



OLTD 510- Capstone Learnings

Annotated Bibliography Assignment

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An Annotated Bibliography to Address the Critical Challenge Question — *What research-supported strategies and tactics can help educators positively influence learner motivation, engagement, and increase completion rates within online learning environments?*

## **Introduction**

It is a well-documented problem that in fully online learning environments, especially Massive Open Online Courses (MOOC), completion rates are much lower compared to traditional face to face learning environments (Onah, Sinclair, & Boyatt, 2014; Xu & Jagers, 2011). Two of the primary reasons cited for this in studies are a lack of learner motivation and engagement.

I feel that to be an effective online educator one must understand the potential reasons for a lack of student motivation and engagement so that they can implement strategies to overcome them. If an online course or program is to be successful then the issue of learner motivation must be understood and addressed by the instructor in order to increase the likelihood of student success.

This critical challenge question is important to support my conference presentation because the purpose of my presentation is to outline research-supported strategies that online educators can use to increase student motivation and engagement in their courses. My intended audience is educators working in fully online and blended environments who would like some strategies that they can implement to improve the courses they teach. I believe the best form of professional development presentations are ones that provide ideas and tools that educators can

use in their practice. I intend for my presentation to be a professional development opportunity for fully online and blended learning educators.

Prior to my research, I expect to focus my efforts on the following areas: community building, communication, time and workload management, the applicability of material to the careers and lives of students, and the benefits of gamification. My experience and learning over the course of the Online Learning and Teaching Program has led me to believe that these strategies will increase student engagement and motivation in online learning environments.

## **Bibliography**

Abdul Jabbar, A.I., & Felicia, P. (2015). Gameplay Engagement and Learning in Game-Based Learning: A Systematic Review. Waterford Institute of Technology. *Review of Educational Research, Vol. 85, No. 4, pp. 740–779.*

This article investigates game design features that promote engagement and learning in game-based learning settings. The authors reviewed 91 papers studying participants aged 8-17 published between 2003-2013 within electronic databases. The authors categorized the elements that make up engagement in a game into four areas: multimedia, fun, interactive and motivational. They looked at the effect each of these elements had on emotional and cognitive engagement. The study found that most research shows that gaming provides opportunities for players to have something to gain from game play. Game-based learning helps students to develop skills and knowledge and strengthens their ability to handle the learning experiences provided by the games. Engagement in the game-based learning context is related to students' cognitive and emotional involvement in the gameplay. The

authors final recommendations state that engagement, when it comes to learning, as a personal process. Therefore, it is important to consider all the elements that influence the gaming and learning experience to maximize the impact of game-based learning. Findings indicate that some key elements to promoting engagement were: sensory environments that make use of avatars and virtual reality that make the player feel more personally invested in the game, providing challenges and conflicts that match students' abilities, offering control and choice to students, appropriate scaffolding and feedback to promote competence.

Alario-Hoyos, C., Estévez-Ayres, I., Pérez-Sanagustín, M., Kloos, C. D., & Fernández-Panadero, C. (2017). Understanding learners' motivation and learning strategies in MOOCs. *International Review of Research in Open and Distance Learning, 18*(3), 119–137.

This paper is focused on learner motivation in Massive Open Online Courses (MOOC) and the role of Open Educational Resources (OER) in these environments. It looks to provide insights into the role that student motivation and learning strategies play in the high dropout rates in MOOCs. MOOCs usually consist of OERs bundled following sequences of video-based lectures and assignments distributed in a weekly format and bring together learners with many different motivations and skills. This paper studied 6335 learners from a MOOC titled *introduction to Programming with Java*. The learners self-reported high values in intrinsic goal orientation and self-efficacy for learning and performance. The study's findings indicate that learners who take MOOCs feel that time management skills are an aspect they needed to improve to be successful. If teachers provide early and precise estimations of the weekly workload they can help learners in MOOCs to better manage their time.

Bicen, H., & Kocakoyun, S. (2018). Perceptions of Students for Gamification Approach: Kahoot as a Case Study. *International Journal of Emerging Technologies in Learning (Vol 13, No 02)*.

This paper investigated the perceptions of students on the best method of gamification of education using Kahoot software as a case study. The study was conducted on 65 undergraduate students at the Department of Preschool Teaching with an average age of 22 at Istanbul Aydin University in Istanbul Turkey. The study starts by stating that the aim of gamification is to make the learning process more attractive to learners and that learning experiences that increase student motivation can be created by including competition. The authors add that because motivation is an important element leading to student success, a more effective learning process can be produced if gamified designs that consider the element of motivation are added to learning spaces. The paper describes what Kahoot software is, how successful it currently is, and how to join and use it. The researchers had students participate in Kahoot quizzes and then fill out a questionnaire to provide feedback on their experience. The paper concluded that the gamification method using Kahoot software was fun for students and made them feel more self-confident. Getting a higher score than their friends motivated students to study harder and actively participate in class. The competitive environment created positive feelings and an eagerness to come to class. Some disadvantages included: problems with internet connections that affected active participation, time limitations for questions and that it was hard to catch up to the leaders if questions were answered wrong early in the game. The data and findings at the end of the study indicated that gamification of learning increased student interest in the lesson, and

encouraged students to become more ambitious for success. Overall, the inclusion of gamification had a positive effect on student motivation.

