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Top five ISI Educational Technology Journals: Active topics, Research Trends, and Topics of interest

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Abstract: The purpose of this study is to qualitatively explore the research trends, active research areas, and topics of interest in the top five ISI educational technology journals in the last ten issues from the 3rd quarter of 2018 to the 3rd quarter of 2020. Data from these journals were collected and analyzed. More than 450 papers were included in this review to identify the research trends, active research areas, and topics of interest in the selected issues. The results show social networks and communities, multimedia and data-driven concepts, and data mining as currently trending topics. The five most active topics in these top journals are teaching methods, online/web-based learning, social networks and communities, content learning and collaborative learning, and blended learning. Additionally, the topics of interest include teaching methods, online/web-based learning, and multimedia and data-driven concepts. This study provides insights into the trends, active research areas, and topics of interest in the top five ISI educational technology journals, which can be useful for educational technology researchers.

Keywords: e-learning; educational technology; educational research; Scoping study

1. Introduction

New technologies have impacted the educational life of this generation, and the use of educational technology is clearly on the rise [1]. Educational technology is one of the most quickly changing fields due to its close link to the rapid development of technology worldwide. Technology is used in different parts of the educational area, such as the administrative, instructive, and communicative areas. It is motivated by technological development and characterized by communication facilitation purposes and system-supported environments [2], [3]. As a result of the emergence of technology in education, new fields of research have begun to appear, such as big data analysis, data-driven decisions, and gamification. These different research areas have attracted the attention of many studies globally. Informing researchers about the research trends, active research topics, and topics of interest in the top five ISI educational technology journals can enlighten researchers and impact the utilization of the research outcomes of highly standard journals in practice. According to Baydas et al. [4, p. 710], the awareness of the rapid development of educational technology has influenced researchers to explain the evolution of technology and pattern changes. For researchers, tracking the change of educational technology is significant for research

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ers' choices of topic and places of publication. The research reviews analyzing the field of educational technology were numerous in 2018 [5]–[7]. However, the active research topics, research trends, and topics of interest from the 3rd quarter of 2018 to the 3rd quarter of 2020 have not been explored. Therefore, in this review, ten issues during the periods of the 3rd quarter of 2018 to the 3rd quarter of 2020 in the top five ISI educational technology journals are explored qualitatively. We aim to extend researchers' knowledge about the top five ISI educational technology journals by addressing the following objectives. First, we identify the research trends. Second, we identify the active research topics. Lastly, we detect the topics of interest. The current data presented in this study will help researchers to learn more about the active topics, trends, and topics of interest in the field of educational technology.

2. Literature Review

ISI educational technology journals are considered to constitute a leading research space in the field of educational technology. The quality of research articles, either in terms of research topics or research processes, create a strong confidence in utilizing and extending research works. Many universities and research centers are encouraging researchers to publish their research works in ISI-indexed journals. Understanding the active topics, trends, and topics of interest of these journals can

aid researchers in deciding what topics to research and where to publish their works.

Various research reviews identifying active topics, research trends, and topics of interest in educational technology journals have been conducted. One study conducted a bibliometric analysis of the highest-ranked educational technology journal, Computers and Education, for 40 years [5]. Moreover, another recent study conducted an analysis of the top ten journals—SJR,2017—in educational technology from 1999 to 2018 to visualize the research trends and themes in educational technology research [7]. Additionally, educational technology research rated Q1 in the Journal Citations Reports (JCR) were analyzed from 2003 to 2018 [6]. Lastly, a study conducted an analysis of the Australian journal of educational technology from 2013-2017 to identify the research topics, methodologies, citations, and authorship during a four-year period [8].

The most active topics identified in previous works are content and collaborative learning, blended learning, online learning, and social networks and communities [5]. Additionally, Bai et al. (2020) identified the following active topics, from 2008 to 2018: interactive learning environments, mobile learning, teaching and learning strategies, online learning, improving classroom teaching, and pedagogical issues. Moreover, MOOC, Higher Education, Teaching-Learning Strategies, and Interactive Learning Environments were the most researched topics from 2003 to 2018 [6]. Additionally, some topics, such as computer/technology uses in education and student learning have been identified [8]. So far, a little is known about the current active topics, research trends, and topics of interest in the top five ISI educational technology journals.

