ACADEMIC SOCIALIZING IN THE DIGITAL STUDY ENVIRONMENT –
A NEW REALITY

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Abstract
The recent pandemic has boosted the adoption of the digital study environment (DSE) in universities around the world to reduce physical contact. Theories and models have tried to find the factors on which e-learning would depend. Perceived usefulness – a multidimensional higher-order construct – is the determinant of continuance intentions to use DSE. An independent factor is social presence, which ensures the academic socialization. DSE requires a new function of habitus that facilitates socialization. The objective of the study was to find out hindering conditions for socialization in the university where DSE continues to develop. The study was carried out in the spring of 2022. It involved 117 first year psychology students. Five groups were formed and a discussion in each group was held on socialization in DSE conditions. The author took notes on relevant points, the data were subjected to a thematic analysis using NVivo 12. A prerequisite for the socializing function of habitus is the continuity of the social space that facilitates the dispositions to appropriately communicate in the academic setting. The analysis of the obtained data revealed the following problematic areas of socialization in relation to DSE: diminishing the socializing role of the teaching staff, lack of personal contacts and spontaneous interactions, weakening of the social bond, parasocial relationships, feelings of loneliness and exclusion, decreasing social flexibility. The mentioned distractions can lead to a decrease in satisfaction with studies in general and, in particular, to a reluctance of continuance intentions to use DSE. Despite advanced technological and pedagogical affordances, the academic socialization is slightly behind in this context. Although disparity in previous socializing experience plays a crucial role for each student, discontinuity in social space can be overcome if a new function of habitus is promoted. The internalization of social behavior can be influenced mediated by DSE.

Keywords: digital study environment, e-learning, socialization, habitus, social presence, interaction

1. INTRODUCTION
In recent years, the COVID-19 pandemic brought changes to society including education [1]. Some may feel having a flashback, but changes are being felt, especially in higher education.

The prolonged forced physical distancing and intensive use of the digital environment during the pandemic may have led to changes in socialization processes at the university that did not exist before. Ensuring socialization in the university is one of its main tasks [2, 3]. The pandemic made socialization possibilities to a large extent reassess and realize the reality, which definitely had to be taken into account then and now. These processes affected universities all over the world, calling for research to understand which strategies work best and how to implement them.

This study examines some challenges of academic socialization from the students' point of view, first looking at the experiences of students in other countries of the world.

The developments of socialization processes are examined here in the digital study environment, where synchronous classes take place and where students acquire courses using digitized resources both independently and in the community.

The purpose of the study is to find out the perception and experience of students' socialization changes in the digital study environment during the pandemic, if the students have previously become familiar with the experiences of students (and lecturers) from other countries, which have been analyzed and summarized in research between 2019 and 2023. The research question was raised: what and to what extent negative changes are perceived, studying in the digital environment, for the students of the
psychology study program of Riga Stradiņš University (RSU) in terms of socialization. The article consists of a theoretical background and literature review, research methodology, results and discussion and conclusions.

2. THEORETICAL BACKGROUND AND LITERATURE REVIEW

2.1. Habitus

With the onset of the COVID-19 pandemic, the education system was forced to transform in a very short time, moving to a digital format. During this period many challenges had to be faced which greatly affected the educational institutions in several social aspects related to the complete transition to digitalization of education [4]. The impact was so strong that the effects caused will be permanent and manifest in the future.

Methodological foundations for the study of social problems in education can be found in the approaches of the sociology of education, which enable the rigorous investigations of human actions and interactions [5]. One of the most influential theoretical frameworks that have started to be used in the sociology of education in recent decades are the sociological theories of Pierre Bourdieu [6].

Pierre Bourdieu (1930-2002) was a French sociologist who represented the school of Structuralism, Genetic structuralism, Critical sociology. He considered educational systems as a main factor in reproduction of social structures and focused on educational settings [5]. In the late 20th century he created his theory of habitus that helped to understand the essence of everyday life and social actions [7]. In general, this theory gave the concepts of structure-agent and objectivism-subjectivism a dialectical character, connecting concepts such as habitus, field (surrounding environment) and capital (resources). Bourdieu's idea of habitus is suitable for understanding and studying practice as the interplay of structures and humans as agents, whose action takes place in the educational environment [8].

