



Bibliometric Analysis of Micro-teaching Model Research Trends in 2013-2023

Jusuf Blegur^{1,3}, Amung Ma'mun^{1*}, Agus Mahendra¹, I Made Sriundy Mahardika², Zuvyati Aryani Tlonaen³

¹Universitas Pendidikan Indonesia, Indonesia

²Universitas Negeri Surabaya, Indonesia

³Universitas Kristen Artha Wacana, Indonesia

*Correspondence to: amung@upi.edu

Abstract: A comprehensive literature meta-study determines the accuracy of diagnosing past studies. It will influence plans to develop more meaningful and impactful future studies. The research aims to inspect the development of the publication of research articles on the micro-teaching model. Article data was collected using the Publish or Perish application, with the title words "Microteaching model" and "Micro-teaching model" from a search to inspect Google scholars within the last ten years, then verified using the Mendeley Reference Manager and analyzed with the VOSviewer tool. The inspection results find that the micro-teaching model research has not experienced significant development. The rationale is that of the 62 papers analyzed, on average, they are still developing and discussing sectoral micro-teaching models for mastering and improving teaching skills. Future research is needed to develop a micro-teaching model that supplements other skills (including analytical thinking, transformational leadership, and others). This research contributes as an evaluation of the publication database of articles on the micro-teaching model that advanced researchers can use to create more significant future research on classroom learning organizations that are more impactful, meaningful, and futuristic in preparing the competence of prospective teachers.

Keywords: bibliometric analysis, micro-teaching model, micro-teaching study

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INTRODUCTION

Micro-teaching is a professional development method for prospective teachers in teacher education programs (Yong-jik & Davis, 2017). Micro-teaching trains simplified teaching performance of prospective teachers using real teaching situations to help prospective teachers gain more profound theoretical knowledge about the art of teaching separately and gradually (Helmianti, 2013; Remesh, 2013) to prepare themselves for an authentic classroom environment (Karakas & Yükselir, 2021; Yong-jik & Davis, 2017). This simplification is related to each learning component, such as in terms of time, material, number of students, types of basic teaching skills, use of learning methods and media, and other learning elements (Sukirman, 2012). Micro-teaching also enables prospective teachers to improve their pedagogical skills through teaching models, criticizing, performance reflection, and re-teaching (Karakas & Yükselir, 2021; Payant, 2014; Yong-jik & Davis, 2017). The cycle helps teacher candidates to develop teaching skills, classroom management skills, critical thinking, observation skills, time management, and reflective skills, as well as improve speaking skills, working with other colleagues, taking on different roles (student and teacher), sharing information about their presentations, and provide feedback to other colleagues (Msimanga, 2020).

Many studies have reported on developing models to support the achievement and success of micro-teaching courses, such as improving teaching skills using the Flipped Learning Model (Lee et al., 2017; Peng, 2016; Rosmayanti et al., 2020), using the Orientation, Modeling, Training, and Assessment (OMTA) Model (Adnyana & Citrawathi, 2019), using the Drill Guide Model (Blegur & Lumba, 2019), using the Tadaluring Model (Arifmiboy, 2019), using the Micro-teaching Learning Model (Pagarra & Syamsiah, 2019), using the Microteaching Learning Model based on Experiential Learning (Supiyanto et al., 2017, 2021; Supiyanto & Sulistyaningrum, 2019), using the Problem-Based Learning Model (Linda & Apandi, 2019), using the Better Teaching and Learning Model (Wahida et al., 2022), and using the Guided Inquiry Learning Model with lesson study design (Asda et al., 2023). In addition to improving teaching skills, the development of other models in micro-teaching has also succeeded in improving other capabilities, including the Micro-teaching Model to improve critical thinking skills (Lestari, 2019) and the Learner-Centered Micro-teaching Model to increase teaching confidence, attitudes towards the teaching profession, and pedagogical content knowledge competence (Crichton et al., 2021; Nasar et al., 2020).

