PERCEPTIONS OF STARR (SELECT TEACHERS AS REGIONAL RESOURCES)
TEACHERS CONCERNING THEIR PROFESSIONAL DEVELOPMENT EXPERIENCE

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Doctor of Philosophy

by
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EXPERIENCE

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A candidate for the degree of Doctor of Philosophy

And hereby certify that in their opinion it is worthy of acceptance.

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With God all things are possible.

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This study described and analyzed the perceptions of STARR (Select Teachers as Regional Resources) teachers who participated in a unique professional development experience. The research framework that guided the study included components of professional development, collaboration, authentic instruction, and teacher perceptions. Professional development related to the context of the program. Authentic instruction topics related to the content. Collaboration occurred in teacher cohorts and regional groups, and the theoretical underpinnings of perception research were used to examine teachers in their role as educators for their peers. The study population was initially a larger sample of 192 STARR Teachers. From that sample, a purposefully chosen sample of 21 former Missouri STARR Teachers was selected to contribute a retrospective view of participation.

The qualitative study was undertaken as a descriptive case study in the tradition of phenomenography. Marton (1994) explained this method of qualitative research is designed to discover and describe the qualitatively different ways phenomena are experienced. Data collection included surveys, interviews, and a previously written research brief. Data analysis was made through an iterative process of modifying the descriptive categories.

Study findings revealed that these teachers were positively impacted by participation in this professional development experience. Impact continued beyond the time of participation. Teachers benefited both personally and professionally from the experience. The interdependent effects of content, context and process enabled teachers to perceive a sense of achieving a new level of professionalism. Implications of this
research were identified in the areas of professional development, teacher education and teacher leadership.
CHAPTER 1: INTRODUCTION

Today, teachers in the United States are expected to meet the needs of all learners. Yet, the complexity of learning and social interaction has made the practical component of teaching more and more challenging (Fullan, 2000; Hargreaves & Fullan, 1998; Schlechty, 1997). Additional pressure from reports such as The National Commission on Teaching and America’s Future (1996) that state quality teachers are central to school reform and improvement and the enactment of No Child Left Behind legislation (2001) calling for quality teachers in every classroom have resulted in reform agendas gaining new momentum. This reform agenda has affected the way professional development for teacher education is approached.

The last decade saw changes in policy related approaches to teacher education (Kennedy, 1996). Kennedy noted policy analysts and others not involved as teacher educators taking interest in policy related matters. More recently in Cochran-Smith’s (2005) presidential address to the American Educational Research Association (AERA), she addressed changes about and within teacher education.

Although policymakers’ attention to the problem of teacher preparation is not new, three things are: faith in state and federal policy as the key to solving the problem of teacher education; the desire (at least rhetorical) to establish policy based on sound research; and the inclusion of policy as a major part of the discourse within the teacher education community itself. (p. 4)

She went on to add that this policy approach was not the norm historically. I used her research as a springboard and further examined the historical perspective since the mid 80s. Cochran-Smith suggested an important reform period began with the publication of *A Nation at Risk* (National Commission on Excellence in Education, 1983). The
publication opened with the following, “All, regardless of race or class or economic status, are entitled to a fair chance and to the tools for developing their individual powers of mind and spirit to the utmost” (p.1). The report was critical of the nation’s public schools. It stated American education was mediocre and failed to give everyone an equitable education, however teacher education reform failed to suggest changes that would address the need for quality teachers. Instead, teacher preparation focused on learning effective delivery of instruction. The art of teaching based on science was predominant in the literature (e.g., Berliner, 1987; Gage, 1985). Researchers during this time contributed results about effective practice such as wait time, expectancy, motivating, and academic feedback in order to inform educators.