Habitus can be defined in several ways, for instance, as

• the internalized dispositions of agents that guide their actions and decisions [7];
• ‘a way of being, a habitual state…and in particular, a disposition, tendency, propensity, or inclination’ acquired through cultural, social, historical, and ideological experiences [9] and influenced by them to which the agent is exposed [10];
• ‘a system of the agent’s long lasting (usually not permanent) schemes or schemata or structures of perception, conception and action’ [9];
• the evolving process through which human agents act, think, perceive and approach the world, and their role in it [10].

Habitus can be broadly defined as ‘adaptation, adjustments, change, and transformation’ [9] providing scope for alteration and evolution of practice [10]. It is reflected in ‘every social activity – we always embody the social realities [9]. Habitus facilitates and produces social actions in a given social context and is reinforced by experiences over time. In cases of crises (major structural changes), disjunction between habitus and fields (hysteresis) can result in social mobility, adaptation or a cleft habitus [11].

In educational institutions, students' actions, behaviour, attitudes and beliefs can be traced as the student’s habitus [5]. In the pandemic situation, learning and social activities in the digitalized life were increasingly diminished [9] causing a state of hysteresis. When the agent (student) encounters a crisis (enters a new field – the pandemic situation), one’s capital increases the chance of success and the extent to which they experience a subjective sense of ‘fit’, which depends on one’s habitus [11]. Therefore, the concept of habitus may well be a critical factor in understanding and evaluating the student experience in higher education [12]. Bourdieu suggested that the educational decisions made by students are the result of their dispositions, which have been developed as a personal habitus. This can explain why some students feel comfortable in the higher education environment and integrate more easily into the social
academic environment [5]. It is important to investigate students’ individual agency in internalizing and transforming their own dispositions and perceptions in the context including crises [9] because habitus is related to the social and professional environments in which they participate [10] and the student’s background [5].

2.2. Academic socialization

In general, habitus can play a role at two levels:

• as a system of continuous and transferable individuals’ dispositions accumulated through socialization and

• these dispositions guiding individuals’ daily practices [7].

As mentioned above, one of the important functions of habitus is to promote the socialization of students in the educational environment. "Socialization" is a wide concept that can mean different things to different people: it refers to people's ability to mingle and form connections by communicating with one another, sharing ideas and information, and confirming connections through a mutually agreed-upon pattern – concerning with student interaction or with community development [13].

The unity of education and socialization was confirmed by French sociologist Emile Durkheim (1858-1917) who considered education as the process of preparing people to fit into the social structure through the process of socialization, thus socialization as a learning process [3].

Socialization is the transmission of the reality and culture of a society through formal and informal interactions when human agents mostly internalize the behaviour patterns through norms [6, 14]. Socialization and education are directly related to the overall development of student. In the higher educational environment the secondary type of socialization is realized [2, 14], which is significant for the successful navigation of students in the academic programs and university environment in preparing professional practitioners and scholars [15]. Academic socialization enables students to ‘gain the necessary dispositions and learn to perform meaningful actions in institutionally and socio-culturally valued ways as they participate in their disciplinary communities’ [7]. Socialization in higher education is a necessary requirement for both the organization and the role performance of the new student to the university to socialize organizationally and professionally [16].

A special type of socialization that is implemented in universities is professional socialization, which means a process and outcome of internalizing professional norms and acquiring professional knowledge, skills, and identity [17]. Socialization occurs through processes of interpersonal interaction, learning, and social integration linking students with salient normative environments in higher education. Socialization outcomes are the resultant changes (values, beliefs, and knowledge) that occur in students [18].

Several factors influencing socialization processes in universities can be found in multiple studies. One of them is social presence, which is defined as “degree of salience of the other person in the interaction and the consequent salience of the interpersonal relationships” or “the degree to which a person is perceived as a ‘real person’ in mediated communication” or “the degree to which participants are able to project themselves affectively within the medium” [19, 20]. Social presence is associated with immediacy – a “measure of the psychological distance that a communicator puts between himself or herself and the object of his/her communication” and immediacy – a “measure of the psychological distance that a communicator puts between himself or herself and the object of his/her communication” [19]. Both can be verbal or nonverbal.

