BUSINESS STUDENT PERSPECTIVES REGARDING WAYS TO ENHANCE THE ONLINE LEARNING PROCESS

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ABSTRACT

The COVID-19 pandemic has highlighted the need to understand the key components of a relevant, successful online pedagogy. Using these insights, instructors in the virtual classroom can facilitate and accentuate the knowledge gained by responding to student emotional needs and perceptions. This research evaluates students' attitudes regarding multiple facets of online instruction. In addition to revealing student opinions regarding online course characteristics, using the framework of Schmitt's Sensory Impact Model, this report shares suggestions for improvement obtained by surveying 160 marketing and management students at a leading Central Asian university. It is the opinion of 58 percent of the students that active participation in discussions improve their academic performance. Our study further shows that astute revision of the online environment can impact student attitudes regarding online learning. Our investigation reveals that improving student motivation is a crucial step to optimizing the value added of the online knowledge transmission process. Insights to student perception regarding the importance of pedagogic factors will improve the online course as well as student perceptions of the online experience.

Keywords: students, online learning, engagement, emotions, COVID-19, pedagogy

INTRODUCTION

Student engagement has been studied for many decades and continues to arouse the interest of those seeking to improve both face-to-face and online learning. The closure of most educational settings in response to the COVID-19 pandemic increased interest and intensified research regarding online instruction. For instance, during non-pandemic times, students with a more forward-looking orientation in terms of expectations are more likely to experience success, (Gürsul & Keser, 2009). The lack of physical contact with students during the pandemic also made it more difficult to control their involvement in the learning process. Hence, instructors had to rely upon student self-motivation, perhaps because of a forward-looking orientation. Our research examines the generalizability of past findings to the COVID-19 pandemic.

There are a variety of pedagogic and attitudinal factors that affects online performance. A pedagogic strength of online courses is the opportunity to provide a flexible online environment through the creation of continuous student access and assistance in the virtual space (Noniashvili et al., 2019). Moreover, it is important to consider a student's emotional state and, most importantly, to manage it through visual perception. The research of Barret and Satpute (2013) suggests that emotions such as anger, fear, happiness, sadness, and disgust trigger external stimuli, perform basic psychological functions, and dictate levels of significance, memory, and sensory perception.

Almost two decades ago, Maeroff (2003) pointed out the importance of undergraduate student participation in online learning. He also identified essential factors that influence student involvement. Since then, the education sector has boomed, bringing new modes of assimilation and varying perception of these new teaching tools.

Higher education institutions in the Republic of Kazakhstan include governmental and private universities. In a megapolis, such as Nur-Sultan and Almaty, the quality and organization of the educational process is more advanced than small towns. Differences also exist in terms of the competitiveness and opportunities afforded students. This difference became noticeable during the pandemic period, when all universities had to switch to online learning, and especially when students were faced with technical and organizational problems. At the same time, professors frequently needed to tackle a generally unknown format of teaching, because most of them had no online learning experience. This research rates the importance of several factors tied to online education in Kazakhstan, including those that are managerial, ergonomic, emotional, communications, and technical in nature.

LITERATURE REVIEW
Academic experience during COVID-19

The global transition to online education occurred in connection with the physical closure of higher education institutions at the outset of the COVID-19 pandemic. The rapid transition contributed to less engagement, inferior adaptation, lower perception, worse academic performance, and, ultimately, reduced academic responsibility. Although digital technologies enabled the rapid change in educational modality (Guvenc, Kazybayeva & Abeshev, 2020), educators and students worldwide were faced with internet connection troubles. Despite the initial headaches, the global transition resulted in the emergence of new technologies, the widespread adoption of the Internet, and the increased demand for skilled labor for the digital economy. Lederman (2020) stressed that due to COVID-19, teachers and students were forced to take measures expected to lead to a positive digital academic experience. Within a few weeks, online education changed from being a trend, to being the common practice. Despite this, a study provided by Muthuprasad et al., (2021) from India showed that 60 percent of respondents surveyed by them believe that online classes are less effective due to the lack of direct contact with the instructor. It is worth noting, that despite some disadvantages, the pandemic developed various skills in the realm of communications, technological, problem-solving, and learning (Slimi, 2020). In fact, positive student attituded, and satisfaction were observed in Malaysia (Law, 2021), though Chakraborty, Mittal, and Gupta (2021) report the environment is excessively stressful.

