Published by the decision of the Scientific Council
of Khachatur Abovian
Armenian State Pedagogical University

Department of Philosophy and Logic
named after Academician Georg Brutian

W I S D O M

2(22), 2022

Wisdom is covered in Clarivate Analytics’ Emerging Sources Citation Index service
PHILOSOPHY OF EDUCATION
STUDENT'S PSYCHOLOGICAL SAFETY IN DISTANCE EDUCATION DURING COVID-19: PROS AND CONS

Abstract

This article discusses the distance learning problem in connection with COVID-19 limitations and isolation duration from the point of view of students’ psychological safety. This article analyzes the main psychological characteristics of distance learning technologies and their implementation during the pandemic. Distance education's positive and negative aspects in specific conditions are highlighted in detail. This study was conducted among 200 participants using a request for mental and physical change in online education conditions and their impact on feelings of psychological safety. The participants were divided into two comparative groups, considering the conditions of online education provision. The first group included 83 respondents who were provided with fully-fledged conditions, while the second group included 117 respondents with less secured conditions. In the context of the COVID-19 pandemic, one of the security constraints was fatigue in front of the computer for a long time, while the others were boredom and some discomfort due to adaptation to the new standard of education for both the teachers and students. Online education provides an opportunity to save time and money by teaching in the same environment, which also ensures the stability of the activity.

Keywords: distance education, pandemic, learning technologies, hybrid learning, problem learning, psychological evaluation.

Introduction

In the context of distance and hybrid education, learning involves the acquisition of a set of knowledge, skills, abilities, valuable attitudes, and competencies. This is manageable within the framework of traditional education. Distance learning is an educational process organized using video communication technologies; while the teacher and the student are physically distant from one another, communication between them is organized using appropriate educational programs. In the traditional educational process, the organization of training is carried out in the classroom, the teacher and students are in direct communication and are in the same physical area, and modern technologies (boards, screens, posters, etc.) can be used in the educational process. Hybrid learning is a more mixed type of educational process when teachers can be away from students, use video messaging technologies, and conduct practical exercises in appropriate classes. These definitions are general but indicate characteristic differences, which, in turn, reveal different psychological, behavioural and emotional manifestations.
Before the onset of critical conditions, the most widespread education system was a traditional one. Such a system is considered regular attendance of lessons, but because of technological development and the context of a pandemic, online education is becoming increasingly popular. Under such conditions, certain restrictions emerge, negatively affecting the system of obtaining knowledge.

In the context of the pandemic caused by COVID-19, both living conditions and the entire education system have changed dramatically. These changes have affected all spheres of life; everyone is forced to adapt and find motivation to maintain an unusual rhythm. First, the entire higher education system must be rebuilt for both teachers and students. Second, distance and hybrid education formats complicate mastering the learning course and communication and self-control due to their remoteness. It obviously determines the importance of psychological support during the educational process, providing psychological comfort to its participants (Papoyan & Muradyan, 2012, p. 47).

On the contrary, there seems to be enough time left for self-development. However, first-year students and teachers, in particular, are not ready for this change because they view education as a traditional development process with its formal and non-formal types (Rotter, 2012). The characteristic features of distance education affect students’ psycho-emotional state. Based on these factors, students need qualified psychological assistance. Many students find it difficult to simultaneously accept a large amount of information and adapt to the high requirements of modern technologies (Papoyan, Galtstyan, Muradyan, & Sargsyan, 2015, p. 59).

Nowadays, distance education is a learning system that is fully (Burns, 2011) or partially carried out by employing computer and IT technologies (Miao, Huang, Liu, & Zhuang, 2020).

It is essential to define the main goals of distance education:
- To enable students to improve and replenish their knowledge in various fields within the framework of current educational programs;
- To obtain an education or qualification degree based on the results of the relevant exams (external);
- To provide qualified education in various areas of school and university programs.

Considering all of the above, it becomes clear that students acquire new knowledge, skills and abilities on their own while trying to solve a specific kind of task. In the traditional way of learning, the lesson can be interesting, providing a discussion with student feedback, demonstrations, etc. In problem-based learning, the leading purposes of cognitive activity become intellectual: Students seek knowledge by themselves and experience satisfaction from the process of intellectual work, from overcoming difficulties and making solutions (Basco, 2017, p. 696).

