



## BIBLIOMETRIC ANALYSIS AND MAPPING: TREND OF ‘ LEARNING METHOD’ IN 2012-2022

Elihami<sup>1</sup>, Mohd. Melbourne<sup>2</sup>

<sup>1</sup> Universitas Muhammadiyah Enrekang, South Sulawesi, Indonesia

<sup>2</sup> Philippines’s University, Philippines

<sup>1</sup>[elihamid72@gmail.com](mailto:elihamid72@gmail.com), <sup>2</sup>[mohd.melbourne@gmail.com](mailto:mohd.melbourne@gmail.com)

### ABSTRACT

*This article analyzes the systematic process of the learning method. The research in this article begins with the search for articles through the keyword of learning method based on the Scopus database in 2012-2022, which consisted of 130 articles. The research uses descriptive analysis and VOSviewer software-assisted visualized data. The analysis results indicate that the three dominant concepts that are mostly studied are learning method, learning, and method. The research indicates the development and urgency of the learning method. Meanwhile, the limitation is that the articles reviewed were only sourced from Scopus. Hence, it is recommended by the researchers for further research using an approach of comparative analysis by implementing the Web of Science (WoS) database and increasing the length of the search period for the latest articles, especially for the learning method.*

**Keywords:** *bibliometric analysis and mapping, learning method, teaching*

## ANALISIS DAN PEMETAAN BIBLIOMETRIK: TREN ‘METODE PEMBELAJARAN’ TAHUN 2012-2022

### ABSTRAK

Artikel ini menjelaskan tentang tahapan sistematika proses metode pembelajaran. Penelitian pada artikel ini diawali dengan pencarian artikel melalui kata kunci metode pembelajaran di database *Scopus* periode 2012-2022 yang menghasilkan 130 artikel. Penelitian dilakukan dengan analisis deskriptif dan data yang divisualisasikan dengan bantuan perangkat lunak *VOSviewer*. Hasil analisis menunjukkan tiga konsep dominan yang paling banyak dipelajari, yaitu metode pembelajaran, pembelajaran, dan metode. Penelitian menunjukkan perkembangan dan urgensi metode pembelajaran. Sedangkan batasannya adalah artikel yang diulas hanya bersumber dari *Scopus*. Oleh karena itu, peneliti menyarankan agar penelitian selanjutnya perlu menggunakan pendekatan analisis komparatif dengan mengimplementasikan database *Web of Science (WoS)* dan menambah durasi periode pencarian artikel terbaru khususnya metode pembelajaran.

**Kata Kunci:** *analisis dan pemetaan bibliometrik, metode pembelajaran, mengajar*

Submitted	Accepted	Published
05 Mei 2022	06 Januari 2023	15 Januari 2023

<b>Citation</b>	:	Elihami, E., & Melbourne, M. (2022). Bibliometric Analysis And Mapping: Trend Of ‘ Learning Method’ In 2012-2022. <i>Jurnal PAJAR (Pendidikan dan Pengajaran)</i> , 7(1), 01-12. DOI: <a href="http://dx.doi.org/10.33578/pjr.v7i1.8824">http://dx.doi.org/10.33578/pjr.v7i1.8824</a> .
-----------------	---	---

### INTRODUCTION

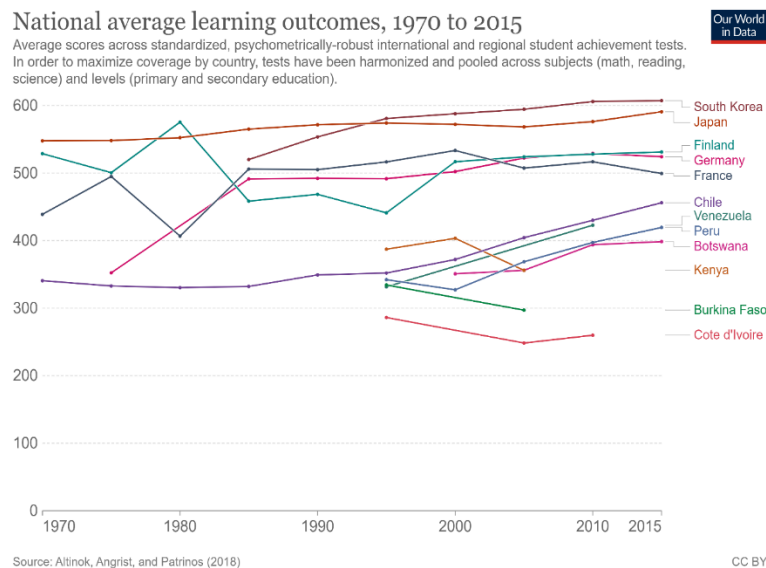
In the world of the COVID-19 pandemic, it has forced the shift from a teaching model to online learning at the university level globally. The creative teaching process is very important in the Covid-19 era, so a conceptual analysis process, interactive dialogue, and reflection is needed in conducting the online learning process, (Kadiyono et al. 2020). Therefore, the quality of online teaching is needed as the key to the academic success of students, especially in the Covid-19 era and then full motivation is needed

from students, (Supriadi et al. 2020). With the existence of a learning environment method, the impact is directly or indirectly influenced by great educators. Learning method for studying objective and visual class models in order to achieve very good classification results in achieving the goals to be achieved, (Agarwal and Roth 2002); (Agarwal and Roth 2002); (Rowley, Baluja, and Kanade 1998); (Fergus, Perona, and Zisserman 2003); (Lowe 1999); (Vaillant, Monroq, and Cun 1994); (Viola and Jones

2001); (Osuna, Freund, and Girosi 1997); (Weber, Welling, and Perona 2000).

