Teaching Innovations, Volume 37, Issue 1, pp. 75–90
DOI: 10.5937/inovacije2401075P

Bojana A. Perić Prkosovački[1]
Staša V. Đokić Jovin
Nina R. Brkić Jovanović
University of Novi Sad, Faculty of Medicine, Novi Sad, Serbia

Original research paper

Paper received: Oct 4 2023
Paper accepted: Feb 14 2024
Article Published: Mar 31 2024

Moderating role of learning strategies through student assessment of distance learning

Extended summary

Distance learning is becoming more common in higher education institutions. The growing use of communication and information technology (ICT), especially in the light of the COVID-19 pandemic, allows for the improvement of distance learning, at the same time challenging teachers to apply ICT effectively in designing interactive lessons which would involve all students as active participants. Students should be able to monitor themselves by self-regulating and exerting control over their learning, taking responsibility, and directing the process.

Based on the previous research, it can be concluded that students should be active participants in their learning process by self-regulating and exerting control over their learning, taking responsibility, and directing the process. Active learning, followed by the interactive approach to learning as a social dimension, promotes the development of self-regulation and skills of self-facilitation which are the main components of metacognition. Students with developed metacognitive skills are academically more successful, while understanding and controlling their thinking and learning processes.

The "new normal", almost as a new paradigm, affects the previously established scientific facts about the process of learning. It is necessary to explore what kind of effect the altered approach to teaching, caused by the COVID-19 pandemic, has on the success in learning.

1 bojana.peric-prkosovacki@mf.uns.ac.rs; https://orcid.org/0000-0003-0035-7600

The aim of the research is to explore the students' evaluation of distance learning, as well as the strategies they apply in the learning process, while also determining the connection between their assessment and strategy use. The Student Evaluation of Online Teaching Effectiveness (SEOTE) was used to examine the students' evaluation of online teaching, while the Motivated Strategies for Learning Questionnaire (MSLQ) was used to examine the use of motivated learning strategies.

The seven principles of effective teaching, constructed by Chickering and Gamson (1987), represent the most well-known list of variables affecting student learning. The success of learning depends on student-faculty contact, cooperation among students, active learning, prompt feedback, time on task, high expectations and respect for diverse talents and ways of learning. Most teaching activities based on these seven principles are in accordance with active learning, promoting effective learning in which students can relate their experiences with previous knowledge. Authentic learning activities facilitate high expectations in students. The purpose of constructive teaching is shaping and managing of students' experiences with the aim of encouraging students' thinking activity. A student should be a creative participant who, in cooperation with peers and teachers, takes part in the preparation, planning, implementation and evaluation of the learning process.

Research sample included 226 students at the University of Novi Sad. Around 77% were female. At the moment of completing the survey, the highest percentage of participants were in their second year of study – 50.4%, while there was 8.4% of first-year students. Furthermore, 16.4% of students attended third year, and 18.1% attended the fourth. Only 6.6% of students were in their fifth year of study.

Descriptive statistics methods were implemented to establish the measures of central tendencies, variability, and extreme values of the observed numerical characteristics. In the domain of comparative statistics, the following techniques were applied: 'Student's' t-test for independent samples and Pearson's linear correlation coefficient. The measure of internal consistency expressed by the Cronbach's alpha coefficient was used to assess the reliability of the scale as a whole.

The results show that students who feel more confident in learning, set internal goals, and are able to self-regulate, evaluate online teaching more positively. Furthermore, students who use cognitive strategies more often rate communication with teachers higher and report spending more time on mastering content and completing academic assignments. On the other hand, students who experience test anxiety, tend to avoid working with peers. These findings imply that students with higher levels of self-efficacy, intrinsic motivation, self-regulation, and strategy use give higher rates to the overall quality of online teaching, while anxiety hinders social interaction and joint learning.