According to Ming et al. (2021), communication and technology competencies are key factors that increase student satisfaction and retention, which had to develop due to the forced transition to online education.

Technological challenge proved so overwhelming in Bangladesh (Dutta and Smitta, 2020) and Pakistan (Adam and Anwar (2021), for instance, the higher education system failed. When students are able to access educators, learners prefer the various variants of new teaching approaches (Arthur, 2009). Students' preferences, which are revealed in the desire to participate in the online learning process, are important because not only the effectiveness of the course depends on it, but also the quality of the education received (Muthuprasad et al., 2021).

The influences of emotions on learning and memory

An individual's cognitive processes (i.e., attention, perception, memory, learning, and thinking) are closely related to one's emotions because feelings significantly influence memory and model the selectivity of attention. Emotions impact learning by prompting inquisitive responses to stimuli. While attention is an integral part of education, emotions make it easier to encode and efficiently extract the desired information. Emotions however can be both positive and negative, which produce different results. Negative emotions such as sadness and disgust, may arise from unsatisfied expectations regarding the lesson (Rowe & Fitness, 2018).

Scientists currently define three strategies for sensory marketing: differentiation, motivation, and the transfer of value through the consumer's perception (Schmitt, 1999). Adapting the Bernd Schmitt model of sensory impact to the process of online education results in the interrelated set of cognitive processes shown in Figure 1.
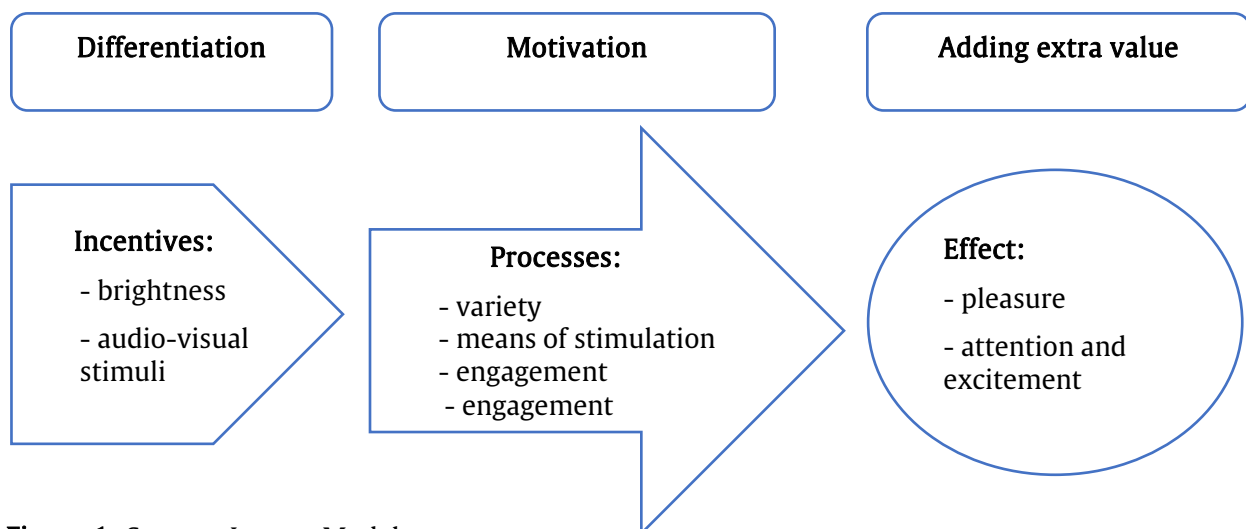

Figure 1: Sensory Impact Model
Source: Schmitt (1999)

This model of sensory perception served as the basis of our research. Through the Sensory Impact Model, the main factors influencing the involvement of students in the learning process were identified and studied. Differentiation in the ways of presenting information increase the involvement of students in the learning process. Based on the model, we examined a variety of ways to increase student engagement in the online learning process. Examples include provision of voiced material, changing the formats of the material submission, inclusion of case studies and situational tasks, involvement of students in the discussion, change of teachers during one lesson, and a frequent variation in the pedagogical scheme of pictures, diagrams, drawings. As will be shown below, these factors were found to affect the participation of students in the online learning process.