According to the social presence theory, the digital environment that causes a user’s perception of a person being present can be considered as an environment with social presence, which means that users can identify groups, communicate and develop relationships if a person is recognized as real - this depends on the intimacy and immediacy (eye contact with agents, proximity, or response time) [21].

Parasocial interaction processes (influences without communicative return) also play an important role in this regard [21].
Social presence can be an important concern in online learning, but having not necessarily significant relationship with student satisfaction [22].

Socialization takes place in interaction between society and the agent [14].

Face-to-face interaction is considered an important factor to enhance socialization in a normal situation [23].

**Sociability** is another factor that affects collaboration and learning performance between groups, which is necessary to have social skills. Sociability in digital environments increase students' level of social space and enhance their collaborative interactions. Sociability in these environments takes the form of an interest in helping or chatting with others. Digital sociability can have three components: "establishing a successful group," "knowledge domain," and "online environment." [24].

**Social interactions** refers to how lecturers and students communicate [13, 25]. Some theories and recent research findings claim that the learning process with digital agents is still perceived as a social interaction process [21].

Online interaction is technology-based communication involving an interrelationship between two or more agents connected with a technology where lectures and students are separated in a different space and time [26]. Dharmadjaja P. N. and Tiatri S. [26] point out three types of online interaction:

1) **student-content interaction** – an interaction between learners and the course materials;

2) **student-lecturer interaction** – an interaction between learners and the instructor who provides the course materials;

3) **student-student interaction**.

In this case, the complete interaction involves three agents where a digital communication platform performs a role of an intermediary agent. Digital technologies offer alternatives to interactions through the new and accessible channels that add a new dimension to traditional ways of interaction and can challenge established approaches to practice. Habitus justifies and creates new social actions in a given social context and time. Therefore, the concept of habitus as a system of dispositions with past, present and also future is based on the strategies that individuals use when performing practices that are constantly evolving in the conditions of their existence [10], establishing social relations within the environments [19]. According to Bourdieu, people grow up with their beliefs about higher education, guided by early socialization and habitus [12].

