões



Select the pattern to apply in your learning design



Padrões

- Feedback construtivo
- Preparação prévia
- Regulação de grupo

Demonstração: Padrão Feedback Construtivo



Constructive feedback

Exchange of constructive feedback in face-to-face flipped classroom

Effective feedback exchange, in-class flipped, learning goals, Self-reflection and reflection, active engagement, plan of action

Problem

One of the weaknesses of flipped classroom designs is that feedback exchange is not well planned and guided to be constructive. Feedback is key to facilitating better student self-regulation and learning performance.

Learning outcomes

Receive and give constructive feedback on both their own and on others' learning experiences, identifying areas for improvement, and designing strategies for growth.

Need to be addressed

Implement strategies to promote feedback exchange in in-class flipped learning.

Solution

- Creating shared learning goals.
- Engaging students actively.
- Practising both reflections on others' performance and self-reflection.
- Developing a plan of action.

[Learn more](#)

Demonstração: Padrão Preparação Prévia



Prior preparation

Self-regulation and prior preparation in online flipped classrooms

Prior preparation, flipped classroom, online learning, self-regulation, gender perspective, learning pathways, time management



Problem

Students do not know how to organise their autonomous work, and therefore do not prepare the resources properly for the synchronous session. Students simply review the resources provided, but do not know how to manage their time or identify key ideas. If the previous preparation is deficient, it is difficult to dedicate the synchronous session to answering questions and demonstrating the contents.



Learning outcomes

Demonstrate the ability to independently engage in prior preparation through a personalised learning pathway.



Need to be addressed

Implement strategies to improve students' prior preparation with a focus on self-regulation.



Solution

Equity perspectives:

- Design with a gender perspective.
- Propose diverse learning routes.

Skills for self-regulation:

- Provide time management instructions.
- Provide instructions for the identification of key ideas.

Demonstração: Padrão Regulação do Grupo



Team regulation

Team regulation and management in blended flipped classrooms

Effective collaboration, blended flipped classroom, tasks distribution, time management, reflection, co-regulation



Problem

Students merely distribute the tasks and do not exchange their views or build knowledge together. It is hard to ensure all students participate in a group and to monitor their group and individual contributions to the team.



Learning outcomes

Demonstrate the ability to work collaboratively in a team to build knowledge together and achieve a common/shared goal.



Need to be addressed

Implement strategies to regulate and manage student collaboration in and outside the class and monitor individual and group work.



Solution

- Distribute the roles, responsibilities and tasks.
- Manage time.
- Define communication channels and shared spaces.
- Increase feedback and reflection on the group and individual progress.

[Learn more](#)

Demonstração: Repositório de Casos

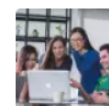
Explore a case of use



Team regulation and management in a first-grade course at the Faculty of Education

This is a Pedagogy subject in which collaborative learning is one of the theoretical and competency-based topics to be developed. The subject consists of face-to-face class hours, autonomous work hours, and tutorial and follow-up hours. The class sessions are 2.15 hours long. The subject is taught under the flipped classroom modality...

[Access the complete case here](#)



DIGITAL AND SOCIOEMOTIONAL EDUCATION

Educational level : University

Add to favorites ☆



AUTHOR

Ingrid Noguera

PUBLICATION DATE 7/12/2023 LAST UPDATE DATE 15/4/2024

Lesson description

This is a Pedagogy subject in which collaborative learning is one of the theoretical and competency-based topics to be developed. The subject consists of face-to-face class hours, autonomous work hours, and tutorial and follow-up hours. The class sessions are 2.15 hours long. The subject is taught under the flipped classroom modality, where resource consultation is done at home, and synchronous time is dedicated to discussion, activation of knowledge and skills, and doubt resolution. This design includes the actions to be taken regarding collaborative work, which is sequentially linked to the theoretical contents of the subject. A small group project based on a case study is proposed, in which students must act as a pedagogical team in a publishing company. They must propose

