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## **E-FACILITATION`S RIPPLE EFFECT ON EDUCATIONAL TRANSITION**

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### **Abstract**

*The rapid evolution of the online learning environment has stimulated an increased reliance on effective e-facilitation to enhance the educational experience. Employing a mixed-methods approach, the data were collected from the observation of a virtual workshop and questionnaires distributed to the participants through an online survey tool. The research investigates how the quality of e-facilitation influences the psychological safety perceptions of participants and subsequently affects their willingness to share knowledge. The study suggests that e-facilitation acts as a catalyst, creating a ripple effect on the psychological safety climate within online learning communities. By fostering a supportive and inclusive digital atmosphere, e-facilitators contribute to learners' sense of security, encouraging open*

*communication and collaboration. Furthermore, the research investigates into the impact on knowledge-sharing behavior, clarifying the mechanisms through which e-facilitation facilitates the exchange of ideas, experiences, and insights among participants. The findings of this study have practical implications for educators, instructional designers, and e-facilitators seeking to optimize online learning environments.*

### **Keywords**

E-Facilitation, Educational Transition, Online Psychological Safety (PS), Knowledge Management, Team Cohesion

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## **1. INTRODUCTION**

Through the outbreak of COVID-19, the education sector has been exposed to the unpredictability that leads to an unusual degree of change. However, computer-generated communities have changed the operational strategies of educational institutions. In recent, the greatest challenge faced by these communities is the utilization of dispersed knowledge. In addition, to encounter the challenge, there is a need to create collaborative learning behavior among the students. When it comes to the utilization of knowledge, the role of the facilitator cannot be ignored. The pandemic has influenced the behavior and capabilities of facilitators and students drastically. Therefore, the role of facilitators in accelerating students' adaptive behavior for online learning entails valuable capabilities. Whereas the significant feature of adaptability covers performance, motivation, engagement, and innovation that can be attained through psychological safety (PS).

Moreover, psychological safety plays an important role in change processes as it implicates numerous benefits such as the advancement of knowledge-sharing behavior, enhanced assurance, trust, innovation, and learning productivity. However, previous studies have extensively reviewed facilitation techniques, and the concept of psychological safety in different dimensions, but they did not consider the importance of facilitation skills and the function of psychological safety in online learning processes. This research is conducted to fill this gap by investigating the ripple effect of e-facilitation on psychological safety and

students' intention toward knowledge sharing in an online setting. Moreover, this research will help to generate new laws and online platforms for future online scenarios.

This study aims to examine two measures. Firstly, the e-facilitation skills that are required to foster psychological safety in an online setting. Secondly, to explore whether psychological safety positively relates to the student's adaptive behavior for sharing knowledge, especially in this challenging situation such as COVID-19. Because of the global outbreak, social lifestyle has changed drastically. It has a great impact on educational institutions as most of the meetings and courses were transited to online means to maintain academic sustainability. For keeping the social distance online distance learning has been accepted as an appropriate method. However, many participants are getting logged in to the online platforms from their homes or public spaces, so there has arisen an issue of privacy. And for maintaining the level of privacy, psychological safety has played a key role in keeping the environment psychologically safe to encourage knowledge sharing. And without active facilitation, it is difficult to foster psychological safety in a virtual environment. Faculty members design Scenarios purposefully to protect the emotions of the students especially when they are participating in an unfamiliar remote environment.

The outcomes of this research show that in the existing pandemic situation, with the adoption of facilitation strategies, facilitators try to facilitate students throughout the learning process. Moreover, understanding the nuanced dynamics between e-facilitation, psychological safety, and knowledge-sharing behavior is crucial for the design and implementation of effective virtual learning experiences that promote engagement, collaboration, and the free flow of information in the digital realm.

To make a research contribution to academics, this paper is structured as follows; First is the description of the literature review regarding the transition to online education along with the theoretical background of e-facilitation and online psychological safety. Second, the data collection and research method adopted in this study is discussed. Third, the results are presented about the core issues. Fourth, the paper is concluded.

