The Use of On-Demand Modules to Bridge the Research to Practice Gap

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Framing the Problem

A research to practice gap exists across the field of education (Finelli, Daly, & Richardson, 2014; Greenwood & Maheady, 2001; Williams & Coles, 2007). Education research is being conducted but it is not, "used to guide practitioners towards methods and procedures most likely to yield positive results" (Jones, 2009, p. 101). Many pre-service teachers finish their preparation programs without learning how to access or read research articles, let alone use that information to inform their instructional practices (Greenwood & Maheady, 2001). Even experienced in-service teachers are unsure of how to access or use education research (Cook & Cook, 2004; Kennedy, 1997). This gap does not just exist in K-12 classrooms, but can extend into the teaching practices of college and university faculty (Finelli et al., 2014). In one moment teacher educators may speak about some sort of research-based practice, but in the next moment abandon that same research practice when it comes to how they instruct their students (Finelli et al., 2014).

History of the Problem

Over the years, many authors have written about the research to practice gap (Fullan, 1992; Gersten, Woodward, & Morvant, 1992; Huberman, 1983; Jones, 2009; Kennedy, 1997). Many researchers have even attempted to address this gap by working directly with schools and teachers (Baker & Smith, 2001; Fuchs & Fuchs, 2001; Gersten, 2001). However, Sindelar and Brownell (2001) argue that despite the successful translation of some research into classroom practice, the field of education still faces the fact that these successes happened on a small scale. They further state that research to practice gap struggles stem from three factors: context, dissemination, and scale. For Sindelar and Brownell (2001), context refers to local and individual classroom needs, as well as teachers' beliefs about the problem or research. Dissemination involves training or instructing school leaders and teachers on the actual research-based concepts (Sindelar & Brownell, 2001). Embedded in dissemination are the issues of time and money that are needed to inform and support educators about the research findings. Finally, scale refers to the ways in which the findings from a specific body of research can be implemented on a national or international level (Sindelar & Brownell, 2001). Scaling up is necessary in order to ensure that all teachers and students, not just a small subset, benefit from relevant and current research.

Four Hypotheses

Mary Kennedy, in her inaugural presidential address to the American Educational Research Association, identified four hypotheses for the "apparent failure of research to influence teaching" (1997, p. 4). The first hypothesis is that research is not persuasive enough for teachers. That is to say that the quality and results of research are often not "compelling or unambiguous" enough for teachers to want or be able to generalize it to their own classrooms (1997, p. 4). Next, Kennedy states that much research is not relevant to teaching practice. Often, it is not directly aligned to the types of problems that teachers actually have, and therefore loses its translation to practice. The third hypothesis is that the education system itself is excessively stable and unstable at the same time. This means that some aspects of education are so fixed that they are extremely difficult to change. Some examples are school calendars and students progressing based on age and not skill mastery. Conversely, other aspects of education are constantly changing. Examples of this are fads and policies that sway based on public opinion. These two characteristics limit educational researchers from producing a "stable or coherent body of knowledge that could be useful to practitioners" (Kennedy, 1997, p. 9). Kennedy's fourth hypothesis is access. Research findings are often presented in ways that are difficult for a teacher to comprehend and then translate into practice (Cook & Cook, 2004; Kennedy, 1997). The time that it takes a teacher to decipher and plan to apply findings is also an issue of accessibility. In addition, teachers struggle with the physical access to research journals, articles, and books. Many simply don't have the extra funds to subscribe to journals or accessibility to a university library system.

In-Practice Examples

Some of the research and school partnerships mentioned previously did not impact the large scale research to practice gap. However, there are lessons that can be learned from them. One partnership in particular, the PROMISE project (Fuchs & Fuchs, 2001), learned that it was important for academics to partner with a representative group of practitioners during the design and development phases in order for the research to be put into practice (Fuchs & Fuchs, 2001). Academics found it important to involve a group of practitioners in the creation of a strategy. As a result, practitioners were more likely to implement a given strategy when it was developed by their peers (Fuchs & Fuchs, 2001).

Teachers play an important role in helping to make the work of researchers relevant. Other studies involving the collaboration between academics and practitioners have reached similar conclusions. Gravani (2008) mentions "the need for academics to become partners in understanding practice through engaging with teachers in active dialogue and exchanging experiences and ideas with them" (Gravani, 2008, p. 657). This can help overcome the entrenched perceptions that teachers and researchers have of each other. For example, teachers often seek out solutions to every-day problems in their classroom, but feel that they receive mostly theoretical-based training and professional development (Gravani, 2008). These perceptions, at times, clog, "channels of communication" which may feed the research to practice gap as well (Gravani, 2008, p. 657).