Emotions are a combination of evaluation, a tendency to action, physiological reactions, expressive behavior, and feelings. Emotion occurs at the moment when the incoming stimulus is evaluated according to the evaluation criteria. Evaluation criteria can include goal relevance, goal compliance, expectations, ease/difficulty of control, and a variety of exogenous internal/external biases (Moors et al.,

2013). Based on these motivations, the material presented in the online lesson passes through the evaluation of criteria that prepare and support learning. Sensory inputs enter the sensory model circuit, which is already influenced by the signals of arousal, attention and memory, and thereby directs the understanding and processing of sensory stimuli (Miller & Kenneth, 2017).

According to Blessinger (2012), happy students are motivated to gain more knowledge with a deeper understanding. Moreover, the research of Foster and Keane (2018) has shown that lesson characteristics outside of the ordinary that surprise students effects the memorization of the studied material. Thus, emotions displayed in the process of information assimilation directly affect involvement in the learning process and perception of value additivity, which is shown on the right of the sensory impact model. Of course, underlying the perceived value of any individual online less is the congruence between expectations versus reality, which has been studied by in the business classroom by Graham and Krueger (1996).

METHODOLOGY

With the move to online instruction caused by the COVID-19 pandemic, concerns regarding improving the quality, motivation and involvement of students went to the head of the class. Prior to the pandemic, the widespread use of online education was being held back by a poor understanding of what constitutes key stimuli and the impact of the stimuli on student engagement and learning. In turn, the widespread study of motivation and involvement of students in the online education process was hindered by the lack of knowledge regarding perception stimuli.

In order to identify means to improve student involvement in the online learning process, a survey instrument was employed. Alsharif et.al. (2020) present a comprehensive discussion of the use of surveys to assess consumer reactions based on the widely acknowledged fact that the majority of one's emotions and thinking takes place beyond the level of one's awareness. Budur, Demir, and Cura (2021) have developed a survey to assess university readiness and ability to shift to an online platform while providing sufficient orientation of students to the new learning environment, which was found to be an important concern of students in this study.

The primary data consisted of a survey completed by the 160 business students enrolled in the researchers' marketing and management courses. Seventy-three percent of survey respondents were female. Students completed a questionnaire designed in such a way as to determine the attitude of students regarding online education and their level of satisfaction with it. A variety of survey tools were used including questions with only one answer (i.e., True/False), questions with multiple possible options, questions using the Likert scale, and open-ended questions. The survey provided student perception regarding online training and its attractiveness. A copy of the survey is available upon request.
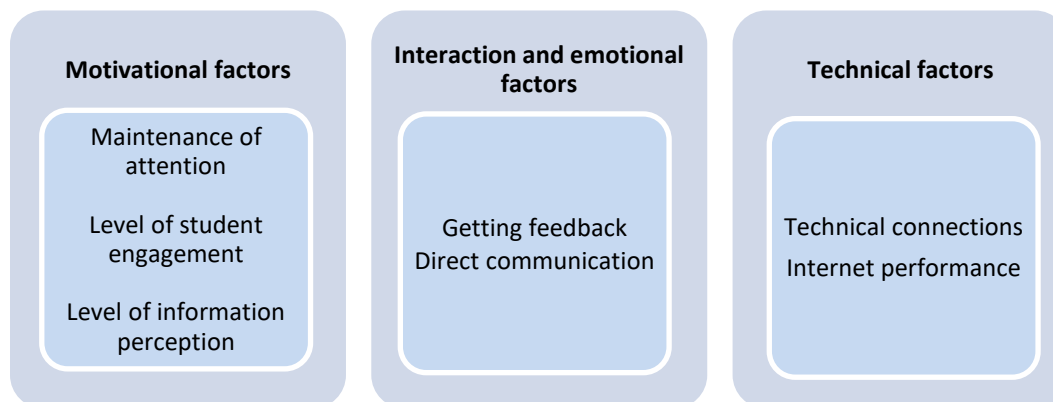

Figure 2: Classification of key factors impacting success of the online learning process
Source: Developed by authors

All factors in the learning process can be divided into three groups: motivational, technical and communicative. The survey was designed in such a way that it examined these three groups of factors and the degree of their influence on student involvement in the learning process. Figure 2 groups these impact factors.

