Distant Education of Mature Age Students – Motivational Aspects

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Abstract. The aim of our paper is to share our experience with fostering motivation of mature students to develop new competences to use technology in learning. For some mature age students, technology may be another source of anxiety, because they do not have sufficient previous experience in this respect. This is the reason why, an important role for a teacher of mature age learners is that of preparing them to use the technology in a non-threatening context meant to build positive attitudes in adults towards both technology and learning. Our pilot study refers to the changes of attitudes adult learners might have experienced when their fears to use technology had been reduced.

Keywords: ICT · Mature age students · Motivation · Learning · Teaching methodology

1 Introduction

Unlike younger learners, the adults almost always have a sound reason why they are studying (Bilčík et al. 2019), and that reason will be their primary motivation (Merriam et al. 2007). Perceiving education as a way to improve their self-image and reach various personal goals (Hargaš 2019), adult learners are usually highly motivated from the very beginning of the instruction process, and this makes it much easier for the teacher to perform his/her role as a motivator. Harmer (2007) points out, “many adults are able to sustain a level of motivation by holding on to a distant goal in a way that teenagers find more difficult” (p. 84).

Adults are certainly more cooperative learners, and, what is more important, their cooperation comes as a natural consequence of their seeing the point of various instructional situations in which they are involved (Wahl et al. 2019). There are also situations when students generally have more learning experience behind them, but this aspect can prove to be both beneficial and problematic (Orvis 2018). They have certain expectations about the learning process, and, in case these expectations are not met, learners may become critical towards the new context of instruction. Thus, on the one hand, adult students have built well-developed learning strategies that had previously served them well in other settings (in other schooling), and the teacher could help them use these strategies to their advantage. On the other hand, adults are less confident in

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their intellectual abilities, and this might make them anxious about learning (Dobrovská and Andres 2016). In relation to the anxieties, insecurities, and fears of the adults who return to school, the adult educator Stephen Brookfield (2005) discussed the term “impostor syndrome”, denoting a collection of feelings of inadequacy, of chronic self-doubt which make people think that their accomplishments are nowhere near as good as those of the people around them.

Modern trends in education are characterized by an overall shift towards the use of digital technologies especially when regular in class teaching cannot be applied for some reason - this has recently occurred during the corona virus quarantine at many European universities. Technological innovation extends learning opportunities depending on the efficient use of the learning environment with an emphasis on e-learning, m-learning, MOOC, social networking, educasting, shared e-learning support through cloud computing services.

2 Methodology

The aim of our study was to implement new teaching methods into a study program of mature students during corona virus quarantine in March, 2020 and to analyze their reactions and attitudes in new situation. Our questions were: what is the level of entrance ICT knowledge of our students, are they ready to use technologies to improve learning, are teachers of mature students ready to prepare webinars in a form which may encourage students to do so and is there any attitude change after student experience with Microsoft Teams.

![Fig. 1. Starting curve of transition to distance form of education](image)

In Fig. 1 abrupt growth of distant electronic forms of teaching during corona virus quarantine is displayed. The CTU in Prague had to react within few days to a new situation.

![Fig. 2. Windows operating system dominates among devices used for access to MS teams](image)
As displayed in Fig. 2, within a short period of time academic staff was able to adapt to new conditions and set up distance learning using Microsoft Office 365/Microsoft Teams. Cloud services were deployed on a global scale and encouraged communication during pandemic, in terms of management level, as well as for educational purposes, organizing lectures, exercises and seminars. Starting from March 10, 2020, so-called non-contact teaching methodology was introduced at the CTU in Prague, full deployment started on March 16, 2020, with 2,255 Teams established during first ten days. Computing and Information Centre opened up and filled these Teams approximately with 900 students and teachers on the basis of data available (identities) in the study information system. By 18 March 2020, approximately 50 Teams had been formed from two or more subjects (by merging), roughly 50 Teams were created according to timetable sheets (by splitting).

After webinars and workshop had been delivered to students a feedback was required from them: it was based on a questionnaire with open-ended questions. We asked mature age students to indicate their feelings and opinions on electronic support they had received. A sample of 124 mature age students of the study program “technical teacher education”, aged 29–45, gave the feedback. The aim was to maintain maximum variation across a wide range of variables - age, gender, ability to comprehend and deal with assessment requirements. The items of the questionnaire focused to the self-confidence, motivation increase and assessment of the e-material distributed to them. More than half of the students declared their knowledge, competence and skills increased considerably or to some extent, 20% believed their knowledge did not change and the rest could not answer the question. More than 84% of answers indicated the growth of motivation to use electronic devices for study purposes. 90% of students appreciated appropriate reaction of teaching staff to encourage their motivation and to support their ICT knowledge.