Keywords: learning strategies, metacognitive self-regulation, motivation, distance learning

References

- Angeli, C., & Valanides, N. (2009). Epistemological and methodological issues for the conceptualization, development, and assessment of ICT–TPCK: Advances in technological pedagogical content knowledge (TPCK). *Computers & Education*, *52*(1), 154–168. https://doi.org/10.1016/j.compedu.2008.07.006
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice Hall.
- Bangert, A. W. (2004). The seven principles of good practice: A framework for evaluating on-line teaching. *The Internet and Higher Education*, *7*(3), 217–232. https://doi.org/10.1016/j.iheduc.2004.06.003
- Bangert, A. W. (2006). The development of an instrument for assessing online teaching effectiveness. *Journal of Educational Computing Research*, *35*(3), 227–244. https://doi.org/10.2190/B3XP-5K61-7Q07-U443
- Bidjerano, T. (2005). Gender differences in self-regulated learning. *Paper presented at the 36th/2005 Annual Meeting of the Northeastern Educational Research Association*. Kerhonkson, NY. https://files.eric.ed.gov/fulltext/ED490777.pdf
- Chen, Y., & Hoshower, L. B. (2003). Student evaluation of teaching effectiveness: An assessment of student perception and motivation. *Assessment & evaluation in higher education*, *28*(1), 71–88. https://doi.org/10.1080/02602930301683
- Chickering, A. W., & Gamson, Z. F. (1987). Seven principles for good practice in undergraduate education, *AAHE Bulletin*, *39*(7), 3–7.
- Cook, D. A., Thompson, W. G., & Thomas, K. G. (2011). The Motivated Strategies for Learning Questionnaire: score validity among medicine residents. *Medical Education*, *45*(12), 1230–1240. https://doi.org/10.1111/j.1365-2923.2011.04077.x
- Duncan, T. G., & McKeachie, W. J. (2005). The Making of the Motivated Strategies for Learning Questionnaire. *Educational Psychologist*, *40*(2), 117–128. https://doi.org/10.1207/s15326985ep4002_6
- Đokić, S., i Perić Prkosovački, B. (2021). Studentska evaluacija nastave na daljinu. In I. Jeremić, N. Nikolić, & N. Koruga (Ed.). *Vaspitanje i obrazovanje u digitalnom okruženju: zbornik radova Nacionalnog naučnog skupa Susreti pedagoga* (205–209). Filozofski fakultet Univerziteta ‑ Institut za pedagogiju i andragogiju ‑ Pedagoško društvo Srbije.
- Đokić, S., Brkić Jovanović, N., Marošan, Z., & Marković, V. (2021). Analysis of academic self-efficacy of medical students learning English for specific purposes. *Medicinski pregled*, *74*(3‑4), 74–82. https://doi.org/10.2298/MPNS2104074D
- Ertmer, P. A., & Ottenbreit–Leftwich, A. T. (2010). Teacher technology change: How knowledge, confidence, beliefs, and culture intersect. *Journal of Research on Technology in Education*, *42*(3), 255–284. https://doi.org/10.1080/15391523.2010.10782551

- Erturan İlker, G., Arslan, Y., & Demirhan, G. (2014). A validity and reliability study of the Motivated Strategies for Learning Questionnaire. *Educational Sciences: Theory & Practice*, *14*(3), 829–833. https://doi.org/10.12738/estp.2014.3.1871
- Flores, M. A. (2020). Preparing teachers to teach in complex settings: Opportunities for professional learning and development. *European Journal of Teacher Education*, *43*(3), 297–300. https://doi.org/10.1080/02619768.2020.1771895
- Gibson, S., & Skaalid, B. (2004). Teacher professional development to promote constructivist uses of the Internet: A study of one graduate-level course. *Journal of Technology and Teacher Education*, *12*(4), 577–592.
- Hacker, D. J., & Niederhauser, D. S. (2000). Promoting deep and durable learning in the online classroom. *New Directions for Teaching and Learning*, *2000*(84), 53–63. https://doi.org/10.1002/tl.848
- Huang, S. C. (2008). Assessing motivation and learning strategies using the Motivated Strategies for Learning Questionnaire in a foreign language learning context. *Social Behavior and Personality: An International Journal*, *36*(4), 529–534. https://doi.org/10.2224/sbp.2008.36.4.529
- Jackson, C. R. (2018). Validating and adapting the Motivated Strategies for Learning Questionnaire (MSLQ) for STEM courses at an HBCU. *AERA Open*, *4*(4), 1–16. https://doi.org/10.1177/2332858418809346
- Jonassen, D. H. (2003). *Learning to solve problems with technology*. Merrill Prentice Hall.
- Khan, M. J., & Rasheed, S. (2019). Moderating role of learning strategies between meta-cognitive awareness and study habits among university students. *Pakistan Journal of Psychological Research*, *34*(1), 215–231. https://doi.org/10.33824/PJPR.2019.34.1.12
- Marsh, H. W. (2001). Distinguishing between good (useful) and bad workloads on students' evaluations of teaching. *American Educational Research Journal*, *38*(1), 183–212. https://doi.org/10.3102/00028312038001183
- Marsh, H. W., & Roche, L. A. (1997). Making students' evaluations of teaching effectiveness effective: The critical issues of validity, bias, and utility. *American Psychologist*, *52*(11), 1187–1197. https://doi.org/10.1037/0003-066X.52.11.1187
- Mazzetti, G., Paolucci, A., Guglielmi, D., & Vannini, I. (2020). The impact of learning strategies and future orientation on academic success: The moderating role of academic self-efficacy among Italian undergraduate students. *Education Sciences*, *10*(5), 134. https://doi.org/10.3390/educsci10050134
- McCombs, B. L., & Vakili, D. (2005). A learner-centered framework for e-learning. *Teachers College Record*, *107*(8), 1582–1600. https://doi.org/10.1111/j.1467-9620.2005.00534.x
- Millis, B. J., & Cottrell, P. G. (1998). *Cooperative learning for higher education faculty*. Oryx Press.
- Pajares, F. (1996). Self-efficacy beliefs in academic settings. *Review of Educational Research*, *66*(4), 543–578. https://doi.org/10.2307/1170653
- Pajares, F. (2002). Gender and perceived self-efficacy in self-regulated learning. *Theory Into Practice*, *41*(2), 116–125. https://doi.org/10.1207/s15430421tip4102_8

