Using Cogenerative Dialogues to Open Conversations of Rigor in Teacher
Preparation Programs

by

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ABSTRACT

The purpose of this action research study was to examine the impact of cogenerative dialogues on instructor and student perceptions of rigor in a master's and certification program for alternatively certified teachers. Additionally, the study was designed to determine if these open dialogues would impact instructional decisions of college instructors in the program. The investigator used a mixed methods research model that included surveys, interviews, and video of the dialogues to measure the impact.

The results of the study indicated that both sets of participants remained consistent in their identification and definition of the term rigor. The cogenerative dialogues did have an impact on instructor understanding of student definitions of rigor. Instructors began to change some instructional decisions as a result of the dialogues in small groups.

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INTRODUCTION

"Education is a social process. Education is growth. Education is, not a preparation for life; education is life itself."

- John Dewey

Teacher preparation programs face a barrage of critics with accusations that these programs lack in the rigors associated with other academic programs. In a recent presentation to the American Association of Colleges for Teacher Education, Whaley et al (2009) explained, "Today, teacher preparation is perhaps the most highly scrutinized professional training program in higher education." Arne Duncan (2009), U.S. Secretary of Education, speaking to students at the University of Virginia, had this to say about rigor in teacher preparation programs, "So it is clear that teacher colleges need to become more rigorous and clinical, much like other graduate programs, if we are going to create that new army of great teachers." From James Bryant Conant's seminal work (1964) to the more recent NCATE report on teacher preparation (2010), the discussions around rigor in teacher preparation colleges center on a lack of rigor in the programs and cite this lack of rigor among the reasons for underperforming schools nationwide. "Teacher preparation programs supposedly lack intellectual rigor and don't cultivate certain critical thinking skills and competencies in their students," (Carini, 2003).

All of this speaks to two main issues that must be addressed in order for teacher preparation colleges to continue to exist – the level of prestige granted teacher preparation programs historically and currently, and the historical and contemporary understanding of the concept of rigor. What is meant when a student, politician, or the public describes teacher preparation as less rigorous than other college degrees? This must be understood before addressing the conceptual framework and theoretic underpinnings of this study.

Background

In the 2007-2008 academic year, Arizona State University entered into a partnership with Teach for America (TFA). Teach for America is a nonprofit organization that works to create educational equity in low-income neighborhoods by placing alternatively certified teachers in classrooms. According to Teach for America's (2010) website, "our mission is to build the movement to eliminate educational inequity by enlisting our nation's most promising future leaders in the effort. We recruit outstanding recent college graduates from all backgrounds and career interests to commit to teach for two years in urban and rural public schools" (Teach for America, 2010). TFA seeks to create an alumni network of educational leadership that extends beyond the initial two-year classroom commitment. Teach for America (2010) explains the proposed impact by stating, "by exerting leadership from inside and outside education, our nearly 17,000 alumni leverage their corps experience to improve outcomes and opportunities for low-income students and to fight for systemic reform," (Teach for America,

2010). This mission goes beyond the classroom and into present and future educational policy changes.

As Teach for America recruits people who have degrees in majors other than education to teach this creates the need for these people to seek an alternative path to certification in the state in which they teach. In the state of Arizona the requirements to obtain an Intern Certificate, which allows people to work as teachers without first taking a teacher preparation program, include passing a professional knowledge test, those who teach middle and high school need to pass a content knowledge test, and all intern certificated teachers need to be enrolled in classes at an accrediting institution. Arizona State University and Rio Salado Community College have the two largest programs and exclusivity with Teach for America in the state of Arizona. To meet the demands of this unique population of in-service teachers who are lacking in traditional pedagogical background provided by a traditional program and to partner with TFA to ensure that these teachers complied with the state requirements for an intern certificate, ASU developed a Masters and certification program specifically to address the needs of the intern teacher. This program is known as the Intern and Masters and Certification program or InMAC program. While still not perfect, "we continue an ongoing dialogue with local TFA staff members in an effort to improve delivery and content of our programs," (Koerner, 2008).

Currently, my role in this program is as an instructor and as one of the program coordinators for the Intern and Masters Certificate (InMAC) program in the Mary Lou Fulton Teachers' College at ASU. I am often involved in reports from displeased students and instructors. These students report such issues as assignments that seem disconnected to the course, instructors who seem disconnected from the students, and how to help the student learn the real world relevance and theoretical bases of the concepts. In addition to these concerns, the students enrolled in the InMAC programs report dissatisfaction in the rigor of their courses and a burdensome amount of outside assignments that they perceive as lacking relevance to teaching. Most claim that the courses are not to the level of rigor they would anticipate in a Master's level course. These students are frustrated and their tone is one of anger. As I have dual role as instructor and program coordinator, the instructors confide in me about their frustrations with the cohorts. Each is disappointed with the student evaluations, and sincerely believes that he/she is teaching the concepts of the course, rigorously.

From my own experience, I, too, was disappointed with my first semester course evaluations. My first semester coincided with the first semester Arizona State University established the InMAC program. As my first semester students were ill prepared for the demands of a full time teaching position and the demands of a graduate program, I realized quickly that I would need to make some accommodations to my syllabus. These students needed to be the best teacher

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they could be, and quickly. This demand over shadowed the demand for a rigorous course and strict adherence to a course syllabus. Therefore, I made changes to due dates and assignments, focusing on the most important concepts, ideas that the students could use the next day, infusing more methods in a class that presents largely theoretic constructs, and assignments that were designed to reflect on the process of becoming a teacher. Initially, students expressed gratitude at the flexibility. However, at the end of the semester, this flexibility was not addressed at all. Students reported that the course was watered down, not of graduate level, and not relevant. With scores in the mid two's on a four point scale in the areas of rigor and relevance, I set to work on revamping the course to ensure even more relevance and engagement.

Through focusing on relevancy and engagement, I sincerely believed I was addressing both relevancy and rigor. The next time I taught the same course, I received more positive feedback on relevance. Relevance scores were mid threes on a four scale, but still the students rated the course in the low to mid two's in rigor. I began to realize that rigor and relevance are not perceived as the same term, as I had assumed. Prior to this realization, I believed that if students saw the relevance in the course, they would see why the course content was challenging. After all, I believed that our greatest challenge as teachers is in the application of the new knowledge. I believed that the application of this new knowledge into the classrooms they were teaching was the definition of rigor.

While one could be dismissive of student course evaluations, these are used each year for our annual review. These scores are one criterion the university uses when determining merit pay. It is expected that clinical instructors look to these to determine some of their teaching goals for the year. Meeting these teaching goals is another criterion for merit pay. Understanding the reasons behind the low rigor scores in the program is of personal benefit to clinical instructors.

Previous Action Research Cycles

To further understand the depth of this issue, the first cycle of action research focused on evaluating if the term of rigor was defined similarly by instructors and TFA students, and determining if instructors identified a need to refine coursework and assignments to better correlate with students' operational definitions of rigor. To accomplish this, I conducted surveys of beliefs about rigor to students and instructors based on Kuh's (2004) National Survey of Student Engagement and perceptions of teacher preparation programs, conducted interviews of four students, and brokered the survey and interview data to four instructors. The results of the survey data indicated that instructors and students were more likely to disagree with one another in the areas of outside course preparation, the importance of theory in the courses, the reasons for why a student chose the to enroll in our program, and if they believed the other population held the same belief of rigor as they do. These results led me to believe that there needs to be more understanding on both sides about the reasons for outside

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preparation, reasons for theory behind the practice, and that our students do report choosing our program to engage in a rigorous degree. As a result of a brokering session in which I showed instructors the results of both the survey and a tag word cloud of the words used by students in the interviews, the instructors immediately focused on developing solutions to the students concerns regarding rigor. While the group offered many diverse solutions, each was a quick fix to a few key themes. The instructors were willing to develop solutions that could be implemented quickly without seeking to understand the full context of the constructed themes. Realizing that quick solutions as a result of a two hour debrief session would likely not lead to long term changes, much less well thought out changes in curriculum delivery, I identified the need for a longer intervention involving both students and instructors in which conversations between the two groups would identify elements of rigor in the program, as well as identify the areas of potential refinement in the program. To honor both participant groups, I believe the next step is to implement cogenerative dialogues centered on the topic of coursework rigor in our intern teacher preparation program.

Intervention and Problem Statement

The purpose of this study is develop an understanding by clinical instructors in the InMAC program at Mary Lou Fulton Teachers College ASU of student perception of rigor and to make informed program improvements in an

alternative path teacher certification program through the use of conducting discourse analysis of cogenerative dialogues based on Wenger's Communities of Practice (Wenger, 1998). Cogenerative dialogues, which have been used in the area of Science teacher preparation in co-teaching environments, are defined as the student teacher teaching as a co-teacher who co-plans and teaches at the same time as the mentor teacher, (Tobin & Roth, 2006), were used to open the communication between instructors and students. Cogenerative dialogues create an environment for discussing teaching in context of the classroom. All members of the classroom experience approach the process with the idea of equity. The operational definition of equity for cogenerative dialogues is the students and instructors in classroom experience a shared experience that must be honored with equal opportunity for discussion and discussion generation. These shared experiences are overlooked when the university implements its current evaluation of both student course performance and instructor teaching performance. The intent in implementing cogenerative dialogues is to encourage instructors to develop a new way of examining how the instructors deliver instruction and how adult students in teacher preparation programs learn. The expectations for each member is to accept responsibility for his or her own topic identification and contradictions in opinions, accept the obligation to participate the same length of time and with a point of dialogue for each point of conversation, and accept responsibility to stay on topic.

The study took place over the 2011 fall term. During the recruitment phase, three key instructors were be identified, and an explanation of the purpose and need for this project will be established with these instructors. Also, all instructors and all students in the second year of the Secondary Induction Masters and Certification program were surveyed to establish a baseline of perceptions of rigor. During the intervention phase, three groups of three students and one instructor met over the course of eight or fifteen weeks in one to three week intervals, depending on the participants' mutual scheduling abilities. These meetings were video taped and transcribed. Also, each participant responded to a journal prompt before and after each meeting to establish the discussion items. After the intervention cycle, each participant was interviewed, and all instructors and students in the Secondary Induction Masters and Certification program given a post survey. This action research cycle centered on the following research questions:

- How and to what extent do cogenerative dialogues impact clinical instructors and students' perceptions of rigor in a teacher preparation program?

- How and to what extent do cogenerative dialogues impact clinical instructors' teaching decisions?

Chapter 2

REVIEW OF SUPPORTING LITERATURE

To gain more clarity on the subject of rigor in teacher preparation programs and establish a conceptual framework for the intervention, I investigated areas in the literature related to status of teacher education programs, the history of secondary education teacher preparation programs, the history of the concept of rigor, cogenerative dialogues as a practice, and the communities of practice.

Teacher Education

Secretary Arne Duncan summed up the historic prestige afforded teacher education colleges by stating "they have frequently been treated like the Rodney Dangerfield of higher education. Education schools were the institutions that got no respect" (Duncan, 2010). He further explains that former Harvard president, James Bryant Conant, conducted a study of education schools only to conclude that "their required courses at education schools were "Mickey Mouse" courses" (Duncan, 2010).

Howey (1989) conducted a study of teacher education colleges. The study results indicated problems with the structure of the programs that also speak to the esteem afforded teacher education. First, colleges of education were inadequately funded and given inadequate resources for technology, lab space, and clinical

experiences. Colleges of education attracted many students, but the tuition and fees the students paid appeared to be redirected to other colleges in the university. Another area of concern was there appeared to be no consensus as to how children learned within teacher education colleges. In addition to this, clinical partnership was not adequate due to poor relationships with k-12 districts, no training of mentor teachers in these placements, and little connection between the coursework in the university and the field placement. Finally, Howey (1989) found that there was not enough research into the level of rigor of coursework in teacher preparation programs, and very little assessment of that rigor.

What still rings true according to Darling-Hammond (2005, 2006, & 2010), Romanowski & Oldenski (1998), and McFadden (2005) is a lack of consensus on what basic knowledge needs to be addressed in teacher education colleges, and that the predominant public commonly view teacher education programs as "unchallenging" and inadequately preparing teachers to enter the k-12 classroom. Both Blackwell (2003) and Wilson (2002) concluded that although there are many studies of how to effectively teach teachers content methodologies, there are very few studies in educational policy and how that impacts teacher education. Without this research, there is little hope of addressing rigor in teacher preparation.

According to Blackwell (2003) and Wilson (2002), the general public gives no credence of exclusiveness to the professional knowledge of teaching, as

it may in medicine, law, or engineering. The overarching belief is that anyone can teach. "However, no mystery is associated with teaching; we don't generally believe that teachers have knowledge others do not have"(Blackwell, 2003). This leads policy makers and professors/instructors in teacher education colleges to ask "do schools of education teach what teachers must know and does teacher education teach about student learning?" (Blackwell, 2003). In addition, Blackwell explains the current education system is not "organized to ensure that every student (has) a high quality teacher, neither is it organized to ensure that every prospective teacher studies in a high quality teacher education program that results in high quality student learning" (Blackwell,2003). Wilson (2002) points out the one outcome that teacher education leads to, the teaching certificate, is not a great indicator as to the quality of teacher education programs. Each state has its own credentialing and, again, the knowledge needed and assessed differs widely from state to state. This points to the issue of a lack of a consensus in what knowledge is needed to teach in the k-12 setting.

A study conducted in the Induction Masters and Certification program at ASU, Carter, Beardsley, and Hansen (2010) conducted a study which uncovered a pattern of InMAC, TFA students at Mary Lou Fulton Teachers' College of Arizona State University scoring their instructors a quarter point lower on a 1-4 point scale, with 4 being the highest, in the same courses taught by the same instructors as the traditional teacher education student. "Out of the 25 total comparisons, 16 t-tests (64%) yielded statistically significant differences (p ≤

0.01), 100% of which illustrated that TFA students did in fact rate their courses and instructors more harshly than their non-TFA peers. The average mean difference illustrates that instructors teaching TFA students were graded one-quarter of a category lower (-0.25 on a Likert-type scale 1 to 4 with 4 being outstanding) than they were in their seemingly identical content courses teaching traditional education students," (Carter et al, 2010). Critical qualitative comments reported on the evaluations included themes of:

- Busy work
- Beliefs that instructors are teaching at the lower level of Bloom's taxonomy
- Instructors fail to make the courses more challenging
- Instructors fail to realize the busy schedules of the students
- Theory is neither relevant nor rigorous (Carter, 2010)

Shortly after Carter, Beardsley, and Hansen (2010) analyzed the data, the information was shared with the clinical instructors in the InMAC program at Mary Lou Fulton Teachers College of Arizona State University. Many instructors expressed defensiveness about the feedback. Others worked to revamp their courses without much dialogue about the issues. Still, others have done both. All have admitted that each is confused by the feedback.

Rigor

Rigor is a term that is used and claimed by every facet of education. What has been forgotten is that the idea of rigor, the use of rigor, and the meaning of rigor have a long and rich history. It can be traced back to the Greek

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Enlightenment and further defined and embraced by Descartes, and still further refined as a "pursuit" worthy of endeavoring by Spinoza, Kant, Hegel, and Nietzsche (Madigan, 1985). The Modernist philosophers looked at rigor as a reductive term that could be measured, quantified, and tabled in their quest for one truth.

While it is doubtful most that make claims regarding rigor are aware of the contextual history of the term and the grounded term that Modernist philosophers use, there have been some very contemporary definitions of rigor as it applies to higher education. Dienstag (2008), Mentzer (2008) and Dockter & Lewis (2010) defined rigor as the use of deep understandings and deep engagement in content that allows the student to transfer the knowledge to other contexts, reflect on that knowledge, and self-teach additional knowledge about that content. Mentzer (2008) states that there can be no disconnect between rigor and relevancy, and that truly rigorous programs view the rigor-relevance-research triad as having a triad of roles, as well: researcher, practitioner, and student. These roles must communicate frequently if the academic community is to embrace the rigor of the field and the field is to develop as a profession.

The current Dean for Medical Education at Harvard, Dr. Jules L. Dienstag, published a plea for more rigorous pre-medical education programs (Dienstag, 2008). The current dilemma that medical colleges are facing relates to students who lack depth in their undergraduate Biology courses. Students take biology and chemistry separately, but are not making the connections as to how these concepts

in these courses are interrelated. This poses a problem in that students are not ready to transfer the knowledge. Dienstag envisions a pre medical school education in which courses are interconnected, and an MCAT, Medical College Admissions Test, in which students are asked to apply the knowledge of biology and chemistry in different contexts, rather than the rote memorization skills currently assessed.

Researchers in business education are also addressing strong disconnects between rigor and relevancy, according to Mentner (2008). Mentner (2008) goes on to explain that research scholars want to impact the field of business, but students and practitioners often dismiss the research as too difficult to read or not generalizable to the real world. Mentner (2008) asserts while the students may see their work in their colleges of business as rigorous, they lose the rigor when transferring the knowledge to the real world.

While it is important to note that other academic colleges are facing similar trials, colleges of education still seem to bear the rigor perception burden. There is conflicting information on student perceptions of rigor in education courses. When Howey (1989) asked undergraduate students in teacher education colleges to compare their education courses with similarly numbered liberal arts courses, an overwhelming number of students, 79%, stated that education classes were as rigorous as or more rigorous than the liberal arts classes and assignments. More recent studies found different results. Carini and Kuh (2003) and Whaley

(2003) looked at rigor as a measure of academic challenge as it relates to assigned readings and length and amount of papers, as well as analytic thinking, considering other perspectives and diversity. The findings directed researchers to the idea that students in education programs reported a lower level of academic challenge than students who were majoring in the sciences and humanities. Carini and Kuh (2009) and Whaley (2003) all concluded that students looked to the amount and complexity of assigned readings, length of required papers, and complexity of assignments when they labeled a class as rigorous. This led students to evaluate education coursework as less rigorous than liberal arts coursework. Carini and Kuh (2009) and Whaley (2003) explained that the indicators for academic rigor may need to be measured using different indicators, specifically when measuring rigor in coursework that prepares students to perform tasks in which methodology of practice is the course objective. "Nonetheless, future research should examine teacher preparation to determine if the types of activities and assignments are as rigorous as they should be and especially if they are preparing individuals for successful teaching careers. Findings will inform the faculty who design and deliver teacher education and thus, if appropriate, may affect reform in teacher education," (Whaley, 2003). McFadden (2005) and Blackwell (2003) offer more direct solutions. They believe the current curriculum in teacher education programs are disconnected, lacking depth, and not based on research. They propose that courses be based on rigorous research, teach methodologies that help their students teach their children using a variation of

different methodologies based on how different children learn, and how different content areas require different approaches.

Cogenerative Dialogues

Cogenerative dialogues, as initially introduced by Tobin and Roth (2003) honor the student as part of the process in learning the act of instruction. While they honor the student, they do not excuse the student from responsibility in the process of learning. The thrust of these discussions is to arrive at consensus of the ideas related to rigor and to acknowledge the symbiotic relationship of the process of a rigorous education (Tobin, 2003). Cogenerative dialogues create an environment for discussing teaching in context of the classroom by all members of the classroom experience being treated with equity. In the original examples by Tobin and Roth, the group included a university observer, the mentor teacher, the student teacher, and two or three students in the class. Each person was given the rule that each person must speak the same amount of time on each subject discussed.

