Discovery Education—Miami-Dade County Public Schools
Professional Development Report
February 10, 2012

SCOPE OF WORK

Discovery Education evaluated the professional development services purchased by the Miami-Dade County Public Schools in June of 2011 in order to determine the effectiveness of both the professional development services as well as the outcomes for increased student engagement and teacher effectiveness.

SURVEY

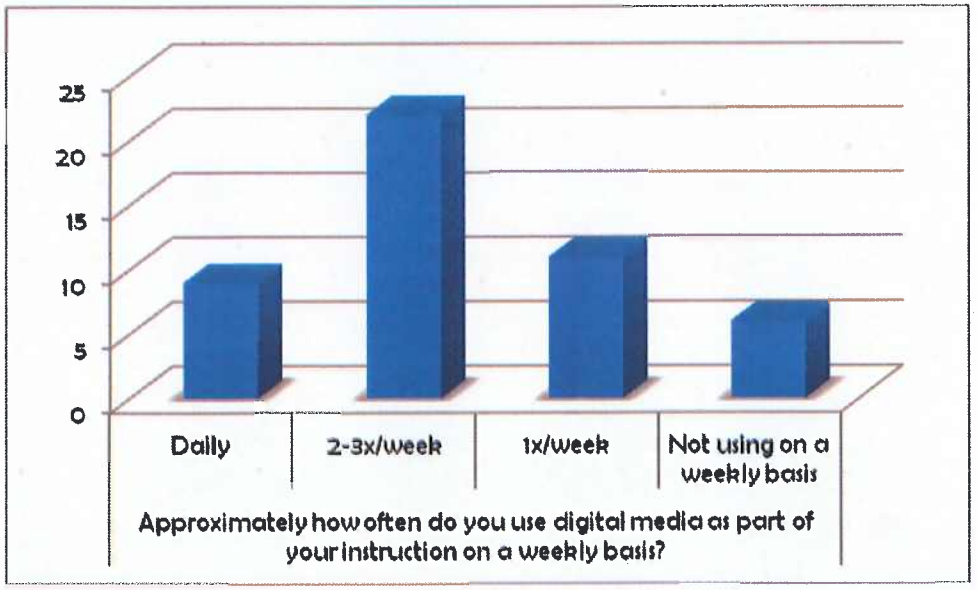
Discovery Education delivered a survey during the first week in January 2012 to all teachers who particpated in the June 2011 DE teacher workshops. Teachers were asked to complete the survey by January 22nd, 2012. Of the 165 workshop participants, 49 completed and returned the survey (approximately 30%).

The survey was designed to assess teacher perception of the efficacy of integrating digital media in their classrooms. More specifically, through the survey, an attempt was made to gather information regarding the ***percieved performance levels*** of students with increased use of digital media. In order to gain this information, survey questions also had to gather data on actual usage of digital media in the classroom and attempt to assess reasons for increased or decreased usage by teachers since their professional development took place. Of the 13 questions in the survey, 2 asked for specific explanation of the answers, enabling anectdotal data to be gathered regarding digital media usage by both teachers and students. See the survey questions in Appendix A.

DISCUSSION

The survey findings were very positive, with the majority of teachers stating they feel more comfortable using digital media within their lessons (96%) since receiving professional development on Discovery Education integration in June 2011 (Figure 1). Teachers also percieved an increase in their use of digital media (83%) over the past school year, with approximately 70% using it at least weekly.

Figure 1



The large majority of the sample stated they are using video assests most often, with many also including digital images in their planning and implementation of those plans (64%).

When asked how often teachers provide students time to utilize digital media within small groups, however, the numbers were significantly different. Only half of the sample stated that students access digital media on a weekly basis, with the majority of that number choosing only to allow students digital media access as part of the small group experience once a week (Figure 2). From the next question however, a large majority of teachers (35 or 73%) *acknowledged* that students are more engaged in classroom instruction, discussion, and or activities when digital media is included (Figure 3). This data begs the question: What are the barriers that exist preventing students from accessing digital media in small groups within the classroom setting? If teachers believe and have seen an increase in performance with digital media use, then why are students not using digital media more as both an individual and collaborative learning tool? Part of the answer to this question may be seen in the subsequent questions regarding technology availability in the classroom. However, further investigation into this question may inform Miami-Dade CPS professional development needs and goals, as well.