- Perić Prkosovački, B. (2015). *Evaluation of the educational workshop application as a methodical model in vocational school teaching* [Unpublished doctoral dissertation]. https://nardus.mpn.gov.rs/bitstream/handle/123456789/5932/Disertacija3846.pdf?sequence=7&isAllowed=y
- Pintrich, P. R., & De Groot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology*, *82*(1), 33–40. https://doi.org/10.1037/0022-0663.82.1.33
- Ravenscroft, B., Luhanga, U., & King, B. (2017). Adapting Bangert's online teaching effectiveness evaluation tool to a Canadian context. *Innovations in Education and Teaching International*, *54*(4), 355–363. https://doi.org/10.1080/14703297.2016.1231618
- Reyes-Fournier, E., Cumella, E. J., Blackman, G., March, M., & Pedersen, J. (2020). Development and validation of the online teaching effectiveness scale. *Online Learning*, *24*(2), 111–127. https://doi.org/10.24059/olj.v24i2.2071
- Sangeeta, K., & Tandon, U. (2020). Factors influencing adoption of online teaching by school teachers: A study during COVID-19 pandemic. *Journal of Public Affairs*, *21*(4), e2503. https://doi.org/10.1002/pa.2503
- Shin, M. H. (2018). Effects of project-based learning on students' motivation and self-efficacy. *English Teaching*, *73*(1), 95–114. https://doi.org/10.15858/engtea.73.1.201803.95
- Shunk, D. H., & Pajares, F. (2004). Self-efficacy in education revisited: Empirical and applied evidence. In D. M. McInerney, & S. Van Etten (Eds.). *Big theories revisited*: *4th ed.* (115–138). Information Age Publishing.
- So, H. J., Choi, H., Lim, W. Y., & Xiong, Y. (2012). Little experience with ICT: Are they really the net generation student-teachers? *Computers & Education*, *59*(4), 1234–1245. https://doi.org/10.1016/j.compedu.2012.05.008
- Svinicki, M. D. (2002). New directions in learning and motivation. *New Directions for Teaching and Learning*, *1999*(80), 5–27. https://doi.org/10.1002/tl.8001
- Van der Spoel, I., Noroozi,O., Schuurink, E., & Van Ginkel, S. (2020). Teachers' online teaching expectations and experiences during the Covid19- pandemic in the Netherlands. *European Journal of Teacher Education*, *43*(4), 623–638. https://doi.org/10.1080/02619768.2020.1821185
- Young, S. (2006). Student views of effective online teaching in higher education. *American Journal of Distance Education*, *20*(2), 65–77. https://doi.org/10.1207/s15389286ajde2002_2
- Zimmerman, B. J. (1995). Self-efficacy and educational development. In A. Bandura (Ed.). *Self-efficacy in changing society* (202–231). Cambridge University Press.