Tobin and Roth base their concepts of cogenerative dialogues on the idea of being "with" (Tobin & Roth, 2006). Experiences in the classroom are not isolated events. Each person has both a shared experience and an individual experience. Few explore the shared nature of the classroom experience deeply enough to gain understanding in how this can shape teacher reflection on practice. "Grounding teaching in this way leads us to an understanding of the dialectic of

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teaching, in other words, the relationship between teaching as praxis – where actions occur only once and cannot ever be taken back – and teaching as ethos (culture), which is constitutive of the sense and intersubjectivity of the act of teaching" (Tobin & Roth, 2006). This approach requires all participants to look at the totality of the actions in a class and to realize the interdependence of the learning. Each person cannot learn or teach without the other person, so it is a truly shared experience.

Cogenerative dialogues and a collective being "with" experience also necessitate a need for coresponsibility. Tobin and Roth (2006) point out the importance of understanding this helps create a stronger cogenerative dialogue process. No one can just defer power or responsibility to another member of the group. The power and the responsibility are held collectively. As a large part of the process involves all members of the dialogue talking for the same amount of time and on the same topic as the other members, and the objective is to move forward with understanding the collective experience in the class, cogenerative dialogues are predicated on the theme of coresponsibility.

A point that is important to explore is the concept of praxis. Tobin and Roth (2006) remind those interested in practicing cogenerative dialogues that there is a difference about being knowledgeable about teaching and the actual action of teaching. They define praxis as "knowledge in action or knowledgeability" (Tobin & Roth, 2006). Human praxis involves all the materials, schemas, symbols, and resources and how the participants interact with

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these. Often, teachers privilege their own schemas over those of the students, and cogenerative dialogues can move the teacher to gaining a larger set of schemas. Another important point about teaching as praxis is that one can only learn praxis by doing, by observing with an eye for reflection, but not by having someone report what was observed. It is important for the beginning teacher, or teacher seeking to understand how his/her actions are really impacting learning to open the dialogues with those who have the shared experience of the classroom.

Tobin and Roth (2006) and Martin (2006) explain that talking about teaching can be a tertiary artifact. This can lead to a problem for those who engage in teaching pre-service teachers or beginning teachers. Martin (2006) adds that teachers often engage in reflection outside of interaction with others or that they verbally reflect with people who were not in the classroom. When teachers engage in conversations about the lived experience with individuals who were not part of that lived experience, the meaning of that lived experience can shift. However, it is important for pre-service and beginning teachers to open the dialogue for the purpose of reflection. Co-generative dialogues move the conversation about what happened in a particular class between the members of that class, rather than reported to non-members who will construct a meaning that may be different than what actually happened. Moving the conversations to the co-generative dialogues will create a more authentic understanding of the classroom context. Tobin and Roth (2006) suggest that the dialogues start with the

questions about what is working and what is not, "especially practices and schemas that disadvantage participants" (Tobin & Roth, 2006).

Tobin and Roth offer some guidelines for enacting cogenerative dialogues. First, the target group should be small, but diverse. The small size of the group allows for intimacy and students to be able to speak more and in more depth. The diversity allows for a more honest understanding of the shared experience and expands the pool of possible schemas. All participants must be validated to ensure that they feel that there is an opportunity for change, and the participants must be willing participants. Participants should represent the stakeholder group of that shared experience. There are some key rules to successful cogenerative dialogues that Tobin and Roth have discovered. "The first rule is the talk should be shared among the participants" (Tobin & Roth, 2006). This means that each participant gets to talk the same amount of times and for the same length as every other participant. Also, each person takes responsibility by preparing the types of questions and thinking through responses and responding to each question posed in the meeting, and intonation of his/her responses in the session. Another point to this rule is that the idea is to move toward a common understanding, not to be right or prove another person wrong. The second rule is that active listening is the responsibility of each participant. This refers to the act of using body language and responses that validate the speaker and propel the discussion to a common understanding. This means that each member focuses on what other members gain, rather than personal gain. Of course, this reiterates the idea that people

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should not dominate conversation, but instead work towards a common understanding of the other individual's lived experience, as well as clearly articulating his/her own lived experience. Martin (2006) explains that she enacted three rules of discussion and reviewed these rules at the beginning of each session. These rules were formed to provide more structure to the discussion. The structure allows the participants more freedom to express their ideas, and creates safety for the students. The rules were as follows: "(1) No one voice is privileged. (2) Everyone has a space to speak, but speaking voluntary. (3) What is discussed in this group stays in this group unless permission is given by the others to share," (Martin, 2006).

Another area in which the coresponsibility is accepted is in the area of topic selection. They suggest that two of the participants be identified to bring in ideas to start the conversation, ideally building from the discussion from the prior meeting. Suggestions for topics of conversation are the use of a video of the class being discussed and discussions on what ideas brought out in the last dialogue were tried. Martin (2006) believes the structures of the rules create an environment in which the participants are more likely to take the ownership and co-responsibility for the topics and discussions in cogenerative dialogues. Additionally, Wharton (2010) found that students felt more co-responsibility because their personal agency was honored during the cogenerative dialogues.

Another relevant issue to co-generative dialogues is the issue of power (Tobin & Roth, 2006). Power structures must be addressed at the beginning of the dialogue process. Tobin and Roth (2006) identify power as lying within the individual's agency and within the cultural context of that group of students and teachers. They explain that power resides in the hierarchal relationships within a community. While this historically means the teacher holds the power, they remind us that the teacher may or may not be the most powerful person in the room, and that this varies depending on the group of people. Even the same teacher may have power with one group of students and not with another group. Often, the classroom culture in one period may assign someone else, a student, power in that context, while the teacher is not the power broker, at all. That said, it is important to identify areas in which power does play a role in the lived experience and in the dialogue. Power, according to Tobin and Roth (2006), is a cultural artifact that must be transparently discussed in the context of that unique culture. Both Martin (2006) and Wharton (2010) concur that the processes of the cogenerative dialogues with structures that provide safety empower all the participants to engage appropriately and fully in the dialogues.

Communities of Practice

By exploring a conceptual topic, such as rigor, cogenerative dialogues are reliant on communities of practice. Communities of practice center on a "common set of core issues that binds the members together in a single community" (Wesley & Buyess, 2001). Wenger (1998 & 2002), Englert & Tarrant (1995),

Marshall & Hatcher (1996), Rogoff (1994), Stamps (1997), Westheimer & Kahne (1993), and Wesley & Buyess (2001) all have described communities of practice as a group of individuals from different settings of the same organization working towards change by sharing their perspectives, new knowledge, and understandings through creating an inquiry of dialogue. Wenger (1998 & 2002) and Wesley & Buyess (2001) describe the importance of regularly scheduled meetings to increase reflection and inquiry through active interactions between the members of the community. According to Wesley & Buyess (2001), "communities of practice offer perhaps the greatest promise in terms of achieving diverse expertise and making an impact on the field" due to the nature that communities of practice recognize the different perspectives and purposes each member brings to the dialogue. The outcomes for a typical community of practice are co-constructed knowledge and improved practices (Wenger, 1998 & 2002; & Wesley & Buyess, 2001). As cogenerative dialogues are based on the very idea of shared inquiry and diverse perspectives, as well as outcomes based on changes related to these dialogues, communities of practice are a vital lens in which to view this intervention.

Chapter 3

METHODS

Methodological Approach

The purpose of this study is develop an understanding by clinical instructors in the InMAC program at Mary Lou Fulton Teachers College ASU of student perception of rigor and to make informed program improvements in an alternative path teacher certification program through the use of conducting discourse analysis of cogenerative dialogues based on Wenger's Communities of Practice. Selected members of that classroom used cogenerative dialogues to conduct discussions about teaching in context of the college classroom with an ear toward equity of voice (Tobin & Roth, 2002 & 2006, Martin, 2006 & Wharton, 2010). The operational definition of equity for cogenerative dialogues explains that students and instructors in classroom are experiencing a shared experience. I believe these shared experiences are often overlooked when the university implements its current evaluation of both student course performance and instructor teaching performance. Through participating in cogenerative dialogues, I explored if instructors will have a new understanding at how they deliver instruction and how adult students in teacher preparation programs learn. The expectations for cogenerative dialogues require each member to accept responsibility for his or her own topic identification and contradictions in opinions, honor an obligation to participate the same length of time and with a

point of dialogue for each point of conversation, and uphold the responsibility to stay on topic.

This action research study employs nonequivalent dependent variable design, quasi-experimental mixed methods designs (Trochim, 2006; Stringer, 2007). Trochim defines nonequivalent variable designs as the inability to randomly assign control and experimental groups. Due to the fact that clinical instructors cannot be randomly assigned to groups, they were selected based on the fact that they teach courses that the cohort of students takes during the semester being studied (Trochim, 2006). Students were assigned based on a stratified random sample to ensure that the student sample represents the sample well. A mixed methods approach wias conducted for data collection, as both quantitative and qualitative data was be collected and analyzed.

Research Questions:

- How and to what extent do cogenerative dialogues impact clinical instructors and students' perceptions of rigor in a teacher preparation program?

- How and to what extent do cogenerative dialogues impact clinical instructors' teaching decisions?

Procedures:

Timeline. This study was conducted August to December 2011. It was divided into four phases. Dates are included in the narratives for each phase below.

Recruitment. The last week of August, 2011 I conducted the recruitment stage of the innovation. Initially, I had hoped to approach four different instructors of two different classes: two instructors of TEL 504, Learning and Instruction and SPE 555 Inclusive Methods in Secondary Schools. However, one of the instructors who taught SPE 555 is no longer teaching in the program and was replaced with a faculty associate, a part-time instructor. Another instructor in the TEL 504 course was unavailable to participate due to severe health issues at the beginning of the term. Therefore, I made different decisions in the recruitment phase. I approached a TEL 504 instructor for students in the Science Cohort, the SPE 555 instructor in the English/Language Arts/Social Studies cohort, and the SED 593, Applied Projects, instructor in the Math cohort. I approached each instructor using the approved Institutional Review Board letter and language. All of the instructors I approached were willing to participate, and were well aware that I was conducting this study. All were familiar with the call to action by Arne Duncan, U.S. Secretary of Education, for teacher preparation colleges to increase the rigor of our programs. Two instructors were familiar with the evaluation system of the college and were concerned about the scores for the items related to rigor. The third instructor, while a veteran instructor in teacher preparation programs for undergraduate education, was new to the program.

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In addition, I explained the concepts of Tobin's cogenerative dialogues. I followed this meeting with follow up e-mails and phone calls to secure times for the pre-intervention interviews and discuss the instructor participants evening obligations to ensure the scheduling of the cogenerative dialogues would best fit into each instructor's schedule.

Introduction. Second year Science, Math, and English/Language Arts/Social Studies Secondary Education (SED) InMAC students were approached with the Institutional Review Board approved recruitment script on the first night of classes. Students were recruited by random sampling (Miles & Huberman, 1994 & Trochim, 2006). This type of sampling allows me to compare the different categorical data, such as gender or private vs. public undergraduate institution, with continuous variables. The "research randomizer," a numeric randomizer, created a list of eight random numbers (www.randomizer.org 2007). I selected the number of sets, numbers per set, and range of numbers, and the research randomizer constructed a list of numbers. Using the enrollment spreadsheets for each cohort, I found the student names on the spreadsheet that corresponded to the numbers. I approached students on the list until three students were able to commit. These students were given a formal invitation via a face-to-face meeting (see Appendix A). Many students were not able to commit 4 hours of their semester, even an hour at a time, due to professional obligations. Three students in year two Math cohort, three in the year two Science cohort, and three in the year two English/Language Arts/Social Studies cohort agreed to be

participants. I explained the purpose and implementation of cogenerative dialogues to the students. This was explained in writing and in the face-to-face invitation (see Appendix A). A list was created with student names and assigned numbers. This list was secured in a locked filing cabinet.

During this phase I attempted to create a calendar of specific dates and times to meet for the cogenerative dialogues. This proved difficult to accomplish due to scheduling conflicts and the nature of the k-12 settings the students were teaching, so participants decided that they would like to schedule each at the end of a meeting: the first dialogue would end by scheduling the second dialogue and so on. I also wrote a set of rules for the collaborative dialogues based on Martin's (2006) "Ace's Rules" for cogenerative dialogues. The rules I created were 1) No one voice is privileged. All participants are equal in this process. 2) Everyone has the space to speak, but speaking is optional. 3) Gain permission from the group, not Melissa, to speak. 4.) What we discuss in a cogenerative dialogue, stays in the cogenerative dialogue unless permission is secured from the group to share with others (Martin, 2006).

This phase included pre-observation interviews of each individual participant. Before each interview, I secured signatures on the IRB forms and reviewed the reason for the study and subject rights. All participants were asked the same questions in the initial interview (See Appendix B).

Intervention. I implemented a total of twelve cogenerative dialogues over the course of 16 weeks. Students take three courses each semester: 1 the first eight weeks of the semester, another the second eight weeks, and one course that run the complete 15 weeks (See Table 3.1). Therefore, the TEL 504 Science students and clinical instructor participated in their cogenerative dialogues the first eight weeks of the semester, the SPE 555 English/Language Arts/Social Studies students and clinical instructor, participated in their cogenerative dialogues the second eight weeks, and the SED 593 Math students and clinical instructor participated four times over the course of 15 weeks. From these codes, percentages of each group were calculated.

Clinical instructors were placed in their group by convenience due to the fact that three courses and cohorts were targeted. Clinical instructors who taught the courses identified were recruited. By running these three different sessions of cogenerative dialogues with three different cohorts, I was able to measure and gather data from a wider pool, and have a wider perspective of my research questions. This allowed me to better measure of the impact of the cogenerative dialogues, and allowed a representative sample from the entire year two Secondary education student body. Demographic information of the year 2 Secondary education InMAC students is provided in table 3.2.

Table 3.1: Cohort and Clinical Instructor Groups

Cohort	Students Session/Weeks	Instructor	Class	
Math	3/22	1	SED 593	C/15weeks
Science	3/22	1	TEL 504	A/8weeks
English/LA/SS	3/21	1	SPE 555	B/8weeks

Table 3.2: Student Demographics

Characteristic English/LA/SS	Math (n = 24)	Science (n = 22)	(n = 21)
Gender			
Male	13	3	12
Female	8	19	9
Race/Ethnicity			
White	21	20	17
Hispanic	1	1	1
African American	1	0	3
Asian	1	1	0
Partnering Agency			
Teach for America	21	18	19

Arizona Teaching Fellows	3	2	2
Not affiliated	0	2	0
Undergraduate Institution			
Not Identified	5	6	9
Public	15	9	4
Private Liberal Arts	1	3	5
Ivy	1	2	0
Jesuit	0	1	0
Christian	2	1	3
Teaching grade level			
Middle	13	15	16
High	11	7	5
Undergraduate Degree			
Applies to teaching content	11	7	8
Does not apply to teaching content	10	10	4
Did not disclose	3	5	9

Cogenerative dialogues were spaced from one to three weeks between meetings to allow time for changes and meet the participants' busy schedules. By spacing the cogenerative dialogues with time between, it allowed time for reflection and instructional shifts between meetings. While the invitation was designed to include all four participants in each cohort (see Table 3.1), the actual participants per dialogue ranged from one to three students due to absences due to scheduling conflicts. The clinical instructor of each cohort was always present

during the dialogues. Each of these dialogues was based on the learning and instructional experiences in our program. Each dialogues began and ended with the cogenerative dialogue protocol based on rules Martin's (2006) "Ace's Rules" for cogenerative dialogues. Each member developed topics to discuss at each meeting. The suggestion/request asked participants to answer journal topics (see Appendix C). However, only one instructor completed the journals each time, and two students wrote sporadically. As expected, all participants did address topics brought by each member. Each meeting ranged in length from 28 to 52 minutes (see table 3.3). Each meeting followed this format:

1. Greetings and review of the cogenerative dialogue guidelines.

2. I asked each member what topics s/he wanted to discuss. Notated those topics. Each member spoke and contributed a topic.

3. The participants dialogued about the topics.

4. I gave a five-minute warning when appropriate.

5. We reviewed the cogenerative dialogue rules and discussed any topics the group would like to discuss in the next meeting. Permission was gained from the group twice to share an insight with people outside of the group. Once, a Clinical Instructor realized communication of an assignment was not clear, and wanted to add clarity to the whole group. The other instance was a result of scheduling of course that could be changed for future

cohorts, and the schedule was due very soon after that meeting. Participants were given hard copies and electronic versions of the journal prompts (see Appendix C).

Table 3.3: Cogenerative Dialogue Meeting Times and Attendance

Cohort	CGD1 Meeting Time & Attendance	CGD2 Meeting Time & Attendance	CGD3 Meeting Time & Attendance	CGD4 Meeting Time & Attendance
Science	45 minutes 1 student/1 Clinical Instructor	51 minutes 3 students/1 Clinical Instructor	51 minutes 3 students/1 Clinical Instructor	50 minutes 3 students/1 Clinical Instructor
Math	52 minutes 2 students/1 Clinical Instructor	49 minutes 3 students/1 Clinical Instructor	38 minutes 3 students/1 Clinical Instructor	51 minutes 2 students/1 Clinical Instructor
English/LA	46 minutes 2 students/1 Clinical Instructor	32 minutes 3 students/1 Clinical Instructor	28 minutes 3 students/1 Clinical Instructor	48 minutes 3 students/1 Clinical Instructor

Evaluation. After completion of the cogenerative dialogue process, the videos were transcribed using Dragon Dictate Software. Alongside of the transcription, I created individual questions for each participant. These questions

were used in the post observation interview to member check the transcription and ensure accuracy of information. I listened to pre and post interviews and selected phrases and answers that correlated with the codes developed in the coding process of the transcription.

Setting

Arizona State University Downtown campus is located in the urban hub of Phoenix, Arizona. With close proximity to all of the major freeway arteries of Phoenix, the campus is ideally located to meet the needs of intern certified teachers who teach all over the Valley of the Sun. The campus serves both undergraduate and graduate programs. While the students in the InMAC program teach all over the valley, many of the students enrolled in the InMAC program chose to live within 10 minutes of the campus due to its close proximity to the headquarters of both Teach for America and Arizona Teaching Fellows.

In 2007, Mary Lou Fulton Teachers' College's (MLFTC) established a strong presence at the Down Town campus. With the growth of iTeach and the InMAC program, MLFTC grew to meet their needs by adding the downtown location and offices. The campus is surrounded by several cultural and art organizations such as the Children's Museum, Herberger Theater, the Arizona Science Center, and the Chase Field Ball Park. This location gives the campus a hip vibe that many of our students enjoy.

Participants

Participants in this study were recruited from three cohorts of second year Secondary Education Intern and Masters and Certification students and the clinical instructors who support them. All of the student participants teach in Title 1 schools as the teacher of record. Eight of the nine students were also associated with Teach for America, and one was associated with Arizona Teaching Fellows. While the Math and English/Language Arts participants represented a wide variety of public and charter districts, all of the Science participants taught in one k-8 district. All have passed an Arizona Educator Proficiency Assessment, AEPA, in his/her teaching content area.