Learning is the process of storing information and knowledge in your memory so that it can be used in the future to do a specific action successfully or to understand something precisely. Learning is the process of gaining

useful knowledge and information that may be used to improve one's awareness and intelligence, (Duggan 1996). If you want learning to be effective and efficient, it must be helpful, practical, intentional, cumulative, and completed at the (Viola & Jones, 2001) appropriate stages, (Holmes et al. 2020) .



**Figure 1. Learning Outcomes**

The figure 1 showed that learning outcomes 1970 to 2015. There are numerous advantages to studying (Annand 2011). However, learning needs dedication. Learning more about yourself and the world around you will necessitate a commitment to learning and a pledge to yourself that you will continue to learn and seek out additional information (Alavi and Taghizadeh 2013). Learning encourages more learning, knowledge encourages more knowledge, and skills encourage more skills (Kumar et al. 2011). Learning encompasses everything you are now and will become in the future. Learning improves your thoughts, ideas, solutions, comprehension, skills, and awareness, to name a few benefits (Garrison, Anderson, and Garrison 2003). Everything on this page will provide you with the foundation upon which you can build. Everything seems conceivable from there (Arbaugh and Rau 2007).

The literature used is from the Scopus database from 2012 to 2022 which is again a trend about learning methods. The study used through bibliometrics. Meanwhile, researchers use bibliometrics as an important thing to map bibliographic information on certain topics. Therefore, the purpose of this article is to complement other important components of teacher and learning method study maps to achieve a more thorough mapping from 2012 to 2022. This study focuses on bibliometrics with reference to the following aspects of publication trends, the most influential journals , citation patterns, author keywords, creator collaborations, collaborative institutions, and country statistics of the published authors (Rourke et al. 2007).

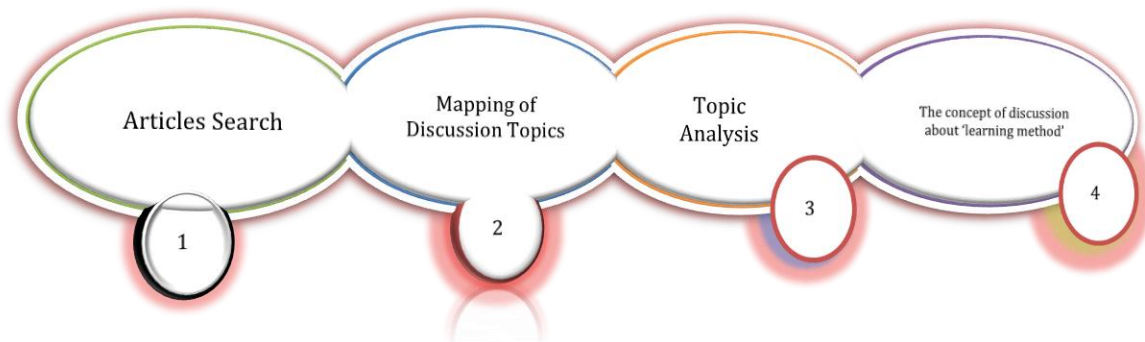
As a result, the research is characterized by the following formulation of the problem. There are questions as follows what is the trend of publication of learning method in 2012-2022? Which journals have published the most articles

about learning method in 2012-2022? What is the citation pattern of learning method in 2012-2022? What are the author keyword trends of learning method in in 2012-2022?

### REASERCH METHOD

This research employs a bibliographic design of studies using systematic and explicit mapping methods. This research used a qualitative case study to approach the research to understand how they Exploring teachers and emotion, especially in memos, the case study is an object to

be studied, not a methodological option, the researcher can use some variety of research tools to research that object. In this study, the instrument used a semi-structured interview to collect the data about learning method, (Arbaugh, Bangert, and Cleveland-Innes 2010). Furthermore, four stages of bibliographical studies are used in the research, which include search processes, bibliographic filters, a comprehensive bibliography, and content analysis.



**Figure 2. Article Review Process**

A number of articles that have strong links and attachments were obtained by researchers based on the following procedure: First, to identify the articles. Article identification is intended as an effort to sort and select various articles so that the articles used are only the ones related with the topics discussed. This is done by inputting the keywords “learning method” in the search column with restrictions from 2012 to 2022. Based on the search process, researchers obtained 999 articles with indications related to the topic. The second stage is to verify the various articles found so that they lead to articles that are really needed and have a close correlation in compiling studies related to learning method. After conducting the verification, finally 242 articles/journals were obtained which were considered relevant and truly conical with the theme of the study of learning method. This article is an article that the researcher will use as a

reference in studying related to " learning method "(Akyol and Garrison 2008).

