INTERNATIONAL JOURNAL ON
E-LEARNING
AND
HIGHER EDUCATION

Transitioning From Physical To Virtual Classrooms During The Pandemic: Impact On Learning Motivation Of Postgraduate Students

Jasmine Jain
School of Education, Faculty of Social Science and Leisure Management, Taylor's University Lakeside Campus, No.1, Jalan Taylor's, 47500, Subang Jaya, Selangor, Malaysia.
jasmine.jain@taylors.edu.my

Abstract: Learning is a behavior influenced by many factors. Students' learning motivation is the core of making learning process efficient and learning results effective. However, learners' learning motivation is constantly changing and is influenced by various intrinsic and extrinsic factors, especially during the changing environments of learning during the Covid-19 pandemic. This research aims to study the postgraduate student's experience on their transition from physical to virtual classrooms from the aspect of learning motivation. This phenomenological research utilised a purposive sampling and involved five participants from People's Republic of China, who are studying in a Master coursework programme in a private university in Malaysia. Participants were interviewed and data collected were analysed for content. The findings indicated that the experience of learning has changed, but motivation remained high due to better intensity of content understanding. The feedback given by lecturers were timely and instantaneous, on par with their experience during physical classes, which was not a cause for concern. However, the two dimensions such as heightened distractions and lacked peer interaction were claimed to be the factors causing lower motivation.

Keywords: Motivation, virtual learning, pandemic

INTRODUCTION

Since the outbreak of the pandemic, the learning situation of most university students has changed completely. According to Chen Ying and Hu Yao (2020), there are three aspects which are mainly disrupted, namely the learning space (from physical classroom to virtual classroom), learning environment (from campus to home) and learning community (classmates and teachers to immediate families). According to previous studies, these changes can alter the students' learning performance in many areas. According to Mather and Sarkans (2018), the movement from physical to learning spaces had resulted in a difference in students' perceptions of achievement, challenges, satisfaction, and success.

Motivation to learn, a recurring theme in higher education, is a critical determinant in student's learning success. For example, a study by Wigfield and Wentzel (2007) found that two students with similar skills and knowledge had different academic performance due to different learning motivation. This infer to us that it is necessary to pay attention to students' learning motivation. Students' learning motivation is closely related to many factors. Based on the work by Woolfolk (2015), these factors include learning challenges, learning satisfaction, learning achievements, learning interests, goals and learning needs (Woolfolk, 2015). However, this study alongside the others which look at student's learning motivation were conducted in pre-pandemic era. This raises a question on whether it is the same case in the current practices, where the learning has shifted to the virtual realm during the CoVID-19 pandemic.

 A few existing research relevant to the virtual classroom offered many valuable conclusions that support the assumption that there is a significant change in student's motivation to learn in a virtual environment. In the work by Jones and Blankenship (2017), it was found, for example, that student has less interest to learn as they feel that the virtual environment did not provide them with instantaneous interactions and feedback like what a physical presence of classmates and teachers could do. They felt short-changed due to the gaps they experienced from the instructions, delivery, and assessment. This was also supported by Barak et al. (2015) who ascertained those social interactions are important for students to achieve learning success.

As the situation caused by the pandemic may take longer than expected, learning online will continue to be the main agenda for most universities affected badly by the pandemic. It is hence worthwhile to probe further on this issue in order to understand the change of student's motivation in learning online and explore how student's motivation can be improved.

REVIEW OF LITERATURE

2.1   Learning motivation

Student's motivation to learn is one of the key factors that influence the student's achievements in study. There is a generally accepted version of the definition of learning motivation. According to Ames (1992), motivation is perceived as a reason or a goal a person has for behaving in a given manner in a given situation. It is part of a person's objectives and beliefs about what is important or not. Some previous studies have explained how learning motivation affects students' learning. According to Glynn et al. (2011), five major motivational components that affect student's learning: intrinsic and extrinsic motivation, personal relevance, self-efficacy, and self-determination.