Numerous researchers have succeeded in developing a micro-teaching model (see the previous paragraph). However, specific reviews on prospective physical education teachers are only in Blegur and

Lumba's (2019) research. Another limitation is that this research only confirms the primary goal of micro-teaching, which is to improve teaching skills (Evangelou, 2022; Hendrety & Nadya, 2017; Karçkay & Sanli, 2009; Mahmud & Rawshon, 2013; Ralph, 2014). In fact, critical micro-teaching lectures also need to be creative in integrating supplementary skills as an agenda to prepare competent teacher candidates in responding to changing student learning needs in each era. Competent teachers not only need to master teaching skills, but they also need to be analytical and critical to determine appropriate learning objectives for their students, formulate what skills students need in the 21st era, apply creative and acceptable learning models that meet student needs, and formulate valid, reliable, and practical student performance assessment instruments. They must also be transformative in developing students' potential and have integrity in assessing and evaluating student learning outcomes. One example of the importance of teaching transformational leadership to prospective teachers is that after becoming a teacher, transformational leadership will help teachers empower their psychological degrees (Allameh et al., 2012), is positively related to student learning outcomes (Li & Liu, 2022), and has an impact on to changes in school organization (Windasari et al., 2022).

In order to accurately diagnose various past studies, researchers need a comprehensive literature meta-study so that future study development plans are more meaningful and impactful. One of the meta-study literature reviews used recently is a bibliometric study. Bibliometric studies aim to assess or unpack the evolutionary nuances of many publications in each knowledge area while highlighting emerging areas (Donthu et al., 2021; Zheng et al., 2023). This study relies on systematic extraction from databases of academic articles. Several methods of varying complexity are applied to specific data sets to understand and evaluate keywords, the number of authors and articles, citations, institutions, and others (Hanief, 2021a, 2021b) or topical trends in a particular field (Mejia et al., 2021). This bibliometric study has also been used as an inspection tool for the development of studies on various topics, such as medical malpractice (Shi et al., 2019), gamification (Khatibi et al., 2021), management information systems (Özköse et al., 2022), machine learning (Akay et al., 2022), library security (Chander et al., 2022), corporate governance and disclosure (Effah et al., 2023), honesty and dishonesty in academic work (Mahmud & Ali, 2023), teachers' critical thinking (Wang & Jia, 2023), teacher leadership (Pan et al., 2023), and so on. Thus, bibliometric studies are a credible problem-solving alternative to provide more comprehensive future research opportunities on specific topics (e.g., research on micro-teaching model development) through network, overlay, and density visualization. The urgency of the research is to help researchers carry out research mapping carefully based on the results of inspections on the development of the research publication articles on the micro-teaching model from 2013-2023. Future research on developing micro-teaching lecture models is oriented towards teaching skills. It considers other up-to-date skills to prepare prospective teachers and/or teachers according to the various needs of teaching skills in the 21st century. Thus, when university students become teachers later, they can carry out quality learning and impact students so that they can survive in their lives.

METHODS

This study used a quantitative approach with the literature review method. A literature review allows researchers to increase their understanding of previous work in a particular field, enabling them to more easily identify gaps in innovative ways (empirical, knowledge, theoretical, methodological, application, and population) in the body of literature and project potential for future research (Chigbu et al., 2023; Kraus et al., 2022) using several inclusion criteria such as year of publication, article language, type of article (such as conceptual, randomized controlled trial, etc.), and journal (Snyder, 2019). The inclusion criteria specified in this study included a year of publication (2013-2023), type of article (journal articles and conference proceedings), and title word (Microteaching model and Micro-teaching model).

The research began by collecting documentation of published articles on May 14, 2023, using the Publish or Perish (PoP) application, with the title words "Microteaching model" and "Micro-teaching model" from search to inspect Google Scholar in the 2013-2023 year. Partially, from the 2 title words, the researchers found 52 papers with the title word "Micro-teaching model" and 99 with the title word "Micro-teaching model" (see Table 1), bringing the total papers to 151. Furthermore, to facilitate the co-analysis process of authorship and co-occurrence, the papers collected were verified for author, title, publication, and type using the Mendeley Reference Manager application so that no papers were duplicated, complete the abstract, and ensure that the data being analyzed was a type of journal and conference proceedings. As a result, there were only 62 papers that met the criteria. These papers were then exported to Research Information Systems (RIS) format to be compatible with VOSviewer analysis.

