Reconnoitering Education Literacy and Equality: Bibliometrics Analysis of the term "Education Literacy and Equality"

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Abstract. The proposition of nonformal education were to characterize the education literacy and equality through bibliometric analysis. The research aimed to assess education literacy and equality research output through the period of 2020- 2021.The Scopus and google scholar database has used to retrieve records related to education literacy and equality. The VOSviewer application is used to analyze the retrieved bibliographic citation data. The literacy and equality research publication are analyzed and interpreted using the retrieved data. The performance of the most productive countries, authors, journals, languages, institutions, keywords, and citation references is examined. The rate of relative growth and the time required to double have been calculated. The performance of the most productive countries and the greatest number of articles are published in the form of 470 total articles. In the years 2020-2021, the maximum number of papers published is 470. The research novelty showed that there was the addition of new literature about the education literacy and equality through bibliometric analysis and there were variation in source between Scopus and Google Scholar database.

Key words: technology; non-formal education; learning

INTRODUCTION

The value of non-formal education cannot be affected in Sulawesi. This presentation claims to be extremely relevant and to contribute significantly to national progression and adaptability in its approaches, which are seen as a means of addressing some of the most having to press global issues currently facing Sulawesi's Island. As global issues which affect people ethnically, socially, financially, and politically, the role of non-formal education in addressing these issues becomes increasingly important. However, many educators include digital literacy instruction in undergraduate writing courses. One type of literacy, critical digital literacy, provides opportunities for student learning by utilizing Hutchinson and Novotny's critical digital literacy as a method. Non-formal approaches to adult learning, gender equality, health, environmental sustainability, and peace and conflict resolution are widely advocated by both government and the non organizations in the Ssouth Sulawesi.

Before schooling became established, non-formal education was conducted in Sulawesi. The transmission of information, skills, and attitudes to the next generation is critical to the long-term viability of many Pacific communities. As a result, in many traditional civilizations, the young learnt the knowledge and skills they needed for economic and social survival in a systematic manner. Children and teenagers learn about the gender roles and obligations that are

expected of them, as well as the roles and responsibilities that are required of their tribe. The teachers are community members who have a lot of expertise and are well-known.

Children and teenagers learn about the gender roles and obligations that are expected of them, as well as the roles and responsibilities that are required of their tribe. The teachers are community members who have a lot of expertise and are well-known. Non-formal education, in its broadest sense, is not a new notion; it is an educational process that has existed in pre-literate communities. There is mounting evidence to support the assertion that non-formal education is an ancient concept with a new name. Non-formal education is ingrained in the people's lives in Sulawesi Island. This article looks at non-formal education in its traditional setting before delving into the reasons for non-formal education in the Sulawesi Island, its conception, and its contribution to regional needs.

METHODS

This research used qualitative case study to approach the research in order to understand how they Exploring Non-Formal Education, especially in memos, case study is an object to be studied, not a methodological option, researcher can use some variety of research tools to research that object. In this study, the instrument used semi-structured interview to collect the data. A comprehensive review of the research substantiation for the efficacy of using digi-

tal technology to support Indigenous people's communication and language learning is conducted (Li et al, 2021). The subject of this research consisted five culinary art students with pseudonym from Sulawesi.

The researcher employed a qualitative research approach in this study. To collect data, a semi-structured interview is used as a tool. The participant is gathered in a WhatsApp group by the researcher, who gives them some instructions as a guideline. it is important that you understand the data to the expanse that you are familiar with the depth and breadth of the interview and keep re-checking the original audio recordings to keep the authenticity. The process of transcription would be time-consuming, frustrating, and progressive; therefore, this is the only good way to start acquainting yourself with the data. Following analyzed, the researcher clustered the data into themes to understand the pattern. This step decreases some of ineffectual data to highlight the data into theme. it is necessary to be on the lookout throughout the data transcription and analysis processes for clusters or categories of things that go together. At this stage, researcher must re-focus on the examination at the wider level of themes. Instead focus on codes, wider level of themes will deliver sorting the different codes into potential themes, and ordering all the important coded data extracts below the scope of identified themes.

The several early codes may form as main themes, while others may form sub-themes, and others still may be unused. The codes classify a characteristic of the data (semantic content or latent) that looks appeal for examine. Coding is how the most essential element of the raw data, or information that can be assessed in a meaningful way about the phenomenon. The analysis will be taking time to make the data more informative and insightful. "Regardless of the time that you spend on your analysis, it is important to develop the habit of building in opportunities to reflect on your analysis throughout the data coding and interpretation process". The last is to describe about the data. it is essential to consider how it fits into the wider overall story, in relation to your research question or questions, to ensure there is not too much overlap between themes. It is important to provides a concise, coherent, logical, nonrepetitive, and interesting account of the story the data tell – within and across themes. Qualitative research involves collecting primarily textual data and inspecting it using interpretive analysis.