2.2   Self-Determination Theory in learning

In the field of learning motivation, self-determination theory is of great significance. Self determination theory, originated from a research by Harter in 1978, which assert that human need to satisfy three of the following in order to achieve optimal function and growth. They are competence, relevance, and autonomy. A research by Richard M. Ryan and Edward L. Deci in 2000 further verified and improved the self-determination theory. It indicated that three basic psychological needs motivate the self to initiate behavior and specify essential nutrients for individual psychological health and well-being. These needs are said to be the universal and innate need for autonomy, competence, and relatedness. This study not only improved the details of self-determination theory, but also expanded and verified the application and role of self-determination theory in social activities, which lays an important foundation for the research of self-determination theory in the field of education.

In a critical study involving 136 university students found that students who accept theoretical basic learning show greater interest, professional ethics and determination compared to those who do not accept any theoretical basic learning. The researchers use three alternative explanatory models to analyze and found that self-determination theory plays an important role in helping students generate the learning motivation they need (Jang, 2008). This research makes a breakthrough to apply Self-determination theory in educational research to explain students' learning motivation in detail. It shows that meeting student's three factors (competence, autonomy, relatedness) can help student to have higher learning motivation and achieve better learning results.

2.3   Virtual Classroom

Virtual Classroom refers to the activities of teaching and learning mainly through the Internet. It makes full use of the new communication mechanism and rich resource learning environment provided by modern information technology. It makes teaching and learning no longer need to be face-to-face, and break the boundaries of space and time. A study by Hu Yong and Zhao Fengmei in 2015 confirmed this problem from the side: when students encounter problems in virtual classroom, timely feedback from teachers can help stimulate their motivation to continue learning. This is different from the situation in the physical classroom, because in the physical classroom, students are always under the gaze of the classroom, and close distance produces great pressure or motivation on students, which in turn urges teachers to pay more attention to students. Recently, some research proved this problem in other ways. A research by Youli et al (2020) indicated that 77.3% of the students show obvious learning burnout after a period of online learning. They showed different degrees of low sense of achievement, low mood and improper behavior, which point to low learning motivation. In 2020, Du Yuhua and Ding Jin's research studied the problem from a broader perspective. They found that due to the lack of relevant experience, appropriate teaching methods and effective management and control, the teaching effect of teachers in virtual classroom is much worse than that in physical classroom. Students' learning motivation is not high, and their learning performance is poor.

These reviews indicated that although it seemed natural for students to switch from physical to online classes, the is a need to study their experience from the aspect of learning motivation

RESEARCH QUESTIONS

The research is conducted to answer the following question.
Do the students experience a change in their motivation to learn with the change from a physical classroom to a virtual classroom?

RESEARCH DESIGN

This research intends to explore the essence of phenomena from the perspective of people who have experienced phenomena. In the context of this study, it is to probe the change of motivation in learning by students who had to shift from a face-to-face class to an online learning environment. Hence, this research adopts the phenomenology research design. The data for this study were collected using semi-structured interview to collect in-depth data.

3.1   Participants of this study

The selection of participants was done in a purposive manner. Due to the variation of how different countries were handling the pandemic and imposing restrictions to its citizens, this study only drew participants from the same country, which is from the People's Republic of China who made up majority of the class in the same module and from the same postgraduate programme in the university. The timeline for this study was important since it only intend to capture the duration of which the students transitioned from physical classroom to virtual learning. The data was collected in August 2020, during which the students had just finished the earlier semester in May 2020 entirely face-to-face and spent almost another semester entirely online.

From this criterion, five participants were selected and consented to be part of this research. The participants are international students

aged between 25 to 30 and are studying in the same programme in a private university in Selangor. The participants selected have at least spent a semester in this academic programme by attending physical classes on campus but were forced to studying virtually as they were not able to return to Malaysia due to the border restrictions and security measures. In their own country where they are residing, they were under nation-wide inter-province lockdown, and they were only able to leave their house to purchase essential items. All participants had similar learning experience and learning content, which learning mode has changed from face-to-face to fully online because of the world-wide pandemic.