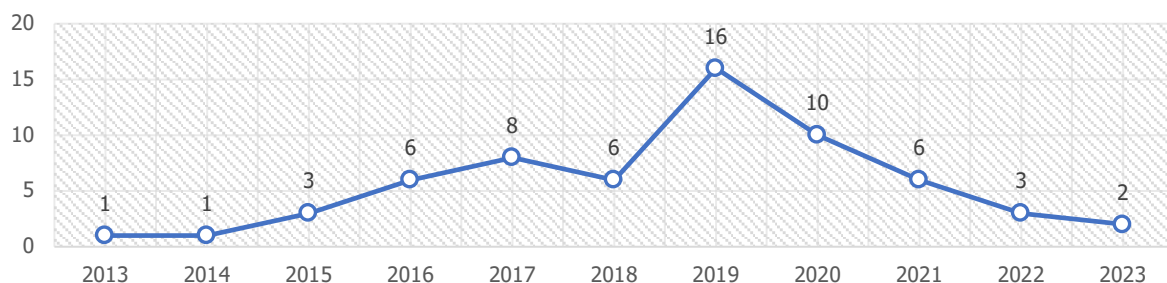
Table 1. Citation metrics from the title word microteaching model and micro-teaching model

Microteaching model	Citation metrics	Micro-teaching model
2013-2023	Publication years	2013-2023
10 (2013-2023)	Citation years	10 (2013-2023)
52	Papers	99
156	Citations	355
15.60	Cites/years	35.50
3.00	Cites/paper	3.59
2.04	Author/paper	1.95
7	h-index	5
11	g-index	17
5	hl, norm	5
0.50	hl, annual	0.50
3	hA-index	3

Bibliometrics studies used a quantitative approach to measure, track, and analyze the social and structural relationships between various components of the literature (Donthu et al., 2021; Rojas-Sánchez et al., 2023) so that the data resulting from PoP inspection was verified using Mendeley, then analyzed using VOSviewer device operation. According to van Eck and Waltman (2010), VOSviewer pays special attention to the graphical representation of bibliometric maps. The VOSviewer functionality is beneficial for displaying large bibliometric maps in an easy-to-interpret way. VOSviewer consists of three parts: 1) an overview of VOSviewer's functionality for displaying bibliometric maps; 2) the technical implementation of certain program parts; 3) VOSviewer's ability to handle large maps demonstrated by using the program to compile and display maps of co-citations from 5.000 scientific journals. The parameters in VOSviewer in obtaining article metadata included: 1) type of analysis (co-occurrence analysis), 2) unit of analysis (all keywords), 3) counting method (full counting), 4) the minimum number of author documents (2 documents) (Gazali et al., 2021; Hanief et al., 2021; Jeong & Koo, 2016).

RESULT AND DISCUSSION

The trend of publication of scientific articles with the title word microteaching model and micro-teaching model using PoP began with one publication in 2013 and 2014 (see Figure 1), respectively, with the title "A model for valuation of graduate diplomas micro-teaching professionals of private colleges and universities in the Philippines" by Juan Apolinario Reyes and "Pengembangan model micro-teaching calon guru di sekolah tinggi Santo Agustinus Keuskupan Agung Pontianak" by Suku, Marzuki, and Clarry Sada. A significant increase occurred in 2019, with 16 publications (25.8%). It began to experience a decrease in the last two years, namely 2022 with three documents (4.84%) and 2023 with two documents (3.23%), one of which was written by Leli Astuti, Andromeda, Yerimadesi, and Zonalia Fitriza with the title "The implementation of lesson study for learning community (LSLC) in microteaching with the guided discovery learning model to improve the pedagogic abilities of prospective teachers."

**Figure 1.** Trends in publications with the title word "microteaching model and micro-teaching model"

In looking for citation trends, publication data is confirmed to Google Scholar, both title, author, affiliation, year, and citation. As a result, even though in 2019 there was a significant increase in article publications, in fact, in citation trend, there was only 1 article that year included in the publication trend (see Table 2). On the other hand, the most extended publication year also does not guarantee a citation trend, whereas, in 2013-2015, not a single article was included in the citation trend. From the top 5 citation trends, it

proves that the studies written by Angel Fidalgo-Blanco, Margarita Martinez-Nuñez, Oriol Borràs-Gene, and Javier J. Sanchez-Medina about micro flipp teaching are interesting and have been cited by many researchers (191 citations). It ends with a study of the lesson study approach model, which has nine citations written by Halim Simatupang and Aryeni.

