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Flip On

Flipping the Classroom for Better Learning in Adult Education

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A1. Introduction to Flipped Learning

Guide for Trainers on Flipped Learning

Unit 4- Good Practices. Useful Tools including AI Tools



INTRODUCTION

Aim of the Unit

The aim of this unit is to get the trainers accustomed to the instructional design principles and how they relate to flipped learning, to use this approach in their lessons with adult learners. The unit will also offer examples of using instructional design principles in flipped learning for adult learners.

Learning Objectives

By the end of this unit, adult educators will be able to:

- Apply instructional design principles to create effective flipped learning lessons tailored to adult learners.
- Develop lesson plans that incorporate digital pre-class content, interactive in-class activities, and follow-up assessment strategies.
- Integrate learner-centered strategies such as cooperative learning, active learning, and peer collaboration into flipped lesson designs.
- Design assessment and feedback mechanisms to monitor learners' engagement and understanding across flipped learning phases.



1. Introduction

We live in a very changing world. Almost everything we knew is now a subject of questioning as the new technologies and AI applications invade our personal and professional lives. The same is in education. Schools are not the only places where people find knowledge and teachers face the challenge of telling the learners that they do not have any more the answers to all the questions they might have. We all live a new context of schooling and learning. Teachers and learners are partners in the learning process. In the adult education this is even more present.

Adult learners have very specific characteristics such as:

- Rich experience in different fields. They bring life and work experience and Learning experiences in the learning environment;
- Self directed and self regulation. Adult learners prefer to take ownership of their learning;
- Goal oriented. Adult learners have specific goals for their learning;
- Motivation for learning. Adult learners have external and internal motivation for learning;
- Relevance of the learning experiences. Adult learners look for learning experiences that have meaning and relevance to their lives and aim in life;
- Practice. The learning experiences of adult learners has to be filled with practice applicable in the real life situations.

Adult learners seek:

- Experience
- Ownership
- Relevance
- Practice
- Goals
- motivation

Taking into consideration these aspects adult trainers need to be prepared to use new and attractive teaching strategies that will enhance learners desire to be part of the learning process, such as: instructional design, active learning, flipped learning, problem-solving and collaborative learning.

2. Instructional design principles



Instructional design design is a systematic learning approach that starts with analysing learning needs and goals of the learners and then designing,



developing, and delivering instructional content and experiences in a way that makes learning **efficient, effective, and engaging**. The last three characteristics of learning are essential for adult learners.

The key elements of *instructional design* are:

- Assessment – Identifying learners' needs: prior knowledge, characteristics, context;
- Objectives – Defining clear and attainable learning goals;
- Design – Plan the strategies, methods, instruments that will be used to deliver the content;
- Content creation – Lesson plans, learning activities, online applications etc;
- Implementation – Delivering the content (synchronous, asynchronous, online, face-to-face)
- Evaluation – Formative assessment during the implementation and summative assessment at the end of the learning

On the other hand, we define flipped learning, according to Bergman & Sams (2012) as being a pedagogical approach in which direct instruction is moved outside of the classroom (reading, video, handouts etc) while the active instruction (conversations, debates, critical thinking etc) takes place in the classroom.. Actually, learning process has two stages:

- Before class – exposure to the content in a self-paced way requiring low-order skills, such as: remembering, understanding, memorisation if needed
- During the class – higher thinking activities, collaboration, debates, discussions

If we refer to Flipped Learning from an instructional design perspective, as trainers we have to be aware of the following principles:

- Clear goals and measurable outcomes. The adult learners need to know what are goals of the activities they have to undertake before class (lower-order skills: reading,



remembering, understanding) and those during the class (higher order skills) and how they will be measured;

- Structure of the content means learning activities before class and during the class. From the instructional design perspective we have to pay attention to the 9 events of instruction established by Gagne¹ and to decide which events will take place before class and which ones during class (Figure 1);
- Learner – centered approach. All the activities in before and during class have to be in accordance with the prior knowledge of the learner, their experiences, autonomy and interests
- Learning strategies. The learning strategies have to promote active learning, collaboration, peer interaction, such as: Think – Pair – Share, case studies, simulations, debates, group projects;
- Technology integration. In flipped learning technology plays a very important role. Adult learners are technology consumers, they know how to use it for their own benefit. Polls, apps, simulations are more than welcomed in these kinds of learning activities.

