

# Mapping Vocational Education in Batik Expertise in Indonesia

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**Abstract**—Vocational education is education that directs educators to develop skills, with certain areas of expertise in the hope of creating jobs. The purpose of this article is to show school mapping data related to GIS. The author uses a database from Google Scholar and Scopus is a comprehensive database of per-reviewed journals in the world. Result of school mapping research related to Geographic Information System (GIS) starting from 2004 to 2021. This research is based on the author with the top 10 publications on the first order Al-Hanbali and also shows 3 writers from Indonesia including Ana, A, Ariyanti Y, Aryanti T, then shows affiliations from various institutions, including 3 from companies and 7 from universities. Countries that conduct research using keywords school mapping and GIS comes from India in the first place and Indonesia in the second place. This article will also show the percentage of types articles as much as 58.3% document and subject document related to school mapping computer science with a percentage of 27.6%. from these results can show how the development of batik skills in Indonesia by collecting data with school mapping research related to the Geographic Information System (GIS).

**Keywords**—school mapping, Geographic Information System (GIS)

## I. INTRODUCTION

School mapping has also been described as the process of setting up a school network, which will meet the present and future educational demands of society in the most efficient way [1]. School mapping is managed or regulated by the Ministry of Education. It is generally understood that this regulation must be complied with by both public and private schools for quality and affordable education for residents living in rural and urban areas [2].

The expected results from school mapping research can contribute to the development of vocational education, especially vocational education in the field of batik expertise in Indonesia with GIS has also been used in environmental conservation efforts for accurate mapping of natural resources in Indonesia as part of the school culture mapping [3,4]. Based on the results of the literature that researchers have done, currently studies on school mapping are widely discussed in strategic places where school development is located.

The purpose of this research is to conduct an over-review of research related to school mapping with a GIS approach. The main objective of School Mapping is to create educational equality by equalizing existing gaps in the distribution of educational facilities [5] including the range of years, top 10 authors, top 10 institutions, top 10 countries, percentage of document types and percentage of subject documents.

## II. RESEARCH METHODS

The template is used to format your paper and style the text. All margins, column widths, line spaces, and text fonts are prescribed; please do not alter them. You may note peculiarities. For example, the head margin in this template measures proportionately more than is customary. This measurement and others are deliberate, using specifications that anticipate your paper as one part of the entire proceedings, and not as an independent document. Please do not revise any of the current designations. To sample relevant articles, the authors used a database from Google Scholar and Scopus is a comprehensive database of per-reviewed journals in the world. Scopus is currently considered a top-tier database for academic and scientific information from various studies. The research was conducted by searching online in December 2021 with the words “School Mapping” and “GIS” in the title, keywords and abstract (topic field). Using all the years available in the Google Scholar and Scopus databases and getting the range from 2004 to 2021, 12 documents were obtained. This sample is used to see the development (evolution) of research.

## III. RESULTS

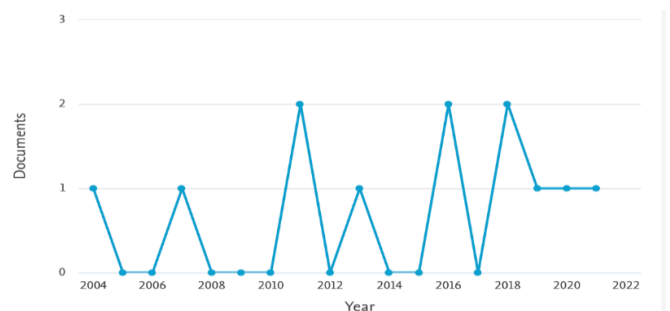


Fig. 1. Year Range

In figure 1, school mapping research related to Geographic Information System (GIS) starts from 2004 to 2022. In the picture above, the most documents in 2011, 2016 and 2018 were 2 documents regarding school mapping related to GIS. In 2004, 2007, 2013, 2020 and 2021 each had 1 document regarding school mapping related to GIS.

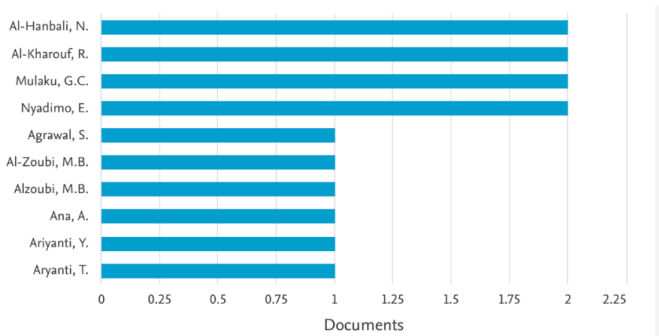


Fig. 2. Top Authors

In Figure 2 above shows the data of the top ten authors, Al-Hanbali has 2 documents "Texture Mapping and Implementation Aspects for 3D GIS Applications" and "Integration of Geo Image and Vector Data Into School Mapping GIS Data-Model for Educational Decision Support System in Jordan". Al-Kharouf has 2 documents "Integration of Geo Image and Vector Data Into School Mapping GIS Data-Model for Educational Decision Support System in Jordan" and "The Application of GIS Tool to the School Mapping Data Model in Jordan". The picture also shows 3 writers from Indonesia including Ana, A "Geographic Information System of West Java Batik: Cultural and Industrial Mapping for Supporting the Development of Curriculum in Vocational High School"