The primary goal of the study is to determine the source–wise distribution of the study's E- learning research output. (1). To investigate the Authorship Pattern of Publication in the field of education literacy; (2). To investigate the degree of collaboration in research output and publication distribution; (3). To investigate the proportional growth rate and time required for doubling in the field of digital literacy; (4). Determine the document-by-document distribution of publications and research publications and (5). To investigate the keywords of education literacy.


Figure 1. Research Area Mapping
Source: Google Maps

The scope of the present study is limited to the journals accessible in the google scholar database. The Keyword used for the study is education literacy and equality: A Bibliometric analysis of Publication Output during 2020-2021. There are five stages to do in this study, namely the determination of the word key, data search, article selection, data validation, and data analysis. Determination keywords are done according to the purpose this research, namely education literacy and equality. To avoid daily update bias as the database continuously collects and updates data. The results of searching data in international publications are then selected and validated so that the data can be read and analyzed. Both selection and validation are carried out in the form of diagrams and data tables which are categorized into several types, namely the development of publications per year, types of publications, core journals, most productive researchers, number of publications based on affiliation and country as well as the distribution of themes that are the focus of the study on education literacy and equality. The categorization is then analyzed according to the importance of this article.

The bibliometric analysis offers a summary of research trends in education literacy and equality in publications and contexts. It can help stakeholders to see the opportunities presented in the collection of information in the domain of education literacy and equality. This study offers insight into scientific research education literacy and equality and provide evidence its use by stakeholders in the observer community and education literacy and equality. this study introduces the main themes of the research community by using the research taxonomy of education literacy and equality.

RESULTS AND DISCUSSION

This study used qualitative research to explore education literacy and equality specialized Non-Formal Education as system. Learning participation is an inseparable part of the learning circuit in non-formal education (Nugroho et al, 2018). Learning strategies play an important role in recognizing the role of variations in teaching in the learning process of third semester students in Non-Formal Education (Elihami et al, 2020). The education literacy and equality were created in response to the formal education system's inability to address the majority's learning demands. The education literacy and equality are frequently seen as a system that is compared and contrasted to the well-known system of "formal education."
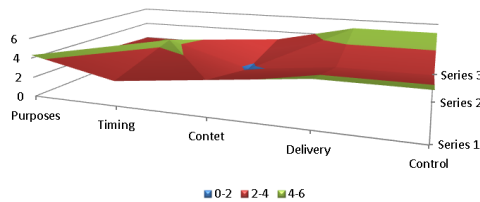

Figure 2. Non-Formal Education as System

The figure 2 showed that Under five themes, non-formal education was compared to formal education as a system. They are: Purpose, Timing, Contents, Delivery and control. When the formal system fails to give individuals with the skills required by the economic system, Non-Formal Education as System is considered as a less expensive option. In many developing island countries, concerns such as school dropouts and unemployment have prompted the establishment of Non-Formal Education as System training programs.

Literacy is not only in the narrow sense of the ability individual in reading and writing, but rather covers a continuum enabling learning. Individuals can achieve life goals them, develop knowledge and potential, and their participation full of social life. Traditionally, literacy is a person's ability to recognize, understand (understand) and use letters to communicate. Literacy has four characteristics of ability, namely breaking the code (decoding, translating the code so that it can be meaningful), participating in understanding and shaping (written text, or spoken text), using text according to its function, and critically analyzing and transforming text according to its function with his knowledge.

Literacy includes the ability and knowledge of reading (reading), producing texts (by writing), and acquiring the tools and intellectual capacity to participate in the culture and environment (Mulyono, 2015). In essence, literacy is formed by the social