¹ <https://showcase.ems.psu.edu/node/130>

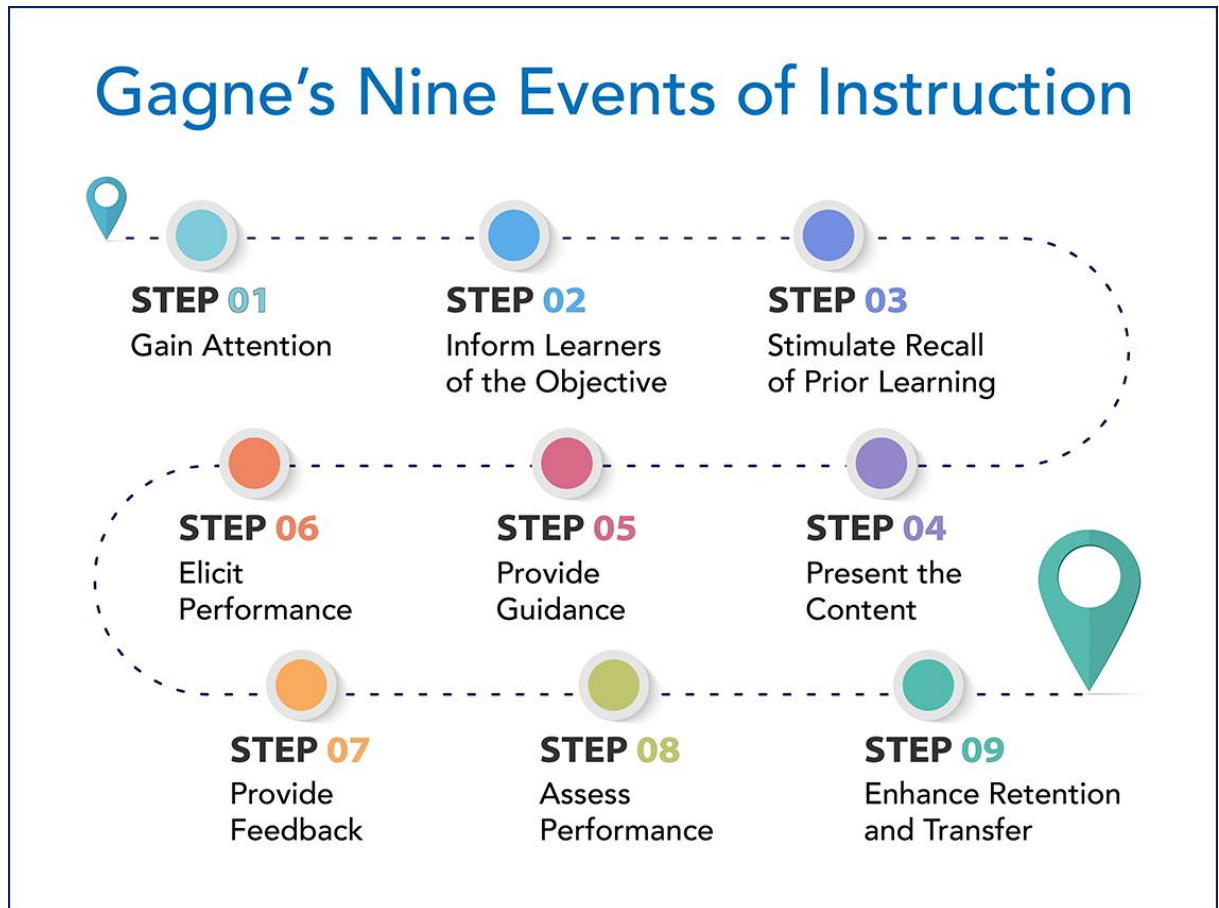


Figure 1



Application: In small groups, take a topic and decide about 2-3 activities before class and 2-3 activities during the class, following the 9 Gagne steps of instruction.



Group activity: Find 3 online resources for adult learners to use before class to better understand the content you want to develop during the class. . These could be readings, audio files, websites, or videos. You do not need to create these sources, but you must make sure that all adult learners have a way to access these materials. If you create the materials for adult learners to use at home, before class, use their feedback to revise it.