FINDINGS
Student Perceptions Regarding the Ideal Online Experience

The survey revealed many opportunities to increase the involvement of students in the online learning process. Perceptions regarding quality depends on such parameters as image, regulatory, technical, aesthetic, ergonomic, environmental, and organizational features. As one might expect, in the ideal online experience students anticipate images are shown in a manner that attracts students' attention, with a wide variety of images readily available online. Regulatory factors encompass guidelines dictating what students should learn in identified disciplines according to Ministry of Education of Kazakhstan, as well as the university's course components requirements. Ergonomic parameters include convenience and comfort while engaged in online education. During the process of online learning the material should be aesthetic and technical problems should not prevent learning. Aesthetics

would include the use of color and the proper amount of information on any given medium (i.e., such as a PowerPoint slide). Meanwhile, organizational factors include duration of the lectures. Environmental factors are the physical conditions under which students learn while engaged in the online education format, including distractions due to noise, poor lighting, interruptions by others, who may be in the same room or calling and texting. With all students being quarantined, it is likely that students have had to contend with distractions caused by children or siblings. Several of the negative impacts of confinement, including the worse anxiety of female students, as it related to the performance of business students is revealed by Garvey et. al. (2021).

The survey revealed that that there are a variety of ways in which instructors can have a positive impact on student participation. As exhibited in Figure 3, pedagogic tools include the presence of feedback, variety in the forms in which materials are presented, and demonstrated knowledge of information on the part of teachers. However, at the top of the list is the information submission form construct, which encompasses the process by which students provide information. Sixty-five percent (i.e., 104 out of 160) mentioned this convenience characteristic.
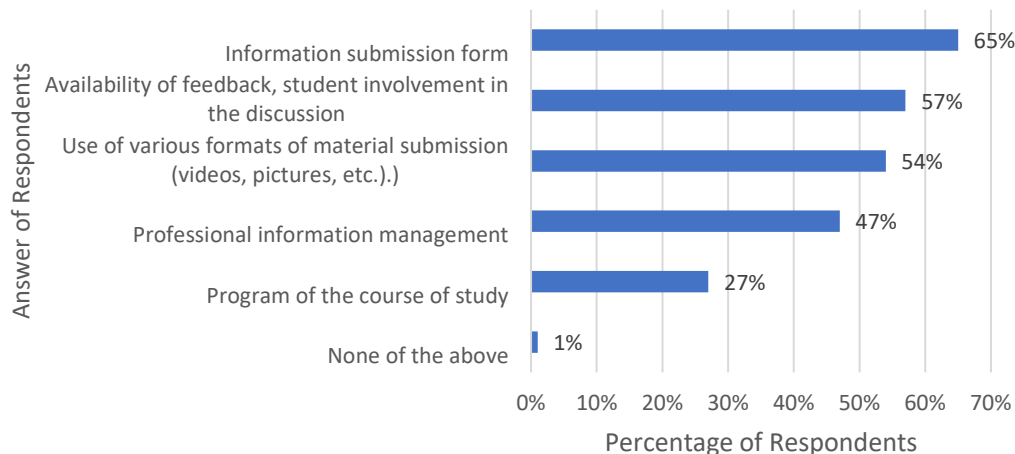

Figure 3: Characteristics of online learning convenience

Source: Questions in survey of 160 students at Almaty Management University

Figure 4 shows the student rating of virtual education characteristics beyond convenience factors, which were addressed above in Figure 3.

Compliance with ethical standards is the most important factor with 41.5 percent of those surveyed believing this aspect is a critical issue.