Learning objectives

- LO1. Acquire knowledge and skills related to conflict resolution and teamwork, and apply them in a practical context.
- LO2. Manage time effectively by achieving the established goals on time and with quality results.
- LO3. Develop critical thinking and problem-solving skills by analyzing case studies and proposing solutions.
- LO4. Enhance communication and interpersonal skills through group meetings and virtual and face-to-face tutorial sessions.
- LO5. Develop self-regulated and co-regulated learning skills by engaging in autonomous work hours and utilizing

Click on each session to see its details below the timeline:

	October 2023							November 2023					Deceml		
	21	26	1	6	11	16	21	26	1	6	11	16	21	26	1
		Task 2				Task 4									
	Task 1		Task 3						Task 5						

Demonstração: Design da Aprendizagem Flexível - Como criar?

o FLeD tool, bringing ideas, experiences and resources to flipped learning design.

NEW LEARNING DESIGN

Select the pattern to apply in your learning design

- Constructive feedback
- Team regulation
- Prior preparation

Pattern: Constructive feedback

Recommended actions



You will receive guidance in the following actions (click to change):

- ACTION 1. Creating shared learning goals
- ACTION 2. Engaging students actively in giving and receiving feedback
- ACTION 3. Practising both reflections on others' performance and self-reflection
- ACTION 4. Developing a plan of action

Selecionar o **Padrão** | Seguir as recomendações

Demonstração: Design da Aprendizagem Flexível

Click on each session to see its details below the timeline:

	September 2023		October 2023				
	21	26	1	6	11	17	22
							
	Sesion 1	Session 2	Session 3			Sesion 4	

1. Título do módulo e nível educacional
2. Descrição da lição
3. Objetivos de aprendizagem
4. Cronograma das sessões
5. Avaliação do desenho educacional
6. Inclusão e auto-regulação
7. Desafios e soluções
8. Reflexões sobre o módulo

Demonstração: Design da Aprendizagem Flexível - Editor



PATTERNS | EXPLORE | COMMUNITY | TOOLKIT | ABOUT

Lina Morgado

NEW LEARNING DESIGN

ALL | MY LEARNING DESIGNS | EDITABLE LEARNING DESIGNS | MOST VIEWED | MOST COMMENTED | MOST LIKED

ORDER ▼

Reset filter

EDUCATIONAL LEVEL ▼

1 / 2



Production of a Digital Educational Resource V2

João Paz
1 44 0



Treinamento dos tutores do FOPE

Paulo Sainda Chissico
1 26 1



Технологиите в обучението на деца със СОП

Veronica Racheva
0 1 0

Demonstração: Design da Aprendizagem Flexível- Editor

The screenshot shows the FLED Learning Design Editor interface. At the top left is the FLED logo and the text "Learning design editor". Below this is a header area with the text "Untitled learning design" and a toolbar containing several icons: an information icon, a list icon, a pencil icon, a person icon, a "Start date" field with a calendar icon, an "End date" field with a calendar icon, a "0" field, a group of people icon, and a network icon. Three arrows point from the text below to specific parts of the interface: one points to the "Untitled learning design" text, another points to the list, pencil, and person icons, and a third points to the "Start date" and "End date" fields.

Step 1: Introduce a name for your design!

Step 2: Click on each button to:

- Describe your design
- Introduce the learning outcomes
- Describe the assessment of your students
- Specify inclusiveness and self-regulation aspects

Step 3: Introduce the dates and... start designing!

Design da Aprendizagem Flexível: Exemplo de um Caso



PRODUCTION OF A DIGITAL EDUCATIONAL RESOURCE V2

Educational level : **University**

Add to favorites ★



AUTHOR

João Paz

PUBLICATION DATE 29/5/2024 **LAST UPDATE DATE** 18/11/2024

Lesson description

Module 3: PRODUCTION OF A DIGITAL EDUCATIONAL RESOURCE This module is part of a Curricular Unit with 50H of face to face classes and 7 ECTS, from a Degree in Education.