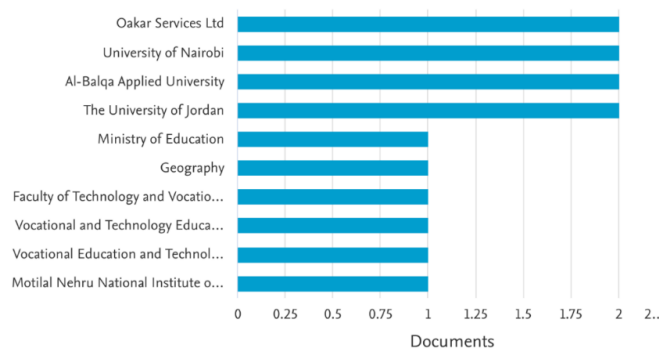


Fig. 3. Top 10 Institutions

Figure 3 shows the affiliations of various institutions, of which 3 are from companies and 7 are from universities. For the company, namely Oakar Services Ltd – Kenya, there are 2 documents regarding school mapping related to GIS, followed by the university, namely the University of Nairobi – Kenya

which has 2 documents regarding school mapping related to GIS.

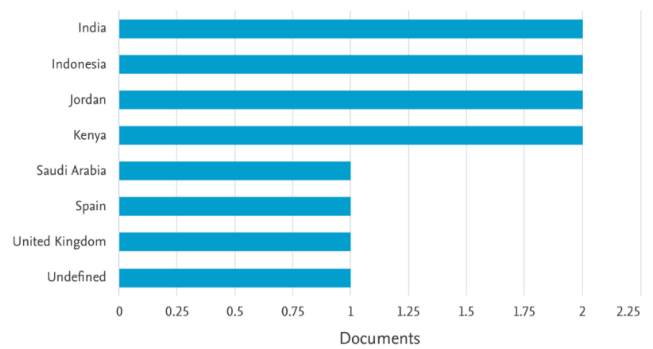


Fig. 4. Top 10 Countries

Figure 4 shows the 10 countries that publish the most school mapping documents related to GIS, in India as many as 2 documents, then Indonesia, Jordan and Kenya also have 2 documents each regarding school mapping related to GIS.

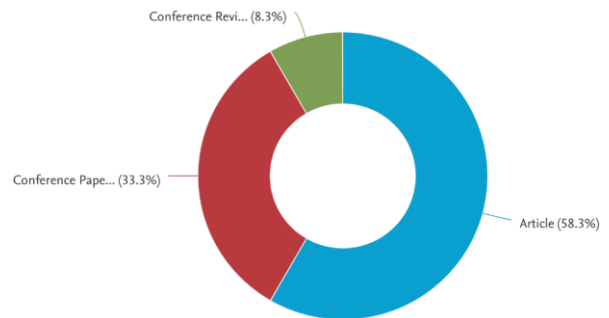


Fig. 5. Percentage of Document Type

Figure 5 shows a type diagram. Among them are conference reviews of 8.3%, conference papers of 33.3%, and articles of 58.3%.

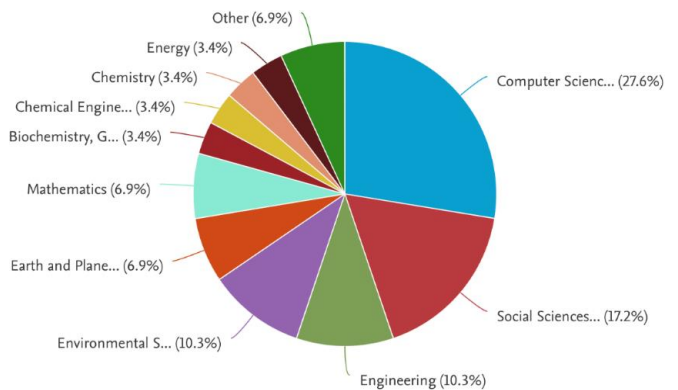


Fig. 6. Percentage of Document Subject

Figure 5 shows that school mapping research related to GIS is widely used in computer science subjects with a percentage of 27.6% and then on social science subjects with a percentage of 17.2%.

#### IV. CONCLUSION

School mapping research related to Geographic Information System (GIS) starts from 2004 to 2021. This research is based on the author with the top 10 publications in the first order Al-Hanbali has 2 documents and also shows 3 authors from Indonesia including Ana, A, Ariyanti Y, Ariyanti T, then show the affiliations of various institutions, including 3 from companies and 7 from universities. Countries that conduct research using keywords school mapping and GIS come from India in the first place and Indonesia in the second place. This article will also show the percentage of article types as much as 58.3% of documents and subject documents related to school mapping computer science with a percentage of 27.6%.

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