2.3. **Negative perceptions**

Since the beginning of the pandemic in 2020, numerous studies have been conducted on the digital studying experience of university students of different countries, the most important factors affecting this mode of studying, advantages and disadvantages, and a detailed analysis has been carried out until the end of the pandemic in 2023. However, these studies were carried out under forced conditions, when there were practically no other alternative forms of studying in universities. In addition, the preparation time for studying in the digital environment was extremely short – a couple of weeks or a month. Therefore, the new unprepared studying experience was immediately observed, which, compared to the previous one, was most often shocking and negative in many aspects. In Table 1 is a brief summary of the negative perception of digital studies and socialization experiences of students and teachers of universities in different countries, which were especially manifested mainly at the beginning of the pandemic.
<table>
<thead>
<tr>
<th>Negative perceptions and experience</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>➢ lack of students’ socialization and communication</td>
<td>[27]</td>
</tr>
<tr>
<td>➢ decreased sense of social presence and classroom management</td>
<td></td>
</tr>
<tr>
<td>➢ decreased desirable social learning</td>
<td></td>
</tr>
<tr>
<td>➢ lack of acquiring professional identity</td>
<td></td>
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<tr>
<td>➢ inadequate educational feedback</td>
<td></td>
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<tr>
<td>➢ infrastructural barriers to establishing optimal communication</td>
<td></td>
</tr>
<tr>
<td>➢ a decrease in optimal social learning</td>
<td></td>
</tr>
<tr>
<td>➢ the educational communication leading to improved learning was weak</td>
<td></td>
</tr>
<tr>
<td>➢ lack of social interaction among students in online classes because direct monitoring and direct interaction was missing</td>
<td>[13]</td>
</tr>
<tr>
<td>➢ lecturers could not see facial expressions</td>
<td></td>
</tr>
<tr>
<td>➢ lack of motivation of students</td>
<td></td>
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<tr>
<td>➢ slow speed of students</td>
<td></td>
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<tr>
<td>➢ students were unable to interact and communicate with each other</td>
<td></td>
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<tr>
<td>➢ stress due to learn from home</td>
<td></td>
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<tr>
<td>➢ use of technology for learning badly affect</td>
<td></td>
</tr>
<tr>
<td>➢ lack of social interaction in online classes</td>
<td></td>
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<tr>
<td>➢ students feel fear of loneliness and feel isolated in online classes and uncomfortable with online classes</td>
<td></td>
</tr>
<tr>
<td>➢ studies are boredom and cause of stress for them</td>
<td></td>
</tr>
<tr>
<td>➢ struggling with staying connected to peers and lecturers</td>
<td>[28]</td>
</tr>
<tr>
<td>➢ lack of student-lecturer and student-student interaction</td>
<td></td>
</tr>
<tr>
<td>➢ challenges for students with special needs</td>
<td>[29]</td>
</tr>
<tr>
<td>➢ students’ lack of motivation and unprepared lecturers</td>
<td></td>
</tr>
<tr>
<td>➢ difficulties for some students to understand some subjects in the absence interaction in classroom</td>
<td>[30]</td>
</tr>
<tr>
<td>➢ lack of reliability with remote evaluation methods</td>
<td></td>
</tr>
<tr>
<td>➢ resistance of students to adapt to the distance learning strategy</td>
<td></td>
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<tr>
<td>➢ not preparing the university community for distance learning</td>
<td></td>
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<tr>
<td>➢ the presence of an educational lost in distance education</td>
<td></td>
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<tr>
<td>➢ lack of tutor support</td>
<td>[31]</td>
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<tr>
<td>➢ a sense of frustration even if the student ultimately performs well</td>
<td></td>
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</tbody>
</table>

The barriers to massive online teaching and learning included the first-order barrier (technological or external barrier), the second-order barrier (internal barrier or teachers’ and parents’ beliefs), the third-order barrier (design thinking barrier), and the 2.5th order barrier (the classroom management barrier). [32]
- distraction, classroom disconnectedness, information overload, isolation among others
- with short attention spans
- being behind a screen provides students with a layer of isolation.
- digital collaboration cannot be like physical collaboration in terms of feelings and emotions that lecturers bring to the learning environment
- reduced students’ physical contact and limited social interaction
- with the high use of technology, the learning environment is becoming more individualized and even isolated
- technology can take students away from direct student-lecturer and students-students interaction
- some students may find themselves withdrawing and becoming increasingly disconnected from the people in their learning ecosystem

- the perceived lack of academic social interactions
- difficulty to ask questions while lecturing (even though this was allowed to)

Online learning cannot provide a rich social environment and direct interaction opportunities and it is usually difficult to achieve a good social experience.

- the complete absence of vital personal interactions
- the students undergo contemplation, remoteness, as well as lack of interaction or relation
- e-learning may also deteriorate university’s socialization role and also the role of lecturers as the directors of the process of education.
- when it comes to improvement in communication skills of learners, e-learning as a method might have a negative effect.

Students seem to engage less during online classes. They are in front of their screens, talking to the devices, not to their friends nor their lecturer.

Online learning limits communication and this could become disruptive with any vague or obscure kind of communication.

- lack of social interaction
- lack of discussion and participation
- invisible reactions
- miscommunication
- low possibility to ask and get help

The lack of physical existence, faces’ cues, and nonverbal communication, minifying social presence of students

- the tendency of lack of discipline among learners and even lecturers
- the tendency of isolation (disliking the company of people, not giving importance to social interaction physically, becoming shy)
- the decreased confident level of students
Several studies noted concern about the weakening of academic socialization and interaction in forced conditions when studies took place in the digital environment. Such concerns were expressed by both students and lecturers (but mostly). In order to avoid the negative consequences of parasocial interactions and relationships (one-way and mediated effects), which may occur during long-term studies in the digital environment, it is important to create personal contact of all agents involved in the study process. An academic environment that can more effectively promote the achievement of study results and overall satisfaction with studies, as well as the professional socialization necessary for future work.