It would be interesting for researchers to recognize the actual practice of these journals in order to decide which topics are active internationally today and interesting to the top five ISI educational technology journals. Additionally, the scope of previous studies is limited to the research up to 2018. After this time, researchers know little about the field of educational technology in general and the top ISI educational technology journals in particular. There is a need to understand how research is trending from the 3rd quarter of 2018 to the 3rd quarter of 2020. How have the active research topics changed? Moreover, what topics are more interesting to the top ISI five educational technology journals? Lastly, most of the reviews are quantitative [5]–[7]. In this study, a qualitative research review is developed to extend the results of the previous reviews to the top five ISI educational technology journals during the 3rd quarter of 2018 to the 3rd quarter of 2020.

2. Research Design

This research is a qualitative scoping study, since the aim of this study is to analyze different studies with different designs and methodologies in order to answer broad questions [9] about the active topics, trends, and topics of interest in educational technology research. There are five stages in this research: (1) identify the research questions, (2) find related studies, (3) choose the appropriate studies, (4) visualize the data, and (5) collect, summarize, and report the data [9], [10].

First, three research questions were formed about the five ISI Educational Technology Journals, which are as follows: (1) what are the current active research topics? (2) What are the research trends? (3) What are the topics of the top five ISI educational technology journals? These three questions guided the work through the next stages.

Second, Thomson Reuters Clarivate Analytics (2019) was checked to identify the top five journals in the field of educational technology. The identified journals are Computers and Education IF (5.6), Internet and Higher Education IF (5.28), Computer Assisted Learning IF (2.27), Learning Media and Technology IF (2.3), and IEEE Transactions and learning Technology IF (2.31).

Third, after checking the identified top five journal archives, the researcher decided to include issues from the 3rd quarter of 2018 to the 3rd quarter of 2020 in the analysis. This meant about ten issues for every journal, which is a reasonable number considering that including an enormous amount of data would affect the quality of the work. Thus, only the last ten issues of every journal from the 3rd quarter of 2018 to the 3rd quarter of 2020 were considered for this research. More than 450 studies published in the selected journal issues were included in the study.

Fourth, the ten issues that were included in this study were downloaded directly from the journals' websites to the Zetro software. Then, the content table of every issue for the five journals was printed, yielding more than 50 tables of content. The included issues were as follows. In 2020, there were ten issues of Computers and Education journals (V:148-156,2020). From the 3rd quarter of 2018 to 3rd quarter of 2020, there were ten issues of Internet and Higher Education (V:37-46,2018-2020), Computer Assisted Learning (V:34, Issue:1, V:36, Issue:3), Learning Media and Technology (V:43, Issue:1 to V:45, Issue:2), and IEEE Transactions and learning Technology (V:11-46, Issue:1 to V:13, Issue:2).

Fifth, in the last stage, every study in the selected range—the ten issues—of the top five ISI journals were given a code number that indicates

the journal name, the issue number, and the serial of the study within the table of contents. The PRISMA flow diagram in table (1) summarizes the inclusion process.

Table 1. **PRISMA Flow Diagram**

Identification	Records identified through database searching (n = 465)
Screening	Records after duplicates removed (n – 465)
	Records screened (n – 465)
	Records excluded (n – 0)
Eligibility	Full-text articles assessed for eligibility (n – 465)
	Full-text articles excluded, with reasons (n –0)
Included	Studies included in qualitative synthesis (n – 465)

Additionally, to increase the accuracy of the study categorization, a model with labels for 25 topics was used. This model was identified after using structural topic modeling to analyze the content of Computers and Educational Technology Journal, the highest-ranked journal in ISI, during the period of 1976 to 2018 [5]. Table (2) shows the topics. All these different types of data were arranged in an Excel sheet to be summarized and to help with charting the data [11]. This Excel sheet accelerated the work on data categorization, sorting, and exclusion during the data extraction.

Table 1. **25 topic labels.**

Science education	**13**	**Online/web-based learning**	**1**
e-learning and policy	**14**	Blended learning	**2**
Hardware	**15**	Technology acceptance model	**3**
Teacher and staff training	**16**	Special education	**4**
Language learning	**17**	Content learning and collaborative learning	**5**
conceptual mapping	**18**	Demographic issues	**6**
Multimedia and data-driven concepts	**19**	Teaching methods	**7**
Experiments and methodologies	**20**	Data mining	**8**
Game-based learning	**21**	Assessment	**9**
Virtual learning	**22**	Mobile learning and early childhood learning	**10**
Programming language	**23**	Massive open online courses	**11**
Evaluation and organization	**24**	Social networks and communities	**12**
25 Communication channels			

The produced data [12] on the research trends and active topics were verified by manually checking all the studies included in every topic with the Zotero software. In this software, the names of all studies are listed according to the topics assigned by the researcher. Thus, any study assigned incorrectly to a particular topic was double checked and moved to its right topic through a peer support process. After this process, the dataset was complete, and the data were ready for visualization and reporting.