Ethical standards include volume and tone of the verbal presentation, culture of lecturer, appearance, and speech pattern. The next most important characteristic is the professionalism of the lecturer, with 41 percent of the students listing this characteristic. Professionalism has three components. One, is the teacher's contact with the audience (encouraging initiative, expression of thought, discussion). Two, is the time management (including timely notification of schedule changes that occurred on his initiative, plus whether he/she starts and ends classes on time). The ethics component includes the extent to which the teacher interacts with students in a style that is comfortable, tactful, and respectful.
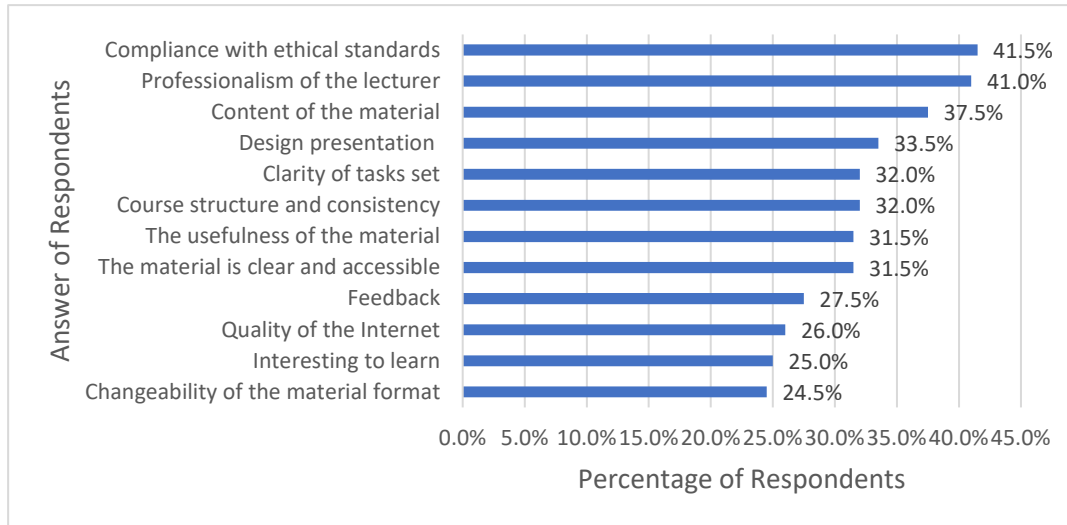

Figure 4: Rating of online education experience

Source: Questions in survey of 160 students at Almaty Management University

The low rating of several dimensions of online education is also of note. Variability in the material content was found to be important by only 24.5 percent of those taking the survey. Another low-rated characteristic is the perceived value of the content being taught. Only 25 percent of those surveyed found the subject had to be interesting, which is fortunate given the often challenging, somewhat dry nature of key quantitative material in many business disciplines.

Student Perceptions Regarding Online Educational Experience

The quality of online training largely depends on how online training is developed as a teaching tool. In order to study this issue, students were asked how satisfied they were with the student preparation for taking an online course. The survey revealed that 69 percent of the students have a positive disposition towards online training, 29 percent of the responses were satisfactorily, leaving only 12 percent of the students being classified as having a negative opinion regarding the orientation received when switching to online education. Responses to open-ended question about technical support revealed that only one in eight respondents believe that the support provided at the outset of the online learning process did not meet their needs.

One of the survey's objectives is to determine the difference between student dispositions towards online education and reality, i.e., between the students' desires and the actual experiences after orientation. For instance, a student may have a negative expectation towards online learnings yet find that their experience was better than expectations. In order to examine student opinions of their online experience, a student satisfaction index was estimated to compare expectations with reality. In this analysis, which is exhibited in Table 1, satisfaction was divided into six levels ranging from very satisfied to extremely dissatisfied. At every level above extremely dissatisfied, a weighting of 20 percent was added to create a student satisfaction index. For instance, the 40 percent weighting at the "partially not satisfied" student satisfaction level arises from adding 20 percent to the 20 percent found at the "extremely dissatisfied" level. We then multiplied the percent of students at each

satisfaction level by the student satisfaction index for that level. Finally, all of the weighted satisfaction index values for each level are summed together.