During the 1980’s, other groups also became involved with development programs for teachers. Professional development schools were introduced based on the notion that educational knowledge needed to have the practical, i.e., how to, aspects of teaching addressed as well as the conventional, theoretical aspects. The Holmes Group (1986) led an initiative in developing professional development school models by establishing school/university partnership programs where pre-service teachers gained practical experience during their formal education. Pre-service teachers connected their formal and practical knowledge through the use of clinical faculty and field experience. The strength of the new programs, as was soon discovered, relied heavily on the expectation that teachers and schools selected to participate modeled good practice. In reality, this was not always the case. Goodlad’s research reported the disturbing factor that most teachers used an extremely narrow range of teaching practices (i.e., lectures, worksheets) (Goodlad, 1984; Goodlad, Soder, & Sirotnik, 1990). Their limited techniques did not
elicit problem-solving behavior, imagination, or understanding in content areas.

The knowledge of Goodlad’s critical findings was used to promote teacher preparation in the area of developing pedagogical content knowledge and also spawned an increased focus on teacher in-service training. During this era, teachers attended workshops (usually individually) and learned new skills in order to be more effective in their classrooms. Still in 1990, the United States Department of Education found low levels of achievement described the level of performance of American students (Alsalam & Ogle, 1990). Quality teaching methods and effective ways to learn them were still needed.

By the mid 1990s, the new focus on quality professional development took center stage. Subsequently, this era ushered in a climate of increased scrutiny for teacher education (Fenstermacher, 1994; Howey & Zimpher, 1994). Fenstermacher (1994) recommended dividing research into four theoretical frames in order to answer questions about quality teacher effectiveness. The following four frames spawned a myriad of research.

1. *Narrative Knowledge* where the teachers shared knowledge in their stories from experience (Carter, 1993; Clandinin and Connelly, 1996; Elbaz, 1991).

2. *Reflective Knowledge* where teachers reflected on knowledge and practice then framed and reframed their practice (Loughran, 1996; Russell and Munby, 1991; Schon, 1987).

3. *Pedagogical Content Knowledge* where researchers sought to answer the question regarding what knowledge was essential for teaching (Grossman, 1990; Shulman, 1986).

4. *Teachers as Researchers* based on the theory of action research that examined
knowledge in action and reflective practice. It established teachers as researchers to inform our knowledge about teachers and teaching (Cochran-Smith and Lytle, 1993, 1999a, 1999b).

This era also spawned multiple reform initiatives that advocated changes to teacher education (e.g. Edison Project; Nabisco’s Next Century Schools; New American Schools Development Corporation). Furthermore, researchers called for an evaluation of professional development programs and practices.

The push for quality teaching has brought about what Cochran-Smith (2005) identified and analyzed as “the new teacher education” (p.3). According to Cochran-Smith, "three closely coupled pieces” formed this new construct: it is constructed as a public policy problem, it is based on research and evidence, and it is driven by outcomes. Now, teacher educators are involved themselves in the debates on policy and the policy-relevant evidence. While Cochran-Smith indicated this may be good for the profession to be held accountable, she warned that developing too narrow a view for teacher education would not be good. Teacher educators are now looking at research evidence for teaching practices. Yet, here again, Cochran-Smith warned that researchers need to avoid accepting too narrow a view of what evidence-based practice means and ask questions about political motivation. Teacher educators have turned their focus from being mainly concerned with process to more emphasis on outcomes. Part of looking at outcomes involved documenting the impact of teacher education programs. Cochran-Smith, in comparing education with other professions said, “In this sense, the work in teacher education is not only for the better—it may be ground-breaking” (p. 10). However, she again warned that relying entirely on students’ test scores was not a good way to evaluate
teacher education. Most of Cochran-Smith’s comments about teacher education applied to teacher preparation. Other researchers have looked at similar aspects of teacher professional development.

According to Guskey (2000), three valued outcomes of professional development include enhanced teacher knowledge and skills, improved student learning, and significant changes in teachers’ attitudes, beliefs, or dispositions. In order to achieve the valued outcomes, teachers needed to change their pedagogical practices. Birman, Desimone, Porter and Garet (2000) looked at what was effective in bringing about pedagogical change and found teacher efficacy was central to this process. One way to study effectiveness was to examine teachers’ perceptions concerning their own instructional efficacy. Bandura (1977) introduced the concept of self-perceptions or “beliefs in one’s capacity to organize and execute the courses of action required to produce given attainments” (p. 3). Subsequent findings from Gibson and Dembo (1984) supported Bandura’s notion that when teachers believed they could make a difference with their students, they did. The information gleaned from studies on teacher learning was used to design new professional development models. Professional development that supported teacher efficacy became a new model to improve the quality of teachers and bring about pedagogical change (Birman et al., 2000). One such example of this type of professional development model was STARR (Select Teachers as Regional Resources).