3. Results

After completing reviews of the research articles in the top ISI educational technology journals within the selected time range, various results were achieved. These results are related to the topics that are currently the most active ones. Additionally, the trends of the research and the topics of interest in the field of educational technology are revealed. A detailed explanation and graphical representation are provided in the next sections.

4.1 Active Topics

The most active topics in the selected journals are teaching methods, online/web-based learning, social networks, content learning and collaborative learning, and blended learning, as shown in figure 1. Additionally, the most active topic—teaching methods—can be considered the most researched topic (N=117) in the top five ISI educational technology journals, with a very big difference from the second active topic—online/web-based learning (N=46). Lastly, there are two topics that never appeared in the dataset during the analysis process, which are the technology acceptance model and evaluation and organization.

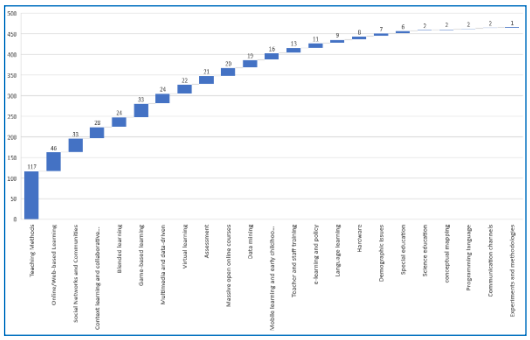

Figure 1 **Active Research Topics.**

4.1.1 Teaching Methods

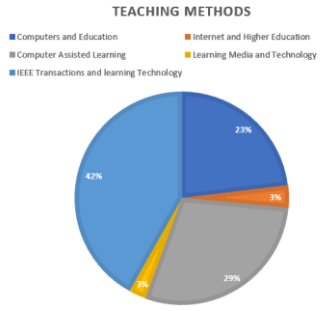

Figure 2. **Journal contributions to topic 1/5.**

The most active topic in the dataset in the top five ISI educational technology journals is teaching methods (N=117, 25%). All the five journals published on this topic, but the IEEE Transactions and learning Technology journal (42%) and Computer Assisted Learning (29%) published the most, as shown in figure (2). Teaching method topics can include a variety of issues, such as adaptive learning [13], [14], smart learning systems [15], and scaffolding [16], [17].

The results of most studies on teaching method topics were positive. Seventy-seven research articles reported positive results. An example of this is the study of Mize et al. [18], which is a review about computer-assisted vocabulary instructions for special needs students. They reported a positive impact of using computers to support these students. Another research review reported the effectiveness of using digital elements for the teaching and learning of science and math in secondary school [19]. Moreover, computational thinking assessment using a computer produced a result similar to that of traditional assessment methods [20]. Reviewing the literature on using learning analytics to improve learning design confirmed the effectiveness of this strategy [21]. Finally, studies reported equal results (N=5), and some studies were exploratory studies, without comparative findings (N=32). Only three studies reported negative findings regarding teaching methods. The impact of digital story telling could not be confirmed [22]. Additionally, Chatbots [23] and socially-assistive robots [24] could not achieve the intended purpose as supportive technologies.

4.1.2 Online/Web-based Learning

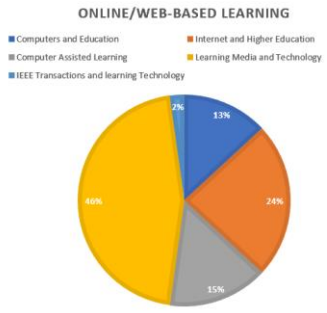

Figure 3. **Journal contributions to topic 2/5.**

The second most active topic in the dataset was online/web-based learning (N=46, 10%). All the five journals published on this topic, but the Learning Media and Technology journal published most of the research in this area (46%), while the IEEE Transactions and learning Technology journals (2%) published the least, as shown in figure (3).