Learning objectives

- Recognize the main grammar traits of the audiovisual language
- Understand the basic functionalities of animation software Vyond
- Design a storyboard for an educational animation
- Use the animation software Vyond to build an educational animation

Cenário Produção de um Recurso Digital

2. Descrição da Lição

3. Objetivos de Aprendizagem

Design da Aprendizagem Flexível: Exemplo de um Caso

Click on each session to see its details below the timeline:

	Fri 24 May				Mon 27 May		Fri 31 May				Mon 3 June		Fri 7 June			
	16:00	17:00	18:00	19:00	14:00	15:00	16:00	17:00	18:00	19:00	14:00	15:00	16:00	17:00	18:00	19:00
	Session 1						Session 2						Session 3			
					Out of class sess						Out of class sess					

Start date: Friday, May 24, 2024 12:00 AM End Date: Friday, June 7, 2024 11:59 PM Students: 35

• Session 1

Learning objectives:

- Recognize the main grammar traits of the audiovisual language
- Understand the basic functionalities of animation software Vyond
- Recognize the main grammar traits of the audiovisual language
- Recognize the main grammar traits of the audiovisual language

Tasks:

- Module presentation (70min)
 - 40m Module presentation (objectives, resources, tasks, deadlines, assessment)
- Set group roles, responsibilities and tasks. Communication channels and spaces already set (MS Teams) (20min)
 - 30m Set group roles, responsibilities and tasks. Communication channels and spaces already set (MS Teams). Set up project management space for each group. Creating and sharing with teacher the Group Agreement Document.
- Create software account and learn how to use the software (20min)

Cenário Produção de um Recurso Digital

Sessão 1: Na Sala de Aula

Objetivos de Aprendizagem

Tarefas

Design da Aprendizagem Flexível: Exemplo de um Caso

Click on each session to see its details below the timeline:

	Fri 24 May				Mon 27 May		Fri 31 May				Mon 3 June		Fri 7 June			
	16:00	17:00	18:00	19:00	14:00	15:00	16:00	17:00	18:00	19:00	14:00	15:00	16:00	17:00	18:00	19:00
	Session 1						Session 2						Session 3			
					Out of class sess						Out of class sess					

Start date: Friday, May 24, 2024 12:00 AM End Date: Friday, June 7, 2024 11:59 PM Students: 35

- Out of class session 1

Learning objectives:

- Understand the basic functionalities of animation software Vyond

Tasks:

- Study Audio-Visual Language Guide (AVLG) resource (40min)
40mn
- Reconstruct a storyboard from an animation excerpt (20min)
40mn
- Use animation software to create AVL effects (20min)

Cenário Produção de um Recurso Digital

Sessão 1: Fora da Sala de Aula

Objetivos de Aprendizagem

Tarefas

Design da Aprendizagem Flexível: Exemplo de um Caso

Learning design evaluation

Final Grade: 30% self and peer assessment of group work + 70% final animation Formative assessments Intermediate and final formative feedback

Inclusiveness and self-regulation

Promote self-regulation and group regulation through: - Providing Learning Guides with clear instructions about tasks, schedules, assessment etc. -Planning, scheduling and distributing work tasks (using project management tools) - Providing instruments for self and peer assessment to students monitor the learning progress **INCLUSIVENESS** Although there were no special needs students, here are some strategies prepared to use in case there were: **SUPPORTING LEARNERS WITH HEARING IMPAIRMENTS IN THE FACE-TO-FACE CLASSROOM** - Alternative learning activities and more time to complete them (individual tasks) - Multimedia learning resources (already used) with more

Challenges and solutions

Reflections from lesson use

The module has not finished yet, but here are some reflections about the experience: - As the Curriculum Unit is part of the last semester of the course, and the students had also some internship hours, many students did not attend classes. Nevertheless, the Flexible Learning design, and the support of the LMS enable them do carry out the activities out of class. - The use of MS Teams, that has a lot of affordances, has been a mixed experience. For instance, on th plus side, the Onenote Class Notebook permits the use of individual checklists, the chat enables individual communication out of class hours and we even used Meet to communicate with a student that could not attend a class, due to familiarity. The use of channels for group work is a