Table 2. The five most cited articles

Citation	Title	Author	Affiliation	Year
191	Micro flip teaching – An innovative model to promote the active involvement of students	Angel Fidalgo-Blanco, Margarita Martinez-Nuñez, Oriol Borràs-Gene, Javier J. Sanchez-Medina	School of Mining and Energy Engineering Spain, Technical University of Madrid Spain, Technical University of Madrid Spain, University of Las Palmas de Gran Canaria Spain	2017
35	A model of microteaching lesson study implementation in the prospective history teacher education	Indah Wahyu Puji Utami, Mashuri, Ulfatun Nafi'ah	Universitas Negeri Malang, Indonesia	2016
13	Improving the teaching skills of the prospective physical education teachers through the drill guide method	Jusuf Blegur, Andreas J. F. Lumba	Universitas Kristen Artha Wacana, Indonesia	2019
11	Efektivitas model pembelajaran berbasis student centered learning untuk meningkatkan hasil belajar mahasiswa pada mata kuliah microteaching	Mutia Febriyana, Winarti	Universitas Muhammadiyah Sumatera Utara, Indonesia	2021
9	Model pendekatan lesson study untuk meningkatkan keterampilan mengajar mahasiswa pada mata kuliah microteaching	Halim Simatupang, Aryeni	Universitas Negeri Medan, Indonesia	2018

In the co-authorship analysis process, the full counting method is used with the number of co-authorship authors determined to have published at least two articles so that 11 meet the threshold of 99 authors that appear in the VOSviewer networking map are obtained. The analysis results (select no for unconnected items) verified that 11 authors were spread into 4 four clusters, forming 11 links and 24 total link strengths. Cluster 1 (4 authors), including Agustina, Arifmiboy, Mega Iswari, and Jamna Jamaris. Cluster 2 (3 authors), including Andromeda, Zonalia Fitriza, and Yerimadesi. Cluster 3 (2 authors), including Melkyanus Bili Umbu Kaleka and Adrianus Nasar. Cluster 4 (2 authors), including Heny Sulistyaningrum and Yudi Supiyanto.

The authors who published articles for the latest year (2023) are Leli Astuti, Andromeda, Yerimadesi, and Zonalia Fitriza with the title "*The implementation of lesson study for learning community (LSLC) in microteaching with the guided discovery learning model to improve the pedagogic abilities of prospective teachers*". However, Leli Astuti's name did not appear in the overlay visualization because she only published 1 document. Meanwhile, other authors appear because they have published at least two documents using the term microteaching or micro-teaching model (see Figure 2 on the left).

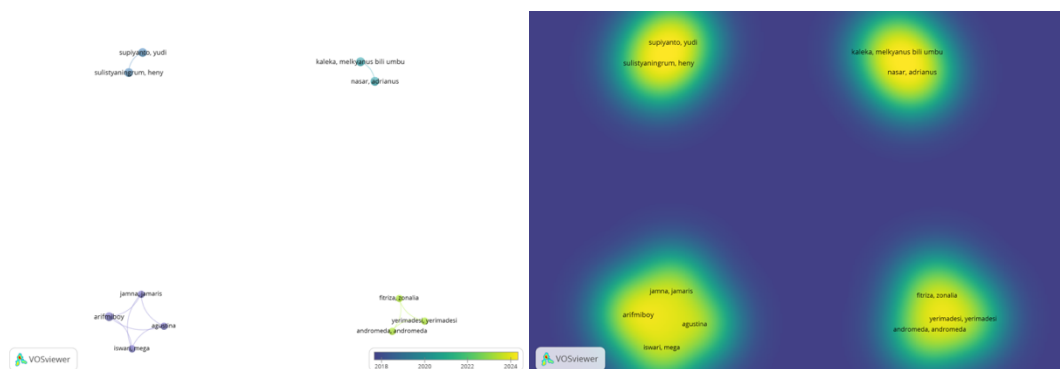


Figure 2. Co-authorship overlay and density visualization

Of the 11 authors, all are popular in publishing articles about the micro-teaching model because of its high density (see Figure 2 on the right). It is because six authors (54.5%) have published two documents, namely Agustina, Mega Iswari, Jamaris Jamna, Andromeda, Zonalia Fitriza, and Yerimadezi. While the remaining five authors (45.5%), Arifmiboi, Melkyanus Bili Umbu Kaleka, Adrianus Nasar, Heny Sulistyaningrum, and Yudi Supiyanto, have published three documents. It means that none of the 11 teachers published articles with the term micro-teaching model or microteaching model >3. This data at the same time confirms that the trend of author publications in this field still needs to be improved.

