Critical Factors Involved in Feelings of Challenge and Threat among Preservice Teachers Studying Virtual and Blended Courses

Gila Zilka[1], Orit Zeichner[2]

Abstract

The central goals of this study are to (1) identify critical factors that affect feelings of challenge and threat among preservice teachers who study in virtual and integrated classes, and (2) develop effective ways to deal with these factors. The sample included 578 participants, divided into two research groups: a blended learning course and a virtual course with no face-to-face sessions. This study combined quantitative and qualitative research methods, including a threat/challenge questionnaire with open-ended and closed questions. Three critical indicators to feelings of challenge and threat: negative feelings, threatening feelings, and feelings of challenge. We found that among participants in the virtual course there was an increase in the sense of challenge between "before" and "after," and a decline in negative feelings. Among participants enrolled in the blended course, there was no difference between "before" and "after." Feeling components were examined in depth using content analysis. The key explanatory variables are timing (before/after), the type of course, and the interaction between the two. An interaction between timing and type of course was found in the acquisition of management tools, as a challenge created by the course. There was an increase in the importance of the challenge of performing the tasks of the course from the beginning to its end. The students felt a need to deal with the technological aspect, and later in the course they felt the need to handle the tasks of the course and not only the technological aspects. A significant portion of the students saw the forums as a "space for dialogue" with the instructor and with the other students. In the present study we found that differential interpersonal communication may lead to a decrease in feelings of threat and an increase in the sense of challenge. Some students need intellectual interaction and others need both intellectual and emotional interaction. It is recommended to provide students who feel threatened strategies to regulate their feelings.

Introduction

In this study we examined two learning environments: virtual and blended courses. In their encounter with the virtual or blended learning environment, students are liable to grasp the situation as a challenge or as a threat. A situation perceived as positive stimulates activity, whereas a situation perceived as stressful is liable to provoke an emotional response of challenge or threat. When an individual feels threatened, his feelings of uncertainty and lack of self-efficacy are strengthened, and he may renounce carrying out tasks, focusing on defending himself and preserving the existing situation. This can lead to poor performance of the tasks to which he must attend. The physical separation between teacher and students can lead to "transactional distance" between them, which in turn can lead to a sense of threat, produce anger, gaps in understanding, or misconceptions among learners about themselves and about the learning process. In the current study we asked the question: what are the critical causes for feelings of challenge and threat among student teachers enrolled in virtual and blended courses, and how can these factors be addressed? A blended course refers to the mixture of face-to-face and virtual learning. The learners meet face-to-face regularly, the course has an active website, discussions are held in a forum on the course website and continue face-to-face, etc. This type of combination is expected to enrich the relationship between the teacher and the learner within the learners' community. Face-to-face meetings should enable immediate, unmediated interaction, based on verbal communication and non-verbal messages such as facial expressions and body language, helping the teacher to call for significant interaction and identify situations that require a response to signs of distress, embarrassment, and difficulties related to the material taught, to the class fabric, and the like.

---

[1] Achva Academic College Bar-Ilan University, Israel
[2] Kibbutzim College of Education Technology & the Arts Bar-Ilan University, Israel

Research Sample
The population of the study consisted of 578 participants. There were two research groups: a blended course, where face-to-face study was combined with a website course (it included 431 participants); an entirely virtual course (it included 147 participants).

Research Tools
All the participants received a threat/challenge perception questionnaire derived from Lazarus & Folkman's (1984) questionnaires[1]. Participants also had to answer open-ended questions that were added to the questionnaire, such as "What challenges you?" and "What makes you feel threatened?" This part of the questionnaire focused on the factors that clearly trigger a threat/challenge. The categories that were found are: promoting knowledge and understanding, acquisition of management tools, control of innovative technology, tasks of the course and its progress, and outputs of the course ("What did I learn?" and "What did I gain from the course?").

Conclusion
The purpose of the present study was to examine the critical factors that lead to feelings of challenge and threat among students attending virtual and blended teacher training courses, and how it is possible to deal with these factors. The results point to three critical indicators of the feelings of challenge and threat among students attending virtual and blended teacher training courses. The first factor is a display of negative feelings (e.g., disappointment, sadness, anger). The second factor represents a feeling of threat (e.g., something stressful, threatening, causing concern). A third factor consists of complex feelings of challenge (e.g., release, future benefit, opportunity). There was a positive correlation (Pearson's Correlation) between the feeling of threat and negative feelings, and a negative correlation between the sense of challenge and negative feelings, but not between the sense of threat and the sense of challenge. In other words, the greater the negative feelings were, the lower the sense of challenge was, but there was no connection between the sense of threat and the sense of challenge. We found that among participants enrolled in blended course there is no difference in negative feelings before and after. By contrast, among participants attending the virtual course there was a decline in negative feelings between before and after and an increase in the sense of challenge between before and after.

The feeling components were examined in-depth using content analysis of the open responses. We found that the main explanatory variables were the before/after timing, the type of course, and the interaction between them. Interaction between the timing and type of course was found in the acquisition of management tools, as a challenge raised by the course. From the findings concerning topics that inspire challenge in the course it became evident that the effect of acquiring management tools declines at the end of the course compared to its beginning. The same was true of new technologies, the importance of which decreases over time. At the same time, the challenge of performing the course assignments increased immeasurably in importance at the end of the course compared to its beginning. In other words, at the beginning of the course students felt the need to cope with the technological aspects, but as the course progressed they felt the need to deal with the course assignments, and not only from the technological aspect. The course assignments are also related to the sense of threat, which increases as the importance of the challenge increases. Regarding the differences between the types of courses, it is evident that the technological challenge is far more important for the virtual group than for the blended group.