Figure 2

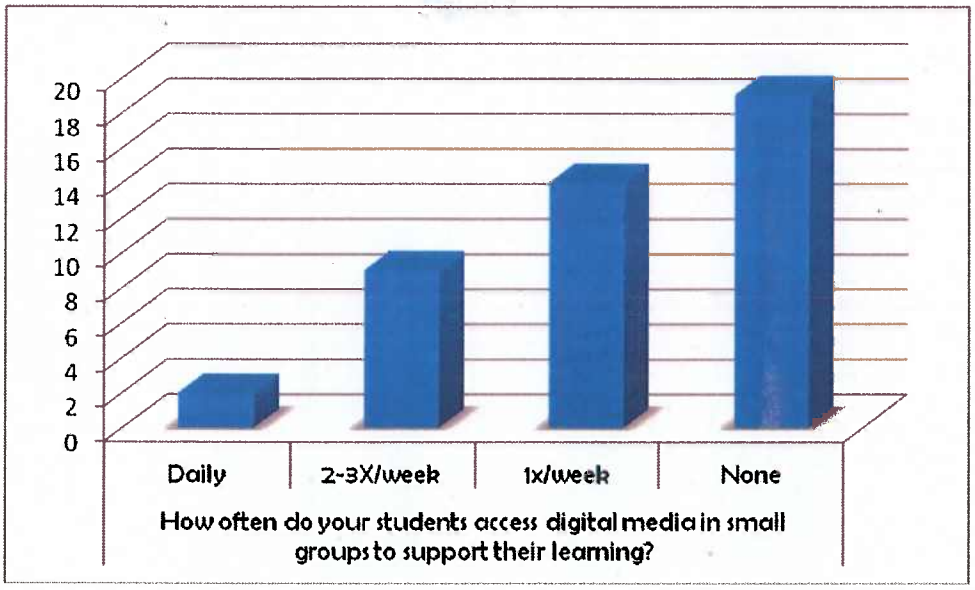
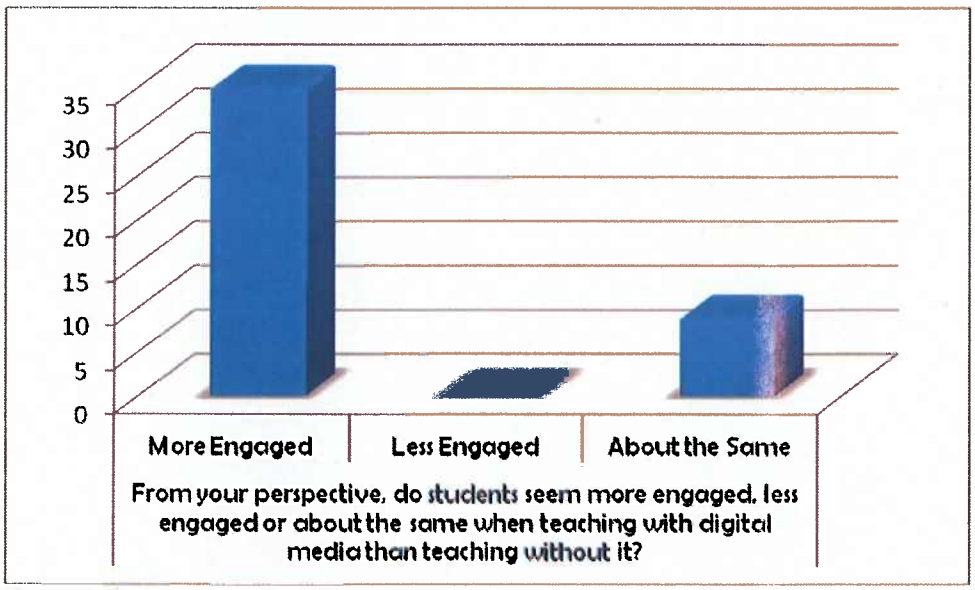