## **2. LITERATURE REVIEW**

### *A. Transition to Online Education in the COVID-19 Pandemic*

With the upsurge of the global pandemic, socialization in society has changed a lot. Most educational institutions have switched their mode of learning to online education to maintain the learning process level for students' progress (Iyer et al., 2020). Since 1990, to adapt the social distancing, online learning has been recommended as a feasible practice in education, because the online learning process can be executed even with a change of place and time (Inquimbert et al., 2019; Regmi & Jones, 2020). During the pandemic, Information technology has transformed the ways of learning in many ways and online learning has given many advantages to students like educating themselves without breaching the social distancing rules (Khalaf et al., 2020). For online learning purposes, both the teacher and student need all digital devices including laptops, desktops, and internet services as well (Singal et al., 2021). Moreover, this educational transition has affected most of the expenses of the educational institutions drastically (Brumini et al., 2014), because to facilitate the students actively, teachers have to arrange different online meetings for different subjects and a different number of participants relatively (Basilaia et al., 2020).

### *B. Facilitation in Online Learning*

There are many different techniques available for the facilitation of online discussions on educational premises. Two major types of facilitation (peer and instructor) are explained by (Hew, 2015). It describes that the responsibility for conducting online class discussions (conversations) requires Instructor facilitation. In addition, giving the major responsibilities and duties to students in online class discussions leads to Peer Facilitation. According to other researchers, time spent in monitoring the online student's conversations should be facilitated by the instructor (Correia et al., 2010).

When the teacher's part would be less in student's discussions then the students will be able to take ownership of generating ideas, discussing new plans, explaining their point of view properly, and sharing their personal experiences easily (Anderson & Rourke, 2002). The commanding existence of the instructor is less in peer facilitation. Students are more expressive in discussions (Bull et al., 2001; Cheung & Hew, 2010; Correia & Davis, 2007).

The skills of the peer facilitators are the key to a better quality of peer facilitation. The role of the instructor is more important in the learning environment that can lead students to feel more encouraged for building good teams and promoting shared learning (Agosto et al., 2013).

### *C. Online Psychological Safety (PS) to Stimulate Knowledge Distribution*

To understand the concept of psychological safety, sharing knowledge is an important part of online platforms. Many studies have been conducted in the past about psychological safety in teams (Edmondson, 1999), among peers (Siemsen et al., 2008), and in institutional sections (Tucker et al., 2007). Psychological safety is defined like the power of expressing thoughts on an online discussion platform without being afraid of having the pressure of negative outcomes to hurt self-confidence, comfort zone, and position. It promotes the independent participation of the members involved in the discussion. The core of building psychological safety is trust. Without trust, it is difficult to ensure a sheltered and safe learning surroundings. The major factor of relationship building is trust which is directly linked to knowledge sharing in virtual societies (Chiu et al., 2006; Ridings et al., 2002).

Previous studies have discussed several theories to explain the knowledge-sharing behavior but these theories have discussed the phenomenon of sharing knowledge in virtual societies but failed to explain the role of psychological safety. However, in virtual communities, privacy is a big hurdle to psychological safety because participants try to connect remotely with no restriction of space (Cheng et al., 2020). Through this study, we are trying to fix the problem of privacy by involving skilled facilitators to look inside the situations.

## **3. RESEARCH METHODOLOGY**

The researchers have selected a qualitative approach to build a better understanding of each response from the participants through an online questionnaire.

### *D. Workshop Process and Participatory Observation*

The workshop was conducted in four phases. The first phase (ice-breaking) was about self-introduction and activity for building psychological safety by “chanting: Teaching assistants (TA) sing first, followed by students chanting the same collaborative working rules”. The second phase (question storming) was organized for cultivating the questioning

skills of each group. It is an idea-generating technique to raise questions as many as possible. Whereas, raising questions and searching for your answers is a good practice to promote collaborative working. The online tool used by the groups was google slides.

The third phase (forced associating) was about combining things that we would never naturally combine. The groups entered the discussion and selected three issues. Later they devised several solutions and picked the most interesting and feasible one. The online tools they used were google jam board and google slides. In the fourth phase (poster making), they made a diagram of the "new solution" and made it the content of the poster using the google drawing tool (see Table I). And TAs took the role of facilitator throughout the workshop. The researchers themselves observed the participation of the groups during the workshop.

