

Teacher Dispositions and Student Impact after Culturally Responsive Pedagogy Training

Objective: We use the Theory of Planned Behavior as a means to evaluate the short term impact of a professional development intervention on the pedagogy and disposition of teachers in the classroom. **Method:** Pre and post-intervention survey results of 14 teachers and 169 students in local school districts were analyzed for each of the components of the Theory of Planned Behavior change. **Results:** Evidence of support for positive, significant impact on teacher beliefs and intent were found, with mixed support found on teacher behavior change and student impact. **Conclusion:** While the interventions had an impact on teacher beliefs and intent, students reported no or negative change in areas that teachers reflected upon needing additional time and support to implement fully. This study provides practitioners with evidence of impact, and also evidence of additional support they must provide for the interventions to be fully effective.

Introduction

Evidence increasing shows that not only does the current American public education system often fail to effectively serve the diverse set of students already in its care (Schott Foundation, 2009), it also shows that the number of diverse students in America will only continue to grow (U.S. Bureau of Census, 2008). This problem will compound itself until cultural differences in how students learn best are taken into consideration and implemented in the classrooms of American public educators. The role of multicultural education is to affirm and celebrate diversity, and prepare students to create a more just world. Unless teachers possess the tools necessary to reflect on their own dispositions and incorporate culturally responsive pedagogy into their practices, they will not be able to adequately prepare their students to become engaged and informed citizens of the world. However, without effective professional development, teachers may not know how to implement culturally responsive pedagogy into their practices.

With this in mind, Sanford Inspire of Arizona State University's Mary Lou Fulton Teachers College, created On-Demand Modules. These 60 minute or less microcourses build teachers' knowledge, skills, and mindsets so they can inspire students toward powerful academic and social outcomes. Currently, Sanford Inspire has created a suite of 6 On-Demand Modules that focus exclusively on culturally relevant pedagogy (CRP). These On-Demand Modules offer strategies to help teachers identify racial biases, combat racism in their classrooms, affirm students' background knowledge, and help their students develop critical consciousness.

Objective of the Evaluation

This study measures teachers' perceptions of culturally responsive pedagogy before and after completing CRP-focused, asynchronous, research-based professional development (PD) interventions. The study also examines students' perceptions of their learning environment and teacher-student relationship through a pre-and post-intervention survey. The purpose of this study was to evaluate how teacher dispositions may change through On-Demand Modules as PD interventions and how that might impact their students. While this study was conducted over a short period of time and focuses on short-term changes in teachers' dispositions and students' environments, it did not intend to state unilaterally that On-Demand Modules are the *only* intervention responsible for change in either population. The objective was to evaluate if dispositional changes occur after the intervention and whether or not that change was felt by students in these classrooms.

Evaluation Questions

Disposition changes are broken down into further categories of intention, expectations, habits, strategies and finally student impact in order to more accurately measure the changes.

1. Do teacher beliefs towards the use of CRP change after completing On-Demand Modules?
2. Do teacher beliefs towards the use of CRP change with the addition of their existing habits on CRP after completing On-Demand Modules?

3. Does teacher intent to use CRP change after completing On-Demand Modules?
4. Do teacher behaviors change after completing On-Demand Modules?
5. Do students' feel these changes in their classroom environment?

Literature Review

Teachers often rely on their dispositions, or “habits of mind”, when taking professional actions. Unfortunately, many teacher professional development programs focus solely on teaching proper professional action without providing the opportunity to examine underlying “habits of mind” or develop professional judgement. This is increasingly troubling as the demographic divide between the teaching force and the students they educate increases. When teachers are not asked to examine their “habits of mind”, it impacts not only their students but also their sense of self-efficacy (Hollins & Torres-Guzman, 2005; Sleeter, 2001; Helfrich & Bean, 2011). Many programs find training on CRP to be uncomfortable, inconsistent, and often a one-time, one-size-fits-all experience. They often do not allow teachers to fully engage their cognitive dissonance or give them the language to work through deep discussions on the topic.

For this reason, 6 online professional development interventions were designed on the topic of CRP. They were created to be highly flexible, researched-based, and easily incorporated into a variety of education environments. In addition to pre and post-surveys with teachers and students, researchers also had teachers regularly engage in reflective thought. This was added to the design of the study because we know that educators can learn quality professional action through traditional teaching modes. However, the only way to develop quality professional judgement is through regular reflective thought. Therefore, participants engaged in quality reflection throughout the study, which enhanced the professional judgement and allowed researchers to collect insightful qualitative data.

Sanford Inspire in the Mary Lou Fulton Teachers College at Arizona State University