3.2 Research Instruments

3.2.1 Interviews

A semi-structured interviews were used to probe more in-depth experiences regarding the phenomenon from the respondents. As every experience is unique, having a semi-structured interview allow the respondents more space to share his/her own unique experience. The interviews were guided by 8 questions adapted from Attitude/Motivation Test Battery (AMTB) (Gardner, 1985). The change of experience as their learning transitioned from physical to virtual classrooms were investigated.

The interviews were conducted individually online via a conferencing tool and were recorded with participants' consent. All the interviews lasted about 45-60 minutes. Participants were able to articulate their views well in English, but they occasionally code switched to Chinese. The interviewer or researcher was able to communicate and understand Chinese language hence it was not an issue to comprehend the overall meaning. These are captured and translated verbatim during the transcribing process and all participants were labelled as PA, PB, PC, PD and PE to protect their identity.

To improve the validity of the data collected, the transcripts from the interview were sent to the participants for their checking and

verification before analyses took place to increase validity of the data collected (O'Donoghue & Punch, 2003).

4.0 Results and Discussion

The findings revealed changes to students' motivation in learning based on the following four themes identified from the analysed data.

a)   Intensity of learning
b)   Focus during learning
c)   Supporting peers
d)   Interaction and feedback

4.1.1 Intensity of learning

All five respondents agreed that they can comprehend what were taught in virtual classroom better compared to being present in the physical classroom. This is because being international students, they find that the speed of the instruction in class get too fast sometimes and gave them problems in understanding the content. Adapting to their first semester learning in an English accent not familiar to them has also slowed their progress down. Shifting from physical to virtual classroom allowed them two options. Firstly, the virtual class has allowed them to enable the subtitles and translation subtitles during class so they were able to understand the instructor better. Two is that they were able to slow down the speed of any recorded sessions and that has helped them to understand the content better. This has led to more intense learning and their feeling of fulfilment and achievement increased their motivation to learn. The following are the excerpts from the interview transcripts which illustrated the above point.

"I made use of the advantages of online learning. For example, Google-Classroom has subtitle function, which can make up for some disadvantages in my language. With the help of the Internet in class, I can search on the Internet and check relevant materials at any time according to some terms said by my teacher, which is very convenient." (PA)

87

"I remembered that when I first came here, because I was not used to the teacher's accent, he was very fast in class, and then I couldn't understand it. During that time, I felt that my confidence in learning was really lower, and my motivation for learning also declined." (PC)

"There are some things in virtual classroom that have an advantage in solving this problem, such as the subtitle function. For some students, the subtitle function is great. When we can open the subtitles, it is relatively easy for us to learn, which can help us transition from beginner's understanding to advance, and able to respond to teacher accordingly" (PD)

From the aspect of intensity of learning, the respondents felt that the learning were more in-depth in a virtual environment, and hence increased their intrinsic motivation to learn. Participant E admitted that this has helped him to get better grade as she was able to understand and perform better academically.

"I didn't understand much at first when I attend classes on campus, but since I have spent two semesters online, my grades are better from semester to semester." (PE)

The affordances that technology has enabled them in virtual classes, in bridging the understanding of content taught for learners whose English is their foreign language has resulted in their higher motivation to learn.

4.1.2 Focus during learning

The responses gained on this aspect is again unanimous for all participants in this study. All of them expressed that they find it challenging to focus during class and while doing revision because of the distractions they face.

The distractions mentioned are both external factors. First is on the web-based applications used other than the conferencing tool platform for virtual class. For instance, due to the need

to stay connected, the participants normally will launch web-based instant messaging applications like WeChat during their virtual class. Hence, they tend to get a lot of notifications on non-academic related matters, and this has distracted them from paying full attention during class. This is demonstrated by the excepts below:

"Usually we also like to start the communication apps such as Wechat, QQ and Skype on the computer. If someone contacts us during the lecture, we will be easily distracted. In physical classroom, we will not do this, we will mute the phone according to the teacher's request. So we won't be disturbed by this kind of interference." (PA)

The physical presence of an instructor during class has also been identified as a factor that helps students pay more attention to learning. One participant has mentioned that because the teacher is not present physically, it allowed more opportunities for her to do something else. The following excepts delineates this point.