In 1993, the Missouri State Legislature adopted the Outstanding Schools Act (SB 380, 1993). One key element of this act was to enhance professional development for educators. Section 7.1 of SB 380 required that one percent of state monies be allocated for teachers’ professional development. The Act resulted in the development of the state
sponsored professional development program titled STARR (Select Teachers as Regional Resources). The Missouri Department of Elementary and Secondary Education (MO DESE) was responsible for implementing this program.

An explanation for the development of STARR came from W. Robert Bell and from presentation notes to the State Board of Education (W. Bell, personal communication, March 16, 2004). Dr. Bell shared that when the financial backing was in place, the commissioner of education began to implement his vision for the STARR program. He wanted a program where teachers taught teachers on site at no charge the latest research-based instructional strategies that had been proven effective. Dr. Bell was then brought on board to develop the rest of the program. He established the idea of statewide cohorts learning together for one year while remaining in their classrooms. The cohort group was subdivided into regional groups. The second year, teachers took a district paid leave of absence from their classrooms and presented the new learning to peers in their region. The state paid for a first year teacher to replace the STARR teacher. After the year, the district could choose to offer the first year teacher another contract when the STARR teachers returned to a position in their district.

The first application process was in the spring of 1994. Fliers were sent to all school districts in the state inviting interested teachers to apply. In order to be eligible, applicants had to be practicing classroom teachers with at least three successful years of teaching experience. If a teacher’s application was chosen, they were invited for an interview by the program director, Dr. Bell and a panel of other state department directors. Dr. Bell said he looked for applicants who were successful teachers, willing and anxious to learn and had welcoming personalities. By May 1994, applications had been screened,
interviews had been conducted, and the first STARRs were selected. In June 1994, the first cohort of 22 selected STARR teachers began their training. In August 1995, two or three teachers per region began their work on eight campuses of Missouri state universities. The University of Rolla was added the next year to make nine sites (see Appendix A).

For their training, STARR participants engaged in a two year-long professional development experience. They learned about effective instructional practice and assessment based on “Authentic Instruction” (Newmann & Associates, 1996). The first year, participants attended seminars and used their own classrooms as labs to implement newly learned practices. During statewide meetings, STARR teachers shared implementation stories and engaged in reflection and collaboration with other participants regarding implementation of newly learned practices (DuFour & Eaker, 1998; Fullan, 2000). The second year, participants took a leave of absence from their classrooms and worked together in small regional groups to prepare and present the learned instructional practices and assessments as “teachers teaching teachers” (Blau, 1988; Lieberman & Wood, 2003; Olson & Besch, 1982). STARR teachers were expected to be leaders as they learned and implemented new information and then facilitated the learning of other teachers (Barth, 2001; Bogler & Somech, 2004; York-Barr & Duke, 2004).

My purpose in studying teachers’ perceptions of STARR and the impact of the program on their teaching lives is to add to the body of knowledge on quality teaching and what makes effective teachers. Researchers have called for more in-depth analysis of the personal and professional growth that occurs in professional development (Birman, et al., 2000; Guskey, 2000). According to Gore, Griffith and Ladwig (2004), the content
needs to be attended to in professional development about effective teaching.

Furthermore, the importance of the context for teacher learning needs further examination (Grant & Gillette, 2006; Short & Greer, 2002).