Identification of dissatisfied students allows providers to determine the cause of dissatisfaction and to take individual corrective actions. In this case, the goal is to increase the involvement of students in the learning process. The analysis of student satisfaction indicators with online training, as shown in the bottom row of Table 1, found that the weighted average student satisfaction index of online learning was

only 52 percent. Only 24 percent of those surveyed were very satisfied or satisfied with online training. Therefore, it is necessary to study the causes of dissatisfaction. Moving from the broad satisfaction index to examine pedagogic characteristics, and thereby identify specific opportunities for improving online education. A detailed analysis of the significance of the characteristics in conducting online training, showed that the most important factors are the content of the material, professionalism of the teacher, accessibility and clarity of the material, the usefulness of the information provided.

Table 1: Analysis of indicators of student satisfaction with online training

Satisfaction Levels	Percent of Survey Respondents	Student Satisfaction Index	Weighted Satisfaction Index
Very satisfied	11%	100%	11.0%
Satisfied	13%	80%	10.4%
Partly satisfied	33%	60%	19.8%
Partly not satisfied	20%	40%	8.0%
Dissatisfied	14%	20%	2.8%
Extremely dissatisfied	9%	0%	0.0%
Average Satisfaction Index score			52.0%

Source: A survey of 160 students at Almaty Management University

Student Perceptions regarding Ways to Create a More Ideal Online Educational Environment

In general, questionnaire results revealed that 43 percent of students have a negative attitude toward their experience in the process of organizing online learning, with another 33 percent being only partially satisfied. Therefore, when developing an online learning strategy, academic leaders need to pay close attention to the organization process. This finding is not necessarily a surprise given that college students have had almost two decades of life to learn how to succeed in a face-to-face educational environment.

The involvement of students in the learning process is especially important, since student interest and assimilation of the educational material depends on it. One of the cognitive-motivational variables in the process of online

education is the duration of time over which information is provided. The survey investigated the preferred lesson duration. As shown in Figure 5, students were given their choice of lecture duration running from 5 minutes (bottom bar) to a range of 41 to 50 minutes (top bar). The bars themselves indicate the percentage of the sample preferring each lecture duration.

As can be seen in Figure 5, most of respondents prefer lecture durations running from 11 to 30 minutes. The findings show that it is important to provide small breaks each 30 minutes to keep students' involvement in educational process and understanding of materials. Examples of these breaks in the online classroom include a review of recently presented information, short quiz on recently presented information, or an actual intermission.
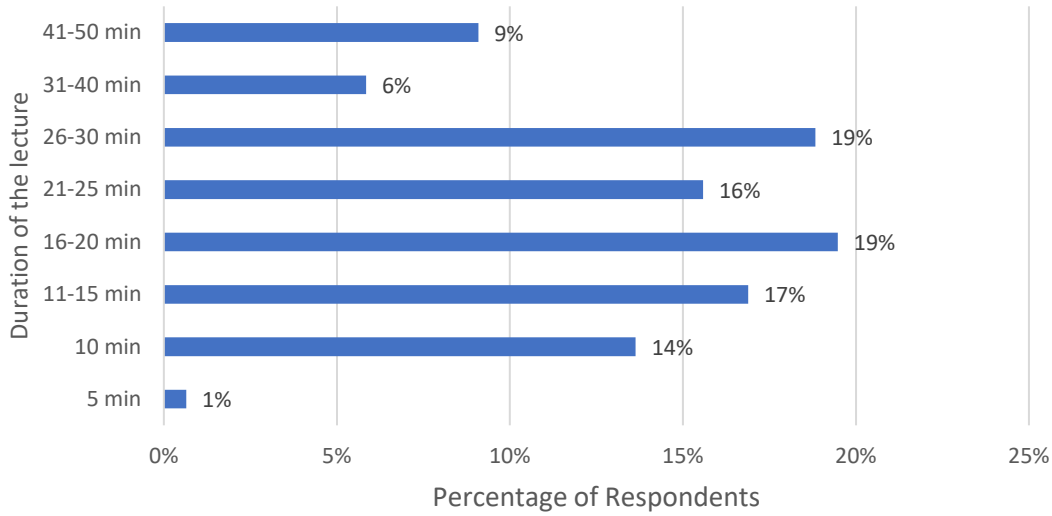
Figure 5: Student preference for online lessons of varying duration