Table 3.4: Participant Teaching and Background Information

Student Number	School	Teaching Assignment	Undergraduate Degree	Undergraduate University
101	MS Public k-8 district	7th Grade Science	Political Science	UC Irvine
102	MS Public k-8 district	8th Grade Science	Sociology	UT Austin
103	MS Public k-8 district	7th & 8th Grade Science	Social Policy	Midwestern University
201	MS Public k-8 district	7th & 8th Grade Math	Construction Engineering	Montana State
202	HS Public k-12 district	9th Grade Algebra; Trigonometry,	Mathematics	U of NC Chapel Hill

		AIMS Prep Math		
203	MS Public k-8 district Public k-8 district	7th & 8th Grade Math	History	Gustavus Adolphus
301	MS Public k-8 district	7th Grade Language Arts	Political Science	Macalister College
302	MS Public k-8 district	7th Grade Language Arts	Political Science	Purdue University
303	HS Charter	9th & 10th Grade English	Journalism	Texas Christian University

Three clinical instructors were included in this study: one male and two females. Prior to joining ASU four years ago the male instructor taught middle and high school southern California, and also is a TFA alumni. During the intervention, he taught TEL 504 to the Science cohort. The first female teacher taught SED 593 during the intervention. Prior to joining Arizona State University, she served as clinical faculty in a school of education at a public university in the Midwestern part of the United States. Her experience includes teaching middle school math, but the majority of her career has been spent in higher education. This was her first semester at ASU. The other female instructor worked in many diverse settings with extensive background in the co-teaching model and twice exceptional high school students, and has taught for ASU full time for three years.

During the intervention, she taught SPE 555 to the English/Language Arts/Social Studies cohort. All clinical instructors have earned a Masters degree.

Measures

The data that I gathered are based on mixed methodologies. The research questions I am exploring address how and to what extent perceptions of rigor change in both clinical instructor and student participants and what impact cogenerative dialogues have on clinical instructors future instructional decisions. To best assess this, data needs to triangulated. Triangulation builds basis for reliable and valid data results. Miles and Huberman (1994) state triangulated data should support each other, but when it contradicts it allows us to explore more deep conclusions. Through triangulation, opportunities abound to construct deep understandings of the research questions as they relate to the data. Also, due to nature of the questions and intervention, the data gathering process needs to serve a complementary purpose. Each type of data collection needs to fit together to build a complete picture of the puzzle, or at least as complete a picture as possible.

Quantitative Measures. One quantitative instrument was used to collect data. The survey of student perceptions of rigor based on the National Survey of Student Engagement measured the first research question as it relates to students (Indiana University, 2010).

***Surveys*.** The survey of student perceptions of rigor based on the National

Survey of Student Engagement, was given to the participants and the entire

population of the year two SED InMAC students (Indiana University, 2010). This

survey was designed to measure rigor and student experience in an undergraduate

education. The survey has two major constructs: outcomes and engagement

(Ohland, Sheppard, Lichtenstein, Eris, Chachra, and Layton, 2008). Outcomes

include concepts such as higher order thinking, diversity, reflective and

integrative learning, while engagement includes usage of technology, interactions

with faculty, active and collaborative learning(Ohland, Sheppard, Lichtenstein,

Eris, Chachra, and Layton, 2008). There is some variation in the level of

reliability the NSSE measures depending on the source. Kuh (2010), the

originator of the survey claims a Chron Bach's measure of 0.702-0.859 depending

on the subscale and population measured. Ohland, Sheppard, Lichtenstein, Eris,

Chachra, and Layton, (2008) calculate the Chron Bach's measure of 0.45-0.82

depending on the subscale and population measured.

This survey was chosen as an indicator for what extent perceptions of

rigor change as a result of cogenerative dialogues. This measure was selected

based on accessibility and appropriateness in measuring rigor in collegiate

coursework quality. The NSSE has a 10-year history of implementation. While

other measures have been developed to assess quality of teacher preparation

programs, this measure is the most specific to the concept of rigor (Levine, 2006).

This measured perceptions and definitions of rigor by both sets, and measured any

possible changes in these perceptions as a result of the intervention. The survey consists of 23 Likert items of items of rigor, 4 items requiring students and instructors to report numbers of types of assignments, and 7 demographic items (see Appendix D). The survey was administered face-to-face via hard copy at then end of the semester in the course the students were not taking with the participant clinical instructor.

In addition to student surveys, the participant clinical instructors also completed the same survey answering the Likert items as they believed the students in the participant group would answer. Each clinical instructor completed three surveys; one for each student in their cogenerative dialogue. The purpose of this is to measure to what extent clinical instructor perceptions of student understanding of rigor aligned with the student understanding, the first research question. Agreement is not possible in all circumstances, but an understanding of the student perceptions is something that we can strive to work towards in our program.

Qualitative Measures. Qualitative data collection consisted of video recordings of the cogenerative dialogue meetings, journaling, and pre and post intervention semi-structured interviews. In addition, I took notes during the pre-intervention semi-structured interviews and during each cogenerative dialogue. The purposes of these qualitative construct a picture of the commonalities and differences in perceptions of rigor before, during, and after the intervention.

Video Recordings. Video recordings of the process offered an opportunity to digest what was said in the meetings, how the participants said it, and how each participant received the message sent. Through this process I constructed themes of student perception of rigor and ownership of learning, and the instructors perceptions of rigor and their instructional choice decisions. This process allowed me to describe if cogenerative dialogues impacted clinical instructors and students' perceptions of rigor in a teacher preparation program. The video recordings of the cogenerative dialogue meetings, allowed me to transcribe and analyze the process of the dialogues.

Journals. Participants were asked to complete journals in short answer form. The request was made at the end of each cogenerative dialogue meeting, and the suggested topics were given to the participants in hard copy and electronic form. (See Appendix C). The purpose of the journals was to encourage students to develop topics for the dialogue, and to help me triangulate my data to address both research questions. The intention was to analyze what changes participants are internalizing, allow the participants to make decisions as to topics of discussion related to coursework and rigor in the program, to allow me to analyze any changes and identify items the instructors and students deem as rigorous in the classroom. Through these journals, I intended to evaluate what language each individual participant uses to describe rigor in his/her coursework, and to evaluate extent of change in their perceptions of this. However, only one participant, the SED 593 clinical instructor, completed the journals every time. There seemed to

be some confusion as to whether the journals were necessary. If I were to do this

over again, I would have the participants take the first five minutes of each

cogenerative dialogue to construct responses to journal prompts.

Pre and Post intervention semi structured interviews. The pre and post

intervention semi-structured interviews of student and instructor perceptions of

the cogenerative dialogue process were designed to assess the impact of the

process had on clinical instructor instructional choices and student choices of

ownership of rigor in the program. The pre intervention interview set the baseline

for participant understandings, values, and perceptions of rigor in the collegiate

environment, including the undergraduate experience and the InMAC program.

The post intervention interview allowed the participants the transparent

opportunity to discuss if they believe there was a change in their perceptions of

rigor, and/or if the process allowed them to explain their perceptions more fully.

Also, the post intervention interview allowed me to analyze any changes and

identify items the instructors and students deem as rigorous in the classroom

allowed the participants the opportunity to express problems and pitfalls with the

process. The pre-intervention interviews consisted of twelve open-ended

questions about the participants' current understandings of rigor (see Appendix

B). The post intervention interviews were far less structured, and was follow up

questions related to topics the participant discussed in the cogenerative dialogue.

These interviews were audio recorded on a flip camera, and coded for themes

related to the research questions and codes constructed in the analysis of the cogenerative dialogue transcripts.

Summary

As an educator of educators facing clearly stated criticisms of teacher preparation colleges, I believe that understanding the nature of perceptions of rigor is an important construct to deconstruct. I believe that this deconstruction will lead to program improvements that will impact teacher preparation and the k-12 classroom. To fully understand this, I believe that there needs to be an acknowledgement of the shared lived experience of the college classroom. Through cogenerative dialogues, a community of practice in which classroom stakeholders are given equity of voice, I believe that we can determine how and to what extent do cogenerative dialogues impact clinical instructors and students' perceptions of rigor in a teacher preparation program, and how and to what extent do cogenerative dialogues impact clinical instructors' teaching decisions. Through a mixed methods approach to data collection, this action research study happened over a sixteen week cycle, involved Math, Science, and English/language arts students year 2 InMAC students and their eight week course instructors, and involve survey data, video recordings, journals, and interviews. The data collection was designed for triangulation purposes and to complement each other. The qualitative data was analyzed via Rogers' (2002) "tri-part schema" of discourse analysis.

Chapter 4

ANALYSIS AND RESULTS

Quantitative Data Analysis:

Survey data was transferred to an Excel spreadsheet and Statistical Package
for Social Sciences, SPSS, software. Descriptive statistics was calculated. The
mean, median, and modes were analyzed for each question. Inferential statistics
were analyzed through T-tests for each subset of participants and control groups
and between student and instructor participant. MANOVAS were calculated and
analyzed to determine the impact of gender, race, undergraduate degree
application to teaching content, and undergraduate institution on the items
presented in the survey. A Chronbach's Alpha with significance level of 0.70 or
higher was constructed for these surveys to ensure reliability of the instrument, as
the NSSE is the inspiration for the questions, but some items were not used word
for word from the survey. A Cohen's D was constructed to determine if the
findings have practical significance to the ideas of rigor.

The survey consisted of 23 Likert items, four items that asked the respondent
to identify how many reading and writing assignments they finished in the
semester, and seven demographic items. The survey was administered to 56
students, including the nine student participants, after the completion of the
cogenerative dialogues. students were able to complete the surveys in 15 minutes.
The surveys were administered in a class in which the participating clinical

instructor was not teaching. Some students chose to skip some of the questions, which resulted in empty fields.

The 23 Likert items were divided into 4 subscales: active and collaborative learning (engagement), course related interaction with instructor (engagement), higher order thinking (outcome), and interactive and reflective learning (outcome) (Ohland, Sheppard, Lichtenstein, Eris, Chachra, and Layton, 2008).

Each clinical instructor completed three surveys; one for each student in their cogenerative dialogue. The three clinical instructor participants also responded to the survey as they believed their three students who participated in the cogenerative dialogues would answer.

A Chronbach's Alpha was calculated on the 23 Likert items. This resulted in a reliability measure of 0.811. The Likert items were further divided into two categories: engagement and Bloom's taxonomy. The 18 Likert Items related to engagement were calculated on the Chronbach's Alpha as 0.796, while the 5 Likert items related to Bloom's taxonomy was calculated to be 0.450. Level of significance for a social – behavioral studies is set at 0.70. The instrument as a whole demonstrated strong reliability, but demonstrated weak reliability on items related to Bloom's taxonomy.

Clinical instructor survey results. Each participant clinical instructor answered three surveys, one for each student participant in his/her cogenerative dialogue group. The instructors were asked to answer as each believed the student

would answer the survey questions. These answers were analyzed with the descriptive statistics, mean, median, and mode, and t-tests were constructed to determine how closely the instructor answered to the student answers on each item. Items were categorized into the four subcategories. Table 4.1 and 4.2 display the results of the survey data.

Table 4.1

Survey Results for Student and Clinical Instructor Participants

	Overall Average	Student Participant	Clinical Instructor Participant
(Engagement): Active and Collaborative Learning (8 items)			
Mean	2.49	2.69	2.31
SD	0.95	0.30	0.44
(Engagement): Course-Related Interactions with faculty			
Mean	2.25	2.70	1.76
SD	0.94	0.45	0.48
(Outcome): Higher Order Thinking			
Mean	2.72	2.67	2.78
SD	0.77	0.52	0.33
(Outcome)Integrative and Reflective Learning			
Mean	2.49	2.54	2.29

| SD | | | 0.71 | 0.37 | 0.33 |

Clinical Instructors assessed most closely how the student participants would answer the outcome construct higher order thinking and were significantly apart on how they perceived student participant answers on course related interactions with faculty.

Table 4.2

Paired Sample T-Test for Survey Perceptions of Course Rigor by Engagement and Outcomes

Subscale:		Student Participant	Clinical Instructor Participant	t-value	df	p-value
(Engagement): Active and Collaborative Learning	M	2.69	2.31	2.18	16	0.05
	SD	0.30	0.44			
(Engagement): Course-Related Interactions with faculty	M	2.70	1.76	-0.56	16	0.58
	SD	0.45	0.48			
(Outcome): Higher Order Thinking	M	2.67	2.78	1.44	16	0.17
	SD	0.52	0.33			
(Outcome)Integrative and Reflective Learning	M	2.54	2.29	4.29	16	0.01
	SD	0.37	0.33			

Note: N = 18

- mean difference is significant at $p \leq 0.05$

The purpose of the clinical instructors answering the survey as they believed the student participants would answer is to assess how closely instructors understood their students' perceptions. The p values were below the level of significance substantiates this in two of the four subscales, which indicates that the instructors understand student perceptions in two of the four subscales.

Student survey results: All 67 secondary InMAC students were provided the opportunity to answer the survey. 56 students answered, including the 9 student participants. Breakdowns by cohort of student surveys are: 17 nonparticipant Science, 3 participants Science, 19 nonparticipant math, 3 participant math, 11 participant English/Language Arts/Social Studies, and 3 participant Language Arts. The 11 students who did not participate opted out of taking the survey. All student participants provided all the demographic answers requested, while 10 student nonparticipants did not provide some of the demographic answers requested. The most frequently declined demographic question was undergraduate degree and undergraduate institution.

The purpose of the survey was to detect differences between student participant and nonparticipant populations in perceptions of rigor related items on the National Survey of Student Engagement (Indiana University, 2010). Table 4.3 presents the means and standard deviations of the nonparticipant and participant groups.

Table 4.3

Survey Results for Student Nonparticipants and Student Participants

	Overall Average	Student Nonparticipant	Student Participant
(Engagement): Active and Collaborative Learning			
Mean	2.50	2.47	2.69
SD	0.97	0.50	0.30
(Engagement): Course-Related Interactions with faculty			
Mean	2.49	2.40	2.70
SD	1.09	0.50	0.45
(Outcome): Higher Order Thinking			
Mean	2.44	2.35	2.67
SD	0.92	0.56	0.52
(Outcome)Integrative and Reflective Learning			
Mean	2.40	2.44	2.54
SD	0.87	0.56	0.37

Across the board, participant students rated items on the NSSE more favorably than the nonparticipant students.

To check for statistical significance of this finding, I implemented a t-test. Table 4.4 demonstrates the results.

Table 4.4

Paired Sample T-Test for Survey Perceptions of Course Rigor by Engagement and Outcomes

Subscale:		Student Nonparticipant	Student Participant	t-value	df	p-value
(Engagement): Active and Collaborative Learning	M	2.47	2.69	-1.28	54	0.21
	SD	0.50	0.30			
(Engagement): Course-Related Interactions with faculty	M	2.40	2.70	-1.47	54	0.15
	SD	0.50	0.45			
(Outcome): Higher Order Thinking	M	2.35	2.67	-0.94	54	0.35
	SD	0.56	0.52			
(Outcome)Integrative and Reflective Learning	M	2.44	2.54	-1.31	54	0.20
	SD	0.56	0.37			

Note: N = 56

- mean difference is significant at $p \leq 0.05$

P values indicate a statistical difference in the nonparticipant and participant student groups for all four subscales.

To measure the impact of specific demographic information, independent variables, on the general population of the SED InMAC program, I conducted MANOVAS. Gender, ethnic identification, undergraduate institution classification, undergraduate degree as it applies to the specific content the students teach, cohort of enrollment, and years the students intend to stay in the

teaching profession at the time the survey instrument was administered, all could play a role in how students responded to the survey. MANOVAS allowed me to measure the impact of these independent variables on the survey answers. The first observation of the MANOVA data related to the Wilks Lamba for each demographic variable. See table 4.5. A quick look at the level of significance measure indicates that only the cohort to whom the student belonged had a measurable impact. However, the undergraduate institution was within an level of significance in which the subscales should also be investigated.

Table 4.5

MANOVA Results by Demographic Feature

Demographic Variable	F Value	p Value	Partial Eta Squared
Gender	1.21	0.30	0.09
Ethnic Identification	0.86	0.64	0.80
Undergraduate Institution	1.55	0.09	0.11
Undergraduate Degree Applied to Teaching Content	0.78	0.62	0.60
Years Planning on Teaching	1.66	0.61	0.12
Cohort	2.06	0.05	0.14

Computed using alpha = 0.05

In addition to investigating the Wilks Lambda, I also ran Tukey HSD post hoc test on each of the subscales for each demographic variable. Again, the alpha

was set for 0.05 for level of significance. Some subscales were impacted by the

demographic variables. See table 4.6

Table 4.6

Significant MANOVA Results by Demographic Feature

Survey Subscale	Demographic Variable	Means	Difference (I-J in absolute value)	Standard Error	p Value	Lower Bound	Upper Bound
Higher Order Thinking	Female/Male	2.39/2.71	0.32	0.13	0.04	-0.01	0.68 *
Active and Collaborative Learning	Undergraduate Institution: Public or Ivy League	2.60/1.69	0.91	0.32	0.04	0.02	1.18
Active and Collaborative Learning	Undergraduate Institution: Public or Christian	2.60/2.87	1.19	0.34	0.01	-2.15	-0.23
Interactive and Reflective Learning	Years planning on staying in the teaching field: 2 years or 3 years	2.11/2.58	0.49	0.15	0.02	-0.92	-0.62
Interactive and Reflective Learning	Years planning on staying in the teaching field: 2 years or 11 years or more	2.11/2.92	0.81	0.23	0.01	-1.47	-0.16

Active and Collaborative Learning	Cohort: Science and English/Language Arts	2.47/2.85	0.54	0.15	0.00	0.17	0.91
Active and Collaborative Learning	Cohort: Math and English/Language Arts	2.31/2.85	0.38	0.15	0.04	0.01	0.74
Higher Order Thinking	Cohort: Science and English/Language Arts	2.34/2.80	0.49	0.16	0.01	0.09	0.88
Higher Order Thinking	Cohort: Math and English/Language Arts	2.31/2.80	0.46	0.16	0.02	0.07	0.84
Interactive and Reflective Learning	Cohort: Science and English/Language Arts	2.16/2.72	0.56	0.17	0.01	0.14	0.97
Course Relationship and Interaction with Faculty	Cohort: Science and English/Language Arts	2.27/2.76	0.50	0.18	0.02	0.05	0.93

*indicates that zero falls in the boundaries of means, and therefore can indicate no difference.

**Computed using alpha = 0.05

Qualitative Data Analysis:

Qualitative data included pre and post interviews of the clinical instructors and participant students. These were recorded. Interviews ranged in length from 22 minutes to 1 hour and 14 minutes. One student post interview was cut short due to a technical glitch. Cogenerative dialogues were video recorded. Journals were requested and prompts were supplied in both hard copy and electronic form. Only one clinical instructor completed the journals consistently, and two students did two journals. It was decided not to analyze the journals due to lack of consistency. The transcripts of the videos and interviews were analyzed through grounded theory of open and axial coding (Glaser & Strauss, 1967).