Cenário Produção de um Recurso Digital

Sessão 1: Fora da Sala de Aula

Avaliação
 Inclusão e Auto-regulação
 Desafios e soluções
 Reflexões sobre o uso

👍 1 🔄 49 💬 1

Complain 🚩

Add your comment

ADD COMMENT

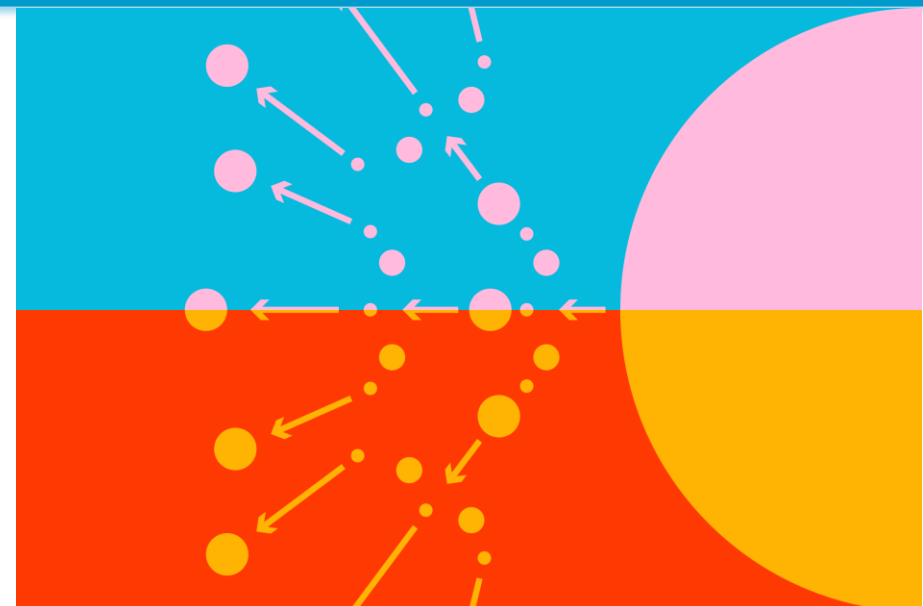


Excelent proposal and detail description. Obrigado!
 Lina Morgado a few seconds ago - Delete



