

**STUDI FENOMENOLOGI HERMENEUTIK TANDA SAMA (DENGAN)
DALAM PEMBELAJARAN MATEMATIKA**

DISERTASI



Oleh

LIA ARDIANSARI

1803202

PROGRAM STUDI S3 PENDIDIKAN MATEMATIKA
FAKULTAS PENDIDIKAN MATEMATIKA DAN ILMU PENGETAHUAN ALAM
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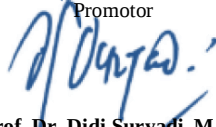
LIA ARDIANSARI

NIM. 1803202

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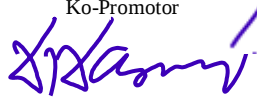
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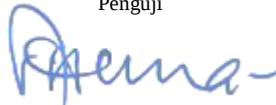
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Dr. Dadan Dasari, M.Si

NIP. 196407171991021001

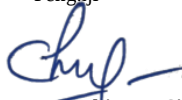
Penguji



Prof. Dr. H. Tatang Herman, M.Ed.

NIP. 196210111991011001

Penguji



Prof. Dr. H. Darlim, M.Si

NIP. 195503031980021002

Penguji

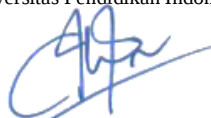


Prof. Dr. Cholis Sudijah, M.Pd., M.A.

NIP. 196104071987012001

Mengetahui,

Ketua Program Studi Pendidikan Matematika
Universitas Pendidikan Indonesia



Al Jupri, M.Sc., Ph.D

NIP. 198205102005011002

Lia Ardiansari, 2023

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Lia Ardiansari

1803202

ABSTRAK

Guru pastilah memiliki *concept image* tanda sama (dengan) sesuai dengan kapasitas, pengalaman belajar, dan pengetahuan yang menjadi sumber bagi mereka untuk menyusun desain didaktik tertentu dan belum tentu sesuai dengan *scientific conception* yang seharusnya. Kesenjangan yang terjadi antara *concept image* dan *scientific conception* merupakan salah satu realitas tentang adanya *Zone of Concept Image Differences (ZCID)*. Rancangan didaktik yang telah disusun oleh guru akan menjadi lingkungan belajar yang dapat memicu persepsi dan tindakan mental siswa sehingga terbentuk *concept image* tanda sama (dengan) dalam diri siswa. Penelitian ini bertujuan untuk menggali *concept image* siswa tentang tanda sama (dengan) dan menelusuri terbentuknya *concept image* tersebut berdasarkan pengalaman belajar mereka, mengkaji adanya ZCID, mengkonfirmasi bahwa *concept image* tentang tanda sama (dengan) yang terbentuk dalam diri siswa tersebut mungkin merupakan dampak dari proses pembelajaran dengan desain didaktik yang telah disusun oleh guru, serta menyusun desain didaktis alternatif. Hasil pengkajian ZCID akan dijadikan sebagai indikator adanya permasalahan mendasar tentang pemaknaan tanda sama (dengan) yang mampu memunculkan ide-ide terobosan untuk pengembangan desain didaktis yang lebih baik. Penyelidikan dilakukan secara kualitatif yang melibatkan 4 guru, 20 siswa kelas VI SD dan 35 siswa kelas VII SMP. Metode pengumpulan data meliputi kuesioner untuk guru dan tes tertulis untuk siswa kemudian enam siswa dipilih secara sengaja untuk diwawancara berdasarkan tanggapan mereka. Hasil penelitian menunjukkan bahwa *concept image* siswa tentang tanda sama (dengan) seluruhnya masih berada pada kategori operasional. Selain itu juga diperoleh hasil bahwa guru kurang memiliki pengetahuan dan keterampilan untuk menyusun desain didaktis yang ideal untuk mengidentifikasi, mengantisipasi, mengurangi, atau mengoreksi miskonsepsi siswa tentang tanda sama (dengan). Beberapa rekomendasi metode yang dapat dilakukan oleh guru sebagai upaya untuk mencegah dan mengurangi kesalahpahaman sekaligus mempromosikan pemahaman yang benar tentang tanda sama (dengan) diantaranya adalah memvariasikan cara merepresentasikan persamaan, pernyataan yang bernilai benar atau salah, dan teknik operasi string.

Kata kunci: *concept image*, desain didaktis, tanda sama (dengan), *zone of concept image differences*

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