environment with certain characteristics it (Fakhruddin et al, 2019). Therefore, it is very natural that literacy is highly dependent on the context, the set of regulations, and the conventions of the social environment. And then literacy through learning strategies play an important role in putting learning into action for success. Informal instructional strategies are used in elementary schools that use an informal education system to help Tahfidz-based learning and character development (Imam Shofwan et al, 2019).
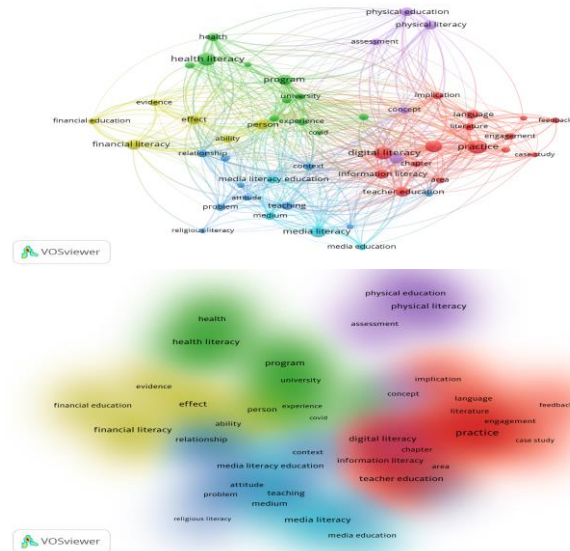

Figure 3. VOSviewer of Network Visualization & Density Visualization

The figure 3 showed that the publication years 2020-2021, citation years 1 (2020-2021), papers 470, cites/paper (4716.00), authors (2.70), h-index (27), g-index (55), hI, annual (22.00), hA-index (27), hI norm (27), papers with ACC > = 1,2,5,10,20,414, 341, 200,95,41.

The encouragement and changes in social and cultural paradigms, which in the current context are caused by advances and developments in information and communication technology (ICT) in the 21st century era have triggered the development of the term literacy. The United Nations agency in charge of education, UNESCO for example, notes several terms that are the development of literacy, such as: media literacy, information literacy, freedom of expression and information literacy, library literacy, news literacy, computer literacy, internet literacy, digital literacy, cinema literacy. , game literacy, television literacy, advertising literacy and so on.

In simple terms, information literacy can be understood as a way of learning through interaction with information (Qodriyati, T et. al, 2018). In the literature, information literacy is comprehensively defined as a person's ability to recognize when and when why he needs information (Sufyan et al, 2019), where he

can get that information and how to evaluate, use and communicate the information he has obtained in an appropriate way (Laksono et al, 2018). Therefore, a person's ability to perception plays a significant role in determining one's worldview and has a significant impact, including on functional literacy programs (Nurhayati, S, 2021). The purpose of this research is to uncover the illiterate's perception of functional literacy programs (Djibu, R et al, 2021). Information literacy cannot be seen separately (between individuals and information), but two elements that interact to form a single unit (Djibu, R et al, 2019). Information literacy is not merely a set of abilities, skills, or certain characteristics, but has a scope known as the six frames of information literacy as below.
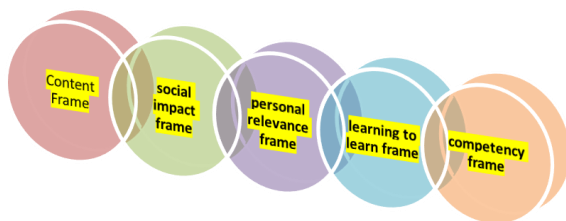
Figure 4. The five frames of information literacy

The figure 4 showed that the purpose of information literacy is essentially toconnect a person with personal, social, work and educational goals. In relation to social activities, the review of literature through information literacy can facilitate the attachment of individuals to their social environment. In other words, someone with Information literacy skills will demonstrate understanding and ability to convey, use, manage, synthesize and produce ethical information and data and will have the skills to do these abilities effectively and can become individuals who have role in society.

Technology has positive potentials that help them play a strategic role in development (Muhasidah et al, 2019). The purpose of this study is to examine how to implement information technology literacy model guidelines in empowering women through community-based education, as well as how to increase women's knowledge, skills, and awareness in managing the productive potential of information systems environments (Sujarwo, S et al, 2021).
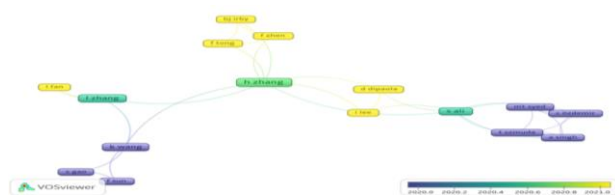
Figure 5. The VOSviewer about Authors by Nonformal Education

The figure 5 showed that the publication years 2020-2021 about authors data, citation years 1 (2020-2021), papers 470, cites/paper (4716.00), authors (2.70), h-index (27), g-index (55), hI, annual (22.00), hA-index (27), hI norm (27), papers with ACC > = 1,2,5,10,20,414, 341, 200,95,41.

