Teacher Reaction to On-Demand Professional Development:
Motivation to Apply and Share

Valerie (Howell) Simmons
Sanford Inspire Program
Mary Lou Fulton Teachers College
Arizona State University
Valerie.Simmons@asu.edu

Ryen Borden
Sanford Inspire Program
Mary Lou Fulton Teachers College
Arizona State University
Ryen.Borden@asu.edu

Purpose Objective/Description: This study uses survey data to examine a teacher's reaction to online, just-in-time training and their motivation to apply what they learn and share with a colleague.

Perspective
Framing the Issue

Children everywhere deserve teachers who possess strong pedagogical and relationship building skills. Schools implement a variety of evaluation systems to measure teacher effectiveness and rely on professional development to bridge identified gaps in knowledge and skills. Professional development (PD) options vary widely in terms of quality and cost, with many lacking research-based evidence to prove their effectiveness. In many districts there is a low level of oversight and evaluation of professional development programs, meaning decisions are made to adopt PD programs with little information beyond what the sales representative shares and no formal evaluation system for measuring effectiveness (Hill, 2009).

One grant-funded program at a large public institution is working to address some of the persistent problems that exist with teacher professional development. This team is developing free, research-based, online On-Demand Modules that are designed to help novice teachers develop the skills they need to effectively facilitate student learning. Each module targets a specific skill and provides teachers with a tool or strategy that can be used in the classroom immediately. Based on self-reflection or principal/supervisor feedback, teachers identify the learning module that meets their unique needs, thus ensuring relevance that is often lacking in one-size-fits-all PD programs. Teachers move, at their own pace, through the parts of the module and receive feedback through built-in checks for understanding. Teachers can complete On-Demand Modules anytime, anywhere, in approximately 60 minutes.

Our ultimate goal in creating a collection of On-Demand Modules for teacher professional development is to improve teacher classroom practices in order to have a positive impact on students. One component of our evaluation plan looks at learner reaction to the modules. Our study found that teachers who have a more positive reaction upon completion of the On-Demand modules are more likely to report that they (1) learned more, (2) will apply what they learn from the module in their classrooms and (3) will share what they learn with a colleague. This suggests that user experience during the online training should be carefully considered during design and development.

Teacher Expectations for Professional Development

The research around teacher professional development shows that teacher's reaction to a professional development program significantly affects how much they feel they have learned, their motivation to apply what they have learned, and their support of the program as valuable to peers (Kirkpatrick, 1996; Naugle, Naugle & Naugle, 2000). Related studies have found that teacher motivation in professional development is directly linked to the ability to enact the content and skills learned in the professional development program in their classrooms (Karabenick & Conley, 2011). If the ultimate goal is for teachers to take what they learn back into the classroom, it is important to measure teacher reaction to professional development.

A study by Garet et al (2001) found professional development was more likely to produce enhanced knowledge and skills if it was integrated into the daily life of the school or teaching experience. In regards to features teachers wish to see in professional development, a University of Michigan study found that teachers preferred professional development that was enjoyable or fun, enhanced their careers, did not require too much time and effort, and was suggested by principal or peers (Karabenick & Conley, 2011). The study also found that teachers preferred professional development that resulted in more engaging lessons, more effective lessons, improved student achievement, improved student knowledge of required material, capturing student interests, showing students they care about them, and establishing positive relationships with their students (Karabenick & Conley, 2011). These expectations of teachers are reflected in both the design and evaluation of the On-Demand Modules being created by a grant-funded program at a public, research-one college of education.

Evaluating Professional Development

According to Hill (2009), professional development for teachers is often selected and implemented with little oversight. Given the significant investment of both time and resources that teachers and districts make, it is irresponsible to adopt programs without evidence of effectiveness. Thus, evaluation of our On-Demand Modules at every stage of development and implementation is core to our work. We recognize the relationship between a professional development program and student achievement is complex at best. There are "too many intervening variables to permit simple causal inferences," (Guskey, 1997; Guskey & Sparks, 1996) and schools are oftentimes implementing multiple programs or initiatives simultaneously (Fullan, 1992). This makes identifying a sole professional development program or module as the clear cause of improved student achievement almost impossible. However, because professional development is being designed more purposefully (Loucks-Horsley et al., 2009) and the link between reaction and motivation has been studied, we can begin to measure reaction and changes in learning and behavior as a way of quantitatively evaluating professional development.