In this study, the researcher used a qualitative research method. A semi-structured interview is done to gather information. The researcher gathers the participants in a WhatsApp group and provides them with certain guidelines (Akyol, Garrison, and Ozden 2009). They must comprehend the material to the point where they are familiar with the depth and breadth of the interview, and they must continue to review the original audio recordings for authenticity. Because transcription would be time-consuming, irritating, and tedious, this is the only practical approach to begin familiarizing yourself with the data. To explain the trend, the researcher clustered the data into themes after analysis (Akyol and Garrison 2008). This step reduces some of the ineffective data in order to focus on the data that is relevant to the theme (Akyol, Garrison, and Ozden 2009). This step reduces some of the

ineffective data in order to focus on the data that is relevant to the theme. Keep an eye out for clusters or groupings of items utilized together throughout the data translation and analysis methods. The researcher must now refocus on the investigation at a higher level of themes (Arbaugh and Benbunan-Finch 2006). Instead of focusing on codes, a higher level of themes will sort the various codes into prospective themes and place all of the key coded data extracts below the scope of discovered themes (Diaz et al. 2010).

The basic purpose of education is to figure out how to offer the learning method research outcome foundationally. (1). To look into the patterns of authorship in the subject of education literacy; (2). To find out how much collaboration there is in research production and publication distribution; (3). In the realm of digital literacy, to determine the proportionate growth rate and time required for doubling; (4). Determine the distribution of publications and research publications by document. (5). To look into the education literacy keywords.

## RESULTS AND DISCUSSION

The current research is limited to items found in the Google Scholar collection. The

study's keyword is "education literacy and equality": A bibliometric examination of the output of publications from 2012 to 2022. In this study, there are five processes to complete: word key determination, data search, article selection, data validation, and data analysis. The keywords are chosen in accordance with the study's objectives, which include education literacy and equality. Because the database collects and updates data on a daily basis, it is important to avoid daily update bias. The data is read and examined once the results of searching data in foreign journals are picked and approved. Both selection and validation are done using diagrams and data tables that are divided into several categories, including the number of publications per year, types of publications, core journals, most productive researchers, number of publications based on affiliation, country, and the distribution of themes that are the focus of the study on education literacy and equality. The category is then evaluated in terms of the article's importance. The result of Bibliometrics' of the term of the phases of the systematic process in [the Learning Method](#). The trend of publication in 2012-2022 about the phases of the systematic process as follows.

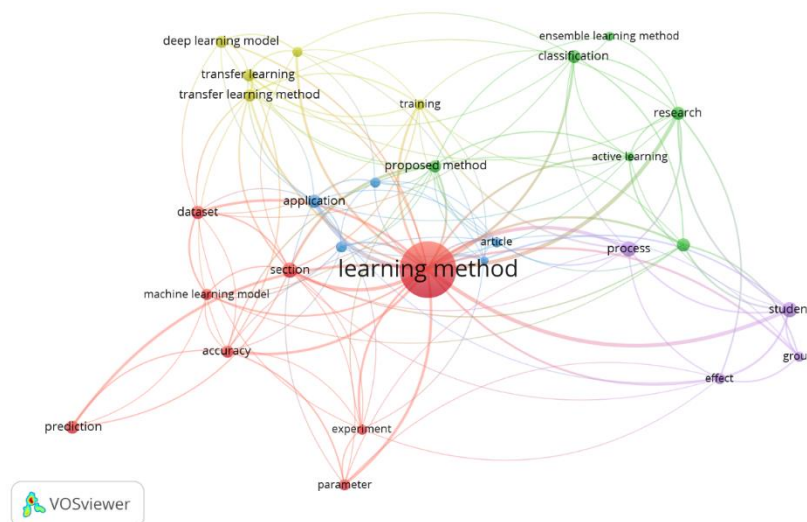


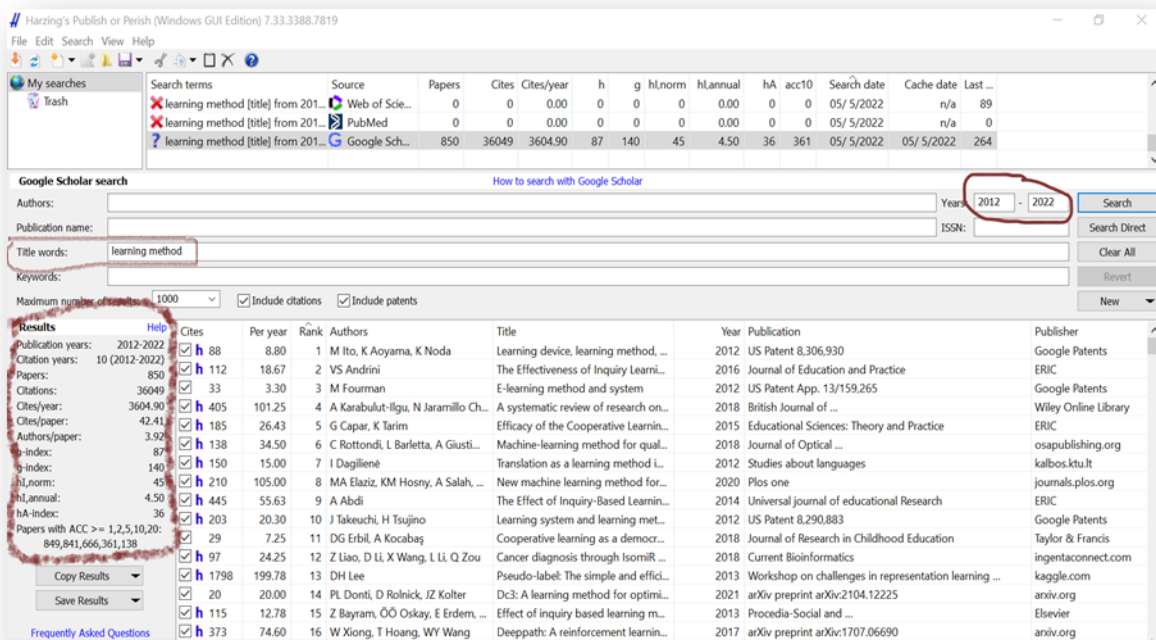
Figure 3. Network Visualization: Cluster of Discussion Topic on Learning Method