Thus, the main types of distance education are discussions and the ability to work with different sources of information. During conversations with teachers, it has been recorded that family members are usually present during distance classes. If teachers use a monologue form of communication during face-to-face classes with students, then distance education allows for an interactive dialogue to be practised all the time. When distance education is combined with a hybrid one, the teacher is motivated and provides interactive small-group classes. On the contrary, interpersonal communication and brainstorming positively impact gaining new knowledge and mastering the subject.

It is essential to note the following disadvantages of distance lessons: The number of students, problems with the internet, invisible faces, etc. Besides, not all the regions of a country are technologically equipped, and not all universities provide high-speed Internet. Despite this, teachers set high standards for themselves to develop emotional and social intelligence.

The research presented in this article aimed to examine the positive and negative attitudes of students participating in distance learning in
higher education in the face of severe epidemic constraints that can play a significant role in psychological safety.

The study identified the following issues:

1. What are the psychological characteristics of distance learning?
2. How do students perceive psychological safety?
3. What are the positive and negative factors?

The crisis caused by COVID-19 is still going on, and the results of our research will allow us to develop more effective psychological measures for organizing distance learning and ensuring students’ psychological safety.

Theoretical Bases

The theoretical bases of psychological safety were formed in the 20th century and were transformed into the different branches of psychology. It became a psychological phenomenon including stress resistance, stability, trust, happiness, sustainability of values, self-realization, and communicability. The relationship between psychophysiological and physical conditions (Allport, 1968, p. 54) observes psychological safety as a health (mental and physical) care intermediary (Baeva, 2006, p. 212; Ponomarenko, 2001, p. 423; Sujan, Huang, & Biggerstaff, 2019, pp. 3-10). In the education system, psychological safety is discussed as a social factor in a person’s psychological development in the components of self-realization, community perception and communication (Maslow, 2013; Grachev, 2003; Edmondson, Higgins, Singer, & Weiner, 2016, p. 70). In the modern challenges of psychological science, the problem of psychological safety is discussed as a feeling of security and protection in the different areas of a person’s activity: Education, family, information, technology, political, human rights, etc. (Aghuzumtsyan, Papoyan, Galstyan, Muradyan, Sargsyan, & Amiryan, 2015, p. 5).

The educational environment is the most complex system for personal development since the foundations of personal growth are formed from it: Skills, abilities, knowledge, understanding and assessment of public opportunities, self-knowledge and self-attitude, professional stability, etc. (Kim, Lee, & Connerton, 2020). On the basis of these listed personality characteristics, a person’s psychological safety and security are formed as a predictor of mental and psychological health (Saladino, Algeri, & Auriemma, 2020). The study of various areas of psychological safety confirms the fact that psychological safety is a pillar for ensuring the quality of life, self-realization and health (Edmondson et al., 2016, p. 72).

Methodology

Our study of the psychological evaluation of distance education during COVID-19 comprises data basis analysis and was completed online (via Google Forms). It was organized during the first prolonged COVID-19 lockdown when universities and institutes used distance technologies for the first time. The study was organized by the foremost higher educational institutions of the Republic of Armenia (Yerevan State University, Armenian State Pedagogical University, Russian-Armenian University and Yerevan State Medical University), which closely cooperate with one another, with student scientific societies acting as an intermediary link. To assess the psychological characteristics of distance education, an online survey has been conducted among students from various educational institutions of different specialities. The psychological characteristics of distance learning are expressed in the feedback of students, teachers, and general discussions. Distance learning in our article examined the way of teaching at universities, organized exclusively with the help of special computer programs, such as Zoom, Big Blue Button, Microsoft Team and Google Class, using distance learning tools in which participants actively use computer technologies. The objects of the study were the psychological characteristics of
distance learning, which are directly related to a sense of psychological safety, the quality of the student learning environment, student engagement and group perception. Accordingly, was compiled a survey package which used a stress questionnaire (Dato, 1996), a psychological safety assessment package (Aghuzumtsyan et al., 2015, p. 116), and Boyko’s questionnaire (The localized Armenian copy is used, author A. Lokyan, 2015). A questionnaire with significant questions was designed to identify psychological restrictions and privileges during distance learning. The total number of respondents was 200, aged from 17 to 25 years. Among those students studying in higher educational institutions were undergraduate, graduate and postgraduate students.