Figure 3

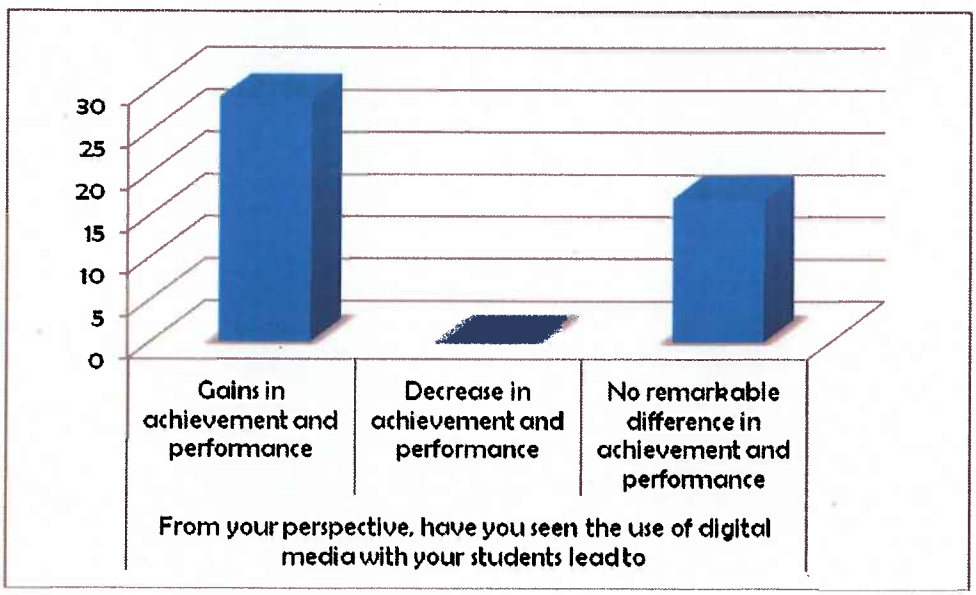


As part of the question regarding student engagement, teachers were encouraged to provide an example of student engagement they have seen in their classrooms. A few of the responses are provided below:

> *An example of students being engaged was when we used Discovery to cover 9/11. Since students had really never seen live footage of these events, they were really engaged.*
>
> *We had a lesson using songs, video, and audio to demonstrate variety in writing for different audiences, and all students completed the assignment--something that does not always happen.*
>
> *With the use of video segments, students were able to see real life situations pertaining to topics that were being discussed. They were able to make a connection between concepts and life applications.*
>
> *The visual stimulation keeps their attention and this can be seen in the amount of participation, which increases when digital media is used.*
>
> *My ESE students are more engaged with visual stimuli, it helps them better understand the world around them, and can view pictures at their own pace.*
>
> *They are interested in the material shown by experts in the field. For example: the video "Humans in Mars" shows how astronauts and scientists are preparing to have a self-sustaining human base in Mars.*

Teachers were very positive regarding the engagement of students with digital media, and 35% noted they also perceived gains in student achievement as well.(Figure 4). The majority did state that they are seeing gains, however, the data show a decrease from 72% seeing higher engagment, to only 60% seeing actual performance gains. This gap may be due to lack of performance data directly related to digital media use, or even not enough use to directly point to digital media being the reason for the higher achievement and/or performance.

Figure 4



When asked to provide evidence of digital media leading to performance gains, teachers had some very positive comments.

> *As an instructor of students with specific learning disability I have seen an improvement from their baseline assessment score and their fall interim test score. The visuals enable my students to remember the information taught.*
>
> *I saw improvement in in achiement and performance with the use of digital media last year when my class was studying density. Their scores improved with hands-on lab but improved even more with digital media.*
>
> *Average scores on cells tests recently when using digital media versus lecture has shown improvement especially with the special education students that score higher on tests afterwards because of the extra modality of acquisition they get using*
>
> *Students like using computers and practicing skills taught in class with other students. As they practice, skills become defined.*

The last questions in the survey related to technology in each teacher's classroom. The answers to these question are important in discerning how much general equipment needs affect students' and teachers' ability to utilize digital media. Figures 5 and 6 show classrooms that have and do not have digital projectors and student computers, respectively. An additional equipment question was asked regarding classrooms having intereactive whiteboards with about half of the respondents stating that they have one. Finally, figure 7 shows the breakdown of numbers of computers for those respondents who stated they do have computers in their classrooms.