3 Results and Discussion

The items of our questionnaire related to:

- Previous experience with e-learning, especially with Microsoft Teams. Students were asked to assess their entrance technology knowledge on the scale 1–7 (1 being no experience, 7 advanced technology knowledge)
- Previous motivation and readiness to use technology for study reasons
- Disruptions in learning how to use new technology (anxiety, fear, other negative emotions)
- Perceived quality of webinars and workshop (specially user friendliness and intelligibility)
- Attitude changes after 2 weeks’ contact with online learning
- Readiness to re-use technology in future learning.
3.1 Previous Experience with E-Learning and Microsoft Teams Platform

We anticipated student higher early experience with other forms of e-learning than with MS Teams. This assumption was confirmed. Students mostly declared low or moderate experience with e-learning, most of them assessed their knowledge between 2–4, less than 5 per cent believed to be fully familiar with it. But almost 90% confirmed no previous experience with Microsoft teams (Table 1).

Table 1. (a) Previous experience with e-learning (124 students), (b) Previous experience with MS teams

(a) | Knowledge | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
---|---|---|---|---|---|---|---|---|
Students | 2 | 13 | 31 | 32 | 16 | 18 | 6 |
% | 1,6 | 10,45 | 25 | 25,8 | 13 | 14,5 | 4,8 |

(b) | Knowledge | No knowledge | Moderate knowledge | Advanced knowledge |
---|---|---|---|
Students | 108 | 10 | 6 |
% | 87,1 | 8,1 | 4,8 |

3.2 Previous Motivation and Readiness to Use Technology for Study

Our expectations about previous mature student readiness to use technology for study purpose was to be mostly low or moderate. But almost 20% expressed no motivation at all. In additional answers, students explained they had been used to traditional ways of learning and teaching and planned no changes in this respect (Table 2).

Table 2. Previous motivation and readiness to use technology for study

| Previous motivation | None | Low | Moderate | High |
---|---|---|---|---|
Students | 24 | 36 | 44 | 20 |
% | 19,3 | 29 | 35,5 | 16 |

3.3 Disruptions in Learning How to Use New Technology (Anxiety, Fear)

Possible disruptions were declared by half of mature student group. Additional student comments underlined necessity of using a small range of technologies being used for a wide range of tasks to reduce anxiety from learning too many technologies which were not universally successful in terms of usage and adoption (Table 3).
3.4 Perceived Quality of Webinars and Workshop (User Friendliness)

Mature students appreciated improved access to information in an intuitive way. In their opinions, webinars made a flexible learning experience thanks to the time convenience they yielded (Table 4).

Table 4. Perceived quality of webinars and workshop (user friendliness) (1 = lowest, 7 = highest)

| Perceived quality | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------------------|---|---|---|---|---|---|---|
| Students          | 0 | 0 | 6 | 7 | 43| 58| 10|
| %                 | 0 | 0 | 4,8|5,6|34,7|46,7|8 |

3.5 Attitude Changes of Mature Students

More than half of the students declared their knowledge, competence and skills increased considerably or to some extent, 20% believed their knowledge did not change and the rest could not answer the question. More than 84% of answers indicated the growth of motivation to use electronic devices for study purposes. 90% of students appreciated appropriate reaction of teaching staff to encourage their motivation and to support their ICT knowledge (Table 5).

Table 5. Attitude changes after 2 weeks’ contact with online learning - readiness to re-use technology in future learning

| Motivation after experience | None | Low | Moderate | High |
|-----------------------------|------|-----|----------|------|
| Students                    | 13   | 36  | 47       | 28   |
| %                           | 10,5 | 29  | 38       | 22,6 |

4 Conclusions

The online classroom for mature age students is different enough from the traditional one. Faculty members need to create contents for digital delivery that are substantially different from those they teach on campus. Teaching online requires an even keener focus on mature student engagement than the face-to-face model does.

To engage mature students who are not in the room during a lesson, the course should mix spurts of discussions, collaboration, video and audio clips, and hands-on
exercises with text and possibly brief video lectures. Long lectures probably aren’t the best way to engage a face-to-face class – and might be even more ineffective online. Presenting information in 10-minute “chunks” and varying the format in an easy way would be another suggestion.

The question of how to explore and support the development of mature age students’ motivation to use e-technologies for study purpose is far from simple. Since adults frequently feel rather insecure in their position as students, teachers should provide support and encouragement when asking them to take risks or try new skills. The teacher should be focusing on the positive emotional aspects of learning process and on the progress that mature age learners are making.

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