Methods

A questionnaire has been created to output and assess the changes in psychological and health factors under distance education conditions. The survey included questions about age, sex, education level, working activity, technological resources, physical state and symptoms of psychological safety feelings. The final version of the questionnaire consisted of four sections: a) general information of the questionnaire, b) assessment of the conditions of distance learning, c) identification of psychological safety factors, and d) analysis of the pros and cons of distance learning. The survey was conducted anonymously; data were not published in other articles and speeches. The survey questionnaire was developed in two stages. First, the questionnaire was designed based on existing meta-analyses of distance education features from Armenia and foreign countries. In the second stage, the questionnaire was discussed in the laboratories of Personality Psychology and Professional Activity and Experimental Psychology of Yerevan State University in an expert group, which included specialists in education and psychology. All the comments of the expert group were taken into account and based on them, and the final version was formed and applied.

Results

This study was conducted among 200 higher education students using a request for mental and physical change in online education conditions and their impact on feelings of psychological safety. More Bachelor’s students (69.1%) and females (139 respondents) of the 18-24 year age group participated in this study.

To the question “How many online lessons do you attend per day?” 27.8% of the respondents noted one, 40.5% - two, and only 31.7% - three or more lessons a day. Analysis of the results revealed that only 40.4% of the respondents had the necessary and appropriate conditions to attend three or more online lessons daily (stable Wi-Fi connection, high technology gadgets and other accessories). Only 15.9% of the respondents were fully involved in online lessons, and 43.8% were noted only to be partially present. Based on the results, the research team identified and undertook to study the issues that make it challenging to participate in online lessons fully. From time to time, half of the respondents, 50.5%, reported having unexpected difficulties and pressure, 33.7% - partially, and only 15.9% of the respondents did not have any problems.

Several reasons have also been identified regarding the psychophysiological and physical conditions of the respondents: headaches, exhaustion, sight declension, and spinal pain (Fig. 1).
A high level of fatigue indicates that too much time near a computer causes fatigue, which can be caused by inactivity or a limitation of body position or movement. Under the conditions of traditional education, students are physically active, travel by transport, are constantly on the road around the university, and have tense breaks, which cannot be said about distance learning. It is assumed that such motives are the main physical factors with the potential to cause fatigue.

It can be explained as follows: Tiredness and exhaustion (95%) due to the same environment and inappropriate breaks between classes, eyesight declension (85%) and headaches (80%) during lectures due to the use of phones, spinal pain (noted in almost half of respondents (48%)) explained by the lack of proper conditions. We also marked how distance education provides information security. Half of the respondents (52.2%) noted that it partially provides security, while the remaining half were equally divided into a complete (26.3%) and an absolute lack of security (21.5%). Based on their learning interest, 68% of the respondents were willing to be informed about everything concerning online classes, and 28% were interested partially. Only an insignificant part of the respondents was indifferent. The tools used during classes, individual and group assignments, discussions and presentations were emphasized.
The most alarming thing about these indicators is students’ low level of psychological protection. This is a sense of security of psychological security, which is characterized by social-group fullness, self-sufficiency, and complete expression of personal qualities (Baeva, 2006, p. 254). A low assessment of psychological safety or its absence is a vulnerable result, and it can negatively affect the motivation of students and the quality of education, that is, advanced training (Papoyan & Muradyan, 2012, p. 48).

Due to the lack of direct communication with classmates, friends, and teaching staff, negative results are noted: Discomfort (80%), isolation (65%), and boredom (54%). More effective time management was mentioned as a positive attitude. Meanwhile, such indicators as a sense of safety and indifference were noted by the respondents, correspondingly (10%) and several actions at the same time (30%) (Fig. 2).

The availability of education - both hybrid and online - did not meet all student expectations. Many respondents stated that they could not master the material well. Among the respondents, 53.1% were not able to master the material, while 36.70% of the respondents integrated partially, and only 10.1% fully assimilated the material. This, in its turn, affects the entire standard of living: 57% of the respondents reported not living an entire life. Only 17% of the respondents were satisfied with life, and 25.5% were only satisfied partially. At the same time, 37% considered themselves cut off from life, and 24% kept activity. Only 40% of the respondents were engaged partially.