Chaiprasurt, C., & Esichaikul, V. (2013). Enhancing motivation in online courses with mobile communication tool support: A comparative study. *The International Review of Research in Open and Distributed Learning*, 14(3), 377–401.

This article examines if mobile communication channels between learners and instructors has an impact on learner motivation. It compares groups of online learners who were taught through an e-learning system with and without the support of mobile communication tools. It proposes that the physical separation that learners have from their peers and instructors may result in a lack of communication, interaction, and a weaker sense of belonging to a classroom community. This lack of communication can lead to a lack of motivation and contribute to poor performance, dissatisfaction, and dropout. Mobile communication technology that allows students the ability to interact with their peers and instructors instantly and at anytime and place seems to be effective in encouraging interaction between learners and instructors. Mobile technologies that were included in the study were: SMS messaging, mobile RSS feeds, assignment feedback tools, gradebook tools, attendance reporting tools, MIM, mobile blogging, and mobile polls and votes. The study's findings indicate that mobile tools had a favourable impact on learners' engagement, level of interaction, and completion rate. There was no significant effect on the number of learners dropping out or the average scores on midterm and final tests, but the learners who did not drop out submitted more assignments, made more help requests, and had higher average scores on assignments.

Chen, K. C., Jang, S. J., & Branch, R. M. (2010). Autonomy, affiliation, and ability: Relative salience of factors that influence online learner motivation and learning outcomes. *Knowledge Management and E-Learning*, 2(1), 30–50.

This article begins with the premise that the high attrition rate in online learning reflects the need to investigate motivational issues of online learning. It states that autonomy, and affiliation, and ability appear to be the main factors that influence motivation in online learners. The authors look to use Deci and Ryan's Self-Determination Theory (SDT) to investigate the relative salience of these three perceived factors in two special education online programs. SDT states that autonomy, relatedness, and competency are the three main determinants of motivational well-being. The study's findings indicate that online learning practitioners should adopt strategies to promote learners perceived autonomy to keep students motivated. They also found that online practitioners should create an interactive learning environment that fosters learners' feelings of affiliation. This could include embedding community building strategies such as collective reflection, small group case studies, and optional face-to-face activities. If instructors want to enhance student satisfaction they need to allocate more resources to promote social interactions.

Dicheva, D., Dichev, C., Agre, G., Angelova, G. (2015). Gamification in Education: A Systematic Mapping Study. *Journal of Educational Technology & Society*, Vol. 18, No. 3 pp. 75-88. International Forum of Educational Technology & Society.

This paper presents the results of a study of the published works on the application of gamification to education and outlines the tendencies and emerging practices in this area. The authors start with the premise that traditional schooling is perceived as ineffective and boring by many students and it is largely agreed that schools today face major problems around student motivation and engagement. The authors point out that the use of educational games as learning tools is a promising approach due to the motivational power that games have and games' ability to reinforce knowledge, problem-solving, collaboration, and communication. However, creating a highly engaging instructional game is difficult, time consuming, and costly and their effective classroom adoption requires certain technical infrastructure and appropriate pedagogical integration. The gamification approach allows educators to use game thinking and game design elements to improve learners' engagement and motivation without using elaborate games that require a large amount of design and development efforts. The study's findings indicate that the majority of the reviewed papers share the opinion that gamification has the potential to improve learning if it is well designed and used correctly. The majority of course management systems, however, do not support gamification very well. The authors state that the lack of proper technological support is one of the major obstacles for applying game elements to education and the development of software tools that support gamification in various educational contexts would contribute to a larger-scale adoption of gamification of education.

Durksen, T. L., Chu, M. W., Ahmad, Z. F., Radil, A. I., & Daniels, L. M. (2016). Motivation in a MOOC: a probabilistic analysis of online learners' basic psychological needs. *Social Psychology of Education, 19*(2), 241–260.



This study uses Self-Determination Theory (SDT) as a framework to analyze the motivation of learners in Massive Open Online Courses (MOOC). According to SDT there are three basic needs that, when met give rise to optimally motivated behaviour: autonomy, competence, and relatedness. Due to their nature, MOOCs provide more opportunities for relatedness or isolation. The study concluded that MOOCs may be more conducive to autonomy and competence, but presents challenges in the area of relatedness because there is little opportunity for genuine instructor-to-learner interactions. The authors findings indicate that learners may feel a greater sense of belonging if the MOOC community is organized into smaller communities that are driven by social engagement and knowledge sharing. The greater role learners play in co-creating their learning environment the more they will feel connected to the course and will therefore experience higher relatedness and higher motivation.

