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Conceptualizing Scale

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Abstract content
   (Max 300 words)
Formatting &
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The concept of scale is of paramount importance in an age where the advancement of science is taking place at the extremes of scale. It has been shown that students have great difficulty with regard to scale. Does this difficulty arise from a deficiency in the student's estimation ability? Estimation has been shown to be a key aspect in grasping the scale concept. A deficiency in the estimation ability of students may not necessarily be mathematical in terms of numeracy but may be due to weaknesses students have with being able to perceive spatial visualization.

The ability to navigate oneself in the web of scales is vital in the understanding of the scale concept. To move from one scale to another without loss of comprehension requires facilitation. What is the nature of this facilitation? Is this facilitation in the form of dual representation, where understanding of one scale is obtained by recalling similarities of another? Or does this facilitation take on the form of expertise (skills) that one uses to decipher the unknown? A programme on scale will be conducted at the University of Zululand (Unizul) Science Centre where students will be taken from the galactic scale down to the nano. A study will be conducted where the competency of students with regard to the scale concept will be examined. What factors play what role in facilitating their competency in this area will also form part of the study.

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Level for award
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