Source: Findings obtained through survey of 160 students at Almaty Management University

As opposed to their experiences at our Kazakhstan university, students prefer to watch webinars with a median duration of 20-minute duration. Our response was to revise the Moodle webinars that include only theoretical materials so that there would be multiple shorter training periods during a 50-minute contact hour class.

For an in-depth understanding of ways to enhance student involvement in the online learning process, emphasis was placed on the educational method used. The results of this line of questioning is presented in Figure 6, where the percentage of students viewing each pedagogic technique positively is illustrated by the length of the blue bar.
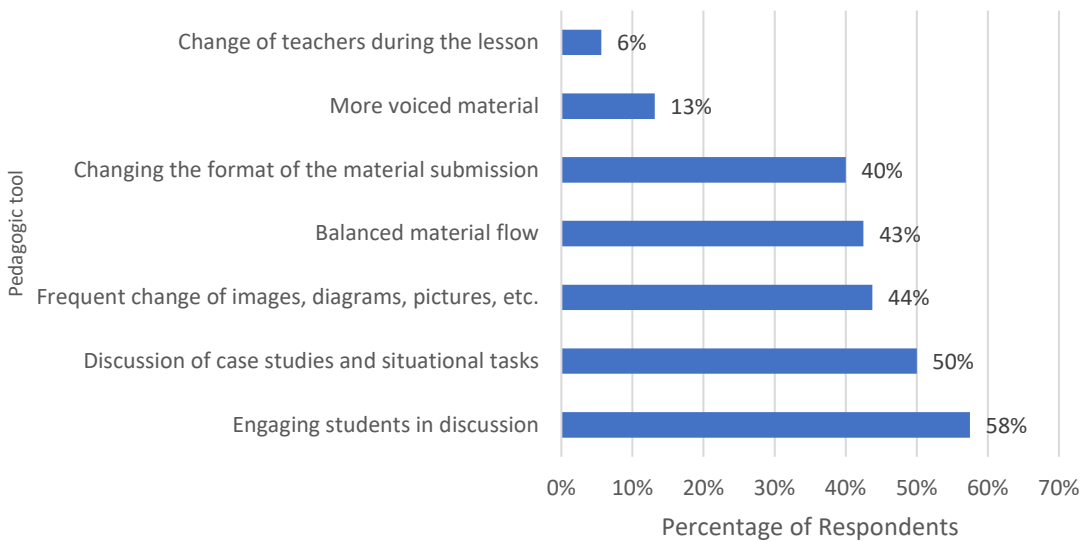
Ways to Improve Online Pedagogy

Figure 6: Student rating of ways to increase student engagement in the online process

Source: Findings obtained through survey of 160 students at Almaty Management University

As Illustrated by Figure 6, the most important ways to enhance the learning of students is

through the communication process, specifically engaging students in discussion. More active

participation on discussion boards was considered a good way to increase student participation by 92 students, or 58 percent of those surveyed. Ninety-two students, or 58 percent of those surveyed feel that more active participation on discussion boards would be a good way to increase student participation. The involvement of students in the learning process with the help of case studies and situational tasks is in second place, as noted by 50 percent of

students, or 80 respondents. In third place, one finds more frequent change of pictures, diagrams, drawings. By comparison, changing teachers during the lesson and providing voiced material are not so important. Considering the Sensory Impact Model, shown in Figure 1, it can be noted that visualized material has a more positive effect on the involvement in the learning process than the voiced material.