Due to the disadvantages of distance education, students are often faced with tasks that seem impossible to solve. Such attitudes negatively affect learning: for 25% of the respondents, this indicator was high, while 33% managed it partially. Almost 50% of the respondents could handle the tasks by themselves.

Any initial specialization sets tasks for students of possible achievement for the intended goals: Adaptation, professional identification, and complete acceptance of student status in the context of hybrid and distance education.

![Figure 3. Perception Status of the Respondents.](image)
Among the respondents, only 25% ultimately identified themselves as a student, and 75% felt like members of the group.

For young people and teachers, the primary relationship is the rational use of time: 46% of the respondents noted that this way of learning saves time, while 33% partially saves time and 21% answered negatively. If we take into consideration the fact that education allows us to acquire knowledge, skills, and abilities, then the majority of the respondents under such conditions noted that they do not receive additional knowledge or only partially receive it. Only for 21% of the respondents were such conditions suitable to acquire and master knowledge.

Thus, distance education brings restrictions to communication, group debates (100%), group discussions (80%), and joint decision-making (60%) (Fig. 4).

![Distance Education Limitations](image)

**Figure 4. Distance Education Limitations.**

During the study, the participants were divided into two groups by the main factor of psychological safety, considering the conditions providing online learning. The first group included 83 respondents who were provided with fully-fledged conditions, which ensured psychological safety, while the second group – included 117 with less certain conditions. The results of the mathematical-statistical processing of several questions that contained the answers “Positive” and “Negative” are presented below.

The questions were: In an online learning environment…

1. I try to get more information (Q1).
2. I am satisfied with the learning process and communication (Q2).
3. I don’t live a whole life (Q3).
4. I find it difficult to solve problems (Q4).
5. I’m out of touch with life (Q5).
6. I have a lot of free time and financial savings (Q6).

For the following questions, the correlation coefficient of the binary data ($\phi$ was calculated (Table 1).
Hrant AVANESYAN, Ruben AGHUZUMTSYAN, Varduh PAPOYAN, Luis BASCO, Alina GALSTYAN, Diana SARGSYAN, Yelena MURADYAN

Table 1.

<table>
<thead>
<tr>
<th>Answers / n=200</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q5</th>
<th>Q6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First group results (n=83)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>73</td>
<td>5</td>
<td>46</td>
<td>20</td>
<td>49</td>
<td>46</td>
</tr>
<tr>
<td>No</td>
<td>10</td>
<td>78</td>
<td>37</td>
<td>63</td>
<td>44</td>
<td>37</td>
</tr>
<tr>
<td><strong>Second group results (n=117)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>78</td>
<td>15</td>
<td>74</td>
<td>28</td>
<td>38</td>
<td>50</td>
</tr>
<tr>
<td>No</td>
<td>39</td>
<td>102</td>
<td>43</td>
<td>89</td>
<td>69</td>
<td>67</td>
</tr>
<tr>
<td>Binary data correlation coefficient - $\varphi$</td>
<td><strong>0.244</strong></td>
<td>-0.112</td>
<td>-0.079</td>
<td>0.002</td>
<td><strong>0.173</strong></td>
<td><strong>0.125</strong></td>
</tr>
<tr>
<td>Significance level - $p$</td>
<td>$p&lt;0.0001$</td>
<td></td>
<td></td>
<td></td>
<td>$p&lt;0.01$</td>
<td>$p&lt;0.05$</td>
</tr>
</tbody>
</table>

The first group - included students who assessed their distance learning conditions as provided: They have high technologies, high-quality Internet, a separate room, comfortable conditions, the necessary computer accessories, etc. The second - group included students who assessed their conditions for distance learning as insufficient: Do not have high-quality Internet, the necessary technologies for classes, a comfortable room, etc.

Discussion

The results of our study, of course, revealed both positive and negative aspects of the educational situation associated with the pandemic. As a point of restriction, we can distinguish an indicator of exhaustion among students and teachers because long study periods in front of a computer bring up boredom and discomfort due to the new format of the educational procedure.