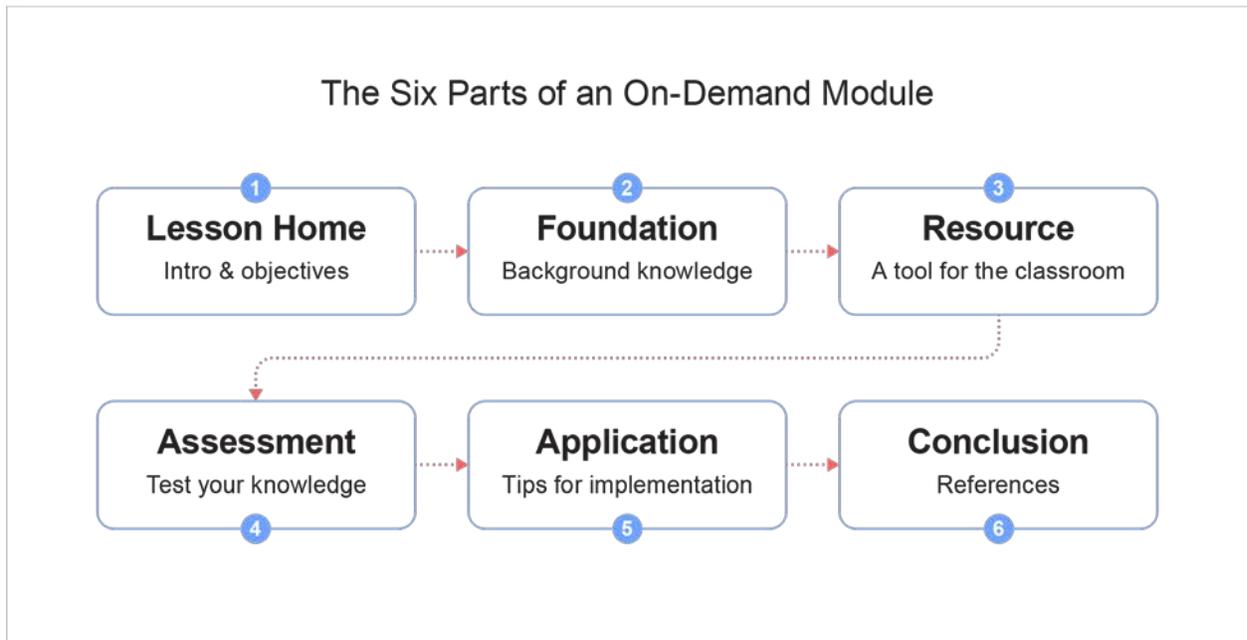
At Sanford Inspire, we reimagine how teachers experience and interact with PD by creating engaging, research-based, personalized, online professional development experiences called On-Demand Modules. Rather than requiring all teachers to sit through a day-long PD workshop that may vary in terms of quality, cost, and evidence of effectiveness (Hill, 2009), we provide teachers the opportunity to exercise autonomy over their own development. This strategic approach to PD allows teachers to select the appropriate module they need based on the feedback they receive from their students, peers, instructional coaches, and principals. We cover a wide variety of topics, such as Building Relationships with Students, Giving Effective Praise, Identifying Signs of Child Abuse and Neglect, Delivering Consequences, and Understanding the Impact of Trauma on Students. There are currently 65 modules in use with over 7,500 unique educators from each of the 50 states and 24 countries. The impact of the modules has been both far reaching and extremely effective.

On-Demand Modules

Our free, research-based, online modules are created by synthesizing current scholarly literature and closely collaborating with subject matter experts, including university faculty. Each part of the design of an On-Demand Module is created with an Adult Learning Theory orientation. From this perspective, all modules are designed to target learners where they are in their learning journey. Unlike traditional forms of PD, our modules provide educators with scalable resources that are 1) rigorously evaluated for effectiveness and best practice implementation, 2) built to respond to the type of PD teachers want and need, and 3) capable of bringing about a consensus on best-practices along with a common language to build upon. All modules are organized into five domains of practice (Learning Environment, Planning & Delivery, Motivation, Student Growth & Achievement, and Professional Practices) and are aligned to commonly used teacher evaluation frameworks.

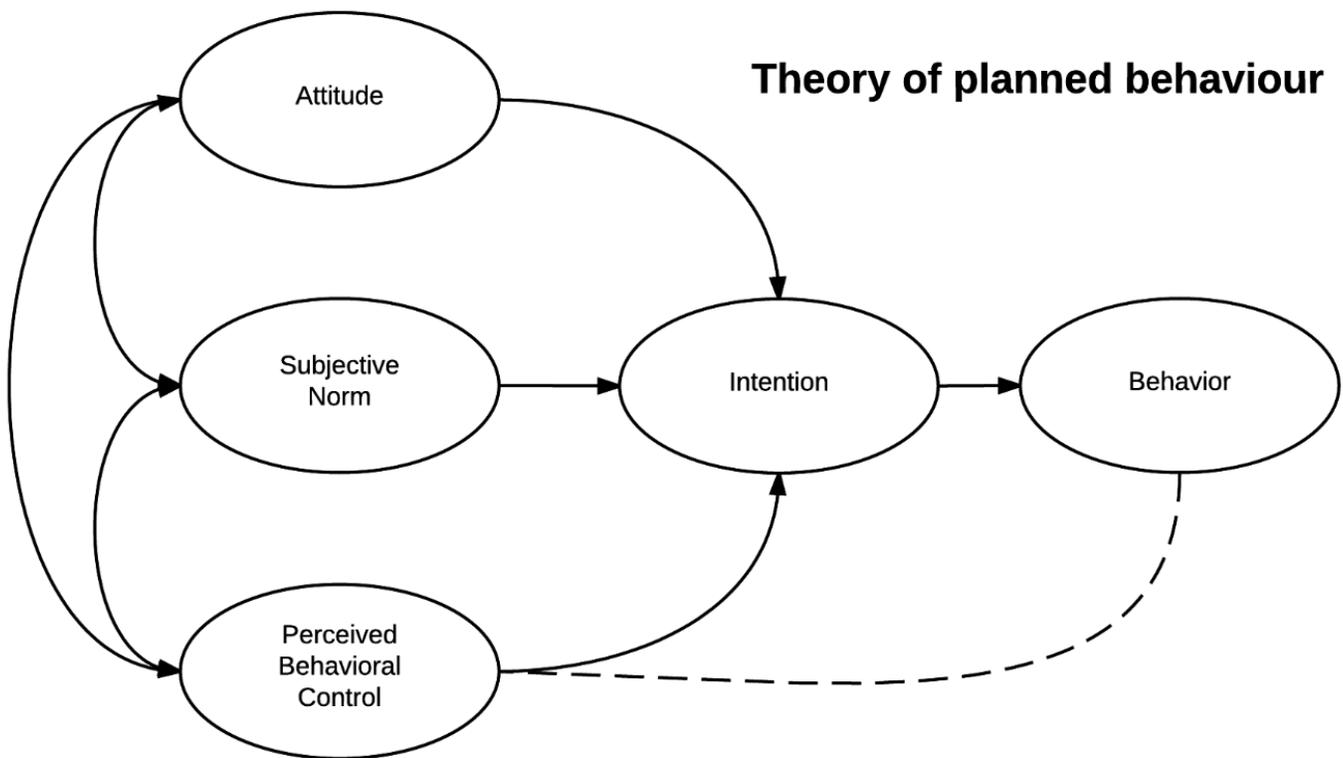
Each of our On-Demand Modules also provides teachers with a tool or strategy that can be used in the classroom immediately. On-Demand Modules are available to anyone, anytime, anywhere there is an internet connection.