This paper examines one part of the evaluation designed to measure the effectiveness of On-Demand Modules, teacher reaction. Our hypothesis was that those who react positively to the On-Demand Module learning experience will *(1) report that they learned more, (2) report they are likely to implement the content from the online training in their classrooms and (3) report they are likely recommend the training to others in their profession.*

Research Methods
Survey Design

In order to assess teachers' immediate reactions to the module and its content, researchers created a survey which was administered immediately after the On-Demand Module was completed. The survey was accessed online, via a link, and consisted of both closed and open-ended items. Items elicited information about the module's ease of use, content quality, likelihood of the user to apply the content in their classrooms, and likeliness of recommending the module to a peer. The survey also included basic demographic questions. Additional questions provided information about where teachers completed the module (during

the school day or at home), how long it took them to complete the module, and if they did so all at one time or over multiple sittings. The survey took all but one respondent (an outlier who left the survey open for an entire day) an average of 6.38 minutes to complete, assuring no undue burden upon the teachers who participated by providing feedback.

Survey Population

A total of 30 participants completed two On-Demand Modules on topics including the "Causes of Misbehaviors" and "Components of Motivation." Participants volunteered for this study and were enrolled in the online modules by a member of our team. Each module is evaluated by a purposeful sampling of five pre-service teacher candidates, five in-service novice teachers (with five or fewer years teaching), three pre-service teacher educators (i.e. college faculty), and three in-service teacher educators (e.g. administrators, instructional coach). Within each category, a range of grade/content levels were represented including early childhood, lower elementary, upper elementary, secondary, and special education. Participants were able to complete the On-Demand Module at their own pace during a two week window of time. Once participants completed the module, they were sent a link to complete the online survey. In some cases, participants were offered a $20 gift card incentive for their participation. Just over half of the participants accepted the incentive, while the others were either were not offered or did not accept.

Results

The majority of participants completed the modules in one sitting. Those who exited and returned later reported it was easy to pick up from where they left off. According to data, an overwhelming majority of the participants completed the On-Demand Module at home. Those who did not were ones who participated as part of an on-campus test group during which additional observation and interview data was collected. Survey data shows that 96.7 percent of participants completed the module within the estimated 45-60 minute time frame for completion or less. The one participant who took longer than this cited "technical difficulty," not "too much content" or "difficulty of content."

The survey was designed to measure several aspects of learner reaction to the On-Demand Module including perceived learning, likeliness to implement content from the training in the classroom, and likeliness to recommend the training to others in the profession. The data shows overwhelmingly positive reviews toward all aspects of the user's experience. Below is a word cloud visual representation of responses to an open-ended question which asked participants for their initial thoughts about the On-Demand Module.
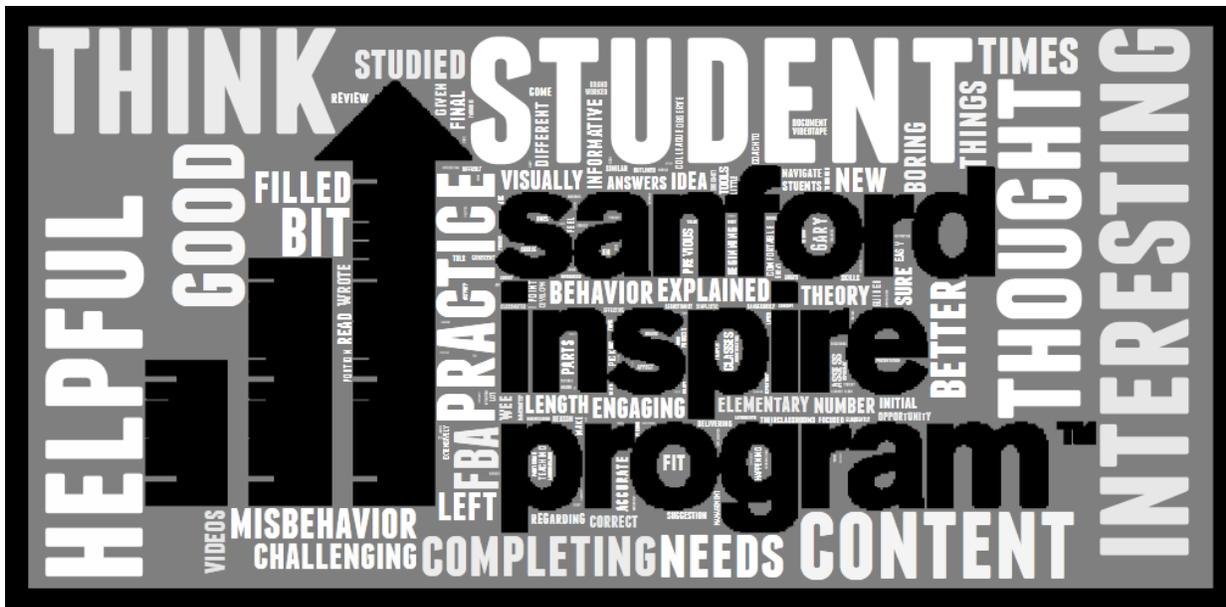
In the word cloud above, the size of the words represents frequency; larger words appeared in the data most often. Participant initial reactions included terms such as 'interesting', 'think', 'student', 'helpful', 'good', 'content' and 'practice.' One participant wrote, "I thought it was concise, coherent and left you with tangible take-aways to use immediately in your classroom." Another shared, "This is going to help me better meet the needs of my students."