The research findings were explorative (N=32), and two studies reported equal results, without a significant impact of their research work. Thirteen studies reported a real impact of their work. For example, demographic data, such as sex, discipline, and age, previous experience with online learning, and self-efficacy can lead to a better prediction of students' stress level in online learning environments [25]. Additionally, embodied online learning such as that in sport education positively impacted learners [26]. Moreover, the self-confidence of pediatric nurses in online learning environments was considered to be improved by the learners, who claimed that it also led to a lower learning stress [27]. Finally, learners' attitude and knowledge acquisition were improved in online learning environments [28].

4.1.3 Social Networks and Communities

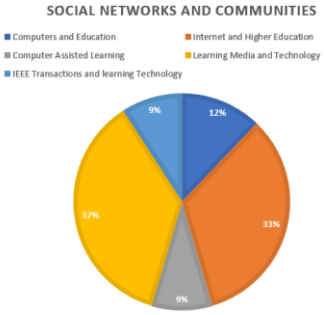

Figure 4. **Journal contributions to topic 3/5.**

The third most active topic in the dataset is social networks and communities (N=32, 7%). The Learning Media and Technology journal (N=12, 2.6%) and Internet and Higher Education journal (N=11, 2.6%) published most of the research on this topic. The IEEE Transactions and learning Technology journal and Computer Assisted Learning journal published the least (N=3,0.6%), as shown in figure (4). Most of the research on this topic is focused on exploratory issues about social networks and communities (N=22, 4.7%) [29]–[31].

Six studies reported a positive use of social networks in learning [30]–[37]. For example, the construct validity of the Community of Inquiry compromising teaching and social and cognitive presence is very well supported theoretically and practically [34]. The model consists of 34 elements (Social presence: 9 elements; Cognitive factors: 12 factors; Teaching presence: 13 factors). Additionally, the cognitive, teaching, and social presence for learners is higher in blended courses that are 50% online than in blended courses that are 33% online [36]. Self-regulatory skills have a positive influence on learning to complete tasks by the social presence of learners in online environments [33]. On the other

hand, no positive results were reported when using online social nudges in a web-enabled coaching system, although learners with clear goals, such as getting better marks, self-confidence, and who looked at the training course as a chance to achieve excellence used the nudges effectively [38]. Most of the discussion forums in Moocs studies from 2013 to 2017 were exploratory [39], which is similar to the 22 research papers in this study.

4.1.4 Content Learning and Collaborative learning

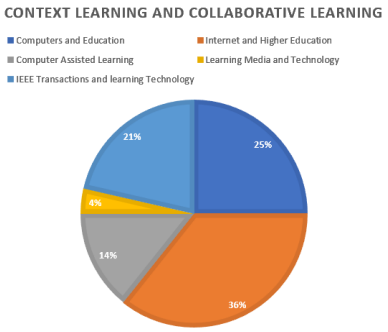

Figure 5. **Journal contributions to topic 4/5.**

The fourth most active topic in the dataset was content learning and collaborative learning (N=28, 6%). The Internet and Higher Education journal published most of the research on this topic (N=10, 2%) [40]–[49], while the Learning Media and Technology journal published the least (N=1, 0.2%) [50], as shown in figure (5). Nine studies reported positive results [43], [44], [46], [48], [50]–[54]. For example, Dindar et al. [51] reported that sharing personal practices during the performance of collaborative tasks between learners impacted their metacognitive experiences, such as self-confidence, perceived task difficulty, and emotional valence. Additionally, an online tool, called Cooperpad, showing the individual contribution to a writing task, helped the experimental collaborative group outperform their controlled collaborative group when completing writing tasks. Finally, different studies tried to analyze and understand learners' participation in forums by categorizing them either as visitors or settlers in online learning forums [55]. Additionally, Jiang and Zhang [52] found that using explicit social activities between strangers, e.g., working together for the first time, contributed to them having a better social presence and higher cognitive skills.

Some studies reported no positive results. The researchers could not significantly enhance the collaborative assignment with a tool called the social annotation tool [56]. With this tool, they tried to facilitate annotation, bookmarking, sharing, and collaboration on collected data for their assignment. Additionally, a multitouch tabletop was examined to improve learning outcomes through facilitating communication and collaboration between early childhood learners. No significant difference was noted in terms of learning outcomes, although collaboration and satisfaction between learners was highly evaluated by learners [57].