Referring to the results of the identification detailed in Figure 2. above, it can be described how the themes that have been grouped and then will be sorted for review with those that

actually have a correlation based on the themes discussed. The following is a table that maps concepts or themes based on clusters related to the study of learning method.

**Table 1. Themes grouped based on clusters**

Cluster	Concepts	Total
Cluster 1	Accuracy, dataset, experiment, learning method, machine learning model, parameter, prediction, section	8
Cluster 2	Active learning, active learning method, classification, ensemble learning method, research	6
Cluster 3	Application, article, effectiveness, new method, reinforcement learning	5
Cluster 4	Advantage, deep learning model, training, transfer learning, transfer learning method,	5
Cluster 5	Effect, group, process, student	4



**Figure 4. The harzing's publish or perish of the phases of the systematic process in learning method**

According to Figure 4, The original search results generated 999 bibliographies, which were filtered into 242 chosen bibliographies using the publish or perish tool. 757 bibliographies were not chosen because they did not match the set

criteria. Table 1 shows the total number of bibliographies generated by the publishing or perish application for each year. Citation 38375, h-index 88, g-index 141, and hA index 36, hI, norm;46.. The most publication occurred in 2022-



2022 about the phases of the systematic process of learning method.

**Table 2. The Most Widely Published Journal Article of the term of "the term of the phases of the systematic process in *learning method*."**

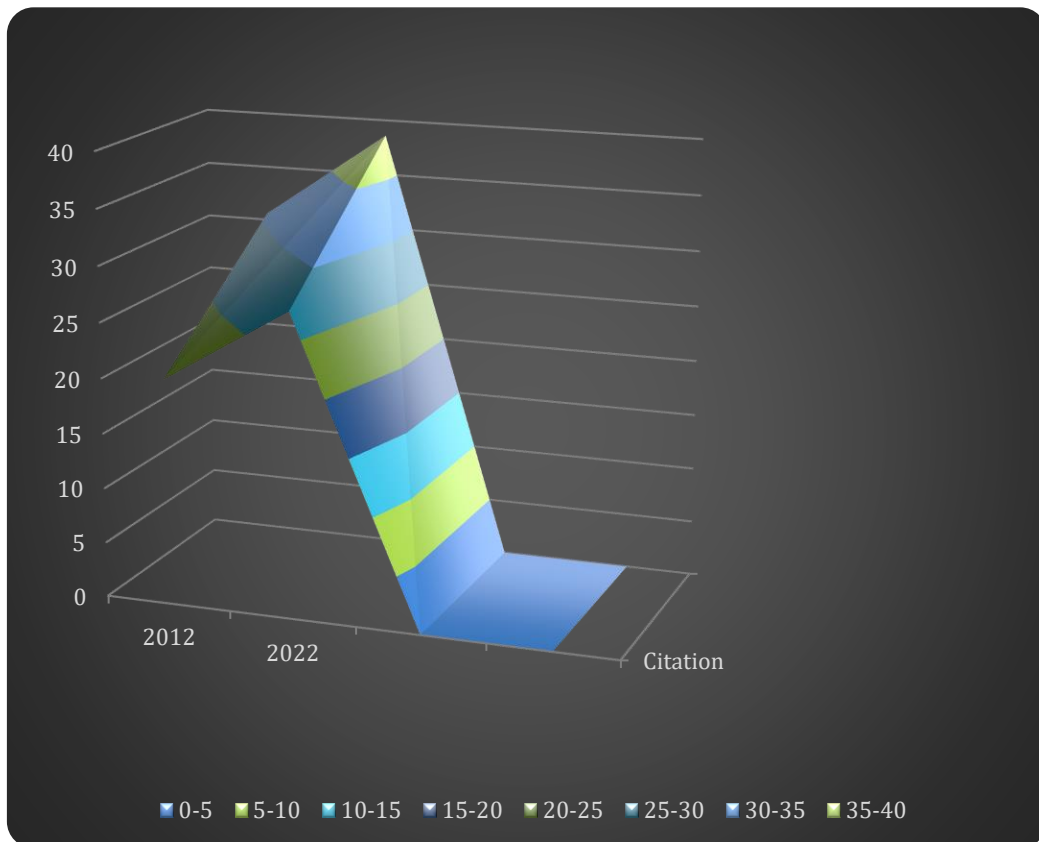
No.	Journal Name	Number of Articles	Link
1	Psychology and Education Journal	15	<a href="http://psychologyandeducation.net">psychologyandeducation.net</a>
2	Journal of Ethics and Society	2	<a href="http://ijethics.com">ijethics.com</a>
3	European Journal of Molecular & Clinical Medicine	3	<a href="https://www.ejmcm.com/">https://www.ejmcm.com/</a>
4	Anatolian Journal of Education	1	<a href="https://e-aje.net/index.php?lang=en">https://e-aje.net/index.php?lang=en</a>
5	Journal of Applied Issues in Islamic Education	1	<a href="http://qaiie.ir">http://qaiie.ir</a>
6	Dinasti International Journal of Education Management And Social Science	1	<a href="https://dinastipub.org">https://dinastipub.org</a>
7	Islamic Life Journal	3	<a href="http://mail.islamiclifej.com">http://mail.islamiclifej.com</a>
8	Universal Journal of Educational Research	9	<a href="http://www.hrpub.org">http://www.hrpub.org</a>
9	Journal for Multicultural Education	1	<a href="https://www.emeraldgroupublishing.com">https://www.emeraldgroupublishing.com</a>
10	Journal of Islamic Studies	4	<a href="http://journal.iaibukittinggi.ac.id">http://journal.iaibukittinggi.ac.id</a>
11	Journal of Education and Scientific Studies	1	<a href="https://www.iasj.net/iasj">https://www.iasj.net/iasj</a>
12	International Journal of Ethics and Society	1	<a href="https://ijethics.com">https://ijethics.com</a>
13	Journal of Indonesian Student Assessment and Evaluation	1	<a href="http://journal.unj.ac.id">http://journal.unj.ac.id</a>
14	Journal of Islamic Accounting and Business Research	1	<a href="https://www.emerald.com">https://www.emerald.com</a>
15	Journal of Physics: Conference Series	8	<a href="https://iopscience.iop.org">https://iopscience.iop.org</a>
16	Journal of Arak University of Medical Sciences	1	<a href="http://jams.arakmu.ac.ir">http://jams.arakmu.ac.ir</a>
17	Journal of Strategic Management Studies	1	<a href="http://www.smsjournal.ir">http://www.smsjournal.ir</a>
18	The International Journal of Language and Cultural (TIJOLAC)	1	<a href="https://www.growingscholar.or">https://www.growingscholar.or</a>
19	IEES: Journal of Islamic Education at Elementary School	1	<a href="http://jiees.alkhoziny.ac.id">http://jiees.alkhoziny.ac.id</a>
20	Aesthetic surgery journal	1	<a href="https://academic.com">https://academic.com</a>
21	International Journal of Islamic Economics and Finance Studies	1	<a href="https://dergipark.org">https://dergipark.org</a>

