

Mixed Method Study

Deidre Norman

University of Mary Washington

February 7, 2018

“I hereby declare upon my word of honor that I have neither given nor received unauthorized help on this work.”

Deidre Norman

Reference

Linder, S. M., Smart, J. B., & Cribbs, J. (2015). A multi-method investigation of mathematics motivation for elementary age students. *School Science and Mathematics, 115*(8), 392.

Retrieved from

<http://ezproxy.umw.edu/login?url=https://search.proquest.com/docview/1760933373?accountid=12299>

Summary

This multi-method study utilized quantitative and qualitative data to analyze why certain elementary students, from grades second to fifth, in a Title One had high scores of mathematics motivation. To begin, the research team took a sample of 288 from sixteen classes and assessed each student using the Elementary Mathematics Motivation Instrument (EMMI). This instrument contains seventeen, self-reporting items to measure the mathematics motivation of students through three subscales. These subscales are math anxiety, self-efficacy, and value of math. Accompanied by a teacher, to alleviate stress or fear, researchers read the questions out loud and students answered accordingly. After collecting the EMMIs, the researchers analyzed the results and concluded to do further study on a group of twenty, highly motivated fifth graders. Thus, the study entered its quantitative stage, as pairs of researchers asked the students a set of questions. These questions dealt with students' perception of the teacher, the classroom, and mathematics as a whole. Transcribed by another researcher, these interviews lasted twenty to thirty minutes. Following that, researchers conducted twelve, scheduled classroom visits before departing to dissect the data provided. To do so, individual researchers examined the data by identifying and

clustering themes of the participants' responses before coming together. To conclude, the researchers watched classroom videos and read transcripts. The results showed that students with high mathematics motivation valued math as a present and future-oriented course. Students also appreciated a helpful teacher that deemphasized testing as a way of measuring success.

Implications

This investigation illustrates that the base education and perspective of mathematics shape how a student views mathematics. As I plan to teach middle school, students have just left this elementary school and begin to form their opinions based on that. Students entering with low mathematics motivation may require additional help to students refrain from developing math anxiety and an aversion to mathematics as a whole.