The process of co-occurrence analysis is used to frequent the structured arrangement of keywords in articles so that from articles that have been verified with PoP and Mendeley, how many trending keywords are in each author's publication. This analysis will visualize future research opportunities based on the occurrence of article keywords. This analysis uses the full counting method with the number of co-occurrence keywords set to at least one so that all meet the threshold representing 99 keywords will appear on the VOSviewer networking map. The analysis results (select yes on unconnected items) verify that there are 53 keywords spread into 9 clusters, forming 118 links and 120 total link strengths.

Cluster 1 (8 keywords), including flip classroom, micro class, and project teaching method. Cluster 2 (7 keywords), including flipped class, micro-lecture, and teaching model. Cluster 3 (7 keywords), including micro-class, mixed mode, and network technology. Cluster 4 (6 keywords), including hybrid teaching models, lecture reforms, and simulation practice. Cluster 5 (6 keywords), including classroom efficiency, education reform, and scientific research method. Cluster 6 (6 keywords), including management course, micro-course, and self-learning. Cluster 7 (5 keywords), including audio-visual, micro course, and model innovation. Cluster 8 (4 keywords), including flipped classroom and mobile learning. Finally, cluster 9 (4 keywords), including micro lessons and software application courses.

Of the 53 keywords, the keywords that appear most often are teaching model (5 occurrences; 15 total link strength), flipped classroom (5 occurrences; 15 total link strength), micro class (4 occurrences; 14 total link strength), micro-class (3 occurrences; 10 total link strength), teaching mode (3 occurrences; 10 total link strength), college English (3 occurrences; 9 total link strength), and micro-course (3 occurrences; 9 total link strength) (see Figure 3-left section).

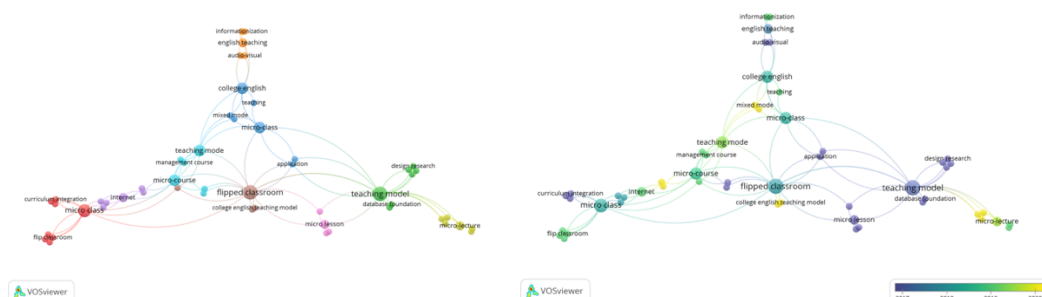


Figure 3. Co-occurrence network and overlay visualization

The VOSviewer operation displays 1,500 items; 158 meet the threshold, with 95 terms selected. In the next stage, four terms were eliminated, including "dan t, sig, gain, and way", so there were 91 items, seven clusters, 1.025 links, and 7.288 total link strengths. Seven clusters are formed in Figure 4-left part (networks visualization) (see Table 3). For the term "micro-teaching model" (cluster 3), the closest networking is the term "development, teaching method, teaching skills." Whereas the term "microteaching model" (cluster 4) has the closest networking, namely the term "profession, tmlm, teaching skills, higher education." Other similar terms, such as "microteaching learning model" (cluster 5), which have the closest networking, are the terms "experiential learning, TMLM, competency, and teaching skills." The specified terms are related to variables, so other terms that are close together but do not contain variables are not recorded in this report, for example, stage, group, person, field, number, and test.