Additionally, the reaction to the quality of content was extremely positive. Specifically, 93 percent of participants 'agree' or 'strongly agree' that the module was of **high quality**, and over 96 percent of participants 'agree' or 'strongly agree' that the content was **concise**, and **accurate**. Eighty percent of participants 'agree' or 'strongly agree' that the content was **engaging** and **interactive**. We also see favorable responses to the modules' perceived applicability to the classroom as 80 percent of participants 'agree' or 'strongly agree' they **feel better prepared to meet the needs of their students**, and 87 percent 'agree' or 'strongly agree' it will **be beneficial to their future practice**.

With respect to participant learning, eighty percent of participants 'agree' or 'strongly agree' they **learned something new about the topic**, 88 percent 'agree' or 'strongly agree' the **module met its objective** and 93 percent 'agree' or 'strongly agree' the **content was useful** indicating a high level of perceived learning gains by the participants. Most importantly, 93 percent of participants 'agree' or 'strongly agree' they will **use the content of the module** in their classroom. And finally, 80 percent of participants 'agree' or 'strongly agree' they would **recommend this module** to a colleague in need of professional development on the topic.

Educational or Scientific Importance
Conclusions and Impact

This data represents one part of a more comprehensive evaluation plan that will help us measure the effectiveness of the On-Demand Modules in increasing teacher knowledge and skill, changing teacher behaviors, and generating positive outcomes in the classroom. This first step of assessing teacher reaction to the module is necessary, given the research around teacher reaction to professional development and likeliness to apply what they learn in the classroom (Kirkpatrick, 1996; Naugle, Naugle & Naugle, 2000). Additional components of the evaluation plan will include surveys and observations of teachers over time to measure behavior changes and results. Future studies will examine teacher motivation before starting an On-Demand Module as it relates to various outcome measures. These studies will inform refinement of the On-Demand Modules and allow us to design a resource and ecology of

implementation that results in not only favorable opinions about the training but also positive impact in classrooms.

Works Cited

Fullan, M. G. (1992). *Successful School Improvement: The Implementation Perspective and Beyond. Modern Educational Thought.* Open University Press, 1900 Frost Road, Suite 101, Bristol, PA 19007-1598 (paperback: ISBN-0-335-09575-5; hardcover: ISBN-0-335-09576-3)..

Garet, M.S., Porter, A.C., Desimone, L., Birman, B.F., & Yoon, K.S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal, 38*(4), 915-945.

Guskey, T.R. (1997). Research needs to link professional development and student learning. *Journal of Staff Development, 18*(2), 36-40.

Guskey, T.R., & Sparks, D. (1996). Exploring the relationship between staff development and improvements in student learning. *Journal of Staff Development, 17*(4), 34-38.

Hill, H.C. (2009). Fixing teacher professional development. *Phi Delta Kappan,* March 2009, 470-476.

Karabenick, S. A., & Conley, A. (2011). *Teacher Motivation for Professional Development.* Math and Science Partnership - Motivation Assessment Program, University of Michigan, Ann Arbor, MI 48109

Kirkpatrick, D. L. (1994). Evaluating training programs: the four levels. San Francisco: Berrett-Koehler

Loucks-Horsley, S., Stiles, K. E., Mundry, M. S. E., Love, N. B., & Hewson, P. W. (2009). *Designing professional development for teachers of science and mathematics.* Corwin Press.

Naugle, K., Naugle, L., & Naugle, R. (2000). Kirkpatrick's evaluation model as a means of evaluating teacher performance. *Education, 121*(1), 135-144.