Immigrant students' perspective on learning mathematics

Petra Svensson
Faculty of Education and Society, Malmö University, Sweden

The purpose of this presentation is to a give a short overview of a completed study. The study is concerned with the relationship between social equity and learning possibilities in mathematics for immigrant students, who are defined as persons born abroad or born with two parents born abroad. Immigrant students are often, by the surrounding society described as students who do poorly in school and are often seen as "problems" because they lack "Swedishness" and have insufficient Swedish language skills (Norén, 2010). This deficit discourse is often used when explaining immigrant students' failure in mathematics. The aim of this study is to examine how immigrant students who live and go to school in multicultural and socially deprived areas, experience their possibilities to learn mathematics and in so doing broaden and critique the explanations given for immigrant students' failure with mathematics.

The data came from focus group interviews with seven students, aged fifteen. The analysis sought to answer three questions regarding 1) public discourses articulated in the students' narratives, and how they contributed to the students' interpretations of their possibilities to learn mathematics; 2) rationales for learning expressed in the students' narratives and how they contributed to the students' interpretations of their possibilities to learn mathematics; 3) foregrounds expressed in the students' narratives and how they contributed to the students' interpretations of their possibilities to learn mathematics. The theoretical concepts applied in the process of analysis were: use value and exchange value (Black et al., 2010), rationales for learning (Mellin-Olsen, 1987) and foregrounds (Skovsmose, 1994).

Deficit discourses and discourses on the multicultural school, where immigrant students are constructed as problems and multiculturalism as an obstacle that needs to be overcome are articulated in the students' narratives. A traditional school mathematics discourse and the common public discourse about school were also articulated where mathematics as an exchange value seemed to be dominant. This implies that Mellin-Olsen's instrumental-rationale, or I-rationale, is the driving force in the students' mathematics learning, since they primarily learn mathematics to get the required grade to access upper secondary school. However, if students begin to see themselves as failing in mathematics the I-rationale as a drive for learning mathematics weakens, since there is no

point in learning mathematics if you cannot see yourself as gaining a passing grade. Thus the discourses reflected in the students' narratives contribute to limiting their possibilities to learn mathematics.

The students also accepted and mirrored the wider discourse on the importance of homework and achievement in mathematics, the importance of their parents' background and education, the discourse on the multicultural school and the discourse on "Swedishness" for their learning of mathematics. The students talked about rowdy mathematics classrooms where it was difficult to concentrate on their work. This often lead to completing a lot of homework to keep up with the teacher's pace. However, this resulted in students being left alone to do their homework by themselves, which reinforces their perceptions that they are not getting enough help at school or at home.

The discourse on homework suggests that good parents help their children with their homework. However immigrant parents may not have experienced the Swedish school system and thus feel unable to provide appropriate academic help, then students feel that their parents do not match expectations of what good parents are. These conditions influence how the students interpret their foregrounds (Skovsmose, 1994). Since it is not possible to change their parents' background and education, students see limitations in how they perceive their possibilities for their futures.

The students' reflection of the various discourses implies that the discourses have become their reality, thus limiting their interpretations of their foregrounds. This contributes to their adoption of I-rationales and has implications for how they understand their possibilities to learn mathematics as an immigrant student from a socially deprived area. A consequence of this is that the "Swedish" is considered desirable, and where "if I just had other parents, that is Swedish, I would have learned mathematics because Swedish parents can help their children with homework and if I had gone to another school, that is a "Swedish school" I would have learned mathematics better" becomes both the truth and the reality for these students.

References

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