After ten years, the STARR professional development program, created to “take active classroom teachers and teach them to teach other teachers effective classroom instructional strategies” (Missouri Department of Elementary and Secondary Education, 1997), could offer answers to a prominent question in teacher education and learning: What type of professional development offers the most promise for creating qualified teachers who can implement instructional strategies based on research as advocated by No Child Left Behind? The study’s findings would provide insight into change and empowerment constructs for STARR teachers. The information would be useful for examining current professional development training practices in STARR and might be applicable to other contexts as well. By analyzing and then describing the perceptions of teachers who participated in the professional development program, I will add to the knowledge base on teacher learning. The retrospective view could address perceptions of the long-term impact on these teachers.

The program began as an innovative professional development program with a specific content, context and process. The overarching goal of STARR was to prepare teachers to make a positive impact on teaching and instruction for educators and students throughout the state. Many interesting and potentially significant findings could arise from a self-study examination of my own experience as a former STARR participant. Teacher education and self-study provide important and interesting findings (Bullough & Pinnegar, 2001; Cochran-Smith & Lytle, 1999b; Hopper & Sanford, 2004). However, I
chose to conduct an examination of what the collective STARR participants’ perceptions were concerning their experiences with the professional development project. Locke, Spirduso, and Silverman (1997) said, “the focus of attention is on the perceptions and experiences of the participants” (p. 98). In taking their advice, I will attempt to make clear how these teachers experienced professional learning both in the short term immediately following the experience and in the long term, i.e., between one and ten years following their participation. In order to better understand impact of participation, the foci of this study were perceptions and experiences of STARR Teachers. Scribner (1999a) stated, “Understanding how teachers experience professional learning is vital to create valuable (and valued) professional learning experiences. Few studies have examined this phenomenon in depth” (p.231).

Research Questions

In order to investigate this phenomenon, I addressed the following research questions:

1. What were teachers’ perceptions concerning the impact of participation on their teaching lives during their professional development experience?

2. In what ways did perceptions of STARR participants evolve after ending their participation in the project?

3. How do the content, context and process of the STARR professional development experience impact teachers’ perceptions of participation?

This study investigated participants' perceived sense of personal and professional impact during and after the course of their professional development experience.

By analyzing and then describing the perceptions of teachers who participated in the professional development program, I will add to the knowledge base of my community of
teacher educators. In addition, I will add to the knowledge base of teacher efficacy and empowerment (Bogler & Somech, 2004; Goddard, Hoy, & Woolfolk Hoy, 2004; Wenzlaff & Wieseman, 2004). This study will introduce findings in regard to cohort learning in a teacher education setting. Most research of cohorts has focused on administrative settings (Scribner & Donaldson, 2001). Furthermore, study groups have been effective in supporting and advocating teacher collaboration (Arbaugh, 2000) and this research may offer new insight into the use of study groups in professional development. Other benefits may include adding testimony to the research on what constitutes effective instructional practice (Newmann & Associates, 1996) and the impact of the STARR program on teacher leadership (Barth, 2001; Fullan, 1993, 2000).

Definitions of Terms

The following terms were used throughout this study. These definitions represent the best “fit” from the literature when considering the context of this study.

**Authentic Assessment.** An assessment that contains a real problem encountered in the world (Wiggins, 1989).

**Authentic Instruction.** A model for high quality instruction developed by Fred Newmann (1993) lists five major components of the teaching process: higher order thinking; depth of knowledge; connectedness to the world beyond the classroom; substantive conversation; and social support for student achievement. Topics were chosen for STARR’s professional development content based on the above components.

**Collaboration.** Butler, Lauscher, Jarvis-Selinger, and Beckingham (2004) described collaboration as a problem-solving pursuit of common goals where groups of teachers and/or researchers work together to develop new ways of teaching.
Collective Efficacy. The perceptions of teachers in an organization that the efforts as a whole will have a positive effect on learning. Teachers have shared beliefs that they can work together to produce effects (Bandura, 1993).

Content. A component of the National Staff Development Council (NSDC, 2001) that refers to the professional development curriculum being taught. Content standards support equity and quality teaching. For this study, content consisted of topics that flowed from the components of authentic instruction and assessment.

Context. A component of the NSDC (2001) that refers to the environment and setting for professional development. Context standards consist of learning communities, leadership and resources. For this study, the context was the environment in which teachers learned to teach their peers.