Figure 5

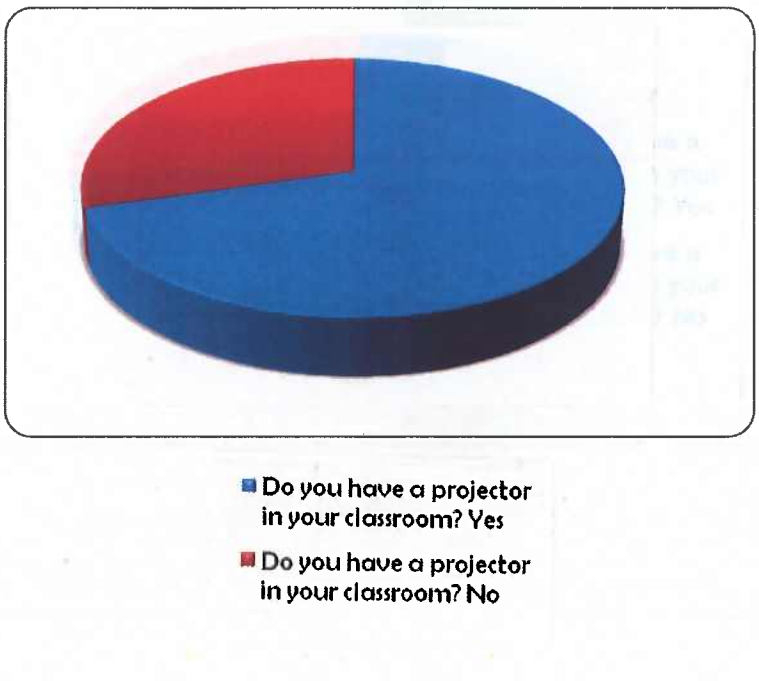


Figure 6

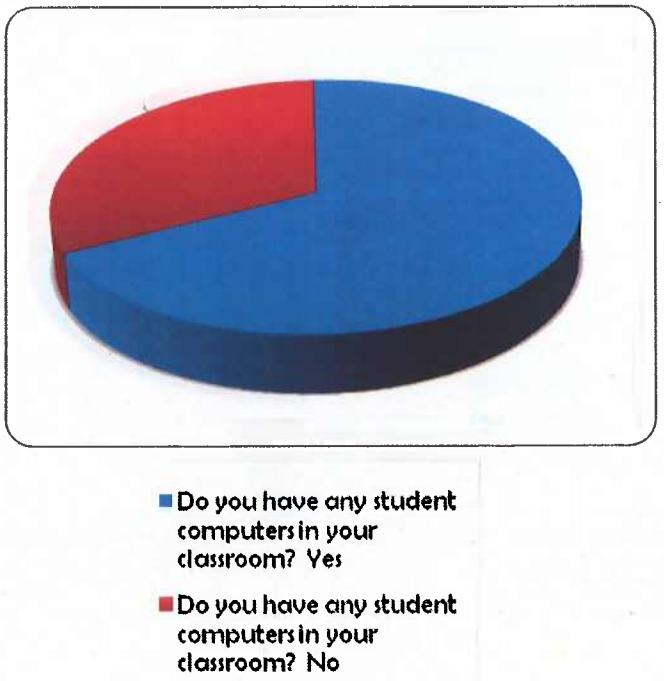
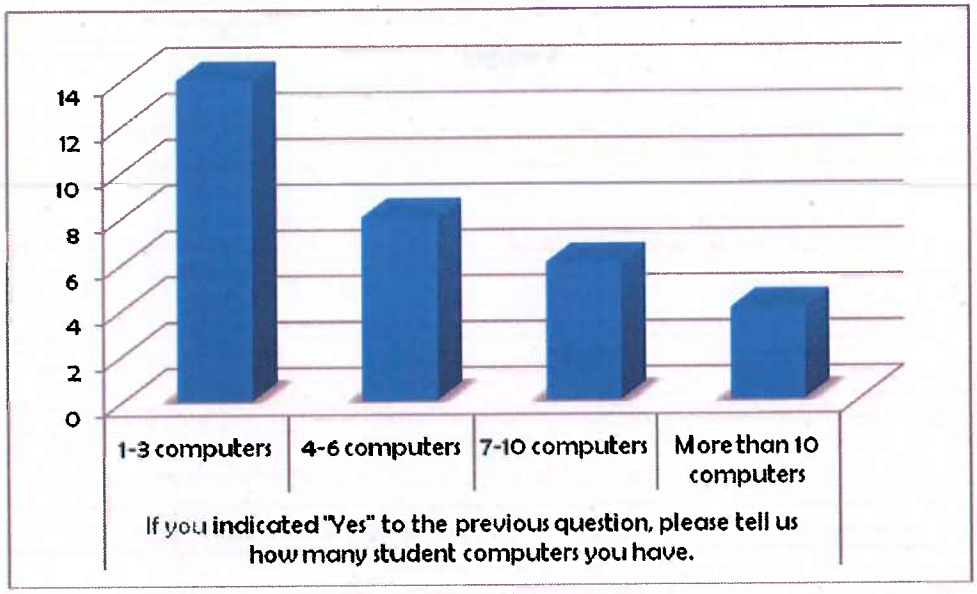