22	VITARA International Journal of Civilizational Studies and Human Sciences	1	<a href="https://bitarajournal.com">https://bitarajournal.com</a>
23	International Journal of Multicultural and Multireligious Understanding	1	<a href="https://ijmmu.com">https://ijmmu.com</a>
24	Universal journal of educational Research	3	<a href="https://www.hrpub.org/">https://www.hrpub.org/</a>
24	Systematic Reviews in Pharmacy	1	<a href="https://www.rm-sysrevpha.org">https://www.rm-sysrevpha.org</a>
25	Applied Soft Computing	6	<a href="https://journals.elsevier.com/applied-soft-computing">https://journals.elsevier.com/applied-soft-computing</a>
26	Journal of Social Sciences	1	<a href="https://thescipub.com/jss">https://thescipub.com/jss</a>

Table 2 above shows that some journals listed in number 1 published numbers of papers (15 papers) by Psychology and Education Journal. Then, each journal listed in number 2 was published (9 papers) by the *Universal Journal of Educational Research*.

*Citation Amount-based Analysis (Citations Rates per Year)*

Figure 2 depicts the citations numbers of articles on the flipped classroom. The citation pattern showed from 2012 to 2022 as follows:



**Figure 5. Citation amount-based analysis**

### Top Ten Most Cited Articles

Figure 5 shows the most frequently cited teaching and teacher education papers from 2012 to 2022. J Allen, L Rowan, P Singh's publications, which were published in 2020, received the most citations in the first series, with 115, followed by J Allen, L Rowan, P Singh, who received 315.

Because they were greater than 200 and less than 300, the third and fourth sequences each earned a significant number of citations. Meanwhile, the citations in the fifth through tenth places were similarly sufficient, being larger than 170 and fewer than 220.

**Table 3. The Top Most Cited Articles of the term of the phases of the systematic process of ‘learning method’ in year 2012-2022.**

