

Effectiveness of Gamification-based education in the educational motivation with mental disability students

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Abstract

The impact of gamification on educational motivation for mentally disabled students. This study investigates the impact of gamification on educational motivation for mentally disabled students. For this, used that follows a pre and post-test for two groups of students, control and experimental. The study population covers all mentally challenged students in Kermanshah providence. The experiment sample consists of 32 students which are selected using a convenience sampling method. They randomly form two groups of 16 as control and experimental. The experimental group is given by game-based instructions, whereas the control gets ordinary lessons in the classroom. For this, a 20 sessions (ordinary and game-based) course is designed for both groups of the students. Harter motivation test is used in this research to collect data from the students. The collected data is analyzed using a one-variable covariance analysis. According to the results, game-based education has a positive impact on educational motivation for mentally disabled students and The effect size of the Eta squared in research is 0/49 on the internal motivation and 0/51 is the external motive. As motivation has a high impact on people performance, Gamification, specifically in educational environments, would plays a key role for internal and external motivations.

Table 2. Mean scores and standard deviations for experimental and control groups at pre-test and post-test

Group			M	SD
Intrinsic motivation	Pre-test	Control	29/31	3/68
		Experimental	29/63	4/33
	Post-test	Control	32/56	4/13
		Experimental	38/69	3/66
Extrinsic motivation	Pre-test	Control	34/56	2/06
		Experimental	34/44	2/30
	Post-test	Control	35/44	2/50
		Experimental	40/38	3/00

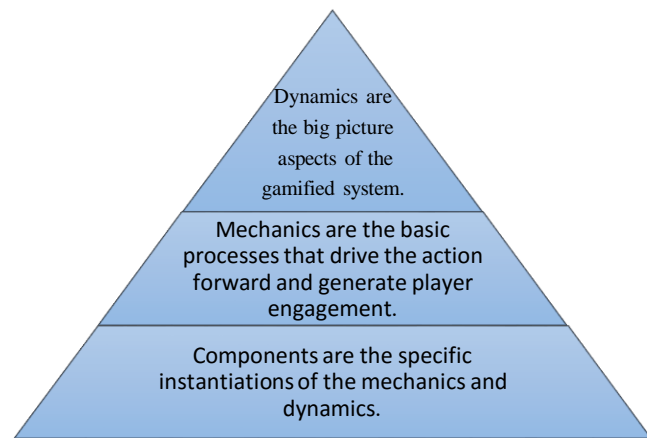


Fig. 1. The game element hierarchy (adapted from werbach & hunter, 2012)

Conclusions

The results of this study show that Gamification has a positive impact on both internal and external educational motivation ($p < 0.01$).

According to learning principles, the key issue is to figure out a new solution make durable learning and retention. This can be proactive and would result in enhanced motivation. Considering Maslow's motivation theory in this research, this is addressed that learners definitely need to esteem by either themselves or others.