4.1.5 Blended Learning

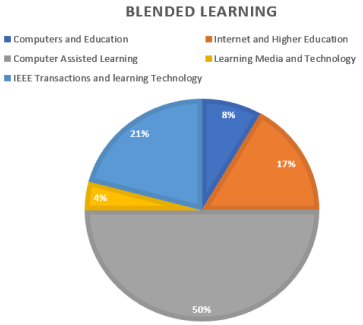

Figure 6. **Journal contributions to topic 5/5.**

The fifth most active topic in the dataset was blended learning (N=24, 5%). The Journal of Computer Assisted Learning published most of the research on this topic (N=12), while the Learning Media and Technology journal published the least (N=1), as shown in figure (6). Positive results were mentioned by various researchers [58]–[69]. For example, time management strategies were examined. Additionally, equal results were mentioned [70]–[72]. Exploratory studies (N=9) were conducted to understand other aspects [73]–[81].

4.1.6 Other Active Topics

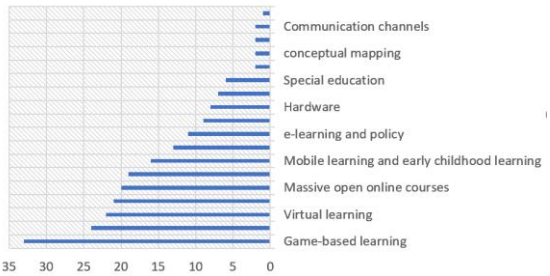

Figure (7): **Activity level of other topics.**

As shown in figure (7), other topics were identified in this analysis, but which currently have a lower activity status. For example, game-based learning (N=33), multimedia and data-driven concepts (N=24), and virtual learning (N=22) are less repeated in this analysis. The least repeated topics are conceptual mapping (N=2), communication channels (N=2), and experiments and methodologies (N=1). While there is limited research on these

topics in the field of educational technology, some of these topics are considered popular in practice. For example, game-based learning, virtual learning, massive open online courses, and mobile learning are topics with a wide use in educational institutions today. They may have a less active status in this study, because they are usually studied in conjunction with other topics or are mentioned as secondary topics in the research papers.

4.2 Research Trends

Figure (8) shows the topics' trends in the dataset in this review. The trending analysis of the most active topics shows that the social networks and communities topic has a vertical trend, and similar research numbers are found among the ten issues of the journals. All the other topics are decreasing, especially teaching methods and online/web-based learning. The most active topic, teaching methods, of the ISI educational technology journal topics seems to show a steep drop. In issue A, an early issue from around 2019, twenty-three articles are published, but in issue J, a late issue from 2020, only 11 articles were published. Journal issues in the middle are fluctuating, but the number of studies is continuously decreasing.

Some of the topics that were not listed in the most active topics have seen a noticeable increase in research numbers. For example, the topic of multimedia and data-driven concepts (N=24) shows a marked increase in research, as shown in figure 5. Additionally, the data mining topic (N=19) shows a gradual rise. From the first issues included, there were only 1 or 2 research articles about data mining, while the latest issues included 4 to 6 research articles about the same topic.