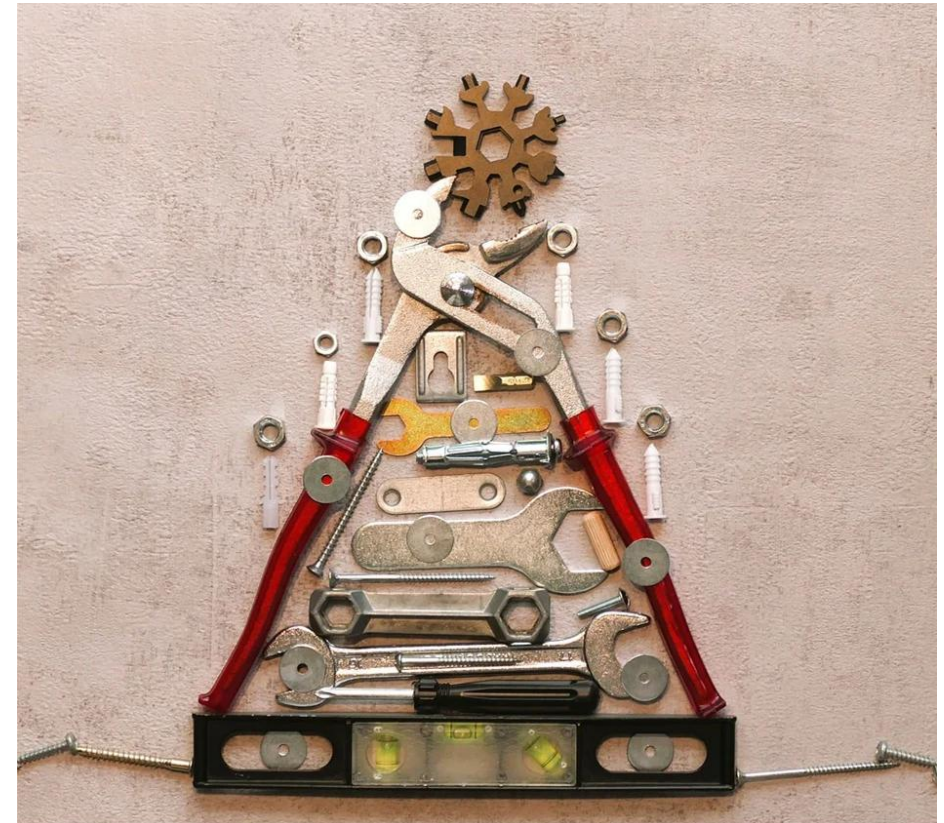
5. Interação em Tempo Real

FLED TOOL



Design da Aprendizagem Flexível: Experimentação

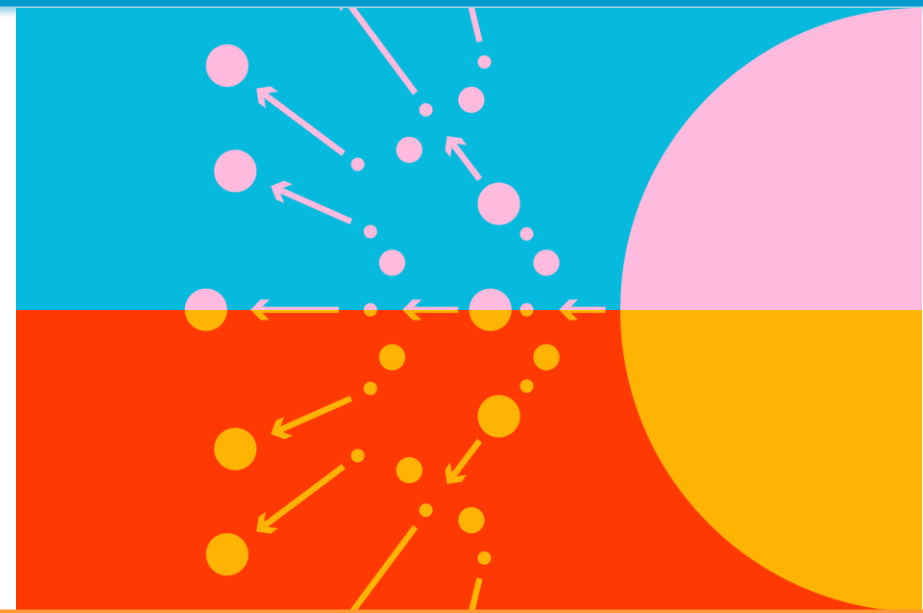
1. Criar uma conta na FLeD Tool
2. Percorrer os três padrões
3. Explorar módulos partilhados
4. Desenhar uma experiência de aprendizagem com o recurso de um dos três padrões





6. Próximos Passos

FLED TOOL



Próximos Passos: Alargar a Comunidade

FLeD tool community

◀◀ 1/5 ▶▶

BY NAME ▼

We are already
118
members in the
community!

COMMUNITY SEARCHER

[Reset filter](#)

Alvis Bert

Follow

0 Contributions 0 Following 0 Followers

amvicencio Ana Vicêncio

Unfollow

0 Contributions 0 Following 1 Followers

Ana Nascimento Ferreira Runa

Unfollow

0 Contributions 0 Following 1 Followers

Ana Afonso

Unfollow

0 Contributions 0 Following 9 Followers

Ana Dinis

Unfollow

0 Contributions 0 Following 1 Followers

Andreas Kuenz

Follow

0 Contributions 0 Following 0 Followers

Anna Pedrinolla

Follow

0 Contributions 0 Following 0 Followers

Antonio Chenoll Mora

Unfollow

0 Contributions 3 Following 6 Followers

Junte-se a nós
partilhe o seus designs
de aulas ou cenários.

