

5th International Conference on Higher Education Learning Methodologies and Technologies Online

Foggia, September 13th - 15th, 2023



BOOK OF ABSTRACTS



Università di Foggia





Autori vari HELMeTO 2023 - Book of Abstracts Tutti i diritti sono riservati

Editore STUDIUM s.r.l. a socio unico Prima edizione Settembre 2023

ISBN 978-88-99978-64-8

Questa opera è protetta dalla legge n. 633/1941 sul diritto d'autore $\ensuremath{\mathbb{C}}$ STUDIUM s.r.l. a socio unico 2023

SPECIAL TRACK 11

"LEARNING TECHNOLOGIES AND FACULTY DEVELOPMENT IN THE DIGITAL FRAMEWORK"

ORGANIZERS: PAOLO RAVIOLO, ECAMPUS UNIVERSITY, ITALY ANTONELLA LOTTI, UNIVERSITY OF FOGGIA, ITALY

Faculty development and digital technologies: a systematic review

Paolo Raviolo¹ [0000-0002-2876-514X], Matteo Adamoli² [0000-0001-9149-3944], Laura Fedeli³ [0000-0002-1509-0323], Alessia Scarinci⁴ [0000-0002-3174-7137], Marco Rondonotti⁵ [0000-0003-1579-6737]

¹ eCampus University (Italy); ² IUSVE - Salesian University Institute of Venice (Italy); ³ University of Macerata (Italy); ⁴ Mercatorum University (Italy); ⁵ eCampus University (Italy)

paolo.raviolo@uniecampus.it; m.adamoli@iusve.it; laura.fedeli@unimc.it; alessia.scarinci@unimercatorum.it; marco.rondonotti@uniecampus.it

1 Introduction

In the research field of educational technology, Belt and Lowenthal's [1] literature review of scholarly articles, published from 2013 to 2018, highlighted how the integration of digital technologies into the teaching/learning processes can be a central issue for Faculty Development (FD) initiatives.

Besides, the recent pandemic emergency has encouraged a further development of studies on weaknesses and potentialities of teaching at a distance and higher education systems gained the opportunity to rethink strategic solutions at the organizational [2][3], methodological and infrastructure level in order to enhance the adoption of learning technologies and develop the related teaching skills of faculties [4].

Starting from this scenario, the SIPED work group 'Faculty Development and University Teaching'¹ planned to carry out a systematic review and investigate some central aspects of the research field of FD, including the impact of technologies on teaching methods, learning processes and evaluation systems [5]. Specifically, this contribution presents the first results of the sub-group of researchers who worked on the role of technologies both as means in the professional development of teaching approaches and methods and as disciplinary focus of faculty's training. The overall objective is to investigate the extent and implications of technology integration in FD processes (at individual, community and organizational level).

2 **Review overview**

The SIPED sub-working group 6 addressed FD in connection with the areas of Instructional Technologies. The review started from identifying the research question: "What are the possible interactions between instructional technologies and FD in Higher Education?". The second step, according to the Prisma framework [6], was the

¹ Società Italiana di Pedagogia (SIPED), *Faculty Development and University Teaching work group*, https://www.siped.it/gruppi-di-lavoro/faculty-development-e-didattica-universitaria/.

definition of the key words to be used to search the three selected databases: Scopus, Web of Science and Google Scholar. Finally, after an extensive discussion, the following key words were chosen: "faculty development", "higher education", "technology", "digital", "online". Inclusion and exclusion criteria were agreed among the different sub-groups and a time frame of five years was set (2017-2022) when searching for published research outputs written either in Italian or English. The search was developed using the following strings, that were identified after the needed checks and refinement: (1) Scopus: (LANGUAGE(italian or english) AND TITLE-ABS-KEY ("faculty development" and "higher education") AND TITLE-ABS-KEY (digital or technology or online) AND NOT TITLE-ABS-KEY (school)) AND PUBYEAR > 2016 AND PUBYEAR < 2023 AND (LIMIT-TO (OA, "all")): (2) Web of Science: ((((PY=(2017-2022)) AND LA=(Italian OR English)) AND TS=("Faculty development", "higher education")) OR TS=(digital, technology, online)) NOT TS=(school), (3) Scholar: "faculty development", AND "higher education", AND (technology, OR digital, OR online) -school. The search process through Scholar did not allow researchers to set the time frame within the string and we had to refine the research on the result list.

The additional inclusion criteria regarded the type of publications, that is, open access documents only (journal articles, book chapters) excluding conference proceedings and books.

The final data (as resulted on 13-02-2023) showed: 48 records on Scholar, 685 on Web of Science, 108 on Google Scholar.

The three categories proposed by Bergquist & Phillips [7] (attitudes, processes and structures) in their formalization of FD and instructional technologies were used for an initial coding process. Authors define "attitudes" as the actions or programs targeting the attitudes of the academic personnel, the "processes" deals with the change in organization connected directly to FD, while "structures" are connected to the organization asset to support FD (i.e. organization or IT assets).

The abstract screening had the objective to furtherly exclude papers/outputs not relevant to the objective of the study, and to proceed with an initial coding process for the remaining research items. The screening results show the following data organized around databases and categories (table 1):

	Scholar (108)	Scopus (48)	Web of Science (685)
Discarded	31	18	562
Full text analysis			
needed			
Attitudes	1	4	10
Processes	3	19	10
Structures	0	1	12
Reviews	32	2	61

In conclusion, this first screening produced as results: 15 research outputs for the category of attitudes, 32 in processes, 13 in structures, 43 papers were identified as needing further reflection and analysis and 95 were coded as reviews; the total number of items that were discarded is 643. The analysis of the full papers will engage all group

members who will triangulate their coding process and share a sub-categorization proposal in order to organize the presentation of the results.

References

- 1. Belt, E., & Lowenthal, P. (2019). Developing faculty to teach with technology: Themes from the literature. *TechTrends*, *64*(2), 248-259.
- Crawford, J., Butler-Henderson, K., Rudolph, J., Malkawi, B., Glowatz, M., Burton, R., ... & Lam, S. (2020). COVID-19: 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Learning & Teaching*, 3(1), 1-20.
- Farnell, T., Skledar Matijevic, A., & Šcukanec Schmidt, N. (2021). The Impact of COVID-19 on Higher Education: A Review of Emerging Evidence. *Analytical Report*. European Commission.
- Adedoyin, O. B., & Soykan, E. (2020). Covid-19 pandemic and online learning: the challenges and opportunities. *Interactive learning environments*, 1-13.
- Raviolo, P. (2019). Online higher education teaching practices. In Proceedings of the 10th International Conference on E-Education, E-Business, E-Management and E-Learning, 79-84.
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J.M., Akl, E.A., Brennan, R.C., Glanville J., Grimshaw, J.M., Hróbjartsson, A., Lalu, M.M., Li, T., Loder, E.W., Mayo-Wilson, E., McDonald, S., McGuinness, L.A., Stewart, L.A., Thomas, J., Tricco, A.C., Welch, V.A., Whiting, P. & Moher, D. (2021).

David Moher, The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *Revista Espanola De Cardiologia* (English Ed.), 74(9), 790-799.

7. Bergquist, W. H., & Phillips, S. R. (1975). *A handbook for faculty development*. New York: DansvilePress.