**Table 2:** *Online Workshop Activities Inside The Webex Conference Room*

<b>Tasks</b>	<b>Tools and Techniques Used</b>	
1. Self-Introduction & Icebreaking	Chanting Technique	
2. Question storming (Cultivating questioning skill)	Google Slides	Tools
3. Forced Associating (Selecting problems and identifying solution)	Google Jamboard and Google Slides	
4. Poster making (Illustration of the solution)	Google Drawing	

*E. Participants Recruitment*

The purposive sampling technique was adopted to recruit teaching assistants as facilitators, who had experience in participating in the group discussions. Twenty facilitators (teaching assistants) participated in the study and responded to the online questionnaire. All

the involved facilitators received a link to an online survey together with an explanation of the study.

#### *F. Data Collection and Content Analysis*

The data were gathered from the teaching assistants (facilitators) of an online workshop conducted through “Cisco WebEx Meetings”. The questionnaire was developed using a series of questions (open-ended) and distributed to the participants through “Survey Monkey”. The content analysis technique explained by Hsieh et al., 2011 was adopted to determine the implementation and consequences of psychological safety in an online setting. The results are drawn from the experiences of teaching assistants by answering a question as “How do they facilitate psychological safety during the three segments of the online workshop?” To analyze the data, the researchers first identified the themes and after careful reading, they identified the potential themes independently. Next, they reviewed each interpretation and identified redundancy and repetition. Later, multiple times examinations increased the validity of the data.

## **4. RESULTS AND DISCUSSION**

This research has extracted three main results from the analysis of online questionnaires.

#### *G. E-Facilitation Skills and Knowledge Management*

The first result shows that in the current pandemic situation, facilitators are expected to adopt innovative skills and knowledge to create values for the participants. Therefore, from the questionnaire analysis, we extracted 15 important skills adopted by teaching assistants through six key elements that were the reason for the success of the online workshop (see Table II). By getting the command on Online Collaborative Tools, TA`s were able to perform a variety of activities.

**Table 2: The Online Experience of E-Facilitation**

<b>Experience of E-Facilitation</b>	
<b>Facilitator Skills</b>	<b>Key elements of the skill development</b>
Using a variety of activities	Command on Online Collaborative Tools
Promoting creativity	
Setting guidelines	Icebreaking Activity
Keeping the energy level high	
Engaging students	
Supporting discussion and dialog	Model Participation
Making progress	
Creating a comfortable environment	Productive Environment
Dealing with troublemakers	
Encouraging participation	
Promising group collaboration	
Giving clear instructions	Time Management
Adjusting the pace of session	
Questioning	Evaluating Information
Inquiring Intellectual discussion	

*(Source: Adapted From The Online Questionnaire Analysis)*

Through Icebreaking Activity, TAs set the discussion guidelines. By initiating the discussion and with model participation, TAs were Supporting discussion and dialog. Their target was to ensure a productive environment and for this, they focused to develop the skills

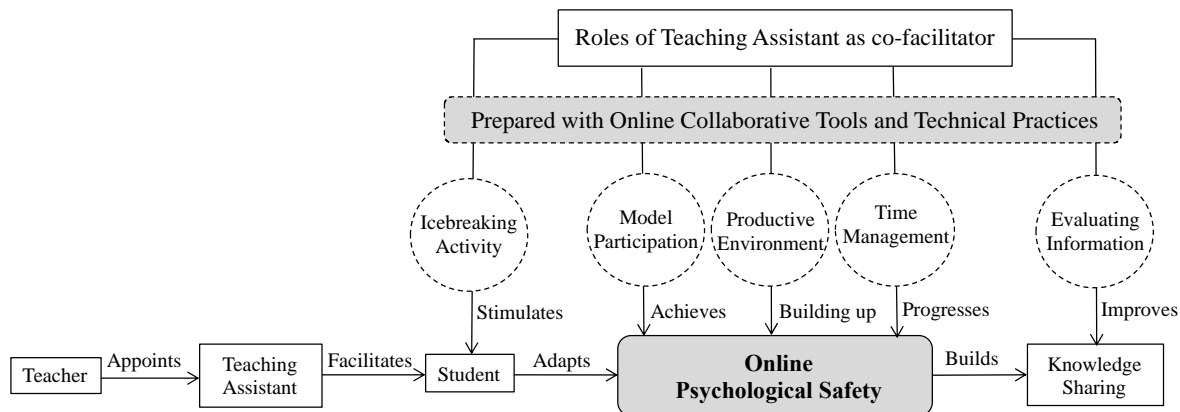


to create a comfortable environment by dealing with troublemakers. TAs had the main task of managing time for discussion, so they were Adjusting the pace of the session. Lastly, they were responsible for evaluating teamwork, and they developed the skills like posing questions for team evaluation (see Table II).