Each of the qualitative measures was interpreted through what Rogers(2002) describes as a "tri-part schema" of discourse analysis. This schema centers on "Halliday's (1975, 1978) systematic functional linguistic and contemporary discourse analysis," based on the works of Wodak (2006), Chouliaraki and Fairclough (1999), and Gee (1999). The first domain, genres, refers to the interpersonal language and interactions between participants (Rogers, 2002). Genres were constructed by evaluating the videos, journals, and interviews to identify the participants' interactions, points of agreement/disagreement, body language, speech patterns, and honoring the process of speaking the same amount and on topic, after coding the data for these traits (Chouliaraki and Fairclough (1999), Gee (1999, & Rogers, 2002). The second domain, "big D" Discourse,

refers to the ideation of the participants and representations the language used by the participants(Gee, 1999 & Rogers, 2002). Discourses were constructed by evaluating the three qualitative measures to establish how the participants used their language to represent broader identities. The third domain, styles, refers to the textual, grammatical structures (Halliday 1975; 1978, & Rogers, 2002). Transcripts of the three qualitative measures were analyzed by coding for grammatical usage such as passive and active voice, verb and pronoun choices, and other linguistic style markers.

All cogenerative dialogues were transcribed using Dragon Dicate for Macs. I listened to what was said by each participant, repeated the exact words into the microphone, Dragon Dictate wrote my speech onto a word document, and I checked the dictation for accuracies in the writing. These transcripts were coded through Hyper Research. I listened to the pre and post intervention interviews and pulled phrases from the interviews that were associated with the codes from the cogenerative dialogues. Again, I used Dragon Dictate to transcribe these phrases from the interviews.

Clinical Instructor Pre Intervention Interviews: Qualitative data analysis of pre intervention interviews revealed the clinical instructors' baseline interpretation of the definition of rigor and how each perceived he/she implemented rigor. All three clinical instructors were asked the same baseline questions, (see Appendix B). When asked for their ideas of one word synonyms rigor, two had constructs of purposeful application, two directly stated "thought

provoking," two suggested cross curricular and connectedness, and each had one word that was different from the other: choice, Maslow's hierarchy of need, and creating. Clinical instructors were also asked to hypothesize about the students' perceived needs and value of the program and instructor roles. Two of the three stated they believed the students perceived instructors as experts, citing the need for their help in the classroom and lesson planning, while the third believed some students did not perceive instructors in education courses as knowing more than students do about teaching in the k-12 setting. All three disagreed with the statement "Anyone can teach," and all three prefaced that statement with "not everyone could teach well."

Student Participant Pre Intervention Interviews: All nine of the student participants were asked the same baseline questions as the clinical instructors, (see Appendix B). When asked for a one-word synonyms for rigor, six of the student participants answered in terms they defined as "thought provoking," and three had constructs of purposeful action. These ideas placed them in agreement with their clinical instructors. Five of the students directly used the term "challenge" as a synonym for rigor, and three used the terms hard/difficult as synonyms for rigor. Only one placed the term "ability" as a synonym for rigor. Five of the students stated that their the most rigorous portion of their undergrad program was their senior thesis. Additionally important to note, not one of the students in the math cohort listed a senior thesis as an example of rigor in their undergraduate program. Instead, each used a math example as an example of rigor

in their undergraduate program. Five of the students stated their action research project was likely to be the most rigorous part of the program, and four stated that the classroom in which they teach and the application of new methods and techniques learned in the program were the most rigorous part of the program. Three stated they believed that the instructors in their courses were experts, while the other six believed the instructors were experts in the areas in which they teach. All agreed with the clinical instructors that anyone can teach, but not well. Three students believed that anyone can teach well if they are appropriately trained. Three of the students interviewed believed that people did not need a college of education to learn how to teach k-12 students. Six students believed that colleges of education were necessary to learn to teach well. Three of the six added that while teachers could learn how to teach without a college of education's support, they believed that was not a good practice because of the additional support he/she received.

Themes constructed from the Cogenerative Dialogue Process: All cogenerative dialogues were transcribed and coded. Twelve major themes were constructed and fell into one of five general topics: definition, clinical instructor locus of control, student locus of control, emotional, and institutional. Each of the twelve items was tallied in accordance to tables 4.7 and 4.8. Some total scores reflect additional questions that I asked, so clinical instructor and student totals may not total the denominator.

Table 4.7

Instructor Theme Codes

Construct	Theme	TEL 504/Science Clinical Instructor	SED 593/Math Clinical Instructor	SPE 555/English Language Arts Clinical Instructor	Total Clinical Instructor and Total Themes
Definition					
	Defined	3/143	14/143	16/143	33/143
	Engagement	1/35	3/35	0/35	4/35
	Relevance	0/23	9/23	0/23	9/23
Clinical Instructor Locus of Control					
	Instructional Decisions	17/87	4/87	9/87	30/87
	Self-identification/Image	6/20	2/20	0/20	7/20
Student Locus of control					
	Deciding to be invested	2/45	2/45	0/45	4/45
	Student Leaving the Profession	7/22	2/22	0/22	8/22
Emotional					

	Balance	7/39	3/39	1/39	11/39
	Overwhelm	1/30	2/30	1/30	4/30
Institutional					
	Culture	8/41	0/41	1/41	9/41
	Programmatic Issues	14/69	7/69	2/69	21/69
	Prestige of degree	3/26	1/26	0/26	4/26

Table 4.8

Student Theme Codes

Construct	Theme	Science Teachers Cohort	Math Teachers Cohort	English/Language Arts Teachers Cohort	Total Student Response by Themes
Definition					
	Defined	21/143	41/143	45/143	107/143
	Engagement	9/35	14/35	13/35	36/35
	Relevance	0/23	12/23	0/23	12/23
Clinical Instructor Locus of Control					
	Instructional	8/87	27/87	12/87	47/87

	Decisions				
Student Locus of control					
	Deciding to be invested	20/45	8/45	5/45	33/45
	Student Leaving the Profession	6/22	2/22	5/22	13/22
	Self-identification/Image	9/20	2/20	2/20	13/20
Emotional					
	Balance	16/39	5/39	6/39	27/39
	Overwhelm	4/30	12/30	5/30	21/30
Institutional					
	Culture	15/41	0/41	17/41	32/41
	Programmatic Issues	9/69	19/69	5/69	33/69
	Prestige of degree	5/26	8/26	0/26	13/26

Definitions: During the cogenerative dialogues, instructors engaged in conversations in which they actively discussed definitions of rigor 33 times, while students engaged in the conversation 107 times. The instructor of TEL 504 engaged in the outright defining of the term the fewest times, and his input

centered around the ideas that he was still making meaning of the term and actively engaged in discussions with other instructors about the term. The science cohort students did not develop a consensus when defining the term rigor. One student clearly stated that a master's program should have a level challenge and difficulty, and claimed that even the assignments that felt like busy work had a place in a rigorous program. The other two rejected the idea that any assignment they believed wasted their time or felt like a filler assignment had a place in a rigorous program.

The SED 593, math cohort instructor, actively defined the term rigor with the students and unpacked the term to into silos of what constituted rigorous coursework and what did not constitute rigorous coursework. In addition, most of the definitional inputs from her centered on her seeking input from the students. She actively asked the questions to engage students in the defining process. Each student was directly asked by the SED 593 instructor how he/she defined the term and added her own information to draw a very clear definition. An example of this is the quote, "I took from our definition of rigor and said the student should be open to new ways of thinking. To realize that rigor may or may not require time because that was that was actually one of my questions for this week. To realize and understand that the time put in the classroom is not what is being evaluated, but instead that the product is being evaluated. And to extend what they are learning about to their own situations. In other words, how does this apply to my classroom? How does this make me a better teacher? And how can I

take this and make it work for my students?" The math cohort students did come to consensus on their definition of rigor. Each agreed that a practitioner program should have an element of practical application and should have the student work outside of his or her comfort zone. One of the students explained the concept of rigor as "N+1, there's a range to N+1. You can teach to the very bottom of that range where they can still learn, but maybe not that much. Or you can jump it a little higher. It's probably not linear like that, but you get what I mean." During this explanation, the student held her hand close to the table to indicate a small range, and then held her hand at the shoulder height to show a higher range. All three students agreed with this definition by shaking their heads up and down.

The SPE 555 instructor engages in definitions of rigor that were based on her experience as a special education educator and with additional readings in journals. Citing the Council for the Exceptional Child journal, she was able to discuss the need for rigor in teacher programs. She also created strong ties between the rigor in the program and the field experience in which students practice and extend what they learn in the program. An example of in this interaction with a student in the cogenerative dialogues, "So there is a connection between rigor and accountability? Because I'm thinking about what you (one of the English/Language Arts students) had said about the idea of your instructors going out for a final project and watching them live and giving feedback on that particular project. That would create a sense of accountability and you were saying that time in the field is always the most rigorous." The students agreed

with this definition of rigor and helped construct it. One student was concerned

that the field of education had poorly defined the term, "I feel like in education it

is one of those words that is thrown out that no one really has a clear idea of what

they are talking about and that it changes from person to person." They also stated

that all theories presented in class should have a practical aspect in that they

should be able to apply that theory or see that theory in the classes that they teach.

The theme of engagement became apparent in both the Science and Math

cohorts. Each instructor addressed this. In addition to acknowledging that

engagement was a part of rigor, the TEL 504 instructor of the science cohort also

tied the level of engagement students displayed to their identities. To explain why

students might not be as engaged in their first year of teaching and in the ASU

InMAC program, he stated to the cogenerative dialogue science group, "I think

sometimes with first year teachers ASU, or TFAers, have not really bought into

ASU. They're more engaged in the TFA model (than ASU classes). After their

second year, there is a bit more engagement." Two of the three science cohort

students stated that they were more engaged with their coursework in the second

year than they were in the first year. The third stated that he had made the

decision early in the first year to be engaged.

However, the SED 593 instructor of the math cohort compared the themes

of engagement and relevancy as parts of rigor. "I don't think they're the same

thing (relevancy and engagement). I think engagement will help you with the buy-

in, but I don't find theory the most engaging thing in the whole world and yet it

helps me extend my thinking. And so in that example, I think that they are two opposite things. And yet, and yeah, it just helps with buy-in. If I want to learn something, even if it has no relevance to me, like when I was getting my Master's degree, we learned about voting methods in a map content class which I'm never really going to use. But I found it rigorous and very engaging even though it wasn't particularly relevant." While two of the math students held to the idea that they needed something to engaging before they could access rigor, one was not so certain. "I'm not sure. I don't think rigor and engagement are the same things at all. When I think about the courses where I was bored out of my mind, that doesn't mean that what I was doing was not broadening and challenging my mind set. I think part of that is that rigor comes from both the concept and the student."

The math cohort discussed the topic of relevancy almost exclusively. Relevancy is different from engagement because one can be engaged in something without finding it relevant or relevant without being engaging, as the SED 593 instructor explained. The SED 593 instructor asked her students to consider if something could be rigorous, but not engaging. Her question led to an interesting discussion with the math cohort students. She asked the math cohort students, "I'm thinking about modern geometry, which is kind of out there, and yet was very rigorous to me. But, I was like, "When am I ever going to use this?" It still made me think. Can there be topics like that in education that are related to education, but at the same time just for thinking? Are they rigorous?" This led to a discussion in which the students were certain that they needed to know why

something applied to the field of education before they were willing to take on a task or discussion. One student explained, "It's not that I don't think that outside things could help. I just don't feel like that, yeah, if you make the connection as to why this is important to me as an educator then, and I think people tell this to us all the time. If you can't think of why you want to teach this to your kids, then why are you? I think that applies to the graduate program."

Clinical Instructor Locus of Control: Some of the themes constructed are related to ideas that are within the control of the instructor, or viewed within the control of the instructor.

Instructors have choices in instructional delivery decisions. Also, instructors come to the program and class with a self-image that relates to their instructional style and relationships with students. Rigor in terms of instructional decisions instructors make was addressed 29 of the 87 times by instructors. The students accounted for 47 of the comments made about instructional decisions. The TEL 504 instructor spoke the most frequently by addressing instructional decisions a total of 17 times. He spoke of making instructional decisions on assessing his experiences during and after teaching a course. As he is also a former TFA core member, he admits to the group that some of his instructional decisions are based on that experience. Other ideas he discussed related to course structure, making scaffolding decisions, and not being sure if it is better for students to have work spread out though out the course of the class or having one big assignment due at the end. One interesting point of data is that this instructor

shared with the group an instructional adjustment with a course based on the dialogues. "I asked them (the new students in the first year cohort) just about what it means to in a graduate program. What are your expectations as a first year teacher, and all that stuff. So I took it to heart and Monday I had that conversation with the first-year teachers. It was really interesting. I think it may have gone in a little too tough, while I understand your needs as a first year teacher, you have to understand that this is a graduate-level class. But, you know, I backtracked a little bit and let them tell me what do they need. So the list, obviously, became to more practical teacher needs . . . they want resources that are more curated, not just thrown at me websites. You know, "I want examples that are practical, want depth and breadth. . ." You know my exit tickets are really good. They kind of gave me a lot of feedback. I listened, but now I need to learn how to incorporate them throughout the semester." In the fourth cogenerative dialogue, he reports, "A lot of times the students found it (the other course he was teaching) wanting. And so with this new approach I just asked them what they think they need and I countered with this is what you need to learn. We came up with quite an extensive list of things that I want to address and they want me to address. It's great just going down the list. For the first time in a long time, I'm finding that I do not have enough time in class to actually get everything done, which is actually a good thing. And they're leaving with – I've felt that – they have left doing more rigor and not just the next day solutions." This idea was a result of the three science cohort students explaining that students often feel that they have no say in

the syllabus or workload of the course. One stated, "I think it's really beneficial to upfront have an intentional conversation about what this is. I don't find that happening in a lot of classes. Another explained, "I feel like you're not differentiating for your students," when discussing the presentation of the syllabus and course topics. They all expressed a concern for student input into the course assignment schedule. One student believed that there was too much of a focus on Marzano strategies in too many courses. She did not believe they were effective in a Title 1 school.

This was the first semester for the SED 593 instructor. She is still making meaning of her role in the course structure. Her instructional decisions are influenced by this thought process, "That's has me thinking. What is the role of the teacher versus the role of the course versus the role of the student? As I try to make sense of this I'm wondering, what am I supposed to be doing as a teacher? The structure of the course - how does that shape the rigor that I can implement in the class? And, what is the role of the student in the class? And, I think that's related to what you all are experiencing when you try to infuse rigor in your own class."

The math cohort students were the most vocal about instructional decisions in the cogenerative dialogues. They were coded on 27 different occasions as to discussing instructional decisions. Each clearly expressed displeasure with the hybrid components of their coursework. They sited discussion board postings that did not match with the content of the class or was

there merely to ensure that they completed a hybrid portion in a class. They offered suggestions that included more math teaching strategies, less written reflections, building portfolios of math interventions, and less reading assignments. It is important to note that each explained that they were given many different math-teaching strategies in the first year, and thought they would be getting more of the same.

Of the three, the SPE 555 did not question her instructional decisions in the cogenerative dialogues. She shared her instructional decisions on the reading materials and assignments. She acknowledged that some of the students might not have understood the purpose of the signature assignment, but offered no options for future change. "I think like you (one of the ELA students) said a lot of people had the general idea of where they could differentiate generally, but the students really took it and created something different. And that's not the signature assignment for the class, but the piece that is the signature assignment is the ABC log. But to me that class really relies on that modification piece – having a little bit better knowledge of that IEP. . . It was about the process of those IEP's, what is legal and what is not legal. I think the ABC log took people more time. I think I got the impression that people saw that is hard to see what I was asking for with the ABC log." While the SPE 555 did not question her instructional decisions nor defend them, the students did offer some suggestions. One student explained that there should be more discussion in the face-to-face courses. Another student questioned using face-to-face class time to do PowerPoint presentations to teach

the rest of the class the textbook. All three students spoke about ways to infuse demonstration of application of a course's concepts in the field. One suggested using flip cameras to document teaching a strategy or the implementation of accommodations and modifications. Another thought clinical instructors should go to the students' classrooms to see them implement a teaching strategy taught and give feedback at that time. Also, one student questioned the use of Marzano strategies in a Title 1 classroom.

Both the TEL 504 and SED 593 acknowledged in the cogenerative dialogue process that each had an identity that was situated with the students. As the TEL 504 instructor was not only a former TFA core member, but also he was also a member of an ethnic minority group with which the students of the InMAC students might identify. He spoke about his own identity when he was a student within those two arenas and how each of these identities crossed paths. The SED 593 instructor spoke openly in the cogenerative dialogues about her newness to the program and the population of student and about her passion as both a math educator and an educator of educators. "It's weird being around because I'm passionate about education, so it's difficult for me to be around people who love their kids, but maybe are not passionate about education. It's strange for me to get used to because I have been an educator my entire career."

Student Locus of Control: The theme of student locus of control was constructed due to the need discuss the student role in rigor in the program. Two big ideas within those topics were explored: deciding to be invested in the

education and students choosing to leave the profession after his/her two-year commitment was fulfilled. The instructor of the TEL 504 course openly discusses the item on his course evaluation in which students assess his course in terms of rigor, as well as the idea that students often quickly dismiss a technique, theory or idea presented in the course. The SED 593 instructor openly discusses the student decision to extend the learning or try new things as a result of a course. While the discourse was labeled "deciding to be invested in the coursework' a total of 45 times, the TEL 504 and SED 593 instructors spoke on this only four times.

Students spoke on the subject of deciding to be invested a total of 33 times. One of the students in the science cohort spoke openly about his decision to be invested. "Because I have to do this ASU thing, I'm going to do it every Tuesday night for the next two years. Once I got past that, I thought "you know what? This is something that I can enjoy." So I walked in the door ready to have a good time and ready to be engaged. I want to bring the most enjoyment out of the experience, so I really like ASU. And I think it gives you something very different than the rest of your week." Another student in the science cohort did not agree, stating "It's one more thing and if it's not a good experience it becomes a thing you dread." Without any cross talk, a math cohort student explained in the dialogue, "I agree. The student has to want to learn. And, definitely, the student has to want to learn actively, if you don't want to come in like that, and I think we have all done it. I think the student has to be willing to look at something in a different way than what they're used to looking at. Because, ideally, rigor would

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challenge you, and if you are not willing to take a step in that direction, then you can't be challenged." The English/language arts cohort of students stated something similarly, but shared an instructional ownership, as well. One English/language arts student explained, "I think it is a two part process. You have to set the bar for them, but they have to be willing to put forth the effort to try to get there, which again goes back to you as far as investing them in getting them to believe that they want do that."