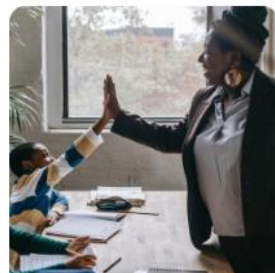
Próximos Passos: Alargar a Comunidade



Digital and socioemotional education



Ingrid Noguera
👍 4 🗨️ 145 🗨️ 0



Flipped Brain



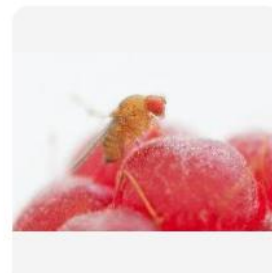
Giorgio Giulio Fumagalli
👍 0 🗨️ 11 🗨️ 0



High Performance Computing for Biomedical Data...



Miquel Angel Senar Rosell
👍 0 🗨️ 15 🗨️ 0



How to write the report of an experiment



Rachele Nieri
👍 0 🗨️ 19 🗨️ 0



Interest project



Borislava Kirilova
👍 0 🗨️ 21 🗨️ 0



Introduction to Python



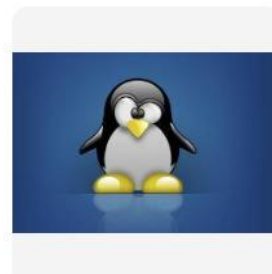
Shatha N. Alkhasawneh
👍 0 🗨️ 108 🗨️ 0



Learning Technologies



Shatha N. Alkhasawneh
👍 0 🗨️ 41 🗨️ 0



Operating Systems



Shatha N. Alkhasawneh
👍 0 🗨️ 26 🗨️ 0

Integre a Comunidade de Práticas Virtual internacional

Próximos Passos

Aperfeiçoamento da ferramenta






Tradução para Português

Criação de um MOOC

Comunidade Virtual de Práticas

Contactos FLED

Siga-nos nas redes:

	Site	
		https://fledproject.eu/
	LEaD	https://lead.uab.pt/project/fled-learning-design-for-flexible-learning
	Linkedin	https://www.linkedin.com/company/fled-project/
	X	https://x.com/FledProjectEU
	Youtube:	https://youtube.com/@fledproject-gb3vr?si=6DHOy9P_IBPSb_qK
	EPALE	https://epale.ec.europa.eu/

Contacto Equipa: fled@uab.pt



18 > 24
NOVEMBRO

**SEMANA
DA CIÊNCIA
E DA
TECNOLOGIA
2024**

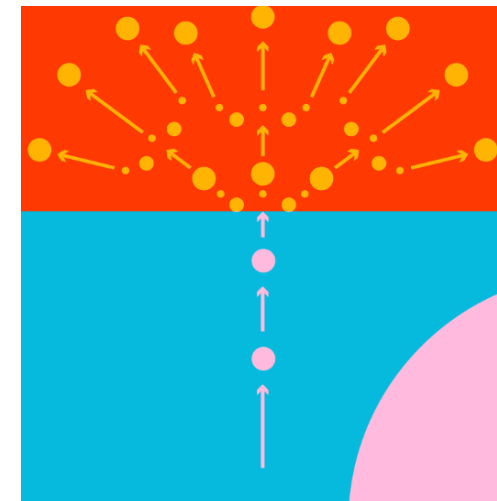
#SEMANACT
#CIENCIAVIVA



Workshop 1

Studio de Playful Learning Design: Desafio da aprendizagem invertida (Flipped Learning)

Workshop Online às 15:00h (Lisboa)
Acesso através do QR code



Workshop 2

FLeD Tool, uma ferramenta para desenho de cenários de aprendizagem flexíveis