Cites	Per year	Rank	Authors	Title	Year	Publication	Publisher
1566	313.20	1	Z Zheng, I Zheng, Y Yang	Unlabeled samples generated by gan impr...	2017	Proceedings of the IEEE ...	openaccess.thecvf.com
1564	391.00	2	R Yamashita, M Nishio, RKG Do, K Togashi	Convolutional neural networks: an overview...	2018	Insights into imaging	Springer
1261	180.14	3	A Rasmus, M Berglund, M Honkala...	Semi-supervised learning with ladder netw...	2015	Advances in neural ...	proceedings.neurips.cc
1223	407.67	4	D Berthelot, N Carlini, I Goodfellow...	Mixmatch: A holistic approach to semi-sup...	2019	Advances in ...	proceedings.neurips.cc
1326	663.00	5	JB Grill, F Strub, F Altché, C Tallec...	Bootstrap your own latent-a new approach ...	2020	Advances in ...	proceedings.neurips.cc
1040	115.56	6	IJ Goodfellow, D Erhan, PL Carrier, A Courvill...	Challenges in representation learning: A rep...	2013	... conference on neural ...	Springer
1075	537.50	7	Q Xie, MT Luong, E Hovy...	Self-training with noisy student improves i...	2020	Proceedings of the IEEE ...	openaccess.thecvf.com
911	182.20	8	Y Gal, R Islam, Z Ghahramani	Deep bayesian active learning with image d...	2017	International Conference on ...	proceedings.mlr.press
752	94.00	9	S Reed, H Lee, D Anguelov, C Szegedy...	Training deep neural networks on noisy lab...	2014	arXiv preprint arXiv ...	arxiv.org
733	104.71	10	T Xiao, T Xia, Y Yang, C Huang...	Learning from massive noisy labeled data f...	2015	Proceedings of the ...	openaccess.thecvf.com
704	100.57	11	JT Springenberg	Unsupervised and semi-supervised learning...	2015	arXiv preprint arXiv:1511.063...	arxiv.org
764	382.00	12	Q Xie, Z Dai, E Hovy, T Luong...	Unsupervised data augmentation for consis...	2020	Advances in Neural ...	proceedings.neurips.cc
799	399.50	13	K Sohn, D Berthelot, N Carlini...	Fixmatch: Simplifying semi-supervised learn...	2020	Advances in ...	proceedings.neurips.cc
704	176.00	14	A Oliver, A Odena, CA Raffel...	Realistic evaluation of deep semi-supervise...	2018	Advances in neural ...	proceedings.neurips.cc
706	353.00	15	O Henaff	Data-efficient image recognition with contr...	2020	International Conference on ...	proceedings.mlr.press
647	323.50	16	JE Van Engelen, HH Hoos	A survey on semi-supervised learning	2020	Machine Learning	Springer

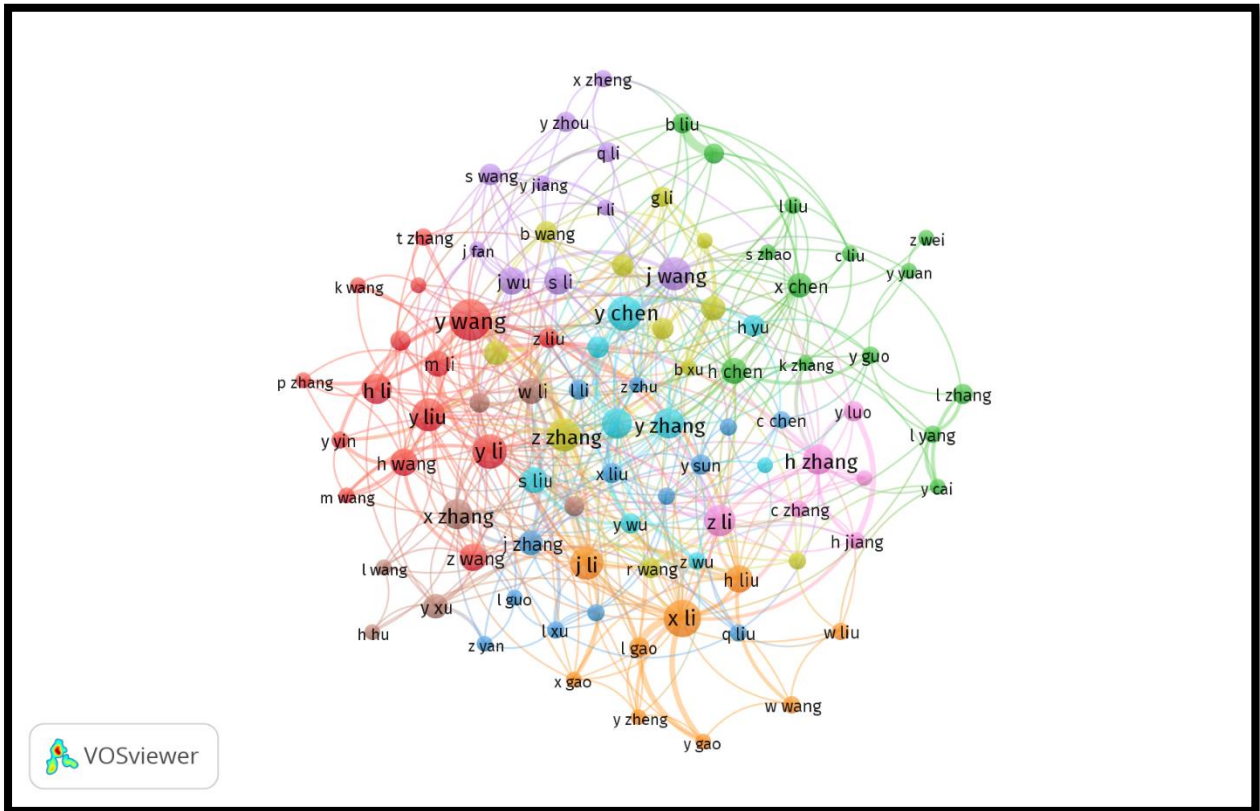
Table 3 shows that two papers with significant impact were published by Zheng in 2017 as Top citation (1566).

