



# 16 | EDUCATIONAL SCENARIOS – HOW TO PRODUCE MOTIVATION TO LEARN WITH A SERIOUS GAME?

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Which are the key elements contributing to generate motivation? According to education specialist R. Viau [1, 2] there are several factors influencing students to learn. Can also be applied to SG and serious gaming?

One of them is the sense of control: to decide and choose how to do a task, but also, which one to achieve. Thus, several activities must be proposed to the player. In this way, the task can be adapted to specific needs.

The difficulty level is also an important point to keep the learner's attention. Vygotsky described the proximal zone as the one having the best ratio between challenge and interest. If an activity is too difficult and the student can't achieve it, even with help, he can be quickly demotivated. If it is too easy, it will also demotivate the learner. The best ratio is a constant difficulty and the possibility of being helped, if necessary (as in collaborative games): the player being confident to be able to solve the problems, realizes the required tasks, even if it takes time and efforts. Without this confidence, he will be tempted to give up the game.

Another important element is the task value perception. The student has to consider the task as an important thing, but also understand the relations between the different proposed activities. The introduction of activities in a coherent project or their combination into a meaningful narration is a good way to do this.

The task must have a real value for the student himself: the activity must be interesting as such and have a personal meaning: pleasure to play, interest for challenges, desire to learn something.

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The third element impacting the motivation to learn is the authenticity of the task. The proposed tasks must correspond to something that the student can relate to the real world or to his life. Applying this principle to video games doesn't mean that all SG should be completely realistic. For example, in a language learning game, you can learn vocabulary, idiomatic, pronunciation, dialogues, in a perfectly fictional game. And sometimes, the fiction narrative aspects can be a strong element to motivate a player go on (if realistic situations are not as interesting as a good fictional scenario). Even if the game takes place in another world or even another planet as *Elegy for a dead world* (a game based on science-fiction trip to another planet, designed to learn writing short stories) the acquired abilities are real.

The cognitive implication is another important learning element. But students will be motivated to learn, if they feel self-confident (think that they can achieve the task) and consider it as a real one (not just a fake exercise) and give it a value.

Ideally the game should not just be the application of rules or simple repetitive exercises, it should give the opportunity to reactivate knowledge in different contexts, and link them to new elements [3].



R. Viau also suggests that connecting different learning areas, in an interdisciplinary approach, is more motivating. SG are especially interesting in this aspect as they can demand several skills: for example, we tested a SG in history class with 16-year-old students which was about American history (Flight to freedom).

In the game the player is a young slave in a 19th-century plantation. His task is to flee the plantation. The game scenario proposes to discover real facts and historical figures in a fictional adventure. The students had to play in English, read the texts, analyse the different documents, to understand the plot and find a way to escape. To do so, they used their knowledge of English, but also of American history and strategy skills.

The teacher also proposed another scenario: the students had to compare what they had learned in the SG to other historical sources (photographs, testimonies). So they had to produce a comment, as if they were experts. So, a learning task is more meaningful, as C. Freinet defended, if the student produces something on his own. The learning process must give him the opportunity to create, but also to present this production to an audience, which is also a way to reactivate acquired knowledge.

How could teaching with a SG include this? The game can be used as the source to produce something. For instance, S. Delalay [4] used the exploration game “Journey” (where the player discovers a world made out of enigmatic ruins) in an English learning class. The students explored this world and then produced a short novel about the trip. This helped them build a story. In the end, the students had to give their own and personal meaning of the game. In “Elegy for a dead world”, the players can share their short stories online, and read others’ productions.

## REFERENCES

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