The Sanford Inspire Program: Who We Are

Before we discuss how we perceive our role in closing the research to practice gap, it is important for us to explain who we are, our work, and how it seeks to address the gap. The Sanford Inspire Program's goal has always been to prepare and support inspirational teachers. Our mission is that:

> *"Each child deserves an inspirational teacher; one who possesses excellent instructional and relationship building skills. Our resources are designed to attract, prepare, and support teachers who not only make children happier, but also help them achieve more. We partner with K-12 schools and teacher preparation programs to realize our vision of an inspirational teacher in every classroom" (Sanford Inspire Program, 2015).*

The Sanford Inspire Program (SIP) is supported by a gift from a private philanthropist at a public, Research One, state university. We work to fulfill our mission by developing free, online resources that are informed by current, relevant, ~~and~~ scholarly literature. We collaborate with local subject matter experts (SME's) to inform the development of our resources. Some of the SME's are research faculty, while others are practitioners in the field - classroom teachers, instructional coaches, and administrators. These SME's support our work by providing: a professional perspective on topics, information to inform our resources, and feedback on content and interactivity.

What We Do

One of our most popular resources is On-Demand Modules. On-Demand Modules (ODM's) are a group of SIP resources that can be accessed anywhere for "just in time" professional development. Each ODM engages users in developing a particular teacher skill, piece of conceptual knowledge, and/or mindset. Every module is made up of six parts. First, the Lesson Home contains module objectives which provides users a clear idea of what they will be learning. Then, in the Foundation section users are presented with an interactive video based on synthesized research findings. Next, the users go to the Resource section, where they are introduced to a document that will support the application of the skill or knowledge in their own classrooms. While in this section, they practice the skill or see it modeled. Next, the users take an assessment that gauges their understanding and internalization of skills and knowledge from the module. Then they proceed to the Application, where they receive suggested steps to apply the skill in their own classroom. Finally, users finish on a Conclusion page, where they receive a list of references and are directed to other modules that align to similar skills and knowledge.

In order to ensure that all children have access to an inspirational teacher, these resources have been created in a flexible format. That flexibility allows administrators, coaches, and teachers to pick and choose a series of modules to create a tailored learning sequence for any individual teacher's needs. The modules offer educators a very narrowly focused learning experience with relevant research in 60 minutes or less. Alternatively, an independent, self-directed teacher can access any of these resources to fulfill his or her own self-diagnosed

needs and interests in a “just in time” manner. If teachers wish to learn more about the topic, they have an excellent reference list to jumpstart their personal review of the literature as well.

At this point, the Sanford Inspire Program has created over 20 modules which fall in one of five domains: Learning Environment, Planning & Delivery, Student Growth & Achievement, Motivation, and Professional Practices. *All modules are applicable for both general and special education teachers.* In an era of inclusion, many of the same skills needed for special educators are skills needed by general educators as well (Baker & Smith, 2001; Cook & Schirmer, 2003; Coombs-Richardson, & Mead, 2001; Florian, 2008). Therefore, on-demand modules seek to build foundational skills for all novice teachers.

How We Bridge the Gap

One example that highlights this inclusive ideology is our suite of modules on differentiation. This suite includes two groups of modules: one focuses on *preparing* to differentiate and the other is dedicated to differentiation *strategies*. The preparing to differentiate modules describe research-backed mindsets required for effective differentiation and provide important terms and definitions. Depending on the module, users learn to gather necessary information about their students in order to differentiate according to student readiness, learner profile, or student interest. In the group of strategy modules users learn about research-based “methods for differentiating teacher actions…in response to student characteristics” (Puckett, 2013, Chapter 1, Section 1.5).

Not only did lead designers of this suite of modules condense research on the topic, they also collaborated with a local research faculty member. This associate professor provided guidance on what knowledge, skills, and mindsets are critical to differentiation. She also directed the lead designers to other experts and seminal literature on differentiation. She finally provided support and guidance on content for individual modules by reviewing scripts and providing feedback.

Here is a description of each module in the Differentiation Suite:

- *Preparing to Differentiate: Student Readiness:* Teachers evaluate the learning standards of a unit in order to differentiate for student ability. The module resource helps teachers analyze and evaluate a unit’s pre-assessment. By diagnosing students’ readiness levels, teachers can effectively use strategies to meet all students’ needs.
- *Preparing to Differentiate: Learner Profile:* Teachers build background about the four components that influence learner profile. The accompanying resource guides teachers through an observation in order to learn more about a student’s learner profile. Learner profile is complex; knowing what to look for can help.
- *Differentiation Strategy: Performance Tasks*: Teachers differentiate performance tasks to meet the diverse needs and interests of students. The module resource is a guide to the elements of differentiating a performance task. This strategy allows for students to access learning and assessments that are fair and relevant.

