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Using art to develop mathematical concepts in deaf learners : an investigation.

Seekola, Desiree S.

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Abstract

The current poor mathematical results in Grade 9 at a school for the Deaf in South Africa are a cause for concern. Consequently, various endeavours of teaching mathematics in the hope of elevating the grades have followed. This research focuses on using art to teach mathematical concepts prior to the mathematics lesson. Review of the literature reveals visual and pedagogic similarities inherent in both art and mathematics. The visual nature of art aligns itself directly to Deaf learners who access information visually. It therefore seems a logical application to explore art as a gateway to educating Deaf learners into mathematical concepts/literacy. Following on from the input received through research, this dissertation makes a case for the potential art has to expound world knowledge, elevate the confidence and personal self esteem in the Deaf learner and so augur mathematical literacy. The research is designed around individual case studies and an art intervention program. Through the intervention learners managed to take implicit knowledge acquired through activities and make the knowledge explicit. Art was found to encourage theory building through the conscious construction and exploration of analogies between art and the real world.