"During online learning, the teacher is not with the students, and there are no classmates to accompany the students. The students are very free, which means they can do whatever they want. The lack of a supervisor's role will give students more opportunities and possibilities to do something else, rather than focusing on their studies. Even if they didn't listen to the lecture, but just left the computer on and turned off the camera, no one knew if they were listening." (PD)

Another response blamed the environment of the house as a factor that prevented them from paying for the attention during class. The different caps that they would have to wear at home as a worker, a student and sometimes as children has increased the complexity for them to be able to focus on their learning.

"The home is different from the classroom in the school, it is a complex environment. The classroom has only one function, that is, learning, and all the facilities point to this function, but

home is different. Students can do many things at home, such as entertainment. As a result, students are increasing their study, but they are more easily distracted. It is obvious that all this will reduce the students' motivation to learn." (PE)

The findings that probe students learning motivation from this aspect of focus during learning has shed lights on external variables that keep their motivation in an intermittent state when it comes to learning. The three variables discussed and evident above are non-academic learning tool, presence of teacher's figure and the home environment.

4.1.3 Supporting peers

International students regarded the variable of supporting peers as an important dimension in their motivation to learn. However, there are 2 sub-themes identified based on this dimension. One is on "no changes to motivation" and another is on "peer encouragement".

An example for that not having the physical presence of their peers does not change their learning motivation is by Participant A who mentioned that the experience of learning has changed without the presence of physical friends.

"I have talked to many students about this problem, and everyone said that without the companionship of my classmates, the feeling of learning has changed, even though we know that this is an insurmountable problem under the epidemic. We feel that learning is very lonely, and learning has become a matter of self-control. It's a long way to go and it needs me to walk alone." (PA)

However, it is note-worthy that the absence of peers physically only changed the 'feel' of learning and not the motivation to learn. The environment obviously has changed which led to a different framework of learning. It is the same connotation made by Participant B, who mentioned the follow.

"I don't think this situation will affect my learning motivation. Because I don't think my learning motivation will be affected by these external factors. I am more influenced by my own internal factors. Neither virtual classroom nor physical classroom's lack of face-to-face communication will make me lose my motivation to learn. In other words, whether I can see a living person or not, I mean a classmate or a teacher. I will keep my learning state unchanged. I'm not sure what's going on with other people, but as far as my own experience is concerned, it makes no difference." (PB)

Participant B seemed to be sure that motivation is an internal drive and would not be affected by other external factors like peer's presence. This is, however, not the same case for Participant D who feel that students who refused to participate in classroom activities or group assessment impacted his own participation and contribution for an assignment. In in turn, demotivated him to learn better and achieve the outcomes intended by the assessment.

"In virtual classroom, some students may not be very good at English speaking or are introvert and choose not to turn on the microphone or talk very little. This makes it difficult for group work and face-to-face communication. After this happened, it made me feel very depressed and frustrated. Usually after I have said a lot, sometimes I seldom get a response from them, and I feel less willing to express my ideas next. This year I experienced about 8 group assignments, 4 of which were in this case." (PD)

In conclusion, the reactions and findings on this aspect are mixed and suggest that the peer support does change the learning motivation for certain students to some extent.

4.1.4 Lecturer's feedback

The participants noted that they were able to get timely feedback during their virtual sessions with their lecturer and this is equal

to their experience in the real physical classroom. For example, Participant C raised on the notion that she did not have issue with getting feedback in a virtual classroom as compared to physical classroom and hence it did not affect her motivation of learning.

"According to the specific situation of the classes we have taken so far, if I have any questions in virtual classroom, the feedback from the teacher is still very timely. There is not much difference between this and physical classroom, I feel that I will not reduce the motivation of learning because of this, because as I said earlier, I feel that the difference is not big. Many students also actively discuss problems with teachers in virtual classroom. When they have questions about what the teacher is saying, they will also interrupt the teacher to ask the teacher to explain to them, which is a very good phenomenon and is not significantly different from that in physical classroom." (PC)

The same notion was also mentioned by other participants, for example participant A mentioned that the function in Google Classroom and Zoom allowed them to raise their hands when they have questions. This has made it easier for them to clarify whatever they do not understand during class.