A meta-analysis of the different areas of psychological safety (engineering, medicine, transport, education, politics, technology, ecology, etc.) showed that psychological safety is the main factor of a group activity, and for its result, mental health care and personality sustainability. Many authors who studied psychological safety in the workplace selected individual and group relationships and integration to develop a psychological safety climate for each person’s healthy activities, feelings of trust and personality (Frazier, Fainshmidt, Klinger, Pezeshkan, & Vracheva, 2016, p. 126). In the last 20 years, there have been many research works in the context of health care and education (Edmondson et al., 2016, p. 69; Saladino, Algeri, & Auriemma, 2020). Psychological safety is also considered in the health care system, especially in the activities of medical services in professional burnout. In the research article by Gandhi et al. (2018), it was argued that to transform the safety of healthcare truly, there is a need to address medical education reform, care integration, restoring joy and meaning in work and ensuring the safety of the healthcare workforce, consumer engagement in healthcare and transparency across the continuum of care. Emotional harm is also pervasive, with regular reports of disrespect, blaming and a punitive environment. Production pressures cause caregiver fatigue, and many are exposed to team-preventive behaviour, such as criticism, bullying, and even physical harm (Gandhi et al., 2018, p. 1025).

Recently, when COVID-19 and restrictions invaded our lives, the study of psychological
safety in the education system became relevant. Thus, it is necessary to study the safety of education, ensuring group integration of mental health in online learning. By centering organizational learning and its role in facilitating schools’ ability to successfully respond to environmental uncertainty, a study was conducted by K. Leithwood, K. S. Louis, S. Anderson, K. Wahlstrom (2017) and D. Le Fevre (2014). The studies showed that a school leader’s key role in creating conditions to support individual and collective learning is the most fundamental psychological factor. The authors also found that principals reported varying levels of psychological safety in their schools with associated differing levels of organizational learning and responsiveness to the crisis. However, rather than being grounded in environmental conditions (e.g., urbanicity and demographics), organizational factors, specifical differences in accountability, principal autonomy, professional culture, and teacher decision-making are all key in the degree of psychological safety exhibited.

In our study, in addition to the psychological safety insurance obstacles in group participation in educational processes, the educational environment also revealed several health problems, understanding the material and preparing for the lesson. In the research, the participants undergoing online learning lost a sense of complete satisfaction from educational and professional activities, from teaching and learning procedure attendance. Restrictions in direct communications and specific difficulties in overcoming technical and technological barriers were also noted. However, the respondents also mentioned some benefits that are difficult to achieve in a traditional learning environment. COVID-19 has created an external and crisis climate in education buildings such as schools, universities, and institutes. The educational environment risked losing students’ psychological safety and educational integration. This is evidenced by studies conducted in recent years in different countries (Browning et al., 2021).

The most important of them is probably the acceptance and dignified implementation of the challenges of the time in the field of education when it is necessary to master new technologies and various software packages in order to provide more accessible and effective education (Wang, Zhang, Zhao, Zhang, & Jiang, 2020, p. 945). Distance education allows one to master different information through direct participation in several events simultaneously. For students, it is essential to combine work and study, especially in the case of paid education. This is real in the distance education process. Based on distance education, high motivation for mastering new things and acquiring new skills is obvious. On the contrary, saving time, unsystematic use of vehicles, and keeping physical space unchanged in many cases can be presented as an advantage and, in other cases, as a restriction due to other circumstances.

Indeed, from the participants’ point of view, this education format creates wider opportunities to keep up with the time and expand opportunities for self-development. Psychological safety suggests that a person grows emotionally, socially and intellectually integrated with society in adulthood. Obviously, it is necessary for an active life in the process of continuous education and development.

Conclusion

In the context of the COVID-19 pandemic, one of the security constraints is fatigue in front of a computer for a long time, while the others are boredom and some discomfort due to adaptation to the new standard of education for both the teachers and students. In education, the development of new educational technologies, different software packages and their implementation, participation in several events at the same time and the combination of work and training were identified as advantages. Online education provides an opportunity to save time and money by teaching in the same environment, which also
ensures the stability of the activity.

References


Miao, F., Huang, R., Liu, D., & Zhuang, R.