Forums
Many students referred to the forums. Some students saw the forums as a space for dialogue with the instructor and with other students (85%), whereas another portion regarded the forums as a threat, and had negative feelings about them (15%). The forums have a potential for shared learning and cooperation, and may produce a learning environment that encourages coping with interpersonal communication skills, and that supports cooperation and sharing of space. Students who wrote that for them the forum was a space for dialogue, also wrote that when something in the course was unclear, they first searched the forum to see whether anyone had already asked about it and whether the instructor had responded. If they did not find it, they submitted the question to the forum. Many noted that the forum provided them with important opportunities to realize values and rights arising from cooperation (as opposed to

compartmentalization): freedom of expression, organization, mediation, tolerance, generating and developing ideas, exchange of opinions, examining alternatives, clarification of meanings and their formulation, evaluation, and judgment. Those who felt threatened by the forum wrote that they felt threatened by the management of the social interactions on the forums, and by the criticism of their writings. They were afraid to submit their papers to the forum for all to see, and again and again they expressed fear of public criticism by other students and of the public response of the instructor. How is it possible, then, to deal with the factors that are critical to the feelings of challenge and threat among students attending virtual and blended teachers training courses? Researchers [3] identified three dimensions in offsite learning: (1) autonomy, (2) interactions, and (3) structure. This study found that:
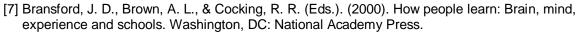
1. **Autonomy: learner's independence**. Previous studies have shown that students were afraid to cope with material independently and feared the lack of the high self-discipline required in a virtual course. In this study as well, students reported that they felt threatened when they failed to understand what is required of them, or when they felt that they did not "understand what the instructor had in mind," and so on.
2. **Interactions**. The present study has shown that students whose concerns have been answered, and who felt that the instructor was attentive to them, succeeded in coping with the demands of the course, and reported a decline in the sense of threat they felt at the beginning of the course.
3. **Structure of the course**. The present study found that many students felt burdened, lacked an understanding of the objectives of the course, and were concerned about technical problems and assignments and about the use of tools at the technical level. But when their instructor responded to their needs, feelings, and difficulties, these feelings decreased. The more flexible the structure of the course was, and the more adaptive to the learner's unique needs, the shorter the distance to activity was. And the better the quality of the interactions, both intellectual and emotional, and the more open to negotiations relying on clearly defined criteria, the greater was the decline of the sense of threat among students.

In conclusion, the present study found that differential interpersonal communication may lead to a decrease in feelings of threat and an increase in the sense of challenge [4]. The factors that shape the learning process in the virtual and blended environments, which may reduce the sense of threat among students, are integrating forums; personal and focused attention on the learner's difficulty, guiding the students either face-to-face or virtually, showing how to cope with management tools, and the like. It is recommended to provide students who feel threatened and have negative feelings with strategies to regulate emotions in both the virtual and blended learning environments, such as enhancing their ability to identify, describe, and express feelings; allow them to show emotion in order to process the information intellectually and as consciously as possible. The instructor must develop a dialogue with the student, to define with him the difficulty and to help him cope with it [6]. Some learners need only intellectual interaction; others need both intellectual and emotional interaction. Providing feedback that meets the needs of the learner and takes into account the diversity among the learners is also required in a regular learning environment. The need for it in a remote learning environment is twice as great because of the physical detachment and the lack of direct contact between the instructor and the students.

References

[1] Lazarus, R. S. (2000). Toward better research on coping. *American Psychologist*, 55(6), 665-673.
[2] Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal and coping. New York: Springer.
[3] Moore, M. G. (1993). Theory of transactional distance. In D. Keegan (Ed.), Theoretical principles of distance education (pp. 22-38). London, New York: Routledge
[4] Zilka, G. (2014). Empowering Educators & Mentors in the Social Media Age – The Three Element Way. Butan-Galim. (Hebrew).
[5] Kramarski, B. & Zeichner, O. (2001). Using technology to enhance mathematical reasoning: Effects of feedback and self-regulation learning. Educational Media International, 38(2/3), 77-82
[6] Offir, B., Barth, I., & Zeichner, O. (2009). Online Collaborative Learning: The Challenge of Change. In L. B. Palcroft & M. V Lopez (Eds.), Personality Assessment: New Research Editor: Lauren B. Palcroft and Melissa V. Lopez ISBN: 978-160692-796-02009 (pp. 335-345). New York: Nova Science Research Grants.

[7] Bransford, J. D., Brown, A. L., & Cocking, R. R. (Eds.). (2000). How people learn: Brain, mind, experience and schools. Washington, DC: National Academy Press.

[8] Anderson, T., Rourke, L., Garrison, D. R., & Archer, W. (2001). Assessing teaching presence in a computer conferencing context. Journal of Asynchronous Learning Networks, 5(2), 1-17. Retrieved April 3, 2004, from http://www.sloan-org/publications/jaln/v5n2/pdf/v5n2_anderson.pdf

[9] Bransford, J. D., Brown, A. L., & Cocking, R. R. (Eds.). (2000). How people learn: Brain, mind, experience and schools. Washington, DC: National Academy Press.