- (In production) *Differentiation Strategy: Respectful Tasks*: Respectful tasks are meaningful and help students connect to content. The resource that accompanies this module guides users through the process of creating these tasks. Teachers learn how to leverage multiple intelligences to create tasks for students that are rigorous and worth doing.
- (In production) *Preparing to Differentiate: Student Interest:* Learning about student interest can help you make learning more enjoyable for students. The resource that accompanies this module will guide teachers through the process of learning about general and content-specific student interests that exist in the classroom. Teachers will learn how to gather, organize, and sort data related to student interest.
- (In production) *Differentiation Strategy: Student Choice*: Teachers learn how to infuse purposeful student choice into lessons based on their knowledge of students. The module resource provides five simple actions to develop choice options for their students. Student choice can increase student persistence, sense of empowerment, and overall learning.

Here is a list of other modules that further support skill development for teachers:

- *Causes of Misbehavior*: Teachers learn how to identify and address the root causes of classroom misbehavior. To develop this skill, the module contains a resource that guides teachers through the process of conducting a functional behavioral assessment.
- *Creating Student Centered Behavior Plans:* The purpose of this module is to build a teacher's skill in creating and implementing a student-centered behavior plan. Users learn what a behavior plan is, when they may need one, and the steps for creating one. They also learn about some benefits and misconceptions associated with behavior plans.
- *Developing Behaviors for Cooperative Learning:* Developing students' prosocial behaviors is an important step in preparing students for cooperative learning. This module includes a resource to help teachers improve their ability to identify and teach relevant prosocial behaviors. Users learn the steps needed to teach these behaviors as well as develop appropriate practice activities.
- *Building Relationships With Students:* Teacher-student relationships are important. They impact student motivation, behavior, academic achievement, and the entire culture of a classroom. At the same time, many teachers are unsure of how to build supportive, nurturing relationships with their students. In this module, users learn about the different aspects of teacher-student relationships, as well as concrete steps they can take to make them stronger.
- *Teaching Close Reading*: This is a module on planning and executing a close reading lesson. It includes a resource to help guide teachers through this process. The module focuses on close reading in a language arts context but the principles can apply equally well to any content-area lesson. The content and resources in this module are most appropriate for teachers in grades 5-12.
- *Creating Effective Goals:* Teachers learn how to create effective goal statements by gathering information and using the SMART criteria. The module resource provides a

three-step process for making effective goals. These goals can successfully focus the attention, efforts, and motivation needed for student improvement.

The intention of the Sanford Inspire Program is to help prepare and support inspirational teachers with informed, personalized, and research-based professional development. Informed, to us, means spending significant time synthesizing the research literature in order to determine the content of our modules. Even though our products were not created with the intentions of bridging the research to practice gap, that is nonetheless one of the things that they help accomplish.

Conclusion

As mentioned before, the research to practice gap is linked to factors such as accessibility, dissemination, and context. Our On-Demand Modules address those factors in a few ways. First, our modules deal with the issue of physical accessibility by presenting users with a comprehensible form of synthesized research. In this aspect we've bridged the gap for teachers by reading and summarizing the important findings from scholarly literature that is often difficult to grasp, both literally and figuratively. Furthermore, all of our modules are free and accessible anytime and anywhere, which addresses the issues of cost and scale that are associated with national or international dissemination. When considering the aspect of context, we translate research into comprehensible foundational knowledge that users can implement in their practice. We take a great amount of time and care in creating processes and resources that allow teachers the flexibility to make the learning "their own." Each module is purposefully designed to apply to K-12 classrooms so that teachers can adapt the knowledge and skills to make it relevant to their local setting.

Our work embodies a lesson learned from the PROMISE project: the importance and effectiveness of partnering researchers with teachers (Fuchs & Fuchs, 2001). This strategy helps ensure that practical aspects of research are translated into the classroom. The module designers on the Sanford Inspire Program are all practitioners who have ten or more years experience in education as classroom teachers, instructional coaches, and/or administrators. These designers regularly collaborate with educational research SMEs, experienced classroom teachers, and teacher educators. The result of this collaboration is an expanding body of work that is grounded in research, accessible, and relevant to classroom teachers. As such, our work is an important aspect in narrowing the research to practice gap.

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Commented [1]: We know that this reference list is not in its final, APA approved format...Goog Docs didn't like hanging indents :) We'll make sure to change when we transition to Word/PDF.

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