The components of each module include a consistent set of six core sections: Lesson Home; Foundation; Resources; Assessment; Application; and Conclusion. Upon successful completion of a module, teachers earn a certificate that can be used as evidence of their learning and credited towards PD recertification hours. Each of the six components is described in detail in the figure below.



Theory of Planned Behavior

Theory of Planned Behavior (TPB) is vital to our study. It explains the relation between an individual's beliefs, intentions, and behaviors. It posits that a positive beliefs towards a behavior will result in a stronger intention to perform the behavior. In this case, beliefs are made up of 3 components: 1) attitudes towards the behavior, 2) subjective norms/perceptions of social pressure regarding the performance of the behavior, and 3) perceived behavior control over the performance of the behavior. Combining these three components results in the individual's beliefs. When these are high, the likelihood of a higher intent to perform the behavior occurs. Additional research shows that past behavior (or habits) may also impact future behavior and that the explanatory power of TPB can be improved by the addition of habits to the theory.



While TPB focuses on beliefs, intents, and behaviors, this study focuses on dispositions. The relation between the TPB and dispositions becomes clear with the addition of research surrounding professional action and professional judgment in teaching. Professional action can be defined as effective intervention or “simply the idea that professionals do something” (Dottin, 2007), while professional judgement can be defined in a much higher level as “doing the right thing at the right time for the right reasons with the right people (Coulter et al., 2007, para. 15). Dispositions then “concern not only what professional educators can do, but also what they are actually likely to do” (Dottin, 2007), making dispositions the desire to act with professional judgement. Dispositions are the intersection of professional action (TPB Behavior) and professional judgement (TPB Intent).

While quality professional action can be taught via traditional modes of teaching, the only way many researchers find to develop quality professional judgement is through regular reflective thought. This is why reflection is also important to our study, and why we built in places to deeply reflect while completing the module and examining the resources. Further, this is why we used the resources attached to each module in the reflection exercise participants completed throughout the study. It not only gave us great qualitative data, it will also ensure that the maximum impact of the module pre and post intervention.

Methods

The sources of data for this study included surveys of current teachers and their students as well as teacher reflections after each On-Demand Module completion. Participants are from both public and charter schools around the Phoenix metro area including: the Roosevelt Elementary School District, Gilbert Public Schools, the Paradise Valley Unified School District, and the Academy of Excellence Charter School. The teacher surveys included a pre-survey and post-survey aligned to the components of TPB [attitudes, subject norm, perceived behavioral control, intent, habits, behaviors]. The student surveys included a pre-survey and post-survey aligned to the major skills expected of teachers excelling in CRP. The reflections were designed to guide teachers through a deep reflection after each On-Demand Module completion and focused on the teachers’ reaction to

the content, how it connected to their own experiences, working through challenging information, and thinking about strategies they can implement in their classroom with this new content.

Sample

In order to gauge teacher and student perceptions of culturally responsive pedagogy while we evaluate a new professional development intervention, we partnered with 6 teachers from the Roosevelt Elementary School District, 3 teachers from Gilbert Public Schools, 6 teachers from the Paradise Valley Unified School District, and 5 teachers from the Academy of Excellence Charter School. In total, 20 teachers began this study, 14 of whom completed all parts of the teacher activities in the study, earning a gift card for their participation. These teachers represent 169 student participants who completed the student perception surveys. Because of district regulations, only 8 teachers completed all teacher *and* student activities in the study.

This study was conducted over the course of the spring 2017 semester. All participants were asked to complete surveys about their intent, expectations, and habits around CRP in their classroom in addition to the strategies they currently use. They were also asked to complete 4 of 6 CRP focused On-Demand Modules created by Sanford Inspire: Working against Racial Bias, Affirming Difference & Valuing Background Knowledge, Teachers as Agents of Change, Using Warm Demand to Build Student Achievement, Linking Identity and Achievement through Cultural Competence, and Using Critical Consciousness to Challenge Inequity. Students in these classrooms were also asked to complete surveys about CRP in their classroom environment and their teacher's strategies to incorporate CRP into their classroom. Finally, teachers were asked to reflect after each module completion via a reflection guide. All activities for the study were completed between March 8, 2017 and April 28, 2017.