Empowerment. The opportunities individuals have to take charge of their own growth. Dimensions of empowerment include autonomy, professional growth, self-efficacy, decision-making, status, and impact (Short, Greer, & Melvin, 1994).

Impact. The extent to which teachers perceive they have an effect or influence on educational programs and, in turn, how teachers are affected or influenced by programs (Short & Greer, 2002).

Perception. A cognitive process in which people construct beliefs. Self-efficacy perceptions are “beliefs in one’s capacity to organize and execute the courses of action required to produce given attainments” (Bandura, 1977, p. 3).

Process. A component of the NSDC (2001) that refers to methods and techniques employed during professional development learning. Process standards include research-based learning and collaboration. For this study, the process employed cohort and study
group learning.

**Professional Development.** A purposeful and intentional process designed to enhance knowledge and skills of teachers who in turn might improve student learning (Guskey, 2000).

**Self-Efficacy.** A dimension of empowerment described by Short and Johnson (1994) as teachers’ perceptions that they are competent to increase students’ knowledge and skills with their present capabilities in program planning and pedagogy.

Chapter Summary

This chapter set forth the background information, purpose of the study, research questions, and definitions of terminology used throughout this research report. Chapter two is a review of the literature related to professional development, specifically teachers learning to teach their peers and learning in cohorts and study groups. The subjects of authentic instruction and assessment and teacher perceptions of empowerment and efficacy are addressed. Each topic frames the study.
Teacher education has taken center stage within the landscape of discussions about student achievement. In-service programming has been charged with making changes in order to meet the demands of the No Child Left Behind Act (2001). The expectation is that quality teachers will be in every classroom across this nation. Earlier, in 1993, the Missouri State Legislature passed The Outstanding Schools Act (SB380, 1993). This Act resulted in the creation of a state sponsored professional development program titled STARR (Select Teachers as Regional Resources), which the Missouri Department of Elementary and Secondary Education (MO DESE) was responsible for implementing.

Teachers and teacher educators who have been involved in the STARR program are likely to think differently about in-service education than they did ten or so years ago. The important changes in the participating teachers’ thinking, I believe, are due to the influence and model of good instruction of the STARR program. The goal of STARR is to prepare teachers to make a positive impact on teaching and instruction for educators and students throughout the state. In this study, the focus is on the perceptions of STARR teachers concerning their participation in this professional development experience.

Researchers from The National Foundation for the Improvement of Education (NFIE, 1996) reported high quality professional development consisted of the following ten aspects:

1. Has the goal of improving student learning;
2. Helps teachers meet the future needs of students who learn in different ways and who come from diverse backgrounds;
3. Provides adequate time for inquiry, reflection, and mentoring and is an important part of the normal working day of all educators;

4. Is rigorous, sustained, and adequate to the long-term change of practice;

5. Is directed toward teachers’ intellectual development and leadership;

6. Fosters a deepening of subject-matter knowledge, understanding of learning, and appreciation of students’ needs;

7. Is designed and directed by teachers, incorporates the best principles of adult learning, and involves shared decisions;

8. Balances individual priorities with school and district needs;

9. Makes best use of new technologies; and

10. Is site-based and supports a clear vision for students (Renyi, 1998, p. 72).

The National Staff Development Council (NSDC, 2001) reported that looking at context, process, and content standards should be included in determining high quality professional development. The NSDC (2001) defined each component as the following:

1. Context standards consist of learning communities, leadership, and resources;

2. Process standards include data-driven, evaluation, research based, design, learning, and collaboration;

3. Content standards support equity, quality teaching, and family involvement.

Using tenets of these two organizations allowed me to explain a framework for my study concerning the different constructs of the STARR professional development program.

Framework

The four areas of research in my study included: professional development, collaboration, authentic instruction, and teacher perceptions. Professional development
related to the context of the program. Authentic instruction topics related to the content. The process was collaboration in cohorts and regional groups, and the theoretical underpinnings of perception research were used to examine teachers in their role as educators for their peers. I reviewed the literature for each of these areas that defined the constructs of the STARR professional development experience and used the lenses of context, content, process and perception research to present the study findings.