Table 2: Main reasons for the low involvement of students in the online learning

Group	Student expectations
1	Feedback, discussion, discussion of problematic issues, teamwork
	Application of case studies, confirmation of theoretical material by practical examples Use of interactive materials Clear and interesting material
3	Application of game forms of learning
4	Duration of the lesson Poor Internet performance

Source: Open-ended questions in survey of 160 students at Almaty Management University

Inclusion of open-ended questions allowed us to analyze the main reasons for the low involvement of students in the online learning process, which can be grouped into four categories as displayed in Table 2. Group 1 factors focus on the interaction of students with the instructor and each other. Group 2 includes

aspects of online instruction referring to the content of the instruction. Group 3 captures the inclusion (or missing!) opportunities to use online technology to enhance training. Finally, Group 4 deals with the lectures format and access.

Table 3: Suggestions for improving student engagement and effort in the online environment

Online Education Characteristic	Ways to improve engagement
1. Context of material submission form	Clarity, concreteness of the material Specific and accurate lecture material Variety of material delivery forms Attractive design High-quality videos Asynchronous lectures
2. Content of the provided material	Constant feedback, well-established communication Reinforcement of theoretical material with practical examples and case studies Application of business games, quests, and competitive elements in the learning process Relevant discussion
3. Duration of the online lesson	20-30 minutes Reducing the training time during the day to 3 hours

Source: Open-ended questions in survey of 160 students at Almaty Management University

In order to determine pedagogic strategies that would more the experience closer to an "ideal online learning" environment, student survey responses were grouped into three categories. Some of the aspects of engagement that are expected to enhance online education is provided in Table 3. For instance, online submission forms must be clear and concrete, the latter meaning there should be firm understanding of what the instructor is asking for in the questions. It should be tied to lecture material, with a variety of forms. Any worksheets need to have an attractive design and any directions given virtually must be done in a quality fashion.

The second category found in Table 3 is content-specific. A key component is the reinforcement of theoretical materials with real-world examples, which is probably also a contributor to success in the face-to-face course. Other factors impacting student engagement in both virtual and classroom settings is continual feedback and provision for discussion with the instructor and other students.

The third set of characteristics included in Table 3 reflect student comments dealing with the context in which online courses are offered. It is critical that all learning be in chunks of up to 30 minutes. Furthermore, in order to provide as much down time as needed between class sessions, it is critical for students to take no more than three classes in any day. For instance, they could have three classes on a MWF schedule and three on a TR schedule, resulting in 6 credits, or a maximum of 18 credit hours.

CONCLUSION

The forced change of the learning format from traditional face-to-face to online due to the COVID-19 pandemic led to a variety of hinderances to the learning process. Therefore, we studied the involvement of students in the learning process. The main shortcomings of virtual modality were identified. Based on these insights, suggestions are made for improvement in online education.

Theoretical contribution

Analysis of factors influencing on the online learning revealed that motivational factors have a greater impact on student success, because motivated students are more attentive, engaged, and willing to receive and positively perceive information. By comparison, interaction/communication and technical factors have medium impact on student involvement in the learning process. The study revealed that the most important ingredient in successful online education is student motivation. Enthusiasm positively influences the emotional state of students, leading to better communications and learning environment, which emphatically and positively impacts student emotions. Motivated students will attempt to overcome communications and technical factors; whereas unmotivated students are likely to have a negative perception of online learning, even in the absence of communications and technical issues.

Enhanced pedagogy includes better discipline-based content, frequently giving feedback, and providing multiple opportunities for verbal interaction among students. Content can be improved with the help of illustrations, videos, and scheduled opportunities for students to give feedback during the lesson. The combination of these factors will lead to better assimilation of the material. Our research also revealed that the information heard in the first 30 minutes of a lesson is perceived more positively by students. However, short snippets of information (lasting approximately five minutes) are viewed as being too short to deliver knowledge with sufficient depth or breadth.

Limitations and suggestions for future research

This investigation was dedicated to online learning process in the Republic of Kazakhstan. Since COVID-19 pandemic spread all around the world it is possible to conduct similar research in different countries. One could also compare various online learning management systems. Our findings have had a big influence on the local educational system. Annual faculty development programs for educational institutions have implemented the results of this research to improve online education in Kazakhstan.

However, despite of COVID-19 and relevance of the topic, our study has such limitations as lack of information of online learning process, the cases of various countries in different continents. That is why future researche should include the experience of other countries.

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