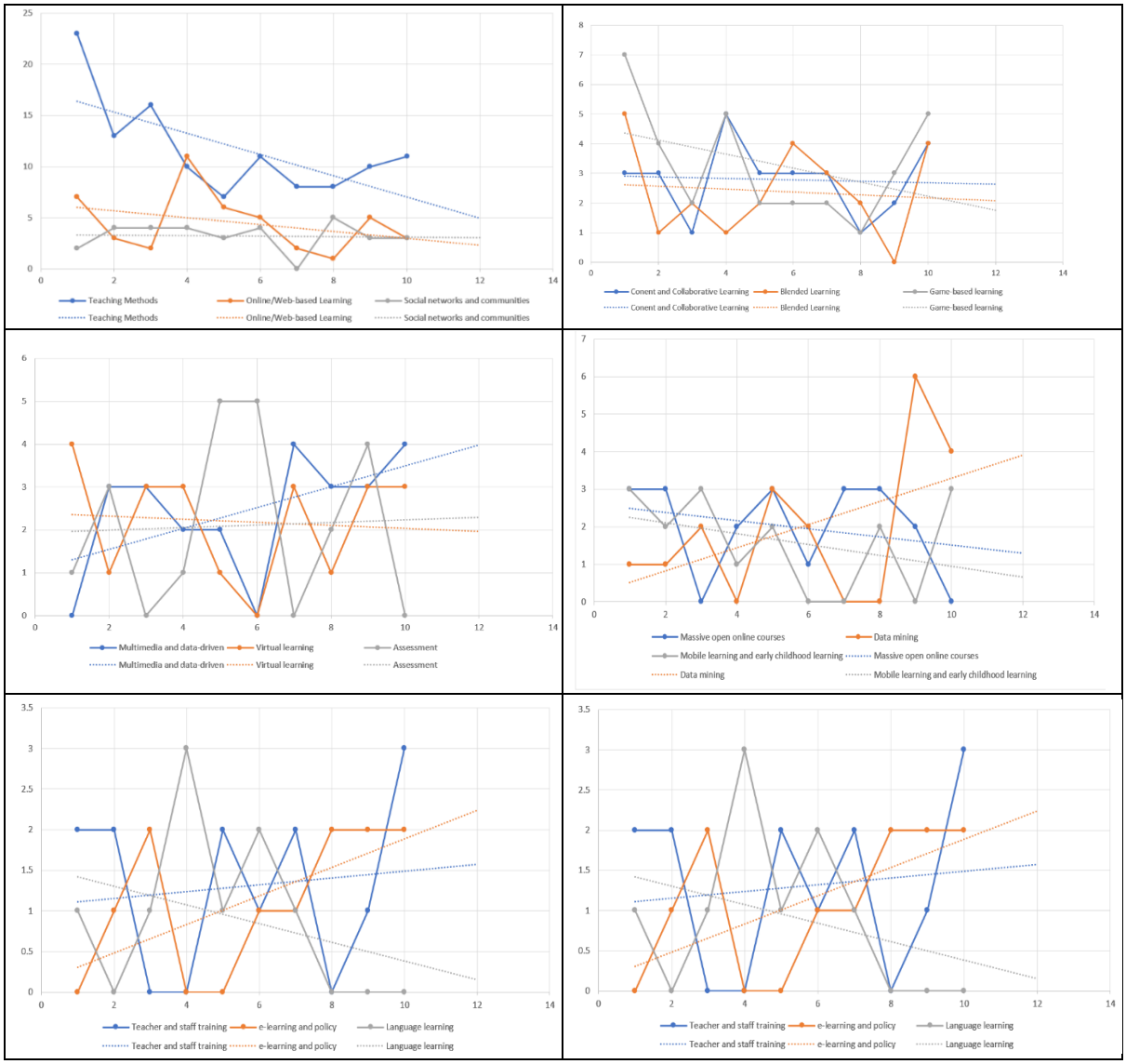

Figure 8. **Research Trends.**

4.3 Topics of interest

The top five ISI educational technology journals' most published topics from the 3rd quarter of 2018 to the 3rd quarter of 2020 are not identical. The Computers and Education journal published 96 papers, with a limited number of papers on science education and experimental methods. The most published topics in this journal were teaching methods and content learning and collaborative learning. Then, Internet and Higher Education published 57 papers, which was the lowest number of published articles in the selected timeframe, with a limited number of papers on communication channels, hardware, etc. The most published topics during the specified time were online/web-based learning and content learning and collaborative learning. Third, the Computer Assisted Learning journals published 122 papers, which was the highest number of published articles in the selected timeframe. Limited research was devoted to demographic issues, virtual learning, and experiments and methodologies. The most frequently published topics were teaching methods and multimedia and data-driven concepts. Fourth, Learning Media and Technology published 79 papers, with a limited number of papers on data mining and assessment, etc. The most frequently published topics were online/Web-based learning and virtual learning. Lastly, IEEE Transactions and learning Technology published 112 papers, with a limited number of papers on language learning, virtual learning, etc. The most frequently published topics were teaching methods and assessment. More details on journals' distributions of published topics are depicted in figure (1). This analysis shows the individual journal's topics of interest within the analyzed data.

Computers and education, computer-assisted learning, and Learning Media and Technology journals published limited research on some research topics. For example, limited research was published on the topics of e-learning and policy, science education, communication channels and experiments, and methodologies. Additionally, the Internet and Higher Education journals published limited research on the topics of e-learning and policy, science education, communication channels, and hardware. Lastly, IEEE Transactions and learning Technology published limited research on the topics of e-learning and policy, communication channels, and experiments and methodologies. Therefore, understanding the topics of interest of the top five ISI educational technology journals, as shown in figure 9, is promising for researchers.

