The importance of formative assessment in developing student teachers' teaching practice

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Introduction.

Assessment is essential in teacher education as it elucidates how and what enhances students' school performance in class. For instance, Lima (2022) delves into the significance of teacher training in comprehending assessment in mathematics. At the University of State of Rio de Janeiro (UERJ), student teachers learn about pedagogical practices in mathematics during their mathematics undergraduate studies. This course's curriculum emphasizes preparing students for the challenges they will encounter in their future school classes. The course content integrates concepts from primary education with a focus on active methodologies and formative assessment. Ideas from Anderson and Palm (2018), Buchholtz, et. al (2018) and Lima (2022) inspire reflective discussions regarding formative assessment. This article aims to explore the role of formative assessment in the course and whether having a focus on formative assessment in an undergraduate mathematics can benefit student teachers in their teaching practice.

Theoretical framework

According to Anderson & Palm (2018), assessment is a process that involves teachers and their students in collecting, analyzing, interpreting, discussing, and utilizing information regarding students' learning. Assessment fulfills two roles: summative and formative. The former involves assessing school students' performance, allowing teachers to rank students and provide an overview of their learning progress. The latter concentrates on the learning process and emphasizes feedback and offers detailed personalized feedback.

Lima (2022) suggests that formative assessments aim to enhance learning, essentially making them integral to the teaching process. Formative assessment, when conducted solely by the teacher, becomes an intrinsic part of teaching. It's important to note that since teaching methods vary, so do assessment methods. It is necessary to highlight that there are different ways of teaching, so there are other ways of evaluating. Buchholtz, et. al (2018) argue that any assessment can be either formative or summative, contingent upon the teacher's perspectives.

Lima (2022) distinguishes between summative and formative feedback. Summative feedback centers on grades and occurs at the culmination of a process, evaluating a student's overall performance. In contrast, formative feedback transpires throughout the process, pinpointing errors and devising strategies to address weaknesses. Moreover, it facilitates students' self-regulation and fosters autonomy.

Research questions and aim

Lima (2022) argues that mathematics undergraduate programs must incorporate assessments in mathematics. Consequently, as the author and professor specializing in pedagogical practices in mathematics, he introduced this subject in his class. Building upon this premise and drawing from the research of Lima (2022) and Buchholtz, et. al (2018) the present study aims to explore the research question: How has a focus on formative assessment in their undergraduate mathematics degree benefited student teachers in their teaching practice?

Analyzing some answers from students

To address the research question, two student reports about student experience in the course were analyzed. Out of eight students, these were the ones who participated the most in class and showed higher levels of engagement. The reports were analyzed through qualitative research using document analysis.

Student A expressed, "In this specific subject, I performed well; I learned extensively and gained insights into classroom dynamics, student challenges, and effective strategies for addressing individual learning processes."

This student emphasized the importance of recognizing and addressing student difficulties, which is often overlooked, particularly among math educators.

Student B shared, "The course significantly enhanced my ability to create inclusive and engaging learning environments for my students. I've noticed a substantial increase in their participation and enthusiasm." Despite acknowledging that more consistent attendance could have benefited her learning, she found the course instrumental in improving her teaching practices.

Conclusions

Throughout the course, students were challenged to create lesson plans and activities, apply active methodologies, and receive specific feedback. Additionally, the class examined the significance of teacher development, encompassing knowledge, professional culture, pedagogical tact, teamwork, and social commitment. It is evident that the course had a positive impact on students' preparations for their future careers as educators.

References

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