The other portion of the Discourse of student locus of control focused on students leaving the profession after two years. Students who belong to either the Teach for America or Arizona Teaching Fellows partnership are responsible for a two-year commitment to teaching. The TEL 504 instructor mentions several times that he would encourage students to stay a third year. He does state when discussing the rigor and application connection to the coursework in the program, "Even with the rigor, I'm not going to let them slide, or not do anything. It's going to be good. I do hope that there's an amount (of application of the class) that's today. I'm not just saying that third year, but stay somehow in education in some different capacity." Both the TEL 504 and SED 593 instructors openly discuss InMAC teachers' intent on leaving the profession and how that impacts their decisions. "We want to develop you as teachers, on the other hand, it's difficult sometimes, I think, as I look at the program and the courses. It's hard to know how much to push people knowing that some of you are really invested in education and others may not be," as stated by the SED 593 instructor. Building

on that, the TEL 504 instructor states, "A lot of TFA are going to leave at the end of the second year. We're definitely seeing checked out students the second semester (of the second year). That affects what we are doing."

One of the science cohort students was very clear in the cogenerative dialogues that she intended on leaving the field of teaching after two years. She sites frustration with her school placement and "because I'm not satisfied hitting that one kid, impacting that one kid's life. I want to be able to do something on a larger scale. Not that I don't think teaching is important, but I just feel like I could be doing so much more." This was stated when only one other student and the TEL 504 instructor were in the room. Both of the other participants shifted in their chairs and moved further away in their seats from her.

The math discussion on students leaving the profession was brief and related to how content in the program was sequenced and structured. One student questioned "So you are saying that some of the goals are more long term? And that may not resonate with people who are not thinking long-term? Is that what you are saying?" Both the SED 593 instructor and I nodded our heads in agreement. Another student answered, "I can see that, especially when I started to realize how many people are not planning on staying in education. But, I can see if you are planning on being someone who looks at it that just has two months left, "I don't care about this, you know." I think my stubborn side would say, "This is a Master's education."

The English/language arts cohort students did not address their cohort of students leaving, but did express concern about teachers leaving the profession due to the high needs of Title 1 schools. Each had witnessed teachers leave their schools, and all had the teacher next door leave mid year. For them, people leaving the field of education was seen as having a negative impact on children, but a part of life as a teacher.

Just as instructors have a locus of control over their own identity, students have a locus of control over their identities. The science cohort of students openly discussed the balance of their identity as novice teachers, TFA corps members, and ASU grad students. All three explained that they were teachers first, and the identification as a corps member follows, while the identification as an ASU graduate student falls last. "It's funny that you brought up what we identified first. Because when I meet a stranger, and they're like "What do you do?" I'm like, "Oh, I'm a teacher." And they're like, "Oh, you're so young. What do you teach? What made you think about teaching? Why do you teach?" And then, I'm like, "Well, I'm with Teach for America." And then I become more of a Teach for America proponent than being a teacher or working with low-income students. And then we talk about that for the whole time, and not like "where did you get your teaching certificate?" And I'm like, "Oh, I go to ASU, too." And that's pretty much ASU in the back there." The math cohort students also stated a similar preference in identity. "It's just sometimes hard to make that flip from teacher to student to teacher again." The English/language arts cohort students

avoided privileging a teacher identity, but did acknowledge that their identity is one of competitive students. "And I feel like sometimes you know, I feel like, at least our cohort, we've gotten to know each other very well and we push each other."

Emotions: One thing I had not highly anticipated when discussing rigor is the role of emotion in rigorous coursework. The big D Discourse of emotion was pronounced in the themes of overwhelm and balance. The theme of overwhelm was discussed twenty nine times with the bulk of those conversations taking place in the first eight weeks, while balance was discussed thirty nine times. The themes were constructed based on the ideas that the expressions of being overwhelmed were not followed by solutions to move away from overwhelm, while the expressions of balance centered on the conversations of how they found solutions to an imbalanced life.

Both the SED 593 and TEL 504 instructors addressed the student concerns of being overwhelmed as it related implementing new ideas from courses and coursework/teaching balance. The SPE 555 instructor addressed the instructor concerns of being overwhelmed as it related to timely feedback. Of the thirty coded entries for overwhelm, the instructors only addressed it four times. One student in the science cohort explained that he did not agree when his classmates vocalized that the coursework was too much, while another stated "I feel like I don't do anything fun, so there's no more time to pull from anything else." With

12 codes related to the math cohort students speaking on overwhelm, they addressed it the most. Their concerns related to being in tears over the workload, taking time off work to catch up on coursework, and feeling that they were cheating their students when they worked on coursework for their master's degree. The English/language arts students discussed overwhelm in conflicts between the messages they were hearing from ASU, TFA, and their school. However, one explained that they faced less overwhelm than the math cohort students because the amount of writing was something that the students in the English/language arts cohort were used to completing in their undergraduate degrees.

The TEL 504 instructor spoke the most frequently about balance. Four of his seven codes specifically addressed the discourse of student life choices in balance, while the remaining three focused on how he makes instructional decisions based on their need for life balances. "At the same time, it's also balances the instructor, and I feel I do this. Constantly sacrificing some content because I am wanting to accommodate the lifestyle of the TFA intern teacher." All three science cohort students explained that they are cognizant of the need to balance teaching, TFA obligations, ASU coursework, and having a life outside of school. One student explains that she accepts less of her work in all four areas rather than being good at one thing. She does look forward to a third year of teaching without TFA obligations and ASU coursework.

The SED 593 instructor focused three of her discussions related to rigor and instructional decisions, and most specifically, the discourse of programmatic decisions. She asked the students what sacrifices in the program set up they were willing to make to gain more balance in coursework, but also mentioned the need for many of the items mentioned by the students as concerns, the amount of time in classes and hybrids, were outside of the instructor's control. One student responded, "I think we've been talking about this the whole time. Just making those connections, how to add rigor without adding busywork. Try to tie everything to the classroom and try to tie - really sell the value of it."

The SPE 555 instructor specifically questions the concepts of rigor, overwhelm and balance. "I have a lot of students who seem very stressed out. And the anxiety, you know what I mean? And I'm wondering is that an effect of rigor? Is that an effect of the program, holistically, you know? How to balance that." One student explained "In many cases, I work 50 hours a week. My workload at ASU has really never been a source of stress maybe outside of a couple of weekends in a year. And so I think that we all forget sometimes that our classroom teaching is where that 45 hours of me teaching and grading classroom stuff each week counts towards our master's degree." The other two English/language arts cohort students did not mention anxiety over ASU coursework.

The Role of the Institution in Rigor. One area of Discourse that emerged was the idea that the institution plays a role in how the program impacts instructors, students, and the construct of rigor. First, there are programmatic concerns that emerge as a result of what is needed by the institution. Also, institutions carry a certain amount of prestige that open or close future opportunities. Finally, institutions have a unique culture, and that impacts other cultures.

Combined, students and instructors were coded 69 times for programmatic issues. Programmatic issues were defined as how the program of study is sequenced, the presentation and purpose of the program, and why specific content is in the program. Of the three instructors, the TEL 504 instructor spoke the most about this topic and justified the purpose of the program more frequently. He explained to the students why the courses were sequenced the way they were, and how the program was developed to serve their specific needs in the overall teaching community. One science cohort student noted, "that first year, I really appreciated having that class that first semester. That second semester, I didn't need any of that. I shouldn't have even come to class." Another science cohort student wanted more choice, explaining, "Whatever you think is going to be best for the area you're serving in. It doesn't make sense to be perfect in everything." Another science cohort student questioned program's ability to prepare teachers to serve populations of students who are not in Title 1 schools. "I think it calls into

question, is that even a real possibility that a school of education could adequately equip a teacher to perform at a high level in both settings."

Discussions held by the SED 593 instructor were centered on the specific course she was teaching and the ideas of how the content in each course in the sequence related to practical classroom applications. One of the math cohort students was very concerned about the overall goals of the program. The SED 593 instructor admits to being new to the program, but does offer an explanation of the goals. "Some of the requirements of your program are coming from the state and not necessarily the University. The University needs to do those things to keep in good standing with the state, as well as accreditation. So, as I look through the list of classes, again just being new, I see some of those requirements reflected in the classes. I also see them wanting to develop you as teachers." The student clarified with, " So are you saying that some of the goals are longer-term? And that they may not resonate with people who are not thinking long-term?"

The SPE 555 instructor spoke on this topic the least and made comparisons from the InMAC program to the traditional, teacher prep programs ASU offers. The students explained the impact on the program sequence with this quote. "Last year was not particularly challenging at ASU, but that was a good thing because I did not have the energy to be an effective grad student last year because I had never taught before and the speed bump of becoming a good teacher takes such a huge amount of energy."

In two of the three cogenerative dialogues, participants discussed the prestige of the program as it related to other options the students have for certification, as well as the role of qualitative research in the program. While the TEL 504 instructor specifically asked the cogenerative dialogue participant students why they chose the Master's degree program over the online program offered by a local community college, the SED 593 instructor was unaware that the students had a choice in how they could gain and retain certification. The SED 593 instructor also addressed the level of prestige students gave the program based on requirement of action research, as these cogenerative dialogue students stated that action research was not real research. She clarified what it was that they were explaining.

Students shared in the cogenerative dialogues why they selected ASU over another program. One of the science cohort students shared "if you get a master's degree from Arizona State University's college of education, for them to put their name on it and say, "This is a degree I approve of," I think there should be research in the program." Another science cohort student explained, "That's the way society is set up. You value the higher ranking school." The math teachers explained that they felt pushed to get the master's degree over the straight certification program. One of the math cohort students stated, "I guess it looks good on a resume." The issue of the institution's prestige or resume building potential was not explored in the English/language arts cohort's cogenerative dialogues.

Interestingly, the theme of culture was coded 37 times, with the TEL 504 instructor coded eight of those codes. It is important to note that the cogenerative dialogue group in which he participated was composed with three of the four participants self-identifying as ethnic minorities, while the all other participants in both of the other groups self-identified as Caucasian. He specifically spoke about the role of being an ethnic minority in the TFA program, as well as the value of looking like the students they teach. He acknowledged that TFA has been making efforts to recruit more people who identify as a minority. One student explained the impact of being one of the few corps members and ASU students who shared a cultural heritage with her students. "And it's the worst feeling seeing everyone in the room talk about kids who were just like you, and they can't even interact with you as an adult. So, you can teach these kids when they're little, but you can't talk them as an adult. . . Almost like they have this power over little kids, "it's okay because I can control you, you're still little. As a peer in the classroom, I can't." It's different." Another student offered "That goes back to the whole socio-economic thing." Still, the student who identified her background as being that of her students goes on to explain that this lack of diversity and what she saw as lack of acceptance of diversity impacted her ability to access the program. "I would say yes. The lack of diversity has affected a lot."

On the other hand, the SPE 555 instructor spoke one time about the importance of the school culture in which the students teach in the program. She specifically addresses the need to be innovative in such settings and the value of

intelligent teachers in those settings. Also, she explains that the school culture "makes people want to run" rather than stay and change the system. Students spoke about the barriers related to the student population. "There's an extra element of parenting." Also, "I feel like there's nothing I could learn at ASU that would help prepare me for kids who are going to hit me in the hallway." They also echoed being placed in schools with high staff turn over as different from their personal k-12 experience. As one student explained, "Well, the schools I went to, it's all the same teachers I had growing up. They're there for the long haul. I think that creates a different atmosphere."

Clinical Instructor Post Intervention Interviews: Post intervention interviews were coded with the major themes that were constructed during the cogenerative dialogues. Clinical instructors discussed the five major themes and the twelve sub themes. The sub-theme of course evaluations was added to the theme of the role of the institution, bringing the total of sub-themes to thirteen.

Definition: Two of the three instructors referred to student inputs in the cogenerative dialogues when defining rigor as a result of the intervention. One was surprised that the students did not supply an absolute rule for defining rigor. He expected a declarative statement from the students and wonders if they would be more declarative in a larger group. The other instructor expressed surprise that students unpacked the definition of rigor as practical applications. However, she did use the term "purposeful application" as a synonym to rigor in the pre intervention interview. The third instructor defined rigor in terms of the constructs

of creativity, relevance, and practical application. She does not address Maslow's hierarchy of need in her post intervention interview, as she did in the pre-intervention interview.

All three instructors discussed the ideas of engagement in terms of how the students are able to be prepared for the class and decide to be engaged. Both the TEL 504 and SED 593 instructors discussed the need for the students and teacher to share the responsibility of engagement through class conversations and preparation. The SED 593 and SPE 555 instructors also noted that student perceptions and biases prior to the start of a class impacted student engagement. They both explained that students had pre-conceived notions about the need for their classes and students would become disengaged in the content and class activities or discussions if their bias prevented them from seeing the value of the course.

Additionally, all three clinical instructors discussed the theme of relevance in coursework as a way to access rigor. The TEL 504 instructor believes that the students need to see an assignment or coursework as useful, or students will not accept the rigor of the class. The SED 593 explained that she believed applicable concepts seem very low on the level of cognitive demand if the students are not synthesizing the content or taking time to process the conceptual ideas prior to implementing the new ideas. The SPE 555 instructor explained that purpose of an assignment must be present to access rigor, and that students see their field

experiences as the most rigorous part of the program. This is important to note because she believes that feedback that student are given in the field is where relevance and rigor meet.

Only the SPE 555 instructor addressed the theme of practical application. Much of her concern about practical application related to the idea that some of her students claimed not to have special education students in their classrooms, and vocally complained about her course.

Clinical Instructor Locus of Control: As a result of the cogenerative dialogues, all three instructors had thought about ways to change some of their instructional decisions. The TEL 504 instructor implemented a change with a new cohort by asking the students what they thought they needed out of his course on the first night of face-to-face instruction. He transparently addressed those needs in each in class. The following semester, he did teach the same cohort that the cogenerative dialogues students from which the cogenerative dialogue students were sampled. The change he implemented was a transparent discussion of what he needed them to complete prior to class, the level of participation he expected, and what portions of the course were non-negotiable, such as meeting times, hybrid assignments and larger course topics. While the course coordinator mandated much of the content of the course, the SED 593 instructor started to consider which pieces of the course she could exercise more academic freedom. She did share that she believed that she had very little freedom to change the even portions of the course. However, she did express that she believed she could

establish structures for selection of research topics that could help her students

conduct the research. Also, she started to implement more community building

activities in her classes. She believes that the relationships between instructor and

student need to be established in order to establish a culture that allows her

students to dig deep into content. This was important to her prior to this semester,

so she would not state that was an instructional change. The SPE 555 instructor is

also the course coordinator for the course, meaning she builds the syllabus for all

who teach the course to implement. One conversation in the cogenerative

dialogues really had her focus on the idea of students filming the implementation

of the modified lesson to analyze their own teaching and ability to implement

modifications in a lesson. One area in which she reflected as a result of the

cogenerative dialogues was the reaction students had to her rubrics. Her rubrics

tend to be more holistic because she wants the students to approach the process

more creatively. Her approach is to focus on the elements of creativity,

particularly flexibility and elaboration. However, the students expressed concern

and a desire for a more structured rubric and an example. She is still deciding how

she would like to address that in the future.

The three clinical instructors did share their identities in the post

intervention interview. The TEL 504 instructor wants to honor the students' sense

of agency, but understands that they are novices in teaching. He was hired as the

expert, and views his knowledge as expert. He also stated that he believes the

students see ASU and its instructors as a service provider and tries to so his job

effectively. He keeps in mind that he does not want to waste their time in class or in the field. The SED 593 instructor shared her concern about sharing too much with cogenerative dialogue students. She explained that by nature she is reserved and an introvert, and this impacted her overt participation in the dialogues. She believes that she did not share as much in the dialogues as the students. The SPE 555 instructor explained that special education teachers approach educational topics differently than general education teachers. She believes that these different approaches impacted the way the students in the cogenerative dialogue related to her. She thinks this may be out of fear on the students' part that she had judged them about the choices they had made in the past with their special education students.

Student Locus of Control: All three clinical instructors explained that they did believe that students must make the decision to be invested in the coursework if there was going to be an element of rigor. The TEL 504 instructor added to earlier conversations from the cogenerative dialogues by explaining that he used to be concerned about the students perspective, but now has moved into a realization that he is not engaging the students in irrelevant content. It's up to the students to decide to be invested and he enjoys talking to students after class about the course content's impact on their teaching. The SED 593 instructor approached the topic of student investment with "there needs to be curiosity and passion in the student to be engaged." The SPE 555 instructor explained that students who did not purchase the textbooks or do the readings are frustrating her.

She is focused on how to get the students to engage in the readings, and not sure how to approach it. Also, she realizes that some of the students were comfortable in their present way of approaching lesson planning. As her course asks them to look at lesson planning, instructional design, and instructional delivery in a different way, she believes that many students are not going to make those changes because they believe what they are doing is working and comfortable. Both the practice of not engaging in the readings and lack of willingness to implement modifications move students farther away from being invested in the course.

Another concern mentioned in the post intervention interview related to student locus of control is the impact of students' decisions to leave the field of education after their two year commitment is honored. All three instructors focused on different aspects of this. The TEL 504 instructor, who is a TFA alum and stayed in the profession beyond the two-year commitment, realizes that many will leave. While he does encourage the students to stay for a third year, he is more frustrated by the students who do not make the best use of those two years for their students. He believes that the students' own successes impacts their view of our program and their experience. The SED 593 instructor believes that there is less motivation in the students who intend to leave teaching after two years. She believes that this motivation and lack of commitment to the profession affects the level of effort they decide to put into the work. The SPE 555 instructor believes that students see the end of their experience in the program as something that they

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can be proud because the student negotiated his/her way through it, both physically and emotionally. She is in agreement with the TEL 504 instructor in that the student leaving the profession may not be a negative thing for the student or the program.

   Emotions: Balance, overwhelm, and culture all were discussed during the cogenerative dialogues and in the post intervention interviews. The TEL 504 instructor believes that it is the clinical instructor's responsibility to address the balance of the credential, the institution needs, the classroom needs, and the individual student's life needs. He believes that of all the institutions these students come in contact, ASU is the one that is most likely to address the need for life balance. The SED 593 instructor believes the Math cohort students misjudged the amount of work required of them that semester and added additional responsibilities, such as coaching and tutoring after school, to their already full work load. She believes that this tipped the students' life balance towards overwhelm. She is still working towards understanding how much she can encourage them to try new pedagogical ideas, and wonders if she is expecting too much of them. The SPE 555 instructor has the experience of teaching both first and second year students. She explained that the first year students report more emotional overwhelm than the second year. This overwhelm is based on the limits of what the students can accomplish in their own classroom. While this still exists in the second year, she believes the ASU program gives the students the skills to handle this more effectively.

Two of the three clinical instructors also discussed the impact of culture on the students' emotions related to coursework and rigor. The TEL 504 instructor discussed the role Freire in the education of Hispanic students. He does explain that it is relatively limiting to believe that Hispanic students only learn in one way; through open dialogue. While he honors her perspective, he had been in all three students' classrooms while they were teaching and did not notice a difference in how she approached teaching and learning compared to the other two students. He notes that TFA does struggle with lack of diversity in which they recruit as teachers. The SPE 555 instructor expressed concern related to the impact of the students' school culture on their ability to engage in rigor. She addressed an exchange between the students in which one student was threatened with violence by one of her own 7th grade students. The student related that there were no repercussions to the student who threatened her. All three students shared stories of their own 7th- 12th grade students' struggles with the school culture and how that impacted their ability to teach them. The SPE 555 instructor believes that the school cultures in which the students work impact their ability to access rigor in a college course. She believes these examples are emotionally difficult on the students, which can lead to resentment and feelings of guilt when the students engage in coursework that requires them to view their students and school culture with a different perspective.