Participants in this study taught a range of grade levels including: Early Elementary (10 percent), Upper Elementary (55 percent), Middle School (30 percent), and Other (5 percent). Other included K-8 teachers. Racially, a fairly even breakdown of participants was achieved: White/Caucasian (40 percent), Black/African American (30 percent), Hispanic (25 percent), and Other (5 percent). The majority of participants were female (80 percent) and the average age of participants was 39.5 years old.

Procedures

This evaluation study utilizes the Theory of Planned Behavior to evaluate changes in dispositions and student impact through the instruments/interventions detailed below. Participants consented by clicking "agree" to the one-page form at the beginning of the pre-survey and electrically signing their name. These surveys were completed by teachers before the 1st module and after the 4th module. Surveys were completed by teachers online. The student pre-survey and post-survey were created to measure changes in learning environment and engagement strategies used by their teachers. All teachers in the study had peers implement the survey with their students so they were not in the room during the survey administration. All districts of these teachers agreed to participate with passive parental consent. Guardians consented via a Guardian Letter which is sent home prior to participation. If they did not wish to have their student participate, they simply signed and returned the letter. The teacher would then pull the child out of the survey experience and provide an alternative activity. Students assented by clicking in the survey to agree to participate. The teacher's peer administered the survey read the directions aloud to the students and asked them to begin. If students struggled to read or understand the survey, the peer teacher read the items aloud to them. Once completed, no other information was collected from students that could identify them. Researchers did not have class rosters, names, or any identifying information about students.

After teacher and student pre-surveys, teachers completed 1 self-selected On-Demand Module out of the suite of 6 on CRP each week. After completing the module, they then completed a guided reflection, also online. After the 4th week, teachers and students completed the post-surveys. Researchers then aligned the data, verified the teachers who completed the study, and issued gift cards according to University protocols.

Questionnaire Development

The teacher pre-survey and post-survey were constructed to measure the core components of TPB. They included 41 Likert scale items and took 10 minutes to complete each. We assessed attitudes towards CRP with 6 items that began with the stem “Using culturally relevant teaching strategies this semester with my students in my classroom will be...” followed by 6 items with bipolar labels on a 7 point scale including: harmful – beneficial, useless – useful, bad – good, annoying for me – pleasant for me, not giving me satisfaction – giving me satisfaction, worthless – valuable. Subjective norms were assessed via 4 items scored on a 7 point Likert scale (1=strongly disagree, 7 = strongly agree). These items included “People who are important to me want me to use Culturally Relevant Teaching strategies”, “People who are important to me use Culturally Relevant Teaching strategies”, “It is expected of me that I use Culturally Relevant Teaching strategies,” and “I feel social pressure to use Culturally Relevant Teaching strategies”. Perceived behavioral control was assessed using 5 items also scored on a 7 point Likert scale (1=strongly disagree, 7=strongly agree). These included: “The decision to use Culturally Relevant Teaching strategies is beyond my control”, “It is entirely up to me to use Culturally Relevant Teaching strategies”, “It is easy for me to use Culturally Relevant Teaching strategies”, and “I feel capable to use Culturally Relevant Teaching strategies. It also included “Using Culturally Relevant Teaching strategies in my classroom will be...easy – difficult. Each of the items on the teacher pre-survey and post-survey were created from surveys previously utilized by Cartoos et al. (2012) and adapted for the topic of our evaluation study.

Intention was assessed via 3 items on a 7 point Likert scale (1=strongly disagree, 7= strongly agree) and included the following items: “During the next year, I expect to use Culturally Relevant Teaching strategies with my students in my classroom”, “During the next year, I want to use Culturally Relevant Teaching strategies with my students in my classroom”, “During the next year, I intend to use Culturally Relevant Teaching strategies with my students in my classroom.” Finally, habit was assessed via a 12 item Self-Report Index of Habit Strength (Verplanken, 2003) adapted to the topic. All 12 items were scored on a 7 point Likert scale (1=strongly disagree, 7=strongly agree).

The student pre-survey and post-survey were created to measure changes in learning environment and engagement strategies used by the teachers in this study. It was based upon similar construction as a previously validated student perception survey created by researchers of this project. It included 21 items on a 3 point Likert scale (1=No, 2=Sometimes, 3=Yes) and took students 15 minutes to complete each time. Behavior was assessed via the teacher reflections completed after each of the 4 modules. Reflections included 5 open-ended questions tailored to each module’s topic and 3 Likert scale items on intention as well. Samples of all teacher and student pre-survey and post-surveys, as well as teacher reflection are included below.

Sample Teacher Pre-Survey/Post-Survey

Please provide us with some background information about yourself below.

Name, Age, Gender, Race, Grade level you teach

This survey asks a number of questions about your use of and knowledge around culturally relevant teaching. Culturally relevant teaching is “using the cultural characteristics, experiences, and perspectives of ethnically diverse students as conduits for teaching them more effectively” (Gay, 2002, p. 106). It can also be thought of as a pedagogical perspective that places students’ social and cultural identities at the center of one’s teaching, and works toward the outcomes of academic achievement, cultural competence, and critical consciousness (Bennett, 2012; Cholewa et al., 2012; Irizarry, 2007; Ladson-Billings, 1995, 2009). Please keep this in mind as you complete this survey.