Bibliometric analysis examines author, research title, number of citations, affiliations and country. The result is that there is no writer or researcher whose number of works is dominant. All of them are almost average, i.e. only have 1-5 research works.

VOSviewer software was used to analyze the metadata articles obtained from the https://www.scopus.com database and website Google Scholar. The analysis sought to identify the most frequently occurring keywords. The frequency of the keywords could be arranged based on the researchers' preferences, and less relevant words could be removed. We limited the minimum correlation of the terms to ten when creating the visualization with VOSviewer. It obtained two excellent clusters after performing the analysis with VOSviewer. The authors chose the second cluster, which was related to Non-Formal Education. On three different visualizations, the software indicated bibliometric mapping: network visualization and density.

Bibliometrics for writers is a branch of information theory that analyzes the characteristics and behavior of recorded knowledge quantitatively. We can only study the recorded information using this approach, not the knowledge itself. Bibliometrics for writers is a branch of information theory that analyzes the characteristics and behavior of recorded knowledge quantitatively. We can only study the recorded information using this approach, not the knowledge itself. The area of bibliometrics is concerned with research activities.

E - learning by using Zoom should be defined as the basic skill or ability to use a web browser confidently, safely, and effectively, which includes the ability to use office software including such word processors, email, and presentation software, as well as the potential to construct and edit images, sound recording, and video, as well as the ability to use an internet browser and Internet search engines (Musdalifah et al, 2021). Learning will not take place unless teachers and lecturers use online management in study skills to recognize the role of different variants in teaching in the learning process of students in Non-Formal Education (Agusriandi et al, 2021). Thinking skills such as conceptual thinking, creative thinking, innovation, concern, critical thinking, judgment, and metacognition are among the unexplored materials (Lyons et al, 2020). The results of the study are novel in that they provide a more complete explanation of the shortcomings of non-formal

education institutions providing life skills education (Prasetyo, et al., 2021). And then in functional literacy education, the participatory learning model attempts to fully engage learners in contributing to and actively participating in all stages of learning activity. The purpose of this study was to apply the participatory learning model and determine the impact of participatory learning application on functional literacy education in rural community learners (Arbarini, M et al, 2018).
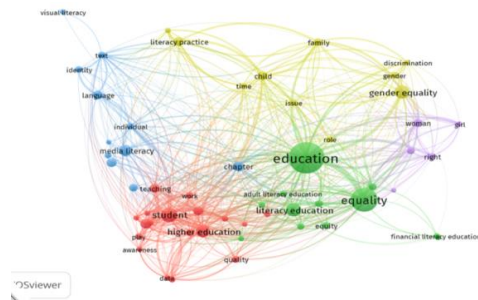
Figure 6. Development of Publications in terms of Education Literacy and Equality by year 1932-2022

The figure 6 showed that the publication years 1932-2022 about authors data, citation years 89 (1932-2021), papers 1000, cites/paper (1643), authors (0.84), h-index (17), g-index (30), hI, annual (17.00), hA-index (0.19), hI norm (5), papers with ACC > = 1,2,5,10,20,71,30, 4,2,1.
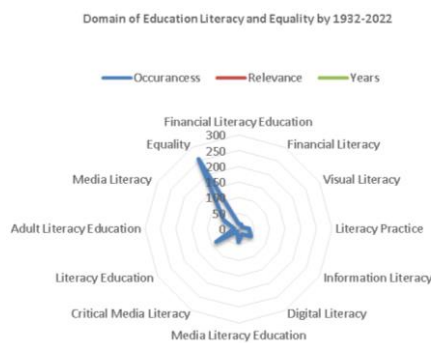
Figure 7. Keywords based on domain of Education Literacy and Equality
Source: Crossref

The figure 7 showed that the development of domain of Education Literacy and Equality has had a very rapid influence on the education and learning system, so it is no stranger to both academic and non-academic fields. One alternative that appears related to digital media is the shift of learning resources for students from physical learning resources (analog media) to digital. The principle of digital is to make it easier for students to access any kind of information, whenever and wherever needed, in this case digital media using devices connected to the internet network.

CONCLUSION

As a result of the educational inequalities within the sub-district, human capabilities to possess basic literacy and communication skills may be uneven. While metropolitan areas have benefited from several benefits such as diverse school access, adequate teachers, and diverse formal work options in the future for their young generation, it was also discovered that these comfortable situations have to some extent been exaggerated. Furthermore, some individualistic-minded and busy parents have exacerbated these conditions by encouraging their children to pursue conventional employment rather than start their own businesses.

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