The Role of the Institution in Rigor. In the cogenerative dialogues, the group discussed the role of programmatic issues and prestige of the degree in

relation to the role of the institution in rigor. As we began to discuss the cogenerative dialogue process in the post intervention interviews, another sub-theme was also discussed: course evaluations. One instructor believes that some class syllabi afford very little academic freedom. Two of the instructors would like to see the coursework re-ordered so that TEL 504 is taught prior to the SED 593 course because TEL 504 teaches the students how to conduct a very small and structured action research project. Two of the instructors were surprised to learn that each course needed to maintain 2200 minutes of instruction to honor the Carnegie units. This allowed these instructors a time to discuss the hybrid components of the course. All three believed that there should be more overt discussion of the time requirements for instruction to both the instructors and students, and that there should be an overt, internal discussion of what should count as hybrids for courses.

Two of the three instructors believed that the students chose ASU over another program due to wanting a Master's degree from an institution that was known throughout the United States. One believed that the students liked the idea of going to class one day a week with their friends. Since the other program is online, she thinks that students see online coursework as overwhelming.

The role of course evaluations was on everybody's mind. One instructor reported that his scores where were he expected them to be. When he first started teaching, the course evaluations would upset him, but now he places a higher value on maintaining fidelity to the course content over worrying about the

students' personal feelings about him. This was the first semester that one of the instructors had taught in the program. She was surprised by the scores, but believes that the scores reflect how the students felt about the content of the course requirements in which she had no say in developing. These scores were not what she normally saw at her former institution. She was not surprised when I told her about the studies that demonstrated that TFA students often score their instructors a quarter point lower than other cohorts of students score their instructors. The third instructor reported "good scores," but acknowledged that rigor and feedback were her low scores. She was surprised, and a little annoyed, that the students wrote in the additional comments section that they were required to have the textbook in her course. Having access to textbooks is generally considered a program requirement.

Student Post Intervention Interviews*:* Post intervention interviews were coded with the major themes that were constructed during the cogenerative dialogue. Students discussed the five major themes and the twelve sub themes. The sub-theme of their applied project, the capstone project of their master's program, was added to the major theme of the role of the institution, bringing the total of sub-themes to thirteen.

Definition: In the post intervention interview, students revisited their definitions of rigor. Two of the three science cohort teachers contextualized their definition of rigor in terms of multiple levels of cognition. Both expressed an idea

that students should be asked questions, ask questions themselves, and demonstrate their thought process through answering the questions or sharing personal thoughts in a manor that demonstrated multiple levels of cognition. The third expressed that there needs to be a level of differentiation for each student to access his/her own personal level of rigor.

Two of the three math teachers stated directly n+1 discussed in the cogenerative dialogue fit their definition of rigor. One expanded to explain that n+1 looks like scaffolding. Students need to master harder concepts. Another explained that n+1 needs to depend on the students, and teachers/instructors should try to teach just past where people are, but to be careful not to push the student to "n+5." This same student added the idea that teacher prep programs are practitioner programs, not just an academic master's degree. She was careful to explain that the typical master's program resides exclusively in the academic realm, while a practitioner master's degree must connect to the classroom. She wants all the rigor of the program to be related to making her a better teacher. The third student defined rigor in terms of having controlled choices and competition between students. One last definition of rigor, offered by the first student, "If you are good in math, you are probably smart." When asked to expand if he believed if someone could be smart and good at other contents, he stated that math requires logic, which makes a person smart.

The English/language arts cohort students contextualized their definitions differently. One student explained the role of feedback and work ethic in his

definition. He stated that he needed more feedback from his instructors on both coursework and his classroom observations. This feedback allows him to grow as a student and a professional. He also clearly stated "difficulty is not rigor." He went on to explain that a person who completes all the work is likely to learn something from it. Another English/language arts student explained her classes that were held over a longer period of weeks allowed her to dig deeper into a topic, which is how she defined rigor. She also stated that rigor needs to be contextually based to the student. She stated that she was not ready for papers and theory in her first year, but would be bored her second year if she had to do more practical application in the coursework. The third English/language arts student defined the concept of rigor in terms of being stretched to try something different. She believed that both the applied project and an assignment in SPE555 that required her to talk and plan with a special education teacher stretched her to try something different and look at teaching in a different way.

Two science, one math, and all three English/language arts cohorted students explored the definitional theme of engagement. The science cohort teachers addressed this differently. One stated that the students want to be engaged deeply because they are capable students and leaders. He thinks clinical instructors should address this overtly and seek their input on what will engage their interests in the course. The other science student expressed becoming disengaged when some students would monopolize face-to-face classes with their own personal classroom challenge. She believes that instructors should stop this

discussion or risk losing the engagement of the entire class. The math cohort student explained that he was more engaged when offered structured choices. He believes that people lose focus with too many choices. Of the three English/language arts cohort students, one student openly stated the idea of choice as a technique to engagement should not be necessary in a grad program. He believes that the clinical instructors select topics in his best interest. Another stated something similar and added that she was more engaged in discussion based lessons.

Two of the science cohort students and one math cohort student mentioned the applied project as an example of a relevant and rigorous assignment. One of the science cohort students and one of the English/language arts were concerned about the relevance of the strategies taught in the program to their Title 1 schools. A science and a math cohort student each stated that students complaining about their personal classrooms subtracted from the entire student population's ability to tie relevance to rigor. One math and all three English/language arts teachers gave examples of practical applications in the field as both rigorous and relevant. None committed to defining rigor as needing to be relevant in their interviews.

Clinical Instructor Locus of Control: All of the students had something to say about instructional decisions. Two science and one of the math cohort students wanted more choice in assignments and due dates. One science cohort student suggested more input from students about the syllabi at the beginning of each semester. Two math and two English/language arts cohort students

suggested more methodologies in each course. However, one of the

English/language arts cohort students was also concerned that the strategies taught

in the program were not geared to be effective in a Title 1 school. One math

teacher stated that he needed more explicit direction in many assignments. One

math and all three English/language arts cohort students suggested creating

hybrids that could be implemented and observed in the classroom. The three

English/language arts cohort students all stated that they had a preference for

courses that were more discussion based than lecture based.

Student Locus of Control: Students reported a need for personal

investment in the program, and noted this need had to be a personal decision

made by each student. Two of the science cohort students reported they had

decided to be invested in their coursework. One had decided at the beginning of

his program, and the other became more aware of her need to make the

coursework a priority. One of the math cohort students reported making a

decision to put more effort in the applied projects course, and was satisfied with a

lower score in his other course because he saw more value in the applied project.

He admits to never having bought a book in the program because he knows that

he can get by without the textbook. Another math cohort student reports her

cohort has what she labeled as a "bad attitude," and that she had initially decided

to adopt that attitude. One English/language arts cohort student reports not

purchasing the textbooks and deciding his level of investment based on the course

delivery. According to this student, discussions are more engaging, and

PowerPoint and lectures are not engaging. If it is not engaging, he decides not to be invested.

At the time of the post interviews, two of the nine students were choosing to stay in education, but both intended to teach in a different school than they were currently teaching. Four of the nine were not certain if they would stay in teaching. Three of those students reported feeling exhausted by the last two years, but all four stated they would like to try a different setting to determine if the teaching profession was different without all the other obligations of taking a masters degree program and TFA. Three of the nine had decided to leave teaching. One for law school, but she also stated to be a good teacher had taken a great deal of personal effort. One stated he preferred working with smaller numbers of people, and did not like the enclosed space of a classroom. One stated that she missed writing, and was actively looking for a position that would make use of her writing talents and passion for education. She hopes to find a position related to educational policy.

Emotions: Balance and overwhelm were discussed in the post intervention interviews by two of the science and two of the math cohort students. Three of the four suggested that they are coming to terms with balance and overwhelm. Both of the science and one of the math cohort students stated they had to make some sacrifices with their classrooms to focus on coursework this semester. One of the math cohort students compared this to a jigsaw puzzle. She had the frame of the picture and had to decide which pieces of her life fit in which space. The math

teacher also explained that he had to call for a substitute a few days this semester to work on his coursework. The other math cohort student stated that the course work requirements were similar to his undergraduate experience. However, he believes his work-life-school balance is impacted by his added responsibilities such as taking care of his home and making time for his family.

While eight of the nine students discussed culture as a part of rigor, one of the eight focused on majority/minority culture of the program and seven focused on the culture of TFA and ASU as it relates to rigor. The science cohort student who spoke about the culture of the majority's influence on the culture of the k-12 minority culture in schools believes that TFA recruits largely Caucasian affluent young adults. She did speak to Wendy Kopp's initial decision to establish TFA because Kopp noted that children in schools in which the community lives in poverty have historically performed behind the middle class communities, and Kopp believed that bringing smart, young college graduates to those communities would help the children in those communities escape poverty. The student hoped that was true, but is still concerned that people of color are not recruited to the program in large numbers. She also stated that she did not see any literature in the program that addressed the needs of minority cultures and would like to see more coursework designed to address the needs of children from a Hispanic culture. She still believes that this is a barrier to accessing rigor for her.

The other students focused on the idea that being a TFA corps member created a culture of competitiveness, focusing academic gains and lesson plans on students who are meeting and approaching, and teaching students a performance objective a day. The position of the ASU culture included confusion over what the stated goal of the program is and students making decisions not to purchase books or come prepared because they believed that the instructors would not notice this. One science cohort student explained that she knew the motto of both her undergraduate institution and TFA, but did not know the motto for Mary Lou Fulton Teachers College. She believes that knowing that would help her with accepting the culture and understanding the direction of the program. Because of the relationship students have developed with each other, including building friendships with students in other cohorts, all students admitted that there was some cross talk between the cohorts. Both the science and English/language arts students explained that this talk did not impact their perception of the workload, while all of the math students did explain they believed that other cohorts were treated differently in terms of coursework and expectations of the program.

The Role of the Institution in Rigor. In the cogenerative dialogue, the group discussed the role of programmatic issues and prestige of the degree in relation to the role of the institution in rigor. In addition, the applied project, or capstone project, was also discussed as it related to the construct of rigor.

One of the science and one of the English/language arts cohort students explained that they believed that the program coursework included too much

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emphasis on Harry Wong and Marzano strategies. They were not convinced that these were appropriate for their students. One of the science cohort students explained that the program was not focused enough on students of color and Title 1 schools, while another of the science cohort students explained that she appreciated the program for presenting strategies and methodologies that work with all students.

Two of the math cohort students explained that the sequence of some of the courses was not ideally placed for their development. They would like to have these courses in two different semesters, as these two courses both required a literature review in very different formats. Two of the English/language arts cohort students explained that the course sequence was appropriate for their development as a teacher.

One of the English/language arts cohort students explained that she believes that the instructors of her classes do not share enough information with the clinical instructors about what the students are learning in each class. She believes that if the clinical instructors were given more information about the key assignments and content of the courses the students are taking, the clinical instructor could assess the student on his/her mastery of the content and instructional presentation in the field. One of the math cohort students explained that until the cogenerative dialogue he was unaware that there was a 2200 minute requirement for a course to be counted as worthy of three credit hours. He thought

instructors and the program had created a self-imposed outside of class requirement and thinks that this should be told overtly to the students.

All three of the science cohort students and one of the English/language arts cohort students spoke to the level of prestige of the program. Two of the science cohort students overtly stated the program should be rigorous because the degree would be on their resumes for the rest of their life. The English/language arts cohort student explained that when he decided to join TFA, getting his master's degree was not something he had considered. After he joined and saw that he could earn a master's degree that would be on his resume, he decided it would be advantageous to pursue it.

Eight of the students discussed their applied project in the post intervention interview. Five students, three science and two English/language arts cohort students reported a positive experience. One of the science and two of the English/language arts cohort students showed examples of student work they used to support their projects. These five students reported learning a lot about their topics, enjoying the process, and reflecting on the outcomes. The five found the writing portion of the paper to require labor, but did not find the time or effort to be more than they thought it would be when they started the project. All three of the math cohort students reported that they would have selected a different topic had they understood the process and purpose when they selected their topics. All of the math cohort students identified the lack of a control group as a problem

with the action research project. One reported that she would have liked to have gotten institutional review board permissions and done a more thorough project.

Cogenerative Dialogue Process Feedback: Students reported areas they thought went well in the cogenerative dialogue, areas that could be changed, their lack of follow through on the journals, and if they made any adjustments in their approach to their coursework as a result of the cogenerative dialogue. Six of the students reported that they liked the process, the confidentiality, the size, and the structure of the dialogues. One reported that is was the "best discussion I ever had." She felt very protected and safe to share under the norms of the dialogues. Two students reported that they would have liked to have more people in attendance on a regular basis. They felt the absences left some people with holes in understanding what the group discussed. Two students would have liked a very structured schedule, but acknowledged that some of the students, including the two who mentioned this as a challenge, did not have a consistent after school schedule to organize meetings too far in advance. Two students suggested that the dialogues begin with writing to the journal prompts to help people complete the journals and to focus their thoughts and questions. One student was not sure that she was "giving (me) what (I) needed" in the cogenerative dialogue, and would have liked to have known my research questions overtly.

All of the students explained the lack of completion of the journal prompts as an outcome of having too many other things to do as professionals and

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students. Six stated they forgot to do them. Three stated they did not know that I asked for journal prompts to be completed, even though they did receive these prompts both hard copy and through e-mail.

Four students stated that their approach to coursework did change. One became more focused on assignment completion. One started her assignments earlier. One said he thought more overtly about how coursework related to his classroom. One stated that she made an active choice to be more positive about her coursework. The other five all stated that they were engaged students prior to the cogenerative dialogue, and this did not change.

Chapter 5

FINDINGS:

The purpose of this study is to analyze the perceptions of clinical instructors and students of rigor in the Induction Masters and Certification Program at ASU and to determine if there were changes in instructional decisions based on an open, democratic dialogue about coursework in the program. To analyze this information, I reviewed the statistical analysis based on descriptive statistics and MANOVAs and reviewed the qualitative results that were constructed based on Rogers (2002) tri-part schema of discourse analysis. The qualitative data was member checked with each member through phone conversation.

Research Question 1: How and to what extent do cogenerative dialogues impact clinical instructors and students' perceptions of rigor in a teacher preparation program?

To analyze the first research question, I applied separate data collections, analyzed the survey, the cogenerative dialogues, and the pre and post intervention interviews, to triangulate the data to ensure the most reliable conclusions. There are two separate sets of participants in the first research question: clinical instructor participants and student participants.

First Assertion: *Clinical instructors did not change their operational definitions as a result of the cogenerative dialogue.* Looking at the synonyms the clinical instructors chose to define the term rigor, the instructors did not have major shifts in perceptions of the definition. All the cogenerative dialogue groups spoke to the initial synonyms of practical application and thought provoking provided by all three of the clinical instructors.

One instructor, the SED 593 instructor, did share that she thought the practical application was low on the cognitive scale. She initially used the terms connectedness, thought provoking, and creating as synonyms for rigor. During the course of the cogenerative dialogues, she did give examples of how the coursework could be connected and her course did ask the students to create knowledge. In the dialogues, she clearly explained the difference between engagement, relevance, and rigor. Evaluating her participation with the first domain, genres (Chouliaraki and Fairclough 1999, Gee 1999 & Rogers 2002), and the third domain, textual and grammatical structures (Gee, 1999 & Rogers 2002), of the tri-part schema, she asks the students questions to engage them in discussion about connectedness and practical application. She often gave her definitions inside of the questions, but would directly challenge the students to explain more about their thoughts. While she was more often quiet than verbally participatory, her questions did engage the students to think about the connections between the coursework and their classrooms. Her rate of speech was at a slower pace than the students, allowing them time to process her questions. She reveals

in the second domain, Discourse (Gee, 1999 & Rogers, 2002), that rigor is related to connections and creating by the discourse she engaged throughout the cogenerative dialogue.

Both the TEL 504 and SPE555 instructors took different approaches to defining the term during the dialogues. Evaluating the discussions for the first domain, genres (Chouliaraki and Fairclough 1999, Gee 1999 & Rogers 2002), both of these instructors did speak as much as the students. They spoke as fast or faster than the students when discussing definitions.

The TEL 504 instructor often would explain that he was working through the definition of the term himself. In the initial pre intervention interview, he did state that Maslow's hierarchy of needs, cross curricular, and choice were definitions of rigor. He discussed Maslow's hierarchy of needs throughout the dialogue, and states "It's also the balance as an instructor and I feel that I do this constantly. Sacrificing some content because I am wanting to accommodate the lifestyle of the TFA intern teacher. And so I've always-I don't want to call it struggled, but it's always something I've wrestled with at the start of the quarter." In the post intervention interview, he explains that as a clinical instructor, he needs to focus on helping the students balance the coursework, classroom obligations, and life balance because no other institution with which the students work will help them with this. His Discourse throughout the pre intervention interview, the cogenerative dialogue, and the post intervention interview remained consistently

focused on helping the students meet Maslow's needs. The topic of cross-curricular ideas was not discussed in the cogenerative dialogue or the post intervention interviews. It is reasonable to believe that this idea has remained a constant in its absence of discussion. He discussed choice in the cogenerative dialogue, but not in the post intervention interview. He does not offer a clear definition of the term rigor for the students, but instead moves the discussion towards a less firm definition. He does exchange his ideas through his identity as a TFA alum, which is something the students in common with him. "It's very true. That is how you identify. I think some of the work that we have you do–this could change. I think sometimes with first-year teachers TFAers, have not really bought into ASU. They're more engaged in the TFA model. After their second year they're a bit more it disengaged." He relates with the students in their experiences, which is consistent with his interactions in the cogenerative dialogue.

The SPE 555 instructor identified creating, thought provoking, and purposeful as synonyms of rigor. She unpacks the Discourse of creating with this piece of dialogue about an assignment in which the students modified a lesson plan for their students who are on an IEP, "I agree. I think that was also the most rigorous assignment. I think like you said, a lot of people had a general idea of where they could differentiate, generally, but the students that really took it and created something different and really cite Kato in a different manner, that's what struck me." In her post intervention interview, she does express some disappointment in how the students approached the creative aspect of her class. She wanted the

students to be more creative in their approach to this assignment, but most asked her for more structure. While she credited this to their not knowing her well enough to trust her to grade them holistically, she still kept to her original definition of creativity as a synonym for rigor. When engaged in both the cogenerative dialogue and the post intervention interview, she compared a positive example of a thought-provoking activity that was not done in the class she taught. However, this example was a common experience for the students in the cohort of the cogenerative dialogue and the students she supported in the field. All second year students were required to engage in a structured professional learning community focused on k-12 student achievement based on artifacts that were tied to an instructional objective. "I kind of expected it as, you know, some people would just jump through the hoops of doing the PLC and not really engage, but do a reductive aspect of it, but I think that became really rigorous. It was nothing that you really had to prepare for, but usually done for your work. The conversation became very thought provoking. And I was wondering about what you were talking about with reciprocal reading is there an aspect of that?" In the post intervention interview, she would again explain that the PLC was the most thought provoking aspect of the program, and compared them to the hybrid assignments required in the courses to meet the Carnegie units. The hybrid components were an after thought for her, and did not add to the rigor of her course. Finally, she focused on purposeful coursework throughout the cogenerative dialogue and the post intervention interview. She agreed with the

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student in this exchange: Student: "I meant like creating a lesson plan that maybe has a bunch of–maybe that is very scaffolded and has all of these modifications for different types of students. So like putting it on paper and writing it all out as opposed to–and I know not every instructor comes into our classroom. I just happen to have, we both have Melissa for a clinical instructor. If they (the instructor of the course) came into your classroom and actually watch you implement it, like, I feel that would be a lot more rigorous. She answered, "That's a great idea! No, that really is! That is a great idea. I totally love that idea. That would be a really good aspect of 555." Her tone was very enthusiastic and affirmative, relaying the schema of genres (Chouliaraki and Fairclough 1999, Gee 1999 & Rogers 2002) in which she retains her idea of purposeful connections between the college coursework and the classroom application as a definition of rigor. In the post intervention interview, she explains that students need the course to be useful, or they will reject any rigor attached to it.