#### *H. Online Implementation of Psychological Safety (PS)*

The second result is about the implementation of online psychological safety, where the teacher appoints teaching assistants as co-facilitator to facilitate and support students by adopting multiple strategies and responsible to perform different roles. They were trained and well prepared for using online collaborative tools (see Fig. 1). At first, they adopted ice-breaking activity that was about self-introduction and activity for building a psychologically safe environment in an online setting. By supporting discussions and dialogues among students, they had model participation.

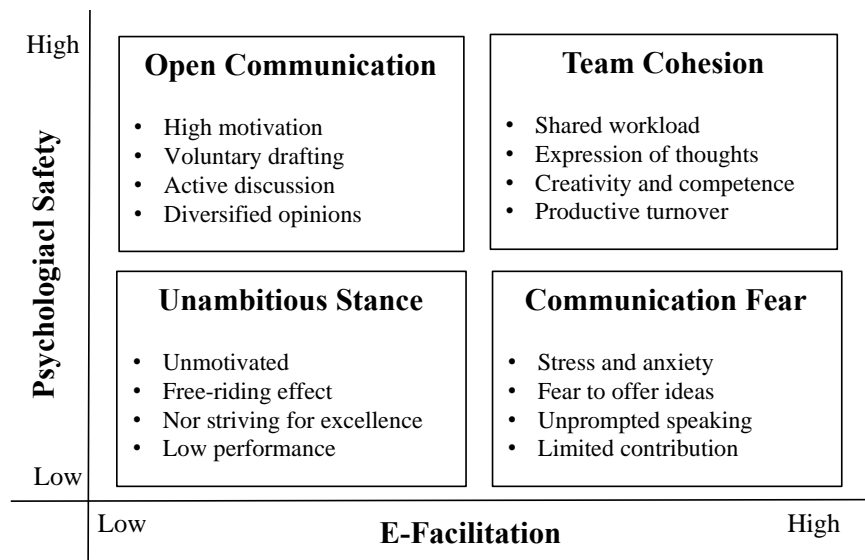
They were responsible to create a productive environment during the discussion by managing the troublesome situations. They adjusted the pace of the time throughout the discussion to promote team working. That resulted in encouraging the students towards knowledge sharing even in remote settings. Finally, they evaluated the information within the teams. In short, Fig. 1 explains that facilitators play an important part to create sharing atmosphere in an online community. With the adoption of strategies, they try to facilitate students throughout the learning process.



**Figure 1:** Role of E-Facilitation to Implement Online Psychological Safety

*1. Adaptive Measures to Promote Knowledge Sharing Behavior in Online Learning*

Lastly, the analysis revealed that when facilitation is low, and psychological safety (PS) is low as well that means there is no proper check and balance on the students then the researchers concluded that students would have Unmotivated behavior and Low performance as shown in Fig. 2. In addition, if the facilitation is low but students feel safe while sharing their ideas and opinions then there will be open communication with high motivation, and diversified opinions would be welcomed. However, if facilitators' involvement is high and PS is low then their would-be communication fear among the students, they will be reluctant to speak up, and they will have a feeling of stress and anxiety. In a win-win situation, when e-facilitation and PS both are high then it is observed that team cohesion will be experienced by sharing workloads, creativity, and competence of achieving productive turnover (see Fig. 2).



**Figure 2:** Relation Between E-Facilitation and Psychological Safety (PS)

## 5. CONCLUSION

This research concludes that online group interactions are not spontaneous; instead, they require careful monitoring and nurturing. Moreover, facilitation is the key to fostering group interactions as the core of facilitation is to assist the groups in maintaining their positions and reaching their goals. These results implicate that the quick transition from classroom learning to online learning scenarios is a feasible method and the drawn experiences from the online workshop can be used in the future to design good strategies for knowledge management in academics. The results extracted from this research can be applied to other businesses and societies than education to implement the new ways of transition rapidly.

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