



Pre-Service Teachers' Concept Images on Fractal Dimension

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ABSTRACT

The analysis of pre-service teachers' concept images can provide information about their mental schema of fractal dimension. There is limited research on students' understanding of fractal and fractal dimension. Therefore, this study aimed to investigate the pre-service teachers' understandings of fractal dimension based on concept image. The descriptive method was used in this study. The sample under investigation comprised of 78 (26 males and 52 females) freshmen pre-service elementary mathematics teachers at Afyon Kocatepe University in Turkey. Data was collected by an open-ended questionnaire and clinical interview. The questionnaire was developed by the researcher based on previous studies in the areas of teaching and learning fractals. Data was categorized by semantic content analysis and analyzed using descriptive methods. Analyzing the data gathered from clinical interviews, themes determined in the questionnaire were taken into consideration. The findings showed that pre-service teachers had difficulty in understanding fractal dimension and in making sense of it. Moreover, pre-service teachers could calculate fractal dimension, but they were not aware of what was being calculated completely.

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This image was created with the Fractal Science Kit fractal generator. See www.fractalsciencekit.com/tutorial/examples/examples.htm for details. Imgur. All of my images are created on the computer and generated by mathematical equations. That's right. These images are based on MATH! : D To learn... Cool Art Colorful Art Pictures Psychedelic Art Beautiful Art Fractal Art Abstract Abstract Artwork Sacred Geometry. The analysis of pre-service teachers' concept images can provide information about their mental schema of fractal dimension. There is limited research on students' understanding of fractal and fractal dimension. Therefore, this study aimed to investigate the pre-service teachers' understandings of fractal dimension based on concept image. The descriptive method was used in this study. The sample under investigation comprised of 78 (26 males and 52 females) freshmen pre-service elementary mathematics teachers at Afyon Kocatepe University in Turkey. Compared with in-service teachers, pre-service teachers lack real experiences of the teaching profession, and their cognition and evaluation of the teaching profession are more based on teachers as students. For this reason, some scholars believe that pre-service teachers have not yet formed an essential professional identity but just formed a student identity (Beauchamp and Thomas, 2006; Flores and Day, 2006; Levin and He, 2008). The present study will investigate and analyze pre-service teachers' professional identity from these two dimensions. The Development of Pre-service Teachers' Professional Identity during Field Teaching Practice. View Fractal Dimensions Research Papers on Academia.edu for free. The artifacts removal and spatial enhancement are performed for pre-processing of the mammograms, which subsequently help in mass detection. The process of segmentation is performed using morphological operations. The proposed FHGT is proved to produce promising results in terms of segmentation that confirms its merit. fractal-dimension fractality-concept local-fractality. Updated Apr 9, 2018. R. r image-analysis fractal-dimension fractal-curvatures. Add a description, image, and links to the fractal-dimension topic page so that developers can more easily learn about it. Curate this topic. Add this topic to your repo. To associate your repository with the fractal-dimension topic, visit your repo's landing page and select "manage topics." Learn more. Product.