None of the clinical instructors moved very far from their original definitions in the cogenerative dialogue or the post intervention interviews. Their Discourse of rigor remained the constant throughout the process.

Second assertion: *Participating in cogenerative dialogues with students did not greatly impact clinical instructors understanding of student perceptions of rigor in the program.* As indicated by the survey data, clinical instructors were close in their scores of survey items related to rigor in the coursework in two of

the four subscales. However, the clinical instructors were not statistically close in their scores of the survey items in the other two subscales.

Two areas in which there was significant agreement were engagement as defined as active and collaborative leaning and the outcome of integrative and reflective learning (Ohland, Sheppard, Lichtenstein, Eris, Chachra, and Layton, 2008). The items related to engagement as defined as active and collaborative learning consisted of questions relating to specific activities the students engaged in that semester, including how often they gave presentations, engaged in class discussions, wrote papers, and worked on project in and out of class. The items related to the outcome of integrative and reflective learning included speaking to someone outside of the course cohort about topics discussed in class, learning something that changed the way the student viewed the issue, and perspective taking of other sides of an issue. The instructors, as demonstrated by their mean scores, standard deviations, and p values (see table 4.2) were close to the student perceptions of these survey items.

The clinical instructors perceptions of student answers on the items related to engagement as defined by interactions with faculty and the outcome of higher order thinking demonstrated a lack of agreement with the students as defined by the mean scores, standard deviations, and p values (see table 4.2). The larger standard deviation in the engagement as defined by interactions with faculty is likely due to the fact that only two survey items related to that idea. These items

related to students' self-reports on the frequency with which they discussed grades or assignments with an instructor or discussed the ideas in the course with the instructor outside of the scheduled class. The cogenerative dialogue students reported these interactions almost a full point higher than the clinical instructors reported. It is possible that students are over-reporting the frequency with which they discussed the course with the clinical instructors, and it is also likely that they students are reporting interactions that the clinical instructor may not view as a discussion with the student outside of class. The survey items related to the outcome of higher order thinking included activities defined by Bloom's taxonomy. Clinical instructors reported that students would recognize activities done in the course as related to Bloom's at a slightly higher rate than the students did.

One of the clinical instructors hypothesized in the cogenerative dialogues and post intervention interview that students who are not intending on staying in the field of education would view the coursework very differently than those who would are intending on staying. I constructed MANOVA's to test this idea. Students self-reported the amount of years they intended to teach. There was no statistical significance in three of the four items. However, in one item, interactive and reflective learning, student score differences were statistically significant between those who intended on staying for a third year versus leaving after the two year obligation and for those who intended on teaching for eleven years or more versus those who were leaving after the two year obligation. P values were

0.01 and 0.02 respectively. Students who intended to stay in teaching for a third year or those who are intending on teaching for more than eleven years are more likely to report higher frequencies of speaking to someone outside of the course cohort about topics discussed in class, learning something that changed the way the student viewed the issue, and perspective taking of other sides of an issue.

Third assertion: *Student participation in cogenerative dialogues did not greatly change their perception of rigor in the program.* Reviewing the survey data in the students did not demonstrate a difference in their perceptions of the program based on their participation in the cogenerative dialogues compared to those who did not participate. While mean scores were slightly higher between the two groups, the p value indicates that I cannot reject the mean. It is likely that other factors played a role in the difference between the two groups.

The English/language arts cohort students hypothesized that they were not as overwhelmed by writing assignments in comparison with the math cohort students in both the cogenerative dialogue and the post intervention interviews. The SED 593 instructor hypothesized that students who intended on staying in the program as a career path would demonstrate more investment and see more value in the program. Additionally, I had wondered if the students' undergraduate major as it applied to the content they taught or their undergraduate institution played a role in their perceptions of the program. To test these hypotheses, I conducted MANOVA's on these demographic features.

Cohort did play a role in what the students self-reported in their surveys. English/language arts students did report a difference with math on the subscales of active and collaborative learning and higher order thinking. The English/language arts students were more likely to indicate that they engaged more frequently in active and collaborative learning and higher order thinking in their coursework. The p values were 0.04 for active and collaborative learning and 0.01 for higher order thinking, and the level of significance was 0.05. In addition, the English/language arts cohort students were more likely to indicate higher frequencies of all four subscales than the science cohort students. (See table 4.6). These differences could be the result of different clinical instructor expectations as few instructors teach all three cohorts. However, the English/language arts and the science cohorts both had the same instructor that semester for both the TEL 504 and SPE 555 course, so it seems unlikely that would account for the overall difference. Another factor that could play a role in the survey is my role as a clinical instructor. I taught the math cohort a course the prior semester. I taught the English/language arts cohort that semester. The differences could be artifacts of students having a relationship with the survey administrator and seeking to please the survey administrator.

As mentioned in the second assertion, the years students intended to stay in the profession did impact the way the students answered the survey. Students planning on staying in the profession for a third year and students who intended to stay for eleven or more years as reported by their survey were more likely to

report to engage in the outcome of interactive and reflective learning than those who intended on leaving after two years. Students who are Teach for America and Arizona Teaching Fellows have agreed to teach in the Phoenix area for two years. Many decide to pursue other endeavors after the two years, so this is an important finding.

There was no statistical difference in perception of the program based on whether the students were teaching in the content area in which they held a Bachelor's degree. Of the 56 respondents, only 21, or 37.5%, of the students taught in content areas in which the subject matter was the same or very close to their Bachelor's degree.

There was a statistical significance between students who attended Ivy League schools or Christian universities and public universities in the reports of the frequency of engagement in active and collaborative learning based. Students in the Ivy League schools reported lower frequencies of active and collaborative learning than those who attended the public universities, and with a p value of 0.04 it is a significant difference. Additionally, students who attended Christian universities were more likely to report higher frequencies of active and collaborative learning than those who attended public institutions, and with a p value of 0.01 it is a statistically significant finding.

Research question 2: How and to what extent do cogenerative dialogues impact clinical instructors' teaching decisions?

To answer questions two, I reviewed the qualitative data gathered on the clinical instructors. This relied largely on the cogenerative dialogue data and the post intervention interviews. There are additional data that could be collected in the future to further strengthen the study. This will be explained in this section.

Fourth Assertion: *Clinical instructors began to evaluate what they could do differently in their coursework to better address students' needs for balance and desire for relevance and engagement as a result of cogenerative dialogues.* Clinical instructors began to discuss instructional changes they were considering in the cogenerative dialogue.

By the second cogenerative dialogue, the TEL 504 instructor shared, "So yesterday, or Monday, was the start of a new quarter for the first year teachers– SED 544, you know, the class you took with (another instructor) last year. I asked them just about what it means to be in a graduate program. What are your expectations as a first-year teacher, and all that stuff. So I took it to heart, and Monday I had that conversation with the first-year teachers. It was really interesting. I think it may have gone on a little too tough, "while I understand your needs as a first-year teacher, you have to understand this is graduate-level class." But, you know, I backtracked a little bit and let them tell me what do they need. So the list obviously came to a more practical teacher needs, (starts reading from his list on a paper) more critical feedback, how to have more engagement, teaching models, behavior management, want resources that are curated not just thrown at me websites to look at, you know I want examples that are practical,

that you know, want depth and breadth. One teacher was very honest with me. He said "I want you to avoid telling me that it's going to get better next year. I want you to tell me how to make it better right now because I'm tired of this BS." It was really interesting. I took that to heart. I thought that was a really great conversation thing for him to honestly say. I was really glad that they reacted well. I just sat there and asked them what they needed. And then to go back and tell them that I think maybe you can expect us to do that for you right now but know that every class that you are going to take is going to require a bit more focus than what is happening right now. You know my exit tickets are really good. They kind of gave me a lot of feedback. I listened, but now I need to figure out how to incorporate this throughout the year." In the post intervention interview, I asked him if he continued that and how well that change worked. He did explain that he had decided not to do that same conversation because this was his third time teaching this cohort of students. One of the students from his cogenerative dialogue asked him directly to have this conversation, so he did a variation of it. He explained to the class what was a non-negotiable item, and that he had structured this course very differently than other courses. He did make it clear that he needed them to engage in outside readings and come to class prepared to discuss those readings. He also explained that there would essentially be one assignment tied to the course topics, and that he trusted them to have ownership of the trajectory of the course. While he was concerned that some

students would retain negative attitudes and not do the work, he was excited to implement this new instructional practice.

The SED 593 instructor was new to the program this year. She did state in the post intervention interview that she believed that she had to follow the course syllabus with fidelity. She believes that she did not have the authority to make instructional changes beyond due dates, and she believes this impacted her ability to modify for her students' needs. One of the discourses that was constructed from what the students revealed when they discussed overwhelm, related to the idea that the students were unaware of how much would be expected from them out of the SED 593 course. Students had decided to accept additional responsibilities at their middle and high school placements with the expectation that the project would not be as large as it was. As the SED 593 instructor was teaching the next cohort of math students who would take that course the following semester, I asked her in the post intervention interview if she would be addressing the project with them this semester. She shared with me that she had not planned on that, but she did decide to do more community building activities. She had done this in her last instructional position, and realized this piece was missing in her current practices here. She believes that by engaging the students in a community that includes her, she will see more motivation and engagement in the applied project in the fall.

The SPE 555 instructor started to engage in the process of considering instructional changes while the cogenerative dialogues were in process. One

student suggested an idea in which the clinical instructors evaluate the student implementing a modified lesson. The SPE 555 instructor embraced this idea as evidenced by her enthusiastic voice tone and she leans into the student and smiles at her. This level of engagement in the dialogue by the clinical instructor is an example of genres (Chouliaraki and Fairclough 1999, Gee 1999 & Rogers 2002). In the post intervention interview, I followed up with a question about this idea and exchange. She is considering asking the students in the InMAC program to video record a lesson at the beginning of the semester. Having the students analyze the video and the written lesson plan and identify areas that could be improved for providing modifications and accommodations for students in their classes who are exceptional learners. She would then have them videotape another lesson with these modifications and accommodations in place, and the students would analyze that lesson, too. She believes this could be done through a hybrid modality, such as meeting in small groups and sharing the videos in a structured format, much like the professional learning communities currently do. She believes the students find courses more rigorous when they are asked to apply and analyze the course objectives in their field placements. She believes this leads to more engagement and lifelong learning.

All the clinical instructors were considering or making changes in their instructional approaches as a result of the cogenerative dialogue. There are two elements that could be added to ground this assertion. One, with more time and more forethought, I could videotape each clinical instructor teaching a class

throughout the semester. This would have added a layer of observation to actually witness instructional shifts. Two, with a longer intervention period, I could have collected and reviewed the instructors' syllabi of these courses prior to the cogenerative dialogue process and after the cogenerative dialogue process. However, none of these instructors will teach this course again until the following fall semester, meaning they will not likely make actual changes to their syllabi until the summer prior to teaching. The study was completed six months before one can reasonably expect the clinical instructors to create their next syllabus for that course.

Chapter 6

CONCLUSIONS AND IMPLICATIONS:

The purpose of this study was to access the conceptual ideas of rigor held by clinical instructors and students as it applies to a teacher preparation program. The research questions required me to analyze this in the context of clinical instructors' and students' perceptions of rigor in a teacher preparation program through the use of cogenerative dialogues. Analysis of the interviews and cogenerative dialogue were used to determine if there were changes in clinical instructor's instructional decisions. The findings of this study led to four assertions: (1) Clinical instructors were consistent in their definitions of rigor throughout the study. (2) Clinical instructors were able to understand student perspectives of rigorous activities and outcomes in the course work. (3) Students in the cogenerative dialogue group perspective of rigor as defined by the survey instrument were not different to a statistically significant degree compared to those who did not participate in the cogenerative dialogue. (4) Clinical instructors were beginning to make or consider instructional shifts as a result of the cogenerative dialogue.

I believe the use of the cogenerative dialogue format allowed the participants to safely share their beliefs about rigor in their coursework. The rules I created based on Martin's (2006) "Ace's Rules" 1) No one voice is privileged. All participants are equal in this process. 2) Everyone has the space to speak, but

speaking is optional. 3) Gain permission from the group, not Melissa, to speak. 4.) What we discuss in a cogenerative dialogue, stays in the cogenerative dialogue unless permission is secured from the group to share with others, aka "The Vegas Rule," really allowed a measure of safety for the participants. All students reported enjoying their time discussing the topics with their clinical instructor and other cohort students. One student explained that it allowed her the space to build more balance and reflection about being a teacher. Two students explained that their attitudes towards their coursework became more positive as a result of the time spent in cogenerative dialogue.

I do believe that the role of course evaluation could have played a role in the way in which the clinical instructors interacted with the students in the cogenerative dialogues. One clinical instructor did admit to being quiet, partly as a construct of her personality, but I cannot dismiss that she may have been concerned with the upcoming evaluations as an instructor. While the other instructors did not address a concern of a possible over share with students who would subsequently evaluate, the one-on-one interviews were much more revealing as to how the instructors actually processed the students' participation in the cogenerative dialogues. Historically, course evaluations are used as part of instructor merit pay. Instructors do have to balance the need to be instructional with the perception of students who may be punitive to them on the course evaluations.

The study does relate with much of the literature about rigor in teacher preparation programs. Carini and Kuh (2003) and Whaley (2003) defined rigor in terms of assigned readings and length and amount of papers, as well as analytic thinking, considering other perspectives, and diversity. The survey, based on the National Survey of Student Engagement (Indiana University 2010), measured these ideas in the construct of engagement as defined as active and collaborative learning indicated that students in the InMAC program were more likely to select "sometimes" over "often" when self-reporting these activities for a semester. This aligns with the findings of Carini and Kuh (2009) and Whaley (2003). I agree with Carini and Kuh (2009) and Whaley (2003) that the indicators for academic rigor of teacher preparation programs may be better served by being measured using different indicators, such as measuring rigor in coursework that prepares students to perform tasks in which methodology of practice is the course objective. My findings suggest that students are not likely to expand their definition of rigorous coursework to different ideas, but they do hold engagement, relevancy, and application as important indicators of a worthwhile teacher preparation program.

Clinical instructors and students engaged in discourse that Dienstag (2008), Mentzer (2008) and Dockter & Lewis (2010) presented when discussing rigor in practitioner programs. With themes of engagement and relevance discussed in all three cogenerative dialogue groups between clinical instructors and students, there were representatives in each group who defined rigor as a construct of deep

understandings and deep engagement in content that allows the student to transfer the knowledge to other contexts, specifically the classroom. One cogenerative dialogue cohort of students did hold to the idea that Mentzer (2008) holds: there can be no disconnect between rigor and relevancy. There is a role in the InMAC program to adopt the Mentzer's view of the rigor-relevance-research triad with a triad of roles, as well: researcher, practitioner, and student.

While teacher preparation colleges may hold low prestige in the university world, most of the cogenerative dialogue students reported choosing the InMAC program specifically to have the master's degree from a known institution of higher education (Duncan, 2010 & Conant, 1964). Only one student overtly stated he believed he had no other alternative than the InMAC program. One student explained when he joined TFA he did not think he would pursue a master's degree. He decided to pursue the master's degree because the cost was negligible compared to the other route, and it was something that would be on his resume forever. Both of the students who knew that they were leaving at the end of the two-year commitment chose the program specifically to have the master's degree on their resume.

There were some surprises in what I learned in this research. One in particular related to the student disclosure that they thought the second year would be easy. The Discourse they engaged led the clinical instructors and me to believe ,that the students did think the second year would be easy, not easier. While Blackwell (2003) and Wilson (2002) explained that the people outside the

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profession believe that teachers do not hold the view that teachers possess certain skills and knowledge, all nine students stated in their pre-intervention interviews that not everyone could teach, but all nine also thought that everyone could learn to teach. It almost came across as they believed that they had mastered teaching in their first year, particularly when I considered the students who wanted to pursue institutional review board permissions to publish their action research papers, and the explanation by some of the students that they did not really engage in real research because it was done in the field of education and without standard control groups.

Perhaps, I should not have been that surprised by second year intern teachers expecting their second year as a teacher and second year master's degree student to be easy. As Labaree (2010), Veltri (2008), and Darling Hammond et al. (2005) explain, the students in the Teach for America program are recruited for a two-year commitment to better society and to move into other high status endeavors. Labaree (2010) explains, "By becoming corps members, they can do good and do well at the same time. They can do good by teaching disadvantaged students for 2 years, as a kind of domestic Peace Corps stint, and then they can move on to their real life of work with high pay and high prestige. They can do well by joining a very exclusive club, TFA, where only the best apply and only the best of the best gain admission; membership will burnish their resumes by demonstrating they are highly skilled and greatly in demand while at the same time showing that they have great social concern and a willingness to serve."

Veltri (2008) explains many of the TFA recruits sign up for Teach for America for the status this credential awards their resume and community service rather than a love of teaching. According to the Teach For America website, "Our mission is to build the movement to eliminate educational inequity by enlisting our nation's most promising future leaders in the effort. We recruit outstanding recent college graduates from all backgrounds and career interests to commit to teach for two years in urban and rural public schools,"(Teach for America, 2010). The students are recruited to close the achievement gap in schools located in high poverty communities. They are recruited because they hold content knowledge and have held leadership positions in their undergraduate colleges. They may understand and value the challenge of teaching in a Title 1 school, but they do not necessarily understand and value the history, philosophic underpinnings, and theoretic constructs of the field of education. It should not be surprising that students choose the most prestigious program on the table, and it should not be surprising the students believe the second year will be easy once they have a solid understanding of how to teach based on how they are recruited to the partner programs.

Another surprising theme that I constructed was the relationship of emotions in the personal definition and accessibility to rigor. Students were very emotional and animated when describing balance and overwhelm. Students would allow their bodies to slump when discussing ideas related to overwhelm. On film, instructors wore facial expressions that showed concern. The theme of balance included students using their hands, and even standing up to show how they

balanced the many responsibilities in their lives. In the future, I will make a concerted effort to discuss with students where they are on the overwhelm and balance scale, and empathetically address that in one-on-one conversations. I would like to consider more research in the area of emotion, overwhelm, and life balance as it relates to first and second year teachers.