Figure 7



In reviewing the answers in Figure 5,6, and 7, it appears those classrooms not having student computers (32%) and/or digital projectors (30%) are at a significant disadvantage when attempting to integrate digital media, and the students in those classrooms will be unable to benefit from the positive attributes digital media brings.

CONCLUSIONS

This survey data provides valuable information with which to start the conversation of digital media use and student performance gains. Though a very small sample size, there appears to be a correlation to be explored between availability of technology leading to use, and ultimately leading to student gains. It is safe to say, however, that teachers almost unanimously felt that their professional development experiences with Discovery Education led to a higher comfort level in technology use, as well as an increase in its subsequent integration.

In order to gain a better picture of student performance gains, a larger study will need to be completed looking at usage patterns and student performance data. Until that is possible, it could be helpful to begin having discussions with teachers about the importance of technology use. A statement could be made from this study data that while teachers understand the importance of digital media, they have some level of difficulty incorporating its usage as rigorous and engaging instruction. For this reason, continuing to provide teachers with professional development that focuses on integration of digital media is also recommended.

APPENDIX A – Survey Questions

1. Do you feel more comfortable, less comfortable, or about the same with planning for and using digital media as an instructional tool in the classroom...

2. Has your actual use of digital media in the classroom increased, remained the same, or decreased?

3. Approximately how often are you using digital media as part of your instruction on a weekly basis?
   - Daily
   - 2-3 times/week
   - once a week
   - none

4. Please take a moment to list the types of digital media you most often utilize in the box below:
   - Video segments
   - Video segments with close captioning
   - Images
   - Songs, Sound Effects, Audio
   - Virtual Labs/Explorations
   - Lesson Plans
   - Math Explanations/Overviews
   - Games

Now, thinking about your students...

5. How often do your students access digital media as part of whole class instruction to support their learning?
   - Every day
   - 2-3 times/week
   - once a week
   - none

6. How often do your students access digital media in small groups to support their learning?
   - Daily
   - 2-3 times/week
   - once a week
   - none

7. From your perception, do students seem more engaged or less engaged or about the same when teaching with digital media than teaching without it?
   - More engaged
   - Less engaged
   - About the same with or without digital media use

Please give an example where you have observed students being engaged using digital media here...

8. From your perception, have you seen the use of digital media with your students lead to?
   - Gains in achievement and performance
   - Losses in achievement and performance
   - No remarkable difference in achievement and performance

Please cite a specific example of your answer in the box provided here.

The grade level(s) you teach is
The subject(s) you teach
Do you have a projector in your classroom?
Do you have an interactive whiteboard (SMART, Promethean, etc.) in your classroom?
Do you have any student computers in your classroom? If yes, how many?