Section I: Intention to Use Culturally Relevant Teaching Strategies

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
During the next year, I expect to use Culturally Relevant Teaching strategies with my students in my classroom.							
During the next year, I want to use Culturally Relevant Teaching strategies with my students in my classroom.							
During the next year, I intend to use Culturally Relevant Teaching strategies with my students in my classroom.							

Using Culturally Relevant Teaching strategies this semester with students in my classroom will be...

Harmful	2	3	4	5	6	Beneficial
Useless	2	3	4	5	6	Useful
Bad	2	3	4	5	6	Good
Annoying for me	2	3	4	5	6	Pleasant for me
Not giving me satisfaction	2	3	4	5	6	Giving me satisfaction
Worthless	2	3	4	5	6	Valuable

Section II: Expectations to Use Culturally Relevant Teaching Strategies

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
People who are important to me want me to use Culturally Relevant Teaching strategies.							
People who are important to me use Culturally Relevant Teaching strategies.							
It is expected of me that I use Culturally Relevant Teaching strategies.							
I feel social pressure to use Culturally Relevant Teaching strategies.							
The decision to use Culturally Relevant Teaching strategies is beyond my control.							
It is entirely up to me to use Culturally Relevant Teaching strategies.							
It is easy for me to use Culturally Relevant Teaching strategies.							
I feel capable to use Culturally Relevant Teaching strategies.							

Using Culturally Relevant Teaching strategies in my classroom will be...

Easy	2	3	4	5	6	Difficult
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Section III: Habits Using Culturally Relevant Teaching Strategies
Using Culturally Relevant Teaching strategies is something...

	Strongly Disagree	Disagree	Somewhat disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I do frequently. I do automatically. I do without having to consciously remember. that makes me feel weird if I do not do it. I do without thinking. that would require effort not to do. that belongs in my regular routine. I start doing before I realize I'm doing it. I would find hard not to do. I have no need to think about doing. that's typically "me". I have been doing for a long time.							

Section IV: Culturally Relevant Teaching Strategies

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I hold all of my students to high expectations.							
I strive to see my classroom through the eyes of my students.							
I reflect upon my attitudes and beliefs about other cultures.							
I reflect upon my worldview and biases that may impact my curriculum and instructional choices, discipline practices, actions toward students, classroom displays, etc.							
I educate myself deeply on cultures in my classrooms beyond food and holidays to include learning styles, cooperative vs individual problem solving, expectations for behavior, gender roles, etc.							

Sample Student Perception Pre-Survey/Post-Survey

Please click “No”, “Sometimes”, or “Yes” for each of the following items.

1. My teacher shows an interest in getting to know more about me.
2. I am encouraged to talk about my life in class.
3. My teacher connects my learning to my life experiences.
4. My teacher knows what my life is like at home.
5. My teacher encourages us to ask the question “Why?” as we learn.
6. When learning a new topic, we are asked to think about how different people think.
7. We have rules for how to speak respectfully in our classroom.
8. We talk about social justice (fairness, suffering of others, rights of others) in class.
9. The topics we talk about in class make me think about them in a different way.
10. My teacher uses materials (books, videos, handouts, music, etc.) that are connected to my interests.
11. My teacher values the knowledge I bring into the classroom.
12. My teacher learns from my classmates and me.
13. I have the opportunity to learn about topics I am interested in or concerned about.
14. It is okay for me to speak in my home language in the classroom.
15. I feel safe and valued in my classroom.
16. My teacher has high expectations for student behavior.
17. If students do not follow a rule, my teacher tells them in a respectful way.
18. My teacher keeps me on task in order to help me achieve my goals.
19. My teacher expects me to work hard and learn new things.
20. I feel comfortable sharing my thoughts, opinions, or experiences in class.
21. I feel respected when talking about my identity (the things that make me, me).

Sample Teacher Reflection Guide

Which module # is this within the research study?

- Module #1
- Module #2
- Module #3
- Module #4

Which module did you complete?

- Affirming Difference and Valuing Background Knowledge
- Teaching for Critical Consciousness
- Teaching for Cultural Competence
- Teachers as Agents of Change
- Warm Demand and High Expectations
- Working Against Racial Bias

Section I: Intention to Use Culturally Relevant Teaching Strategies

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
During the next year, I expect to use Culturally Relevant Teaching strategies with my students in my classroom.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
During the next year, I want to use Culturally Relevant Teaching strategies with my students in my classroom.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
During the next year, I intend to use Culturally Relevant Teaching strategies with my students in my classroom.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section II: Reflection on Module Completed

Module #1: Affirming Difference and Valuing Background Knowledge

Directions: Please reflect upon the questions in the space below *in detail*.

1. What was your reaction to this module? What stood out to you?
2. In what ways did the content of the module connect to your own experiences as a teacher or student?
3. Was any of the information challenging for you? In what way?
4. What are some things that you do (or *could* do) to show your students that you value both the people they are and the knowledge they have?
5. What are some ways that teachers might demonstrate deficit-based thinking about students – possibly without even realizing it?

Analysis Methods

After all data collection was completed, pre and post-surveys for teachers and their students were linked. Descriptive statistics were conducted on all items created for analysis. Additionally, paired t-tests were used to analyze average difference pre and post-intervention. Finally, qualitative analysis was conducted by examining most common words used in the responses and generating word trees to better understand how these common words and phrases were being used in relation to the question being asked. Compelling and noteworthy quotes from a few teacher reflections were also included as evidence in a few of the reflection item analyses.