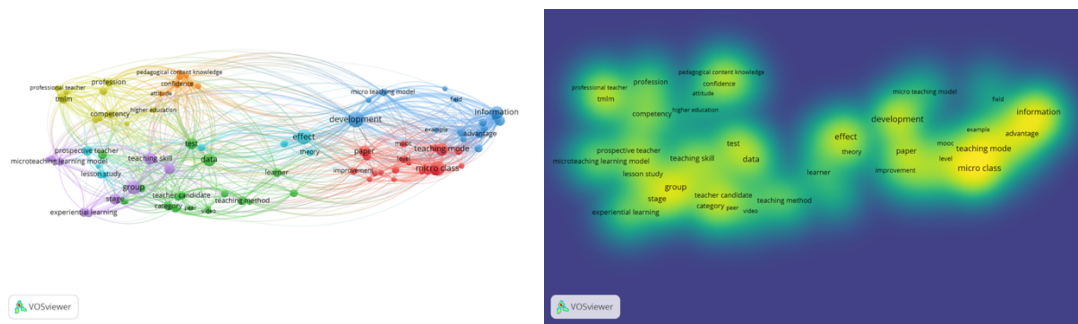


Figure 4. Title and abstract network and density visualization

Another display (overlay visualization) also proves that for the term "micro-teaching model" (cluster 3), the term that has been studied the longest is "tmlm", and the most recent is the term "teaching skills." Second, for the term "microteaching model" (cluster 4), the term that has been studied the longest is "information," and the most recent is the term "confidence, attitude, and competency." Finally, the term "microteaching learning model" (cluster 5), which has been studied the longest, is "competence," and the most recent term is "experiential learning." For density visualization (pictured right), it is clear that the term "micro-teaching model" and the term "microteaching learning model" have a low density. While the term "microteaching model" does not even show its density. Thus, from the three VOSviewer visualizations, it can be concluded that studies on the development of the micro-teaching model are very limited, especially those with the terms "analytical thinking, academic integrity, transformational leadership," and so on. Developing micro-teaching models to improve these variables is very important to equip prospective teacher students to carry out their future professional careers.

Table 3. Cluster results of bibliometric analysis

Cluster	Colour	Item	Total
1	Red	Attention, classroom teaching, college English teaching, combination, construction, efficiency, flipped classroom teaching mode, flipped classroom teaching model, higher vocational college, improvement, level, micro class, micro lecture, mobile learning, MOOC, new teaching model, paper, teaching model, traditional teaching model	20
2	Green	Assessment, basic teaching skill, category, data, flipped classroom, learner, lecture, microteaching lecture, OMTA microteaching model, peer, researcher, teacher candidate, teaching method, teaching practice, term, test, video	18
3	Blue	Advantage, blended teaching mode, content, development, example, field, information, information technology, integration, micro-teaching model, mode, order, person, resource, space	15
4	Yellow	Availability, competency, complexity, higher education, microteaching model, mobile technology, number, offline practice, pre, profession, professional teacher, Tadaluring microteaching learning model, TMLM	13
5	Magenta	Elementary school teacher education, experiential learning, group, international class program, microteaching learning model, outcome, questionnaire, stage, teaching skill	9
6	Cyan	Effect, lesson study, LSLC, online micro video course, optimal model, pedagogic ability, prospective teacher, theory, value	9
7	Orange	Attitude, confidence, distance, LCMT, PCK, pedagogical content knowledge, teaching confidence	7

The conclusion of the answer to the research problem from the VOSviewer inspection results is that the term "micro-teaching model" and the term "microteaching model" are still very rarely discussed in the academic literature (journal articles and seminar proceedings). It means that research on the development of the micro-teaching model has yet to receive serious attention as an effort to prepare prospective teachers who are competent in organizing 21st-century learning. In addition, research trends in developing the micro-teaching model are still oriented toward mastering the teaching skills of prospective teachers. Several recent studies have started to provide other supplements (among them, confidence and attitude) in developing micro-teaching models. These results provide a visualization for future research on developing a more open and futuristic micro-teaching learning model, bearing in mind that studies on the development of micro-teaching models have not maximally targeted the areas of essential skills needed by prospective teachers and their teaching skills. For example, future research can develop learning models that support prospective teacher exploration experiences

on analytical thinking skills, innovative thinking, decision making, academic integrity, transformational leadership, mastery of information technology, and other professional skills needed to ensure accelerated physical education implementation continues to change while maintaining its quality (after becoming a teacher).

Previous studies have reported the effectiveness of microteaching's contribution to improving teaching skills and competency development of prospective teachers/teachers (Evangelou, 2022; Helmiati, 2013; Hendrety & Nadya, 2017; Karçkay & Sanli, 2009; Ralph, 2014; Remesh, 2013). These results can provide new stimulants for future research to develop micro-teaching models to improve other essential skills for prospective teachers. In fact, in various developments of micro-teaching-learning models, recent research has also not maximally encouraged the development of micro-teaching models that take into account the 21st-century skills of prospective teachers, developments of these models (for example the flipped model, OMTA, drill guide, Tadaluring, experiential learning, problem-based learning, better teaching and learning, guide inquiry learning) still question teaching skills (Adnyana & Citrawathi, 2019; Asda et al., 2023; Blegur & Lumba, 2019; Lee et al., 2017; Linda & Apandi, 2019; Pagarra & Syamsiah, 2019; Supiyanto et al., 2017, 2021; Supiyanto & Sulistyaningrum, 2019; Wahida et al., 2022), critical thinking skills (Lestari, 2019), teaching confidence, and pedagogical content knowledge competencies (Crichton et al., 2021; Nasar et al., 2020). Thus, scientifically, the results of this study have not shown significant progress in promoting new knowledge and studies in the development of micro-teaching models due to the low emergence of other terms that need further study and discussion.