"Google classroom or Zoom has a button called "raise your hand". When prompted, and it can appears in the lower right corner of the screen to remind the teacher that a student wants to ask a question. In addition to this, we can also leave a message on comment area, tell the teacher our feedback or ask questions." (PA)

Participant C has also illustrated the same experience from her online class with a physical class where it has allowed her to ask questions whenever she needs to. In her opinion she felt that virtual classroom is even more organized because students will need to raise their hands to ask or answer questions.

"According to my own observation, when students study in

virtual classroom, they can still get a reply from the teacher in time. For example, in the virtual classroom, I can often see students suddenly interrupt the teacher's lecture and then ask the teacher to answer their questions. I don't think there is much difference between online learning and face-to-face learning at this point." (PC)

In conclusion, all the participants have experienced pleasant encounters on receiving timely feedback from their lectures in an online environment.

CONCLUSION

The findings revealed that the learning motivation of the university students changed when their learning mode changed from physical classroom to virtual classroom. Their experiences in learning virtually stemmed from four aspects identified through the data analysed, namely intensity of learning, focus during learning, supporting peers, interaction, and feedback. This change is reflected in that some or all students feel that after learning in virtual classroom, the overall learning state and self-feeling, their own achievements, learning interest, learning enthusiasm, are not as good as that in physical classroom as the students' motivation learning in a virtual classroom is affected by external factors, internal factors, and autonomy.

REFERENCES

Ames, C. (1992). Classrooms: goals, structures, and student motivation. Journal of Educational Psychology, 84, 261e271.

Chen Ying & Hu Yao. (2020). How to efficiently improve the learning motivation of university students under COVID-19. Cultural and educational materials. 15, 2020.

Harter, S. (1978). "Effectance motivation reconsidered: Toward a developmental model". Human Development. 1: 661–669.

Hu Yong, & Zhao Fengmei. (2015). Theoretical analysis model and measurement of online learning effectiveness. Research on audio visual education, 036 (010), 37-45.

Jang, H (2008). "Supporting students' motivation, engagement, and learning during an uninteresting activity". Journal of Educational Psychology. 100 (4): 798 – 811.

Jones, Irma S.; Blankenship, Dianna. (2017). Student perceptions of online courses. Research in Higher Education Journal, v32 Jun 2017.

Mather Meera & Sarkans Alena. (2018). Student Perceptions of Online and Face-to-Face Learning. International Journal of Curriculum and Instruction, v10 n2 p61-76

O' Donoghue, T., Punch K. (2003). Qualitative Educational Research in Action: Doing and Reflecting. Routledge. p.78.

Ryan, R.M. & Deci, E. L. (2000). Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. Contemporary Educational Psychology, 25, 54–67 (2000).

Wigfield, A., & Wentzel, K. R. (2007). Introduction to motivation at school: Interventions that work. Educational Psychologist, 42, 191–196.

Zhang Jianwei , Zhou Yufan , Xuan Xingyu, Hua Weijun, Li Haihong. (2020) University's Online Teaching and Student Development During the Pandemic Prevention and Control: A Case Study on B University. Research on Higher Education in China , 6 2020, 64-71

Zhao Chunzhen. (2020). A study on the psychological status and educational countermeasures of university students during the COVID-19 epidemic. Monthly Journal of Psychology, v.15 (08), 9-11

Zheng Qinhua, Qin Ting, Shen Qiang, GUI Yi, Zhou Xiaohong, & Zhao Jingbo, et al. (2020). Current situation, problems and Countermeasures of online teaching during epidemic period. China audio visual education, No. 400 (05), 40-49

education Studio-based learning in interprofessional education. June. https://doi.org/10.3109/13561820.2013.816273

Utaberta, N., Hassanpour, B., & Bahar, M. A. (2013). An evaluation of criteria-based assessment and grading in architecture design. Research Journal of Applied Sciences, Engineering and Technology, 5(2), 346–352.