While the actual discourse through word and sentence structure of culture lay in the construct of institutional effects on the accessibility to rigor, the body language and tone of voice, genre, did deliver quite a bit of emotion. It was very apparent that the student was concerned about how much impact she was having on the students, and that she believes that the program and other students are not addressing the specific needs of Hispanic children in Title 1 schools. She does believe that many of the strategies she was taught first by TFA and later by ASU were not effective. She would like to see more research on this area, and is thinking that she may seek a PhD in educational policy to address this. I think that the idea that culture may have an impact on how children learn and how adults access rigor is a topic of research that I would like to investigate in the future, as well.

Another area that does need to be discussed overtly relates to how we, as a program, define the term. With a lack of consensus of the term, we cannot openly define it to our students. As noted in throughout the study, the instructors did not have the same definition of the term. Some of their terms were in opposition of each other. In an early action recycle prior to this study, one of the proposed

solutions to the students' judgments on our program as lacking rigor was to just tell the students what we think rigor is. As a program, we cannot tell them what rigor is if we all have different definitions. There needs to be some consensus.

I have made instructional shifts, as well. I have structured my course much the same way that the TEL 504 instructor structured his course in the semester after cogenerative dialogue. I present the syllabus and tell my students what are the non-negotiables, such as key content and being prepared to be an active participant in the course. I ask for their feedback on some areas that are negotiable, such as types of products that demonstrate mastery of the objectives and deadlines that we do make firm with input from the students. I trust the students to do the readings, and prepare more high-level questions to discuss and fewer slides that are based on presenting content that the students are required to read prior to class. I do overtly discuss and ask them how something applies to the k-12 classroom and the education community as a whole. In addition, I have included the four rules for cogenerative dialogues as practice for class discussions. This has moved the responsibility of my calling on students to a more fluid and equitable discussion. As I visit 7-12th grade classrooms where my students teach, I see that they are using these exact same rules. As a result, they have shared with me that their Socratic Seminars run more smoothly.

My study immediately impacted the InMAC program. I was able to make a strong case for changing three courses sequence in the program of study based on the data I collected about these courses in while conducting the study. The

students and clinical instructors reported some internal changes in their approach to their coursework, including being more positive about the coursework and thinking more creatively about ways to engage the students in the course content and make strong ties to the k-12 classroom teaching experience.

Next Steps

As a result of this action research project, I have generated more questions to consider. First, how to what extent does emotion play on student perceptions of the InMAC program? Also, how and to what extent are we preparing students to meet the unique needs in their school settings? Additionally, how and to what extent can clinical instructors create meaningful coursework that engage theory, philosophy and history with practical classroom practices such as methodologies?

Of course, there is more to teaching than merely being trained in methods and strategies. Teaching is a field of study, just as other academic course work. Just as medicine and law have history, philosophy, and theories, education has these constructs as well. This gap between what the students perception of teaching as method and the teaching as field paradigm creates an opportunity for instructors in both the first and second year of the program to begin to develop teacher preparation coursework that moves the field towards the Post Modern construct of rigor that Doll (1993) describes as "the four Rs: richness, recursion, relation, and rigor," (Lewis, 2004). Lewis describes the first three R's as, "Richness refers to the curriculum's openness and layers of meaning. Recursion is

used to describe reflection, which helps curriculum grow in richness. Relation in the four Rs curriculum framework is multi-dimensional. First, relation reflects cultural connections. Culture provides a lens through which learners interpret curriculum at a local level, while at the same time local culture connects to a larger global community. Second, relations are evident within subject areas and between subject areas," (Lewis, 2004).

In future iterations of this study, I would like to involve clinical instructors in discussions and reviews of Doll's four R's. It would be highly impactful to video our lessons, review our assignments, student work samples/current teaching practices, and syllabi through this lens. It would open the pathway to discuss the role of emotion and the school culture/urban school culture in the program, and tie this to Mentzer's triad and the history, philosophy, and theory of education.

Conclusion

Almost daily, I hear the term rigor in some segment of my life. Sometimes it is through a news blip about education. Sometimes it is dialoguing with a representative from a partner agency. Sometimes it is in conversation with a friend who is also a parent. The term rigor carries with it a level of power. A person can use it to praise some one or some idea, or hobble a person's instructional decisions. While the cogenerative dialogues did not change the way people defined the term, the cogenerative dialogue did allow for an open dialogue and did move the instructors, including myself, to consider instructional changes

that allow us to access content and engage students where they are in their professional journey at the moment. The rules of the dialogues have been incorporated into my own classroom practices, and the classroom practices of my students. Students of mine are now using these cogenerative dialogue rules to engage their own students in discussions of content related to literature, history, and current events.

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APPENDIX A

INVITATION TO PARTICIPATE IN THE PROJECT

PRE-INTERVENTION

RECRUITMENT SCRIPT

Cogenerative Dialogues and Conversations of Rigor

I am a graduate student in the Mary Lou Fulton Teachers College at Arizona State University. I am conducting a research study to better understand students and clinical instructors' perceptions of coursework rigor in Master's degree teacher preparation programs.

I am recruiting individuals to participate in four focus group meetings, five short journal prompts, two interviews, and a 20-30 minute survey. All activities are related to your coursework in the Induction Masters and Certification Program. This study will take approximately sixteen weeks, but the majority of your participation will take place in one of two eight week sessions. The focus groups and interviews will be video-taped.

Your participation in this study is voluntary. You may participate in all, some, or none of the activities if you wish. You may withdraw from the study at any time. If you choose not to participate or to withdraw from the study at any time, there will be no penalty.

Benefits of participating in this study include adding to the knowledge of effective teacher preparation for Masters level students and adding to the knowledge of rigor in course work in advanced professional programs. It may add to your overall knowledge of rigor in k-12 classrooms.

Possible risks of participating in this study are informational and emotional risks. Informational risks include accidental release of information or breach of confidentiality by focus group participants. While we do not anticipate such breaches, it is still a known risk.

Emotional risks include the possibility of strong reactions to the personal concepts of rigor, instruction, and learning. As emotion varies from person to person, this is a possibility to consider as we overtly discuss these concepts.

Please be advised that although the research team will take every precaution to maintain confidentiality of the data, we will be using these journals as discussion starters in the focus groups prevents the researcher from guaranteeing complete confidentiality. The research team would like to remind participants to maintain the confidentiality of other participants and not repeat what is said in the focus group. We will review group norms at the beginning and end of each meeting as a reminder of the importance of confidentiality.

The results of this study may be used in reports, presentations, or publications but your name will not be known.

If you have any questions concerning the research study, please contact the research team at: david.carlson@asu.edu or Melissa.desimone@asu.edu, or Melissa @ 480-415-0267. If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact

APPENDIX B

PRE INTERVENTION INTERVIEW

Pre-Study Semi-Structured Interview:

Dear Participant:

I am a graduate student under the direction of Professor Dr. David Lee Carlson in the Mary Lou Fulton Teachers College at Arizona State University.

Your participation in this study is voluntary. You can skip questions if you wish. If you choose not to participate or to withdraw from the study at any time, there will be no penalty. Skipping questions will not impact your grade.

I am interviewing participants in the Cogenerative Dialogue and Rigor study, which will take approximately 25-35 minutes of your time.

Benefits of participating in this study include adding to the knowledge of effective teacher preparation for Masters level students and adding to the knowledge of rigor in course work in advanced professional programs.

There are no foreseeable risks to participating in this interview.

Your responses will be kept confidential. Your responses will be confidential. The results of this study may be used in reports, presentations, or publications but your name will not be used.

If you have any questions concerning the research study, please contact the research team at: david.carlson@asu.edu or Melissa.desimone@asu.edu. If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

Sincerely,

Melissa F. DeSimone

MA Ed.

1. Give three words that you associate with the term "rigor."

2. Give three antonyms of the term "rigor."

3. Give three examples of how you infuse rigor in your 7-12 classroom.

4. Give two examples of rigorous coursework you have encountered in your undergraduate program.

5. Give two examples of rigorous coursework you have encountered in your graduate program.

6. Respond to this statement: "I had to learn information in my undergraduate major that I thought I would not use later in life."

7. Respond to this statement: "I believe I can predict what strategies I will need to know for my entire teaching career."

8. Respond to this statement: "I believe that I know more about teaching than my instructors in my Master's program."

9. Respond to this statement: "The professor/instructor of my teacher education courses is an expert in the field of education."

10. Respond to this statement: "I don't need to learn methods of teaching from a college of education to be an effective teacher."

11. What would you say to someone who says "anyone can teach"?

12. What is the role of theory in rigorous coursework?

APPENDIX C

JOURNAL PROMPTS

Dear Participant:

I am a graduate student under the direction of Professor Dr. David Lee Carlson in the Mary Lou Fulton Teachers College at Arizona State University.

Your participation in this study is voluntary. You can skip questions if you wish. If you choose not to participate or to withdraw from the study at any time, there will be no penalty. Skipping questions will not impact your grade.

As part of the study, I would like you to take the time engage in journaling about the coursework in the classes and the cogenerative dialogue process.

Benefits of participating in this study include adding to the knowledge of effective teacher preparation for Masters level students and adding to the knowledge of rigor in course work in advanced professional programs. Another benefit is this will prepare you to engage in deep discussions about the coursework and rigor.

Possible risks of participating in this study are informational and emotional risks. Informational risks include accidental release of information or breach of confidentiality by focus group participants. While we do not anticipate such breaches, it is still a known risk.

Emotional risks include the possibility of strong reactions to the personal concepts of rigor, instruction, and learning. As emotion varies from person to person, this is a possibility to consider as we overtly discuss these concepts.

Please be advised that although the research team will take every precaution to maintain confidentiality of the data, the nature of focus groups prevents the researcher from guaranteeing complete confidentiality. The research team would like to remind participants to maintain the confidentiality of other participants and not repeat what is said in the focus group. We will review group norms at the beginning and end of each meeting as a reminder of the importance of confidentiality.

The researchers will take every effort to ensure your responses will be kept confidential. The results of this study may be used in reports, presentations, or publications but your name will not be used.

If you have any questions concerning the research study, please contact the research team at: david.carlson@asu.edu or Melissa.desimone@asu.edu. If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

Sincerely,

Melissa F. DeSimone

MA Ed.

Semi-Structured Journal Questions:

Directions: Journaling offers a wonderful opportunity for reflection. Please take a few minutes to answer the following journal reflection questions. These will allow us to think more deeply about our dialogues.

Sample Questions:

1. Please list topics, questions, or discussion points you would like to address in our next cogenerative dialogue.
2. Please rank those topics from most important to least important for the discussions.
3. What new ideas are you now considering as a result of our cogenerative dialogue?
4. Please describe your infusion of rigor in your coursework over the last two weeks. What activities, assignments, behaviors, etc. did you use to engage your students in the most rigorous elements of your curriculum?
5. What obstacles to rigor have developed?
6. Describe your approach to the class since our last meeting.

   Other questions will be added based on the direction the cogenerative dialogues and participant interests/needs.

APPENDIX D

POST INTERVENTION SURVEY

Dear Participant:

I am a graduate student under the direction of Professor Dr. David Lee Carlson in the Mary Lou Fulton Teachers College at Arizona State University.

Your participation in this study is voluntary. You can skip questions if you wish. If you choose not to participate or to withdraw from the study at any time, there will be no penalty. Skipping questions will not impact your grade.

I am asking you to participate in a survey on your perceptions of rigor and coursework in the Mary Lou Fulton Teachers College, which will take approximately 25-35 minutes of your time.

Benefits of participating in this study include adding to the knowledge of effective teacher preparation for Masters level students and adding to the knowledge of rigor in course work in advanced professional programs.

There are no foreseeable risks to participating in this survey.

Your responses will be kept confidential. Your responses will be confidential. The results of this study may be used in reports, presentations, or publications but your name will not be used.

If you have any questions concerning the research study, please contact the research team at: david.carlson@asu.edu or Melissa.desimone@asu.edu. If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

Sincerely,

Melissa

MA Ed.

Melissa DeSimone

Page One

In this first section, please answer how often you have been engaged in each of the following during the 2010-2011 school year.

1.) Asked questions in class or contributed to class discussions

( ) Very Often
( ) Often
( ) Sometimes
( ) Never

2.) Made a class presentation

( ) Very Often
( ) Often
( ) Sometimes
( ) Never

3.) Prepared two or more drafts of an assignment or paper before turning it in.

( ) Very Often
( ) Often
( ) Sometimes
( ) Never

4.) Worked on a paper or project that required integrating ideas or information from various sources

( ) Very Often

( ) Often

( ) Sometimes

( ) Never

5.) Included diverse perspectives (different races, genders, political beliefs, etc.) in class discussions or writing assignments.

( ) Very Often

( ) Often

( ) Sometimes

( ) Never

6.) Went to class without completing readings or assignments

( ) Very Often

( ) Often

( ) Sometimes

( ) Never

7.) Worked with other students on projects during class

( ) Very Often

( ) Often

( ) Sometimes

( ) Never

8.) Worked with classmates outside of class to prepare class assignments

( ) Very Often
( ) Often
( ) Sometimes
( ) Never

9.) Put together ideas or concepts from different courses when completing an assignment or during class discussions

( ) Very Often
( ) Often
( ) Sometimes
( ) Never

10.) Used an electronic medium (listserv, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment

( ) Very Often
( ) Often
( ) Sometimes
( ) Never

11.) Used e-mail to complete communicate with an instructor

( ) Very Often
( ) Often
( ) Sometimes
( ) Never

12.) Discussed grades or assignments with an instructor

( ) Very Often
( ) Often
( ) Sometimes
( ) Never

13.) Discussed ideas from your readings or classes with an instructor outside of scheduled class time

( ) Very Often
( ) Often
( ) Sometimes
( ) Never

14.) Worked harder than you thought you could to meet an instructor's standards or expectations

( ) Very Often
( ) Often
( ) Sometimes
( ) Never

15.) Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)

( ) Very Often
( ) Often
( ) Sometimes
( ) Never

16.) Examined the strengths and weaknesses of your own views on a topic or issue

( ) Very often

( ) Often

( ) Sometimes

( ) Never

17.) Tried to better understand someone else's views by imagining how an issue looks from his or her perspective

( ) Very often

( ) Often

( ) Sometimes

( ) Never

18.) Learned something that changed the way you understand an issue or concept

( ) Very often

( ) Often

( ) Sometimes

( ) Never

19.) Additional Comments:

_____

Answer using this prompt:
During the school year, how much of your coursework emphasized the following mental activities?

20.) Memorizing facts, ideas, or methods from your courses and readings so that you can repeat them in the same form

( ) Very much

( ) Quite a bit

( ) Some

( ) Very little

21.) Analyzing the basic elements of an idea, experience, or theory such as examining a particular case or situation in depth and considering its components

( ) Very much

( ) Quite a bit

( ) Some

( ) Very little

22.) Synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships

( ) Very much

( ) Quite a bit

( ) Sometimes

( ) Very little

23.) Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions.

( ) Very much

( ) Quite a bit

( ) Sometimes

( ) Very little

24.) Applying theories or concepts to practical problems or in new situations

( ) Very much

( ) Quite a bit

( ) Sometimes

( ) Very little

25.) Additional Comments:

Answer questions on this page with the following prompt:

During the 2011-2012 school year, about how much reading and writing have you done?

26.) Number of assigned textbooks, books, or book length course readings?

( ) None

( ) 1-4

( ) 5-10

( ) 11-20

( ) More than 20

27.) Number of written papers or reports of 20 pages or more.

( ) None
( ) 1-4
( ) 5-10
( ) 11-20
( ) More than 20

28.) Number of written papers or reports between 5-19 pages?

( ) None
( ) 1-4
( ) 5-10
( ) 11-20
( ) More than 20

29.) Number of written papers or reports of fewer than 5 pages?

( ) None
( ) 1-4
( ) 5-10
( ) 11-20
( ) More than 20

30.) Additional Comments:

31.) In general, how long do you plan on teaching?

( ) 1-2 years

( ) 3 years

( ) 4-5years

( ) 6-10 years

( ) 11 years or more

32.) ASU Cohort:

( ) Mathematics

( ) Science

( ) English/Language Arts/Social Studies

33.) Participated in the Cogenerative Dialogues

( ) Yes

( ) No

34.) Gender:

( ) Male

( ) Female

35.) Race/Ethnicity:

36.) Undergraduate University:

37.) Undergraduate Major:

APPENDIX E

POST SURVEY QUESTIONS ON EFFECTIVENESS OF COGENERATIVE
DIALOGUES

POST-INTERVENTION

Did you take part in a Cogenerative Dialogue with a Clinical Instructor?

A. Yes

B. No

If no, survey is complete.

If yes, pleas answer the following questions:

How many Cogenerative Dialogues did you attend?

A.1

B.2

C.3

D.4

If you attended fewer than four, what prevented you from attending all four? If you attended all four please skip this item.

All cogenerative dialogue participants will answer the following questions:

To what extent did this process help you identify elements of rigor in your coursework and teaching practices?

( ) Very much
( ) Quite a bit
( ) Some
( ) Very little

To what extent did this process help you refine your own practices as an instructor?

( ) Very much
( ) Quite a bit
( ) Some
( ) Very little

To what extent did this process lead to change in your own practices?

( ) Very much

( ) Quite a bit

( ) Some

( ) Very little

To what extent do you believe that you followed the protocol of the cogenerative dialogue: shared responsibility for topics, shared discussion, equity of voice?

( ) Very much

( ) Quite a bit

( ) Some

( ) Very little

APPENDIX E

POST INTERVENTION INTERVIEW

Pre-Study Semi-Structured Interview:

Dear Participant:

 I am a graduate student under the direction of Professor Dr. David Lee Carlson in the Mary Lou Fulton Teachers College at Arizona State University.

I am interviewing participants in the Cogenerative Dialogue and Rigor study, which will take approximately 25-35 minutes of your time.

Your participation in this study is voluntary. You can skip questions if you wish. If you choose not to participate or to withdraw from the study at any time, there will be no penalty. Skipping questions will not impact your grade.

Benefits of participating in this study include adding to the knowledge of effective teacher preparation for Masters level students and adding to the knowledge of rigor in course work in advanced professional programs.

There are no foreseeable risks to participating in this interview.

 Your responses will be kept confidential. Your responses will be confidential. The results of this study may be used in reports, presentations, or publications but your name will not be used.

If you have any questions concerning the research study, please contact the research team at: david.carlson@asu.edu or Melissa.desimone@asu.edu. If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

Your participation in this interview is voluntary. If you have any questions concerning the research study, please call me at (480) 415- 0267.

Sincerely,

Melissa F. DeSimone

MA Ed.

Please explain the process of cogenerative dialogues.

What was your perception of rigor prior to the cogenerative dialogues?

Did your perception/definition of rigor change? If so, how? If not, what was the result of this process for you?

Instructor: Did you change anything you do in your coursework as a result of this? If so, what? If not, why?

Student: Did your approach to your college coursework change as a result?

What would you suggest I do differently with this process in the future?

What would you suggest I continue to do with this process in the future?

Additional thoughts?

Questions will be added depending on need.