### Author Keyword-based Analysis

The author keyword analysis was performed using the VOS viewer program for the phases of the systematic process in establishing a successful the Learning Method”. The 325 author keywords were grouped into 12 clusters, each

with a distinct hue. Cluster 1 (red) consists of 27 items, cluster 2 (green) consists of 15 items, cluster 3 (blue) consists of 12 items, cluster 4 (yellow) consists of 16 items, cluster 5 (purple) consists of 19 items, cluster 6 (aqua) consists of 18 items, cluster 7 (orange) consists of 14 items, cluster 9 (brown) consists of 19 items, cluster 9 (pink) consists of 13 items, cluster 13 (salmon) consists of 15 items, cluster 11 (lime) consists of 15 item, and cluster 10 (gray) consists of 8 items.





**Figure 6. Author Keyword-based Analysis**

*Author Collaboration-based Analysis*

The findings of an author cooperation study utilizing VOSViewer with the number of instances of at least one document from 998 writers yielded 6 authors who were significantly related. Each contributor was given five links and one document. Author cooperation was only organized into one cluster (red) of five entries. Figure 5 depicts the author's collaboration pattern. Reference date: 2022-05-05 15:51:01 -0700, Publication years: 2012-2022, Citation years: 10

(2012-2022), Papers: 998, Citations: 38375, Citations/year: 3837.50 (acc1=996, acc2=977, acc5=717, acc10=368, acc20=138), Citations/paper: 38.45, **Authors/paper:** 3.90/4.0/4 (mean/median/mode), Age-weighted citation rate: 11472.01 (sqrt=107.11), 3624.75/author, Hirsch h-index: 87 (a=5.07, m=8.70, 15937 cites=41.5% coverage), Egghe g-index: 141 (g/h=1.62, 20054 cites=52.3% coverage), PoP hI,norm: 46, PoP hI,annual: 4.60, Fassin hA-index:36.



**Figure 7. Authors (Connected papers)**

Figure 7 showed that connected papers about learning method. As we know that the program consists of two main components by learning method: a pedagogy prototype with clearly defined principles to drive classroom and study skills, and a set of materials to encourage instructors to engage in reflective thought and debate as they enhance their classroom and study abilities. The components of the program are outlined in full below. It's worth noting that a research is being conducted in parallel with the campaign to see how effective the model is. Early evaluations indicate that it has the potential to improve both pedagogy and student outcomes. Learning outcomes and perceptions/evaluations of the learning environment are both affected by the quality of the learning environment. Perceptions/evaluations of the learning environment and study approach, as well as the relationship between study approach and learning outcome quality Deep approaches to learning are more likely to produce higher quality learning than those that do not.

#### **Acknowledgment**

We thank the professionals for their substantial contributions to the instrument's programming development and design. We also want to thank everyone who helped make the study a success.

#### **Conflicts of Interest**

The authors declare that there is no conflict of interest.

#### **CONCLUSIONS AND RECOMMENDATION**

The lesson taught applying of systematic process in *building a successful partnership between Islamic Education 4.0 and [the Learning Method of Society 5.0](#)*. The phases of the systematic process in *building a successful partnership between Islamic Education 4.0 and [the Learning Method of Society 5.0](#)*. Additionally, the use of eight methodical and proper processes in teaching and learning in the classroom would allow optimal access to the objectives. For example, after the instructor

reaches step seven, monitoring and evaluation, the effectiveness of teaching and learning may be easily and methodically recognized in developing a successful relationship between Islamic Education 4.0 and the Learning Method of Society 5.0.