Results

Teacher Impact

Beliefs

Within TPB, beliefs are made up of three sub-categories included attitudes, subjective norms, and perceived behavioral control. A paired t-test shows that for teachers who completed 4 On-Demand Modules, the average attitude score increased by .298 on a 7-point scale after the intervention (95% CI[6.48, 6.77]). We also find that the mean change of .298 was slightly positively correlated ($r=.062$) and approaches significance ($p=.065$). The average score for subjective norms increased by .321 on a 7-point scale after the interventions (95% CI[4.57, 4.89]) and while the change was positively correlated ($r=.484$), it was not found to be significant ($p=.251$). Additionally, the average perceived behavioral control score increased by .089 on a 7-point scale after the intervention (95% CI[4.41, 4.50]). While it was also positively correlated ($r=.200$) it was not significant ($p=.571$). This means that a positive average difference exists between reported attitudes by these teachers before and after they completed the interventions. It also means a positive correlation exists between reported subjective norms and perceived behavioral control, but not in a statistically significant way.

Because these three components comprise the “belief” component of TPB, they were combined into an overall belief score and a paired t-test was also conducted. The average belief score increased by .235 on a 7-point scale (95% CI[5.28, 5.51]) after the interventions and was only slightly positively correlated ($r=.047$) but not significant ($p=.110$). Additionally, testing the theory that beliefs plus habits may lead to higher levels of intent, we added the beliefs score and the habits score to run an additional paired t-test. When beliefs and habits are combined, the average score increased .549 on a 7-point scale (95% CI[4.61, 5.16]) after teachers completed the interventions. This score was extremely significant ($p=.003$) and more strongly positively correlated ($r=.592$) than the beliefs only score. From this, it is clear that completing On-Demand Modules as interventions significantly positively increased the reported belief scores for these teachers when the additional measure of habits is added.

Intent

The second major piece of TPB is intent to implement the behavior, also referred here to as professional judgement. A paired t-test shows that for teachers who completed the 4 interventions, the average intent scores increased .571 on a 7-point scale (95% CI[6.23, 6.91]). This half a point increase post-intervention was both

positively correlated ($r=.347$) and significant ($p=.004$). This means a positive significant average difference exists between reported intentions by teachers after they completed On-Demand Modules on CRP.

Behaviors

In order to measure changes in behaviors, self-reported items concerning research-based best practices in CRP strategies were also included in the teacher surveys. While a paired t-test shows the average strategy scores increased by .332 on a 7-point scale after teachers completed the On-Demand Modules (95% CI[5.94, 5.51]) it also showed teachers' reported strategies were positively correlated ($r=.523$) and approached significance ($p=.061$).

In addition to self-reported survey data, reflections were completed by teachers in the study to not only deepen the learning taking place, but also to better understand how the teachers interacted with the content, help them work through cognitive dissonance that may have occurred and document how they may begin to use the mindsets and skills they learned in the module. Of the 6 modules teachers had the option to complete, 3 were categorized as essential mindsets for CRP and 3 were categorized as associated instructional actions. The table below shows how many times each module was completed in each category. You can see that essential mindsets were completed much more often (32) than the associated instructional action modules (25).

Essential Mindsets	
Working Against Racial Bias	11
Affirming Difference & Valuing Background Knowledge	11
Teachers as Agents of Change	10
Associated Instructional Actions	
Using Warm Demand to Build Student Achievement	12
Linking Identity and Achievement through Cultural Competence	6
Using Critical Consciousness to Challenge Inequity	7

Regardless of which module teachers completed, the reflections began with the same 3 open-ended questions: “What was your reaction to this module? What stood out?”, “In what ways did the content of the module connect to your own experiences as a teacher or student?”, and “Was any of the information challenging for you? In what way?”. After that, questions 4 and 5 were specific to content and strategies in the module they completed.

Q1: What was your reaction to this module? What stood out?

The most common word used in these responses focused on “students” as equals, their ability to navigate racial discrimination and link to their heritage without feelings ashamed of their differences, and being set up to succeed. “Module” was the second most common used word in these responses. Often teachers reflected upon how the module was very relevant, easy to understand, refreshing, and enlightening for them and even an interesting learning tool “all teachers teaching minority students need to take.” Teachers reflected that what stood out to them was the zero indifference approach as opposed to zero-tolerance approach, the work it takes to be an agent of change, and the strategies for encouraging use of home language and planning lessons that are relevant to the lives of students.

The report was written and prepared by the staff of the Sanford Inspire Program in the Mary Lou Fulton Teachers College at Arizona State University. This report reflects the observations of the author(s) and does not necessarily reflect those of the Mary Lou Fulton Teachers College, Arizona State University or the partner school districts. For questions about the report or contents within, please feel free to contact the Sanford Inspire Program at sanfordinspireprogram@asu.edu or (602) 543-8525.

Q2: “In what ways did the content of the module connect to your own experiences as a teacher or student?”

Once again, the most common word used in response to this item was “students” focusing largely on students and their families and recognizing their unique cultural experiences that they bring to the classroom. Responses also focused on how they as teachers are helping students pose and answer questions, recognize the importance of missing details in a text, think outside the box, achieve high standards and expectations, and prepare for the world. Additionally, responses turned inward on this question as teachers often reflected upon their own teaching practices, their own racial and ethnic backgrounds and background knowledge about the racial and ethnic makeup of their students. Finally, teacher reflected upon how the module they completed connected to their own experiences as teachers and students. They also felt the module was simple to comprehend and apply, caused them to reflect upon their teaching and actually affirms strategies they had already been employing to engage with their students in their classrooms.

