

**SISTEMATIK LITERATUR REVIU EFEKTIVITAS PENGGUNAAN
DYNAMIC GEOMETRY SOFTWARE DALAM PEMBELAJARAN
MATEMATIKA SMP**

TESIS

diajukan untuk memenuhi sebagian syarat
memperoleh gelar Magister Pendidikan Matematika



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FAKULTAS PENDIDIKAN MATEMATIKA DAN ILMU PENGETAHUAN ALAM
UNIVERSITAS PENDIDIKAN INDONESIA
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**SISTEMATI K LITERATUR REVIU EFEKTIVITAS PENGGUNAAN
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Sebuah Tesis yang diajukan untuk memenuhi salah satu syarat memperoleh gelar Magister Pendidikan (M.Pd) pada Fakultas Pendidikan Matematika dan Ilmu Pengetahuan Alam

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ABSTRAK

Maulana Maxribbi Guntara. (2020). Sistematis Literatur Reviu Efektivitas Penggunaan *Dynamic Geometry Software* dalam Pembelajaran Matematika SMP.

Tujuan dari penelitian ini adalah untuk menganalisis studi yang dilakukan dalam rangka memberikan gambaran yang komprehensif tentang penggunaan *Dynamic Geometry Software* (DGS) dalam pembelajaran matematika di sekolah menengah pertama, khususnya dalam topik geometri. Metode yang digunakan adalah sistematis literatur reviu. Penulis melakukan pencarian literatur artikel penelitian yang diterbitkan dalam rentang tahun 2011 dan 2020 dari tiga database elektronik yang disesuaikan dengan strategi pencarian dan kriteria seleksi yang telah ditentukan untuk mendapatkan distribusi artikel berdasarkan status publikasi dan variasi metodologi penelitian yang digunakan, materi pembelajaran yang diajarkan dengan memanfaatkan DGS dalam penelitian, macam-macam kompetensi matematika sebagai hasil yang diharapkan, perangkat lunak yang digunakan dalam DGS, dan faktor-faktor yang mendukung keberhasilan dari pembelajaran matematika yang menggunakan DGS. Hasil dari sistematis literatur reviu menunjukkan minat penelitian dalam topik ini selalu ada dan terbit pada jurnal-jurnal bereputasi. Eksperimen semu menjadi desain penelitian yang paling banyak digunakan dengan jumlah sampel di atas 30, adapun penelitian studi kasus melibatkan banyak partisipan yang bervariasi, mulai dari satu sampai 27 partisipan. Adapun durasi penelitian yang dilakukan dengan singkat dalam satu pertemuan sampai yang paling lama dalam satu semester, dengan berbagai hasil yang ingin dicapai dalam pembelajaran. GeoGebra adalah DGS yang paling banyak digunakan. Studi ini memberikan kontribusi pada literatur dengan memberikan deskripsi dari penelitian 10 tahun terakhir.

Kata kunci: *systematic review; dynamic geometry software; junior high school mathematics.*

ABSTRACT

Maulana Maxribbi Guntara. (2020). Systematic Literature Review of the Effectiveness of Using Dynamic Geometry Software in Junior High School Mathematics Learning

The aim of this research is to analyze studies conducted in order to provide a comprehensive overview of the use of Dynamic Geometry Software (DGS) in mathematics learning in junior high schools, especially in the topic of geometry. The method used is a systematic review literature. The researcher conducted a literature search for research articles published in 2011 and 2020 from three electronic databases that were tailored to the search strategies and selection criteria that had been determined to get the distribution of articles based on publication status and variations in the research methodology used, learning materials taught using DGS in research, the kinds of mathematical competencies as outcome, the software used in DGS, and the factors that support the success of learning mathematics using DGS. The results of the systematic review literature show that research interest in this topic is always present and published in reputable journals. Quasi-experimental is the most widely used research design with a sample size of over 30, while case study studies involve many participants, ranging from one to 27 participants. The duration of research is carried out briefly in one meeting up to the longest in one semester, with various results to be achieved in learning, GeoGebra is the most widely used DGS. This study contributes to the literature by providing descriptions of the past 10 years of research.

Keywords: systematic review; dynamic geometry software; junior high school mathematics.

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