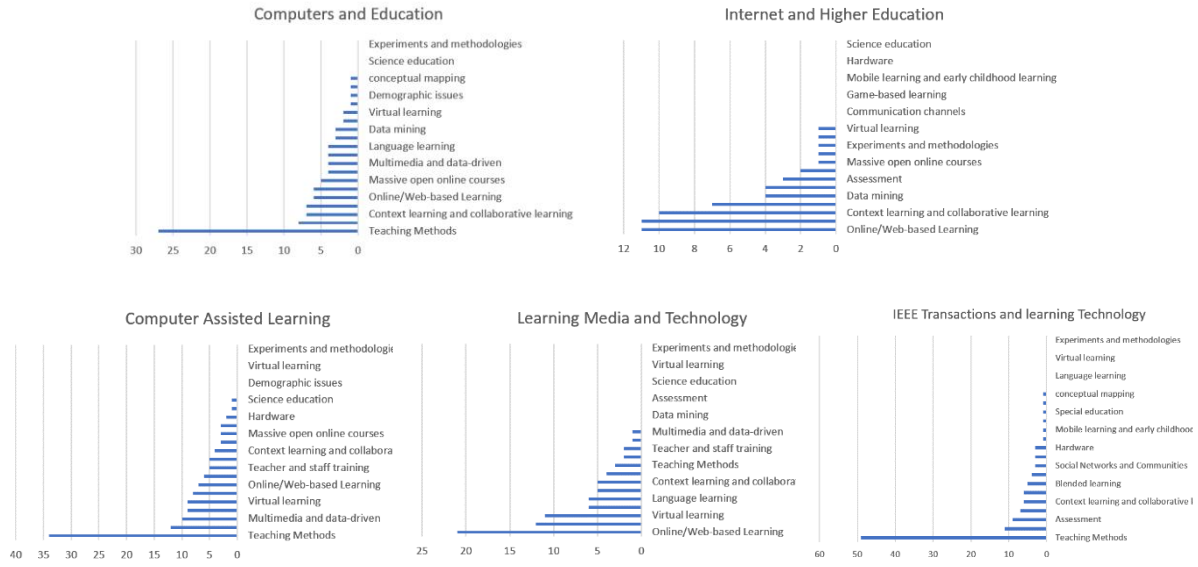

Figure 9. **Topics of interest by journal.**

Discussion

This paper extends the literature on the active topics, trends, and topics of interest in the top five ISI educational technology journals. Ten selected issues from between the 3rd quarter of 2018 and the 3rd quarter of 2020 are included in this review. Many researchers are becoming interested in ISI journals, either due to their prestigious ranking or the quality of their work. Understanding the most active topics, trends, and topics of interest could aid researchers in deciding what topics to research and where to publish their works. Recent comprehensive reviews on the active topics and trends the field of educational technology are diverse in terms

of their focus. Some reviews covered ten selected journals planned between 1999 to 2018 [7]. Others covered Q1 journals in the Journal Citations Reports (JCR) between 2009 and 2018 [6]. A review with a longer time span of 40 years analyzed a specific journal [5]. Lastly, a review within a specific period of time between 2013 and 2017 for a specific journal was completed [8].

Most of these reviews provide a clear understanding of the field of educational technology, but their scope needs to be extended to include recent active topics, trends, and topics of interest in the top five ISI educational technology journals. In this study, we identified the five current active research topics in the top five ISI educational technology journals. These topics are teaching methods, online/web-based learning, social networks and communities, content learning and collaborative learning, and blended learning. The top five ISI educational technology journals frequently publish research on every one of these topics, with a slight preferable difference between the journals. The topic that the journals publish the most on within the top five ISI educational technology journals is computer-assisted learning (N=122).

Teaching methods is the most active topic in the top five ISI educational technology journals. The number of research articles far exceeds that of the second most active topic. The active presence of teaching methods in our current analysis extends the level of actively researched topics in the previous reviews before 2019 [5]–[7]. The new trends between 2008-2018 in the educational field towards learners, classroom teaching, and pedagogical issues [7] can cause journals and researchers to pay extra attention to this currently trending topic. On the other hand, the trend of this topic decreased during the selected time span. This might be due to the saturation of this topic in the field of educational technology. Additionally, the influence of new research areas, such as data mining, may attract researchers more than traditional topics.

Online/web-based learning is the second most active topic in the top five ISI educational technology journals. Due to its flexibility, consistency, and scalability, online/web-based learning has been preferred by the field of educational technology in past research [7]. Our result concerning the active status of the research topic of online/web-based learning extends the previous literature [5], [6]. Therefore, online/web-based learning has maintained its rank as an active research topic, although the trend of this topic is decreasing as same as teaching methods topic appear in figure 8. The reason for this might be the familiarity of using online/web-based technology in our current life. This might lead to focusing on other issues that look innovative for researchers.

