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Mathematics has been a gatekeeper especially for diverse students (Martin, Gholson & Leonard, 2010). The implications of an increasingly diverse school population calls for the development of culturally and linguistically responsive materials, including support materials for mathematics in Spanish. Teachers of mathematics in the United States have limited resources available to them in Spanish to support bridging mathematics content and practices for English Learners (Moschkovich, 2013). The CCSS-M requires deep conceptual understanding in order for students to be successful in their formal K-12 education. Students, whose home language is other than English, need support and opportunities to success in mathematics classrooms. According to Wright (2010), a practice that could support these students is to learn new conceptual ideas in one's native language and then in English. Also, literature indicates the need of rich contexts to support learning content reducing cognitive demands due to language (Khisty, 1995). Educational games/animations could provide context for mathematics learning.

Math Snacks has created computer-based materials in Spanish to support mathematics learning. These free products, created initially in English, have been implemented in schools showing positive impact in students' learning. Due to the growing number of Spanish speakers in the school system, Spanish materials were created. Twenty mathematics teachers (3rd -7th grade), who had Spanish speakers in their classrooms, were invited to participate in a professional development session to learn about these materials. After the session, teachers were required to utilize Spanish materials (one animation and one game) in their classrooms. Then, teachers completed a survey regarding their experiences during the implementation.

In this poster we will share teachers' perceptions of these materials in their classrooms. Content analysis methodologies were utilized. Six themes emerged from this analysis. We found that teachers perceived that the materials (1) were helpful in understanding the mathematics concepts, (2) supported collaboration and communication among students, (3) enhanced Spanish speaker students engagement, (4) supported language development, (5) provided a visual representation that enhanced understanding, and (6) were played at home with family members. Our poster will include quotes from teachers' responses and more about data analysis.

References

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