First I looked at the research base for professional development and teacher learning. This body of literature was discussed briefly in Chapter One to situate my study within the context of teachers learning to teach their peers. The second area I examined was the literature on the research base of authentic instruction and assessment. The topics that emerged from this construct were the content and strategies STARR teachers taught other teachers. Third, I looked at the area of teachers learning in groups. STARR teachers were part of a cohort of teachers from across the state who worked together the first year. They were also part of a small regional group (usually three people) within the cohort. The second year the small regional group worked together designing and presenting topics to other teachers in their geographic region. Lastly, the fourth area was perception research and, more specifically, teacher empowerment and their perceived self and collective efficacy. Part of the professional development experience involved developing leadership skills. Consequently, I reviewed the conditions that supported empowerment. These four areas provided a framework for the context of the study (i.e., the Missouri STARR professional development program where teachers learned to teach their peers), the content (i.e., authentic instruction and assessment topics that the teachers taught), the process (i.e., cohort and regional group learning where teachers learned from experts and
through collaboration and reflection), and teacher perceptions (i.e., teacher empowerment and self and collective efficacy that was developed and supported during the experience).

**Professional Development**

In order to look at the construct of teachers teaching their peers, I began the review of the literature with what educators have learned about effective professional development. Research showing the development of pedagogical knowledge and how this knowledge is supported has changed how we think about practice (Cochran-Smith & Lytle, 1993; Hargreaves, 1994; Lieberman, 1996). Findings have confirmed that a significant factor in raising academic achievement is the improvement of instructional capacity in the classroom. Four critical characteristics of professional development that improve instruction are: a) it is ongoing, b) embedded within context-specific needs of a particular setting, c) aligned with reform initiatives and d) grounded in a collaborative, inquiry-based approach to learning (Knapp, McCaffrey, & Swanson, 2003; Senge, 1990).

According to Guskey (2000), professional development constitutes “… those processes and activities designed to enhance the professional knowledge, skills, and attitudes of educators so they might in turn improve the learning of students” (p. 16).

In reviewing other literature, I found studies suggesting that a combination of features positively influenced classroom practice. The findings recommended specific characteristics such as maintaining coherence with learning activities and the duration of professional development related to teacher impact on practice (Shields, Marsh & Adelman, 1998; Weiss, Montgomery, Ridgeway & Bond, 1998). These studies also suggested the duration of professional development were related to the depth of teacher change. They concluded that further studies were needed to determine additional specific
characteristics of effective professional development.

According to Garet, Porter, Desimone, Birman and Yoon (2001) effective professional development core features include: a) focus on content, b) provide opportunities for active learning, and c) maintain coherence with other learning activities. They further suggest teacher learning is significantly impacted by what they called structural features: a) the form of the activity (e.g. workshop vs. study group), b) collective participation of teachers, and c) the duration of the activity. In their empirical study using survey information from 1,027 mathematics and science teachers, Garet, et al. (2001) found the focus on content, active learning, coherence for teachers, time span and contact hours had a substantial positive influence on enhanced knowledge and skills. Their findings indicated activities that gave emphasis to content and were better connected to teachers’ professional development efforts, including collective participation of groups of teachers, resulted in changing teaching practices.

Prior to the change in what constitutes effective professional development, teacher in-service consisted of workshops where teachers were passive consumers. More recently, the previous traditional approaches have made way for newer professional development where greater teacher involvement occurs within learning communities. The learning communities that become connected to “educational reform networks,” those networks that connect educational reform with professional development, show more enduring growth and development (Lieberman & McLaughlin, 1992). In the aforementioned study, teachers used networking as part of their professional development experience. Additionally, teachers learning how to teach and presenting to their peers were part of the development process. This model was similar to the STARR professional development
model.

“Teachers teaching teachers” was examined as a potential overall effectiveness model for professional development (e.g., Lieberman & Wood, 2003; Olson & Besch, 1983;). This particular technique was found to positively enhance educator attitudes and beliefs, especially in the area of collegial support. These studies did not, however, focus on any long-term effects of teacher perceptions of involvement in teaching their peers.

