Does the Use of the Interactive Whiteboard Increase Student Engagement?

The purpose of this research was to examine if teaching with the interactive whiteboard increases student engagement. 26 teacher surveys and 221 student surveys were completed and returned. According to the educators surveyed, teaching with the interactive whiteboard positively affects student engagement. 77% of teachers replied that their students spent more time on task during lessons with the interactive whiteboard and 65% reported that they saw fewer disruptions with behavior during interactive whiteboard-centered lessons. 84% of educators surveyed saw more positive attitudes toward learning and 100% of reporting teachers responded that their students are excited about learning with the interactive whiteboard. Further, 91% of teachers reported that the interactive whiteboard is beneficial in teaching a variety of learners, including visual, kinesthetic, and auditory. 88% of teachers responded negatively to the question, “I do not see any difference in student engagement and motivation using the interactive whiteboard.” Overall, teachers reported that the interactive whiteboard was beneficial to the motivation and engagement of their students, contributed to classroom management, helped them create more organized lessons.

Given the opportunity to evaluate their own engagement, students reported a largely positive view of their own motivation and attention using the interactive whiteboard. 93% of students reported that they liked learning with the interactive whiteboard, and 76% responded that they would like their teacher to use the interactive whiteboard more. In addition to recognizing the importance of learning to use technology themselves, 88% of students enjoyed going up to participate in the lesson and 90% enjoyed writing on the interactive whiteboard. Additionally, on two separate measures, the majority of students reported that they could focus better on learning and spent less time talking to friends when the interactive whiteboard was part of the lesson. Lastly, 79% of students reported that the interactive whiteboard increased their motivation by making them want to learn more.

Classroom observations provided a demonstration of empirical behaviors of engagement defined in this research as time on task, positive attitude toward learning, willingness to participate, enthusiasm, time not engaged in outside distractions, and initiation of questioning to further learn about the topic being taught. In three different fourth grade classrooms, on six separate occasions, the majority of students showed engagement and active participation in the lesson. Direct observation showed that most students, most of the time, were engaged, on task, had a positive attitude toward the lesson, had their attention on the lesson, had a willingness to participate, and did not demonstrate apathy or complaining. Even when there were considerable distractions, students largely remained engaged in the lesson, but even more so when the teacher had requested their participation at the interactive whiteboard. There were students observed who remained off-task and distracted by themselves or others. Teachers attributed this lack of engagement to a behavioral/attention problem with the child in general, and stated that they thought,
regardless of the activity or tool used to illicit engagement, some students, like these, may not be actively involved. Surveyed educators also responded positively to questions regarding the use of the interactive whiteboard in terms of classroom management and organization.

During the focus group, teachers were provided an overview of the data obtained from, both the teacher and student surveys. Teachers were then shared reasons, such as visual representation of otherwise abstract information, that they perceived as reasons the interactive whiteboard was making a difference in their instruction. Some shared methods and applications for the technology. Further, teachers shared ways to improve the use of the interactive whiteboard, such making the logistical set up of the classroom more practical. The teachers who were available for the focus group were enthusiastic about the positive effects that they had seen in their classrooms.

Through the positive results from the student and teacher surveys and classroom observations, this research demonstrated a positive connection between the use of the interactive whiteboard and student engagement. Future research should be expanded to include a larger sample size, explore further how engagement is increased by use of the interactive whiteboard, and methods/best practices for its use in instruction.