## REFERENCES

- Agarwal, S., and D. Roth. 2002. "Learning a Sparse Representation for Object Detection." doi: 10.1007/3-540-47979-1\_8.
- Akyol, Zehra, and D. Garrison. 2008. "The Development of a Community of Inquiry over Time in an Online Course: Understanding the Progression and Integration of Social, Cognitive and Teaching Presence." *Journal of Asynchronous Learning Networks* 12:3–22. doi: 10.24059/OLJ.V12I3.66.
- Akyol, Zehra, D. Garrison, and M. Ozden. 2009. "Development of a Community of Inquiry in Online and Blended Learning Contexts." *Procedia - Social and Behavioral Sciences* 1:1834–38. doi: 10.1016/J.SBSPRO.2009.01.324.
- Akyol, Zehra, D. Garrison, and M. Ozden. 2009. "Online and Blended Communities of Inquiry: Exploring the Developmental and Perceptual Differences." *The International Review of Research in Open and Distributed Learning* 10:65–83. doi: 10.19173/IRRODL.V10I6.765.
- Alavi, S. M., and M. Taghizadeh. 2013. "Cognitive Presence in A Virtual Learning Community: An EFL Case." *International Journal of E-Learning and Distance Education* 27:1.
- Annand, David. 2011. "Social Presence within the Community of Inquiry Framework." *The International Review of Research in Open and Distributed Learning* 12:40–56. doi: 10.19173/IRRODL.V12I5.924.
- Arbaugh, J., A. Bangert, and M. Cleveland-Innes. 2010. "Subject Matter Effects and the Community of Inquiry (CoI) Framework: An Exploratory Study." *Internet High. Educ.* 13:37–44. doi: 10.1016/J.IHEDUC.2009.10.006.
- Arbaugh, J., and Raquel Benbunan-Finch. 2006. "An Investigation of Epistemological and Social Dimensions of Teaching in Online Learning Environments." *Academy of Management Learning and Education* 5:435–47. doi: 10.5465/AMLE.2006.23473204.
- Arbaugh, J., and B. Rau. 2007. "A Study of Disciplinary, Structural, and Behavioral Effects on Course Outcomes in Online MBA Courses." *Decision Sciences Journal of Innovative Education* 5:65–95. doi: 10.1111/J.1540-4609.2007.00128.X.
- Diaz, S., Karen Swan, P. Ice, and L. Kupczynski. 2010. "Student Ratings of the Importance of Survey Items, Multiplicative Factor Analysis, and the Validity of the Community of Inquiry Survey." *Internet High. Educ.* 13:22–30. doi: 10.1016/J.IHEDUC.2009.11.004.
- Duggan, S. 1996. "Education, Teacher Training and Prospects for Economic Recovery in Cambodia." doi: 10.1080/03050069628768.
- Fergus, R., P. Perona, and Andrew Zisserman. 2003. "Object Class Recognition by Unsupervised Scale-Invariant Learning." *2003 IEEE Computer Society Conference on Computer Vision and Pattern Recognition, 2003. Proceedings.* 2:II–II. doi: 10.1109/CVPR.2003.1211479.
- Garrison, D., T. Anderson, and R. Garrison. 2003. "E-Learning in the 21st Century: A Framework for Research and Practice." doi: 10.4324/9780203166093.
- Holmes, E., R. O'Connor, V. Perry, I. Tracey, S. Wessely, L. Arseneault, C. Ballard, H. Christensen, Roxane Cohen Silver, I. Everall, T. Ford, A. John, T. Kabir, Kate King, I. Madan, S. Michie, Andrew K. Przybylski, R. Shafran, A. Sweeney, C. Worthman, L. Yardley, K. Cowan, C. Cope, M. Hotopf, and E. Bullmore. 2020. "Multidisciplinary Research Priorities for the COVID-19 Pandemic: A Call for Action for Mental Health Science." doi: 10.1016/S2215-0366(20)30168-1.
- Kadiyono, A., Rezki Ashriyana Sulistiobudi, I. Haris, Mohd Hanif Abdul Wahab, I.

- Ramdani, A. Purwanto, A. Mufid, Muhammad Rikza Muqtada, M. Gufron, Mohamad Nuryansah, Lina Aris Ficayuma, M. Fahlevi, and Susila Sumartiningsih. 2020. "Develop Leadership Style Model for Indonesian Teachers Performance in Education 4.0 Era." *Systematic Reviews in Pharmacy* 11:363–73.
- Kumar, Swapna, K. Dawson, E. Black, Cathy Cavanaugh, and Christopher D. Sessums. 2011. "Applying the Community of Inquiry Framework to an Online Professional Practice Doctoral Program." *The International Review of Research in Open and Distributed Learning* 12:126–42. doi: 10.19173/IRRODL.V12I6.978.
- Lowe, D. 1999. "Object Recognition from Local Scale-Invariant Features." *Proceedings of the Seventh IEEE International Conference on Computer Vision* 2:1150–57 vol.2. doi: 10.1109/ICCV.1999.790410.
- Osuna, E., R. Freund, and F. Girosi. 1997. "Training Support Vector Machines: An Application to Face Detection." *Proceedings of IEEE Computer Society Conference on Computer Vision and Pattern Recognition* 130–36. doi: 10.1109/CVPR.1997.609310.
- Rourke, L., T. Anderson, D. Garrison, and W. Archer. 2007. "Methodological Issues in the Content Analysis of Computer Conference Transcripts."
- Rowley, H., S. Baluja, and T. Kanade. 1998. "Neural Network-Based Face Detection." *IEEE Trans. Pattern Anal. Mach. Intell.* 20:23–38. doi: 10.1109/34.655647.
- Supriadi, Oding, Zulkifli Musthan, Sa'odah, Rizki Nurjehan, Y. Haryanti, M. R. Marwal, A. Purwanto, A. Mufid, Rohmad Adi Yulianto, Moh Farhan, A. Fitri, M. Fahlevi, and Susila Sumartiningsih. 2020. "Did Transformational, Transactional Leadership Style and Organizational Learning Influence Innovation Capabilities of School Teachers during Covid-19 Pandemic?" *Systematic Reviews in Pharmacy* 11:299–311. doi: 10.31838/SRP.2020.9.47.
- Vaillant, Régis, C. Monroq, and Y. L. Cun. 1994. "Original Approach for the Localisation of Objects in Images." doi: 10.1049/IP-VIS:19941301.
- Viola, Paul A., and Michael J. Jones. 2001. "Rapid Object Detection Using a Boosted Cascade of Simple Features." *Proceedings of the 2001 IEEE Computer Society Conference on Computer Vision and Pattern Recognition. CVPR 2001* 1:I–I. doi: 10.1109/CVPR.2001.990517.
- Weber, Markus, M. Welling, and P. Perona. 2000. "Unsupervised Learning of Models for Recognition." doi: 10.1007/3-540-45054-8\_2.
-