“It is interesting to me that so many people don't understand how schools and our culture are geared towards white students. I have often participated in conversations where some of the discussions do sound similar to some of the things said in this module, such as, “It won't do any good because the students don't have...” As a child, I spoke mostly English but I had an accent that was developed/picked up from my Spanish speaking grandparents. I remember my family members telling me that I was saying things wrong and correcting me whenever that accent came out. I think they felt that since I wasn't using "standard English" and was modifying my vowels to sound more Spanish, that was a problem that needed to be fixed.”

-5th grade teacher in the Paradise Valley district

Q3: “Was any of the information challenging for you? In what way?”

Teachers reflected that they were most challenged by the module they completed to:

- continue to reflect on how they are affirming differences,
- change the way they think about identity markers and biases they might exhibit,
- begin discussions about differences in the classroom, and
- find time to implement the strategies they learned.

Many teachers reflected that they also found the information contained in the module challenging to the way they think about identity and racial bias. They also found the information eye-opening, helpful, and full of relatable scenarios that caused them to think more about “how to incorporate relationship building within the class between myself and between the students.” For those who thought the information was not challenging, they often noted it was because they were already implementing strategies they learned from the module into their classroom, rather than a hesitation towards the content.

Q4: What is your understanding of key concepts of the module content?

Teachers noted in their reflections that key concepts of the module (such as what it means to be a “warm demander” or an “agent of change” or what ‘cultural competence means for students’) impacted students in a number of ways. They reflected upon how these concepts can help students feel safe and like they can contribute background knowledge specific to their culture, and how they can help them to grow, understand and be culturally competent while maintaining their own identity. Additionally, teachers reflected upon how key

concepts in the modules could aid students in developing a language of critique, as well as the knowledge and skills to make learning more meaningful or to reach high expectations.

Q5: What are some strategies you can begin to implement right away? Which do you think you might need help with?

Many teachers reflected upon what they can do, be, see, learn, and focus on after completing a module. They felt that they can ask genuine questions to get to know students better, do a better job differentiating assignments and assessments, be more strategic in using information gained to make learning more relevant and connected, see where students are coming from and their perspectives, learn about their students and families, and focus on relationships with students and families.

I would focus more closely on the method of how I am teaching and what I can do to involve students in the construction of knowledge, that's what I would need help in. Right away I can focus on relationships, specifically connecting with students and families.

Teachers said they need to work on learning from students and families, their knowledge of dominant culture, and blocking out what former teachers have to say about current students. They also need to learn about examples of their content area from other countries and cultures. Finally, they reflected upon how they need help with networking, finding materials that are engaging to all students, backwards designing an inclusive lesson plan, and connecting with students and families.

-3rd grade teacher in the Roosevelt district

Student Impact

In order to understand what impact the changes in beliefs, intent and behavior a teacher may report, students were surveyed on components of CRP they may observe in the classroom environment and teacher engagement strategies. Analysis on each survey item shows that while the mean score on 8 of the 21 items increased pre to post intervention, 13 mean scores actually decreased.

Survey Item	Pre	Post	Change
1. My teacher shows an interest in getting to know more about me.	2.45	2.54	0.09
2. I am encouraged to talk about my life in class.	1.93	1.96	0.03
3. My teacher connects my learning to my life experiences.	2.52	2.31	-0.21
4. My teacher knows what my life is like at home.	1.63	1.54	-0.09
5. My teacher encourages us to ask the question "Why?" as we learn.	2.66	2.57	-0.09
6. When learning a new topic, we are asked to think about how different people think.	2.14	2.12	-0.02
7. We have rules for how to speak respectfully in our classroom.	2.90	2.89	-0.01
8. We talk about social justice (fairness, suffering of others, rights of others) in class.	2.19	2.17	-0.02
9. The topics we talk about in class make me think about them in a different way.	2.19	2.10	-0.09
10. My teacher uses materials (books, videos, handouts, music, etc.) that are connected to my interests.	2.44	2.46	0.02
11. My teacher values the knowledge I bring into the classroom.	2.56	2.58	0.02
12. My teacher learns from my classmates and me.	2.34	2.43	0.08
13. I have the opportunity to learn about topics I am interested in or concerned about.	2.39	2.42	0.03

14. It is okay for me to speak in my home language in the classroom.	2.08	2.08	0.00
15. I feel safe and valued in my classroom.	2.76	2.58	-0.18
16. My teacher has high expectations for student behavior.	2.77	2.68	-0.09
17. If students do not follow a rule, my teacher tells them in a respectful way.	2.56	2.56	0.00
18. My teacher keeps me on task in order to help me achieve my goals.	2.82	2.79	-0.03
19. My teacher expects me to work hard and learn new things.	2.88	2.84	-0.03
20. I feel comfortable sharing my thoughts, opinions, or experiences in class.	2.25	2.25	0.01
21. I feel respected when talking about my identity (the things that make me, me).	2.36	2.22	-0.13

A paired t-test shows that by teacher, the average student survey score decreased by .034 on a 3-point scale (95%CI[2.42, 2.39]) after the interventions and was positively correlated (.971) but not significant (p=.063). From this, it seems that completing On-Demand Modules as interventions did not significantly positively increase students' awareness of CRP strategies in their classrooms. When examined by teacher, 4 of the 8 who completed the student pre and post-surveys experienced an increase in average scores, while 4 experienced a decrease in average scores. Further examination of the teachers shows no pattern of school location or grade area focus.