Since being developed at Stanford University (Fortune et al., 1967), micro-teaching has been able to maintain its purpose as a method of professional development of prospective teachers in teacher education programs (Yong-jik & Davis, 2017) by empowering prospective teachers to develop the skills needed in a teaching career them (Msimanga, 2020). Preparing a competent teacher is not only limited to his teaching skills but how to update his high-level reasoning process (HOTS) so that they can make teaching approaches, methods, and strategies more effective and efficient; what about their academic integrity so that they can build honest, responsible personalities, fair, and brave, and respect, as well as transformational leadership so that they can maintain harmonious and supportive social relations, and empower their students' learning potential (Blegur et al., 2017). When looking at the development of teacher competency research in the 21st century, on average, researchers note the importance of updating the competencies of prospective teachers/teachers who are more constructivist in order to empower 21st-century learners (Caena & Redecker, 2019; Niu et al., 2021). For example, competencies related to personal and relational (Zaragoza et al., 2021), self-awareness, collaboration, analytical, critical thinking, creativity, innovation, problem-solving, and metacognition (Blegur et al., 2023; Caena & Redecker, 2019; Kim et al., 2019), personal characteristics, pedagogy, professionalism, information, and communication technology, and management (Sulaiman & Ismail, 2020), and leadership (Kadri et al., 2021).

Teachers play an essential role in achieving educational goals, it is much more important to discuss what skills teachers must have to adapt to a changing world (Gümüş, 2022), such as training prospective teachers with classroom-based research to gain competence in research and teaching (Mak et al., 2022), training competencies in the use of digital information and technology (Undheim & Ploog, 2023; Yedilbayev et al., 2023) and training leadership (Espinosa & González, 2023) to support the quality of learning. However, the main challenge in realizing improvement lies in the lack of understanding of meaningful teaching practices to support the professional development of prospective teachers/teachers (Kim et al., 2019). To make the micro-teaching program successful, Macleod (1987) has reviewed four models that underlie the micro-teaching program. First, 'easy pragmatism', where decisions about what skills should be developed are not made based on rules about good teaching or what teachers need to know but result from discussions and debates by micro-teaching staff. Second, behavior modification means that teaching skills are just a set of behaviors that can be obtained by applying behavior modification procedures. Third, social skills training, teaching skills, like other social skills, so the focus of the micro-teaching program relates to goal selection, selective perception of relevant cues, motor responses (or practice), feedback, and correction. Finally, the cognitive model, micro-teaching, emphasizes the participants' thoughts about their teaching. Micro-teaching is a procedure that facilitates long-term changes in prospective teachers' thinking about teaching behavior. Thus, the results of this study provide a "new way" for future research to review further and discuss the development of a micro-teaching model with a cognitive model paradigm and experiential learning for long-term changes to a set of teacher skills so that they can transition to all learning demands in every era.

CONCLUSION

The results of inspections on the development of the publication of research articles on the micro-teaching model over the last ten years prove that research on the micro-teaching model has yet to experience significant development. The reason is that of the 62 papers analyzed; they are still developing and discussing the micro-

teaching model, which is limited to mastering teaching skills. This data underscores that for ± 63 years since micro-teaching was developed at Stanford University, the direction of scientific publications has not firmly pioneered and, at the same time, promoted the development of micro-teaching models based on 21st-century learning skills, including high-level thinking (analytical, evaluative, and creative), academic integrity, transformational leadership, and so on into the learning experience of prospective teachers/teachers. Thus, it is recommended for future research to develop a micro-teaching model that provides additional skills that have the potential to develop teacher competence in organizing classroom learning in the 21st century, which is increasingly complex and futuristic. Lecturers at universities need to reduce future skills with past skills to formulate and develop various transformative experiences for prospective teachers in micro-teaching courses so that they are continually updated and able to accelerate by sharing learning quality issues that change periodically according to the era's demands.

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