

Enhancing academic self-efficacy through early mathematic education

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Positive self-perceptions of competence have been shown to predict and influence the amount of student's effort, persistence and engagement in school activities, thus reinforcing student's intrinsic motivation and consequently academic achievement and type of learning (Bandura, 1977, 2001, 2008). Large scale studies such as the PISA indicate that Portuguese students demonstrate great difficulties in terms of achievement and performance in mathematics, and emphasize the need to improve student's intrinsic motivation and a positive perceived competence. Furthermore, there is evidence that high quality, challenging and accessible early mathematics education may improve children's mathematical knowledge and skills, helping them to construct a solid basis for success in school. The Big Math for Little Kids early childhood program (Ginsburg, Greenes & Balfanz, 2003) was adapted and implemented with preschool children from diverse socio-economical backgrounds for two years. The aim of the present study was (i) to evaluate the perceived math competence of first grade children who benefited from the preschool program when they were 4 and 5 years of age, thereby assessing long-term motivational effects of the program and (ii) to compare the results with children from a control group, from equivalent socio-economical status and age. For this purpose, the Perceived Competence Scale in Mathematics" (Bouffard et al, 2003) was used. The results showed a significant difference in the perceived math competence between the two groups of children, favoring the experimental group.

Keywords: perceived competence, children, early mathematics

Motivating mature participation: a sociocultural analysis of scaffolding the social practices of a collaborative community of practice

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Motivational development is conceptualized as the transformation of participation from peripheral to mature participation in a collaborative community of practice. The underlying assumption is that students learn from each other, mediated by the teacher or more capable peers. This paper is based on two larger research projects where the classroom teacher was also the researcher. The teacher made explicit the social practices of the classroom to engage students more fully in activities to develop motivation to work with each other collaboratively. In this paper there is a focus on the social practice of 'the daily social circle' to provide an exemplar of how scaffolding participation in such activities allowed students to learn from each other and develop social skills. To further develop these skills student had leadership roles in small social groups with their peers which motivated development towards mature participation. A sociocultural perspective (Vygotsky, 1978) framed the qualitative research as the focus was on how social interactions could be developed to create the conditions for improved participation. Qualitative data included: teacher's observations; student reflections; parent and teacher interviews and student transcripts from the social circle and class meetings, which were collected over a school year. This methodological approach is seldom used in motivation research and makes available holistic data that can provide details often missing in traditional approaches to motivational research (Nicholls & Hazzard; Pressick-Kilborn et al., 2005). Teachers play a significant role in scaffolding positive relationships amongst peer, which can become a motivating factor to develop mature participation.

Keywords: socio cultural theory, scaffolding, participation, motivation, collaboration, community of practice

Motivation and Achievement of St. Lucian Youth: The Roles of Future Orientation, expectancy Valuing, and Perceptions of Societal Structures

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Motivation variables were examined in relation to academic achievement of students in St. Lucia, a post-colonial Caribbean nation. Some variables were from the research on future-orientation and expectancy-valuing. A new variable representing individuals' reactions to the academic opportunity structure (RAOS) in St. Lucia was developed for the present study. Participants were 921 students from four secondary schools in St. Lucia. The results showed that the new variable capturing the reactions to the academic opportunity structure in