Examination of the change in average score by survey item shows that the largest gains were for survey item 1 "My teacher shows an interest in getting to know more about me" and survey item 12 "My teacher learns from my classmates and me" while the largest drops were for survey item 3 "My teacher connects my learning to my life experiences", survey item 15 "I feel safe and valued in my classroom", and survey item 21 "I feel respected when talking about my identity (the things that make me, me). An additional paired t-test by question items shows that the average student survey score did not change in a significant way for any of the survey items. Although, a couple approached significance, including item 3 "My teacher connects my learning to my life experiences" and item 15 "I feel safe and valued in my classroom". Item 3 decreased on average by .239 on a 3-point scale (95%CI[2.51, 2.27]) after the interventions and was positively correlated (r=.417) but only approached significance (p=.071). Item 15 also decreased by a similar average of .231 on a 3-point scale post intervention (95%CI[2.76, 2.53]) and was also positively correlated (r=.364) and only approaching significance as well (p=.073). Item 4 (r=.069), item 8 (r=.031), item 10 (r=.085), item 14 (r=.008), and item 17 (r=.060) showed little to no correlation at all pre and post interventions and showed no significance either.

Conclusion

Results of this study indicate that the beliefs teachers had prior to the 4 On-Demand Module interventions they completed did in fact change post-intervention in a positively significant way when their habits are taken into account. This provides evidence for Verplanken, Aarts, van Knippenberg and van Knippenberg's (1994) idea that habits plus beliefs can result in more likely behavior change. In fact, for this small case, we find that the addition of habits to beliefs increases the average post-intervention by over half of a point on a 7-point scale. Results also indicate that the intent of teachers to implement CRP post-intervention also increased significantly by over half a point on a 7-point scale. This means their professional judgement towards CRP was altered in a positively significant way after completing On-Demand Modules.

While strong evidence was found to support the impact of On-Demand Modules on both beliefs and intent of teachers in the study, only slight evidence was found to support their impact on teacher behaviors. While

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teachers' reported use of CRP strategies did increase post-intervention, the impact only approached significance. It is in the teacher reflections that the impact of modules on teacher behavior become clearer. In each reflection question, teachers' reflections most often centered on students and their families. Specifically, question 5 responses highlighted the vast array of strategies teachers took away from the module experiences and their internal awareness of areas they will continue to need additional support to grow in their understanding and application of CRP. Thus, we find strong qualitative evidence of changes in behavior, or professional action, and approach evidence of quantitative change. From this, we conclude that dispositional change by teachers after completing On-Demand Modules does in fact take place.

When we examine the impact of these changes in beliefs, intent, and behavior on students in the classroom, mixed results appear. While 4 of 8 teachers who completed the student perception survey in their classroom showed positive gains post-intervention, the other 4 showed negative changes. Additionally, a number of survey items were found to change post-intervention for the worse. However, none of these measures were statistically significant, and most showed little to no correlation pre to post-intervention. No commonalities existed between which teachers had gains or losses post-intervention; however, examination of teacher reflections help deepen an understanding of why some survey items, and some teacher scores, declined post-module completion. While teacher reflections often focused upon students and their families, they did not often focus upon student identity or connecting learning to real life. This is reflected in the student perception survey results as the strongest positive change post-intervention was for items around the teacher showing an interest in the student and their classmates, and the teacher learning from the student and their classmates. It is also reflected in the items that dropped the most post-intervention: connecting learning to life experiences, feeling safe and valued, and feeling respected when talking about their identity. In fact, these items are the only ones that approached statistical significance, and in addition, teachers often reflected needing additional time and assistance to backwards plan an inclusive lesson, find content-specific examples from other cultures, and begin tough discussions around identity. From this analysis, it seems that students are aware of teacher attempts to better get to know them and their families, and they also agree teachers need more time and support in these other areas teacher reflected upon.

So, On-Demand Modules 1) increase a teacher's beliefs about CRP in a positively significant way, 2) increase a teacher's intent to use CRP in their classrooms in positively significant way, and 3) increase teacher use of CRP strategies in a positive but insignificant way. Additionally, these changes can in fact be discerned by students, often in strikingly similar ways to how teacher reflect upon implementing them, but not in statistically significant ways. These findings may be interesting to explore in the future as to how best support teachers attempting to use CRP On-Demand Module strategies in their classrooms and better understand the complex impact of incorporating student identity and voice into the classroom.

Limitations of the Study and Future Research

Due to limitations of resources and time, we were unable to survey and observe a larger number of participants, particularly for the student perception portion of the study. Future research on these modules should seek to answer if these findings can be applied more broadly with a larger study size. The study also did not compare the intervention to a control group for similar reasons. Future studies that incorporate a control group would more robustly support the positive impact of the intervention on teachers and their classrooms. Finally, future research should also seek to better understand how time may affect the impact students feel in the classroom. With more time and support, as teachers begin to implement more difficult strategies from the modules,

students may report significant changes in either direction. Due to time restrictions, student post-surveys were conducted just 1 week after the end of the final intervention and just a week or two prior to the end of the academic year, in the heart of the standardized testing period.

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