3. MATERIALS AND METHODS

The study was conducted in the spring of 2022, when the pandemic period was coming to an end, but the study process was still taking place remotely. This is a descriptive cross-sectional study based on the author's observations. 117 first-year psychology study program students (aged 20 to 26) were involved in the conversation about their studies in the digital study environment and its impact on socialization processes at the university (RSU). The conversations were organized in 5 groups separately, each conversation lasted 40-50 minutes. Before the conversation, the students had to familiarize themselves with several scientific articles on the problems of remote studies and socialization and think about their answers to the questions to be discussed in the conversation. Students were asked to critically evaluate perceived disadvantages of distance learning that were mentioned in research sources. The author of the article made important notes about the arguments and opinions expressed by the students during the conversations (permission to record the conversation was not obtained, so the transcription could not be done). The author’s notes on relevant points were processed using NVivo 12, extracting common themes. The questions to be discussed and aggregated responses of the students are given in Table 2.

4. RESULTS

Notes taken by the author during conversations with groups of students were entered into NVivo 12 and processed to identify common themes and determine their frequencies. The results are summarized in Table 2.
<table>
<thead>
<tr>
<th>No.</th>
<th>Questions</th>
<th>Brief summary of responses and themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>To what extent are you comfortable studying in the digital environment during the pandemic?</td>
<td>More than half (76%) of the students participating in the conversation had successfully joined their studies in the digital study environment thanks to the good technical support. Their satisfaction is good. For the rest of the students, the rapid adaptation was a little difficult for various reasons. Their satisfaction was rated as satisfactory.</td>
</tr>
<tr>
<td>2</td>
<td>What factors hinder you personally from socializing in the digital study environment during synchronous classes?</td>
<td>Lack of personal physical contact (86%), feeling of discomfort while waiting for a response (64%), fear of not being heard (45%), discomfort of intervening in a conversation (32%), indifferent attitude from others (22%)</td>
</tr>
<tr>
<td>3</td>
<td>What factors prevent others from socializing with you in the digital study environment during synchronous classes?</td>
<td>Lack of personal acquaintance (75%), few opportunities due to lack of time (72%), because of my shyness they will not communicate with me (24%), I have nothing special to stand out (15%)</td>
</tr>
<tr>
<td>4</td>
<td>What are the main differences in student-lecturer interactions in distance learning compared to face-to-face studies?</td>
<td>Differences in formality (95%), differences in monitoring activities (94%), differences in receiving complete response (68%), delay in receiving prompt response (42%), different level of attention (42%)</td>
</tr>
<tr>
<td>5</td>
<td>Why do teachers (also students) think that studies in the digital environment are of lower quality compared to face-to-face studies?</td>
<td>There is no possibility to comprehensively evaluate the study results of students (98%), lack of full control (76%), increase in attention deficit (74%), greater influence on the environment in which the student is (64%), disruptive technical risks (34%)</td>
</tr>
<tr>
<td>6</td>
<td>Why can students still have perception and comprehension difficulties in remote studies when the interaction is based on the same principles as face-to-face?</td>
<td>Inability to concentrate (94%), insufficient communication skills (92%), immature personality (86%), influence of external distracting factors (56%), lack of previous learning and communication experience (55%)</td>
</tr>
<tr>
<td>7</td>
<td>What previous experience can facilitate communication in the digital study environment?</td>
<td>Rich social capital (98%), acquired good digital skills (96%), regular activities in mass media networks (92%), close digital contact with family and close people (60%), previous school experience (60%)</td>
</tr>
<tr>
<td>8</td>
<td>To what extent is there a threat of socialization at the university if long-term studies take place remotely?</td>
<td>The majority (96%) of the students involved in the conversation did not see any risks for academic socialization, because there are many other forms of socialization outside the university, and usually a mixed study process is organized.</td>
</tr>
<tr>
<td>9</td>
<td>What kind of support would you like to receive from lecturers and administration in case of distance learning?</td>
<td>Quick response to technical and communication issues (100%), ability to flexibly change study forms if necessary (96%), listening to students’ opinions (94%), expanding access to information (76%), organizing seminars (32%)</td>
</tr>
<tr>
<td>10</td>
<td>What perspective do you see in the digital study environment in the future as a new reality?</td>
<td>Increasing influence (100%), rational approach to the choice of study forms (88%), critical evaluation (60%)</td>
</tr>
</tbody>
</table>