Onah, D. F. O., Sinclair, J., & Boyatt, R. (2014). Dropout Rates Of Massive Open Online Courses: Behavioural Patterns MOOC Dropout and Completion: Existing Evaluations. *Proceedings of the 6th International Conference on Education and New Learning Technologies (EDULEARN14), 1–10.*

This article studies the behavioural patterns of dropout rates in Massive Open Online Courses (MOOC). The authors start by stating that one of the major recurring issues raised in both academic literature and popular press is the consistently high dropout rates in MOOC and present statistics that support this claim. Their research found that at the University of Edinburgh of the 309,628 learners who were enrolled in MOOC about 40% accessed the course sites and 29% engaged with the course content during the first week.

Only 11% of those enrolled attained the percentage required to receive a statement of accomplishment. Another study at Duke University found that only 2.6% of learners achieved a high enough level on the quizzes to obtain a statement of accomplishment. Other studies showed that 61 MOOC hosted by Coursera has an average completion rate of just over 6%, 64 courses hosted by Open2Study had completion rates of just under 30%, and 19 courses hosted by EdX had average completion rates of around 8%. The authors found the completion rates of most MOOC is below 13%. The study's findings indicate that the reasons that contribute to these high dropout rates are: No real intention to complete the course, lack of time to devote to study, course difficulty and lack of support, lack of digital skills or learning skills, bad experiences, unrealistic expectations of the course or abilities, starting late, and peer grading. The authors conclude by stating that dropout rates can be reduced if students are given more support and course schedules are made to be more flexible, allowing students to complete courses on their own timeline.

Xu, D., & Jaggars, S. S. (2011). Online and hybrid course enrollment and performance in Washington State Community and Technical Colleges. *Report of Columbia University*, (31), 1–37.

This article investigates enrollment patterns and academic outcomes in online, hybrid, and face-to-face courses among students enrolled in Washington State community and technical colleges. The authors tracked students for 5 years from 2004 to 2009. They found that students who enrolled in fully online courses had generally stronger academic preparation and worked more hours outside of school while students who enrolled in hybrid courses seemed to have very similar characteristics to students enrolled in face-to-face courses.

Students who enrolled in hybrid courses were more likely to succeed and complete the course than those in fully online courses. The authors point out that another study they did in the state of Virginia had quite similar results. The author's findings indicate that by stating that low-income and underprepared students face challenges in online courses including: technical difficulties, a sense of social distance and isolation, a lack of learner control, and a limited availability of online student support services. They recommend the expansion of hybrid coursework which they found is the best of both worlds as they did not find any consistent or significant differences in completion rates between hybrid and face-to-face courses. They feel that although hybrid courses offer less freedom and are more geographically and temporally constrained, they may pose fewer challenges for students.

Yoo, S. J., & Huang, W. D. (2013). Engaging Online Adult Learners in Higher Education: Motivational Factors Impacted by Gender, Age, and Prior Experiences. *Journal of Continuing Higher Education, 61*(3), 151–164.

This article focuses on motivational factors in adult learners and how they are impacted by gender, age, and prior experiences. It states that adult learners' motivation is a contributing factor to their engagement with online learning. Four motivational factors were used to measure motivation in this study: intrinsic, short-term extrinsic, long-term extrinsic, and willingness to learn new technologies. In terms of gender, female learners have a stronger intrinsic motivation to take online courses. In terms of age, people in their twenties, thirties, and forties reported higher levels of short-term and long-term extrinsic motivation in online learning due to the connection with the opportunity to gain career-relevant experiences. Prior online experiences remained inconclusive. The study's findings indicate that online

degree programs targeting adult learners must incorporate workplace related considerations and career development opportunities in order to fully engage adult online learners.

## **Conclusions**

To conclude, this annotated bibliography has presented statistics that outline the issue of low completion rates in online courses compared to face-to-face courses and outlined a number of research-supported strategies that online educators can use to positively influence motivation and engagement and increase success rates amongst their students. These strategies include: building a more social community environment, communicating effectively through multiple channels, helping learners to manage their time and workload, providing more technical and academic support, empowering students by giving them more control over their learning experience, making courses more applicable to the careers and lives of students, providing more blended learning opportunities, and gamification of the learning environment.

My findings will influence my final conference presentation in a couple of ways. First, by providing me with statistics to support my initial claim that low completion rates are an issue in fully online courses and that online educators need to understand this issue and implement strategies to increase students' chances of success. Second, I have learned a number of research-supported strategies that can increase student motivation and engagement which I will be able to present as the main deliverables of my presentation.

My initial ideas have been substantiated and I have also learned of additional strategies that I had not thought of prior to my research. The main one being that a blended learning environment might be the best solution to a number of the main issues that online courses have.

This will inform the context of my conference presentation because I now believe that implementing the strategies outlined above in the K-12 education system could be made easier if a blended learning model is used instead of a fully online learning model. If students are made to spend some time in a face-to-face learning environment, they can develop more meaningful relationships with their instructors and peers which can help to build a community environment. It can also make them feel more connected to their learning, and reduce feelings of isolation. In a blended learning model students' can also communicate with their instructors more easily and receive more support to help them manage their time and workload. Blended learning also allows students more time to apply their learning to real life scenarios outside of school in off-site work placements or co-op programs. I believe that these thoughts will shape the conclusion of my conference presentation.