Correlation between Instructional Design approach and Flipped Learning

Learning objectives		Before class – Foundational content
Content design and delivery		
Developing learning		During class – Active learning



materials		
Teaching strategies		After class activities: Evaluation and reflection
Evaluation and reflection		



3. Lesson plan example. Metacognition as a learning strategy

Target audience: adult trainers, teachers, professionals

Learning objectives:

- Understanding the metacognition strategy
- Applying metacognition strategy in learning process

1. *Before class learning activities* – Self-directed learning, Lower order skills

a. Content delivery:

Read the material about metacognition accessing the link:

<https://thelearningcoach.com/learning/metacognition-and-learning/>

and underly the aspects that are not clear enough for you

1.1. Instructional design principles:

- **Authonomy:** Learners have control on their pace of learning
- **Need to know:** The text will underly the most important aspects about metacognition (definition, the two stages of it: 1. knowledge of cognition (what are the factors that foster learning, decrease learning, what strategies work best for the learner – becoming aware of how he / she learns); 2. Self-regulation of cognition: settings goals, planning, monitoring, assessment of learning.
- **Individual experiences:** While Reading the text, think about different experience you went through the learning process

1.2. Activity. Before coming to the class, choose a learning experience and think about it from metacognitive perspective – the aspects: knowledge of cognition and self-regulation of cognition.

2. *During class activities* – Active learning – Higher order skills



2.1. Opening the class (10 min): Quick revision of the text the adult learners had to read. Using the Place mate method they will answer the following two questions:

- i. What do you mean by metacognition?
- ii. How usefull do you think it could be for yourself?

The trainer will use a OER about metacognition (it might be created using AI or other digital applications or it will be provided in guide)

<https://www.youtube.com/watch?v=pmz7eqKzbuU>

2.2. Learning activity 1 (25 min) The learners will watch a short video about metacognition

<https://www.youtube.com/watch?v=HKFOhd5sMEc>

- i. In small groups the learners will talk about the main ideas from the video and ask questions about how the metacognitive principles could apply to his / her own context
- ii. The facilitator will help the learners understand the benefits of metacognitive strategies

2.3. Learning activity 2 (10 min) Reflection practice. Learners will spend 10 min reflecting to their own learning during the session. They will ask themselves metacognitive questions such as:

- Did I understant what metacognition is?
- When did I better learn: when Reading, watching the vodeo, talking the group etc?
- What was difficult for me in the learning process?
- What else could I have done for better lernaning?
- What I will do differently next time?

2.4.End of the lesson

The facilitator will summarize the content, check if the learning objectives have been met and challenge the group to continue learning

3. *Post class activities*

Learners will be asked to read a case study about using metacognition in adult learning and write down their thoughts about using it in his / her own context



Learning assessment

- Formative assessment
 - During the class: reflection moments and sharing with group members
 - Post class: applying the metacognition approach in training session
- Summative assessment: Concept map about metacognition

Conclusions

In this activity we used flipped learning approach and covered the metacognition topic in three steps as follows:

1. **Pre-class** – we covered knowledge acquisition.
2. **In-class** – we emphasized the application of the content, deep understanding, collaboration and reflection
3. **Post-class** – we reinforced reflection and transfer to real life experiences

4. Digital apps and AI resources for flipped learning

Lesson plans and learning design

- Chat GPT / Gemini, Claude – for lesson plans, Reading summaries, case studies
- Canva Google instruments for presentations, images

Learners' engagement

- Mentimeter
- Kahoot AI, Quizizz

Feedback and assessment

- ChatGPT for tests, questions
-

Reflection



- ChatGPT
- Gemini
- Tutor AI

Further readings (Recommended by ChatGPT)

1. *Flipped Adult Education: A Guide to Implement Adult Education Trainings based on the Flipped Learning 3.0 Framework*. Mazohl, P., Filioglou, M., Tsimopoulos, N., Anagnostaki, A., Katia Chaton Østlie, Juan Carlos Álvarez Cortés, Daniel Vertedor Ruiz, Harald Makl, Kathrin Zehrfuchs. Erasmus+ Project 2018-1-AT01-KA204-039224. 1st edition, 2021.
2. “Use of Flipped Classroom Methodology in Adult Education” — (Justin Lee, 2014) (English Composition, Capella University)
3. “Using Adult Learning Theory to Explore Student ... from a Flipped Class Course.” SAGE publication, 2023.



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