Table 2. The summary of students’ responses and themes.
5. DISCUSSION

The answers to the questions of the RSU psychology study program students involved in the conversation show a relatively successful adaptation to studies in the digital environment in terms of learning experience and socialization, compared to the experience of students from other countries [22, 35]. To a large extent, the rapid adaptation to the new study process and environment at the beginning of the pandemic was facilitated by the previous preparation of the lecturer for the digital transformation, as the improvement of digital skills took place regularly. Students appreciate the lecturers' ability to use the digital study environment, thus successfully involving and supporting them as well.

The second aspect that significantly contributed to the students' adaptation to the new conditions was the relatively long period of the pandemic, which strengthened the experience and even created a habit. This is consistent with other studies such as [26]. Regarding the risks of academic socialization and communication that might be caused by the digital study environment, the students did not consider them so decisive as to significantly affect the study results, although the students saw differences in the study formats. As possible obstacles to socialization in the digital study environment, students noted time gaps between interactions, lack of clear non-verbal communication and communication norms, which is consistent with most other studies.

Student responses show that combining different study formats removes interaction barriers that can be created by a digital study environment, which is in line with [42]. Within the framework of one study program, a rational solution could be the continuous study format scale from fully online, distance, and fully face-to-face courses depending on the type of classes realized in the courses [42]:

1) fully online education with all learning done online and at a distance and no face-to-face component;
2) fully online education with options for face-to-face instruction, but such instructions are not obligatory;
3) mostly or fully online education with some days obligatory spent in classrooms or computer labs;
4) mostly or fully online education in computer labs or classrooms where students meet every day;
5) classroom instruction with significant, required online components that extend learning beyond the classroom and beyond the study day;
6) classroom instruction integrating online resources, but limited or no requirements for students to be online;
7) traditional face-to-face settings with few or no online resources or communication.

Thus, students are more supportive of mixed study forms (blended learning).

This study has several limitations: only first-year students of one study program were involved in the study, the results of the study do not contain a dynamic dimension, the results should be viewed in a comparative aspect. Future research would benefit from a quantitative study testing some hypotheses based on this as a preliminary study.

6. CONCLUSIONS

Summarizing the results of the study, academic socialization strategies in the digital study environments can present challenges in multiple aspects. Some of them are as follows:

1. Lack of face-to-face interaction: digital learning lacks the physical presence and immediate social cues that come with face-to-face interactions. This can be more challenging for students to establish connections and establish relationships with their peers and lecturers.

2. Limited non-verbal communication: digital communication is mainly based on visual and audio perception, which does not fully reveal the nuances of non-verbal expressions, so it is more difficult for some students to interpret emotions, tone and body language, which can affect the level of social interaction.
3. Lack of socialization-focused design and support: without specially designed elements of a digital study environment that encourage interaction and community building, students may struggle to collaborate and engage socially. Therefore, social support from the lecturer and socially friendly design (responsibility of the administration) are important.

4. Limited opportunities for informal interactions: digital study environments during synchronous classes usually lack informal settings (casual conversations), making it harder for students to engage in casual social interactions.

5. Overcoming social barriers: Some students may not feel comfortable due to personal characteristics or lack of experience participating in online discussions or interacting with peers. Overcoming social barriers and enhancing a sense of belonging in the digital study environment can be an additional area of responsibility for the lecturer.

Despite these challenges, it is important for stakeholders of the higher education to address them and implement strategies to promote socialization in digital learning environments. Aware of building a new habitus, all stakeholders should actively create and promote opportunities for socialization, support, and a sense of community among students, despite possible crises in the future.

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