Social networks and communities are the third most active topic in the top five ISI educational technology journals. Social networks is well aligned with connectivist views on creating connections and bring knowledge to light through interactions with others [82]. The connection between people in social media create informal knowledge and construct environments [35]. In our research, social networks and communities is currently active, as previous studies have confirmed [5], [7]. The trend of the topic of social networks and communities is toward maintaining its position as a moderate trend in educational technology research.

Content learning and collaborative learning is the fourth most active topic in the top five ISI educational technology journals. Previous literature has confirmed that content learning and collaborative learning was an active research area till 2018 [5]–[7]. Our finding extends this result from 2018 till 2020. The wide use of the community of inquiry framework by researchers, due to its wide impact in the field of educational technology [6], shows the crucial role of social presence in online learning.

Blended learning is the fifth most active topic in the top five ISI educational technology journals. Previous literature has confirmed the crucial role of blended learning in supporting different research topics [7]. Chen et al. [5] considered blended learning as one of the crucial topics in educational technology throughout the previous four decades. Therefore, the active role of blended learning in the field of educational technology is justified. A slight decrease is noticed in the blended learning research trend, which might be related to the move of researchers towards new keywords, such as virtual and augmented reality, which are blended in nature with classroom teaching and learning.

New trends seem to be emerging in the field of educational technology. For example, multimedia and data-driven concepts are clearly trending in this research. The reason for this is the crucial rule of learning content in ubiquitous environments. Similar findings were reported for the trending of ubiquitous learning in 2018 [7], [83]. Additionally, the data mining topic is trending in this study, since both data mining and data-driven concepts are related to the pedagogical and teaching issues reported to be trending during the year of 2018 [7]. Then, it seems that social networks and communities has been evolving in the field of educational technology since 2004 [7], [83]. All these trends are considered to be growing the field of educational technology.

The current topics of interest in the top five ISI

educational technology journals mainly focus on learners' experience, such as teaching methods and content/collaborative learning. These findings are well recognized in educational technology research [7]. The definite focus of research is mostly related to the impact of teaching methods on students' learning and factors affecting students' engagement and performance in online learning environments. There may be a need to devote additional attention to the use of artificial intelligence technology to accelerate the process of learning and develop both teachers' and learners' knowledge of how to use educational dashboards correctly to improve the performance of intervention processes. This topic of interest can be related to both researchers' interests and journals' interests.

4. Research limitations

This research has some limitations. First, the focus on this research was limited to the top five ISI educational technology journals. Thus, other databases, such as Scopus and other top educational journals, were not included in this study. Second, ten issues from the top five ISI educational technology journals during the selected timeframe were included, starting from the 3rd quarter of 2018 and continuing until the 3rd quarter of 2020. Thus, extending the findings of this study beyond this time is not applicable. Within the specified context of this study, the results can be applicable in the field of educational technology.

5. Conclusion

In this study, we extended the current knowledge of the active research topics in the field of educational technology. The following research topics have been active until 2018. These topics are identified in the highest-ranked ISI journal, "teaching/learning strategies," "pedagogical issues," and "improving classroom teaching." [7], [84]. Additionally, learners' performance and motivations in online learning is currently trending [84], along with the blended learning topic [7]. Then, research topics related to teaching methods, such as adaptive learning, are currently favored by researchers [85]. Additionally, collaborative learning is a trending issue in one ISI journal [7], [86], and teaching and learning issues are trending in one particular journal [8], as well as worldwide journals [7]. Lastly, some topics started to become inactive since 2010, such as the technology acceptance model [7].

We extend the current knowledge in the area of educational technology from the 3rd quarter of 2018 to the 3rd quarter of 2020 by detecting the active topics in the top five ISI educational technology journals, analyzing the research trends, and identifying the topics of interest.

There are some implications of this study. First, for junior researchers, it is important to identify the active research topics in the ISI journals to understand the current research map in the field of educational technology. Additionally, it is significant for researchers in utilizing their findings in practice, when they develop their research, which depends on the impact of the journals in which they publish. Lastly, identifying the current publishing frequency of the ISI journals aids researchers in making the right decisions when preparing and publishing their research works.

Future research might track a specific topic for a span of the last five years in the top ISI educational technology journals and study the trends of this topic and its research branches. The results of such works can help researchers understand the map of educational technology topics and identify the research gaps quickly, especially the active topics with growing trends.

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