In reviewing literature for programs that modeled the above-mentioned features, I found three programs with similar organizational structures as the STARR program. According to Lieberman and Wood (2003), one crucial component of the National Writing Project (NWP) included teachers teaching other teachers their “best practices.” This, along with several other NWP principles, supported the proposition that “teacher knowledge is to be the starting point for learning” (p.7).

In an earlier study, Blau (1988) discussed the National Writing Project as an effective professional development model. NWP, a national network that focuses on student writing skills by improving the teaching of writing, began in 1974 under the guidance of James Gray at the University of California, Berkeley. In this ongoing program, exemplary teachers were recruited to participate in intensive summer institutes. Teachers learned strategies for improving the writing process and then prepared to lead professional development programs during the school year with their colleagues. The collaboration between university faculty and local school district teachers enabled credible staff development that could be tailored to meet the needs of specific schools or districts. In another study of the NWP, teachers reported a year after their experience that they gained valuable knowledge and changed their practice (Stokes, 1992). The
combined findings of these studies supported the context and process of STARR as an effective professional development program.

Another program with similar characteristics as STARR was Reading Recovery. High quality teacher education was a fundamental part of Marie Clay’s early intervention reading program. This literacy program was cited as efficacious in increasing student achievement through teacher learning (Pearson, 2003). Additionally, Pearson endorsed the literacy program’s professional development model as a key factor in promoting successful results. The training model consisted of content specific material, intensive long-term training, and teacher leaders working collaboratively with other teachers on in-depth analysis of theory and application of literacy knowledge. The training lasted one year and included graduate level coursework with a job-embedded apprenticeship. Six key principles guided the professional development model: a) a constructivist view of learning, b) the development and use of shared language, c) the value of tentativeness in problem-solving, d) flexibility in thinking and practice, e) the creation of collegial networks to support collaborative reflection, and f) the development of self-directed, lifelong learners (Shanahan & Neuman, 1997). The similarities between this model of professional development and STARR included the duration of the training, job-embedded where STARR teachers used their classrooms as labs, and comparable guiding principles.

A third professional development program with some characteristics in common with the STARR program emerged from research conducted in Florida. Little and Houston (2003) proposed a research-into-practice model of professional development titled Project CENTRAL (Coordinating Existing Networks To Reach All Learners). Essentially
the four-step continuous improvement model reconceptualized professional development with specific content related to the needs of all students with or without disabilities.

The four steps included:

1. Identification of research based instructional practices;

2. Selections of teams of teachers to attend awareness level professional development;

3. Classroom implementation of research-based instructional practice from initial training to quality implementation for all students; and

4. Data collection of the results of student learning through traditional and action research methodologies. (p. 77)

This model began with research-based effective instructional practice followed by the selecting of applicants who received staff development in statewide teams and engaged in evaluation processes for feedback. The model then continued once again with the next selection of practice and applicants.

After completing three years of research into this practice model, ninety percent of responding participants reported complete satisfaction with the content and process of the professional development. Little and Houston (2003) advocated this model of continuous improvement through research and professional development collaboration as a way to better meet individual needs for the success of students. This model of professional development was similar to the STARR program; however, STARR included an additional step of teaching other teachers the learned instructional practices.

Although little research was available on the effects of collective approaches to professional development, there was some evidence that it can be effective in changing
teaching practice. According to Grant and Gillette (2006), a proactive context that focuses on issues of equity within teacher development contributed to self-knowledge, understanding, acceptance, and willingness to change. Within the vast amount of professional development literature, there was surprisingly little attention given to the content of professional development; in particular, research conducted on the relative efficacy of professional development activities that focus on different types of knowledge, skills and teaching practices (Garet, et al. 2001; Gilles & Wilson, 2004).

With the focus on content as an important aspect of the STARR program in my study, it was important to look at the characteristics of the content.

*Authentic Instruction and Assessment*

Authentic Assessment is an assessment which is a real problem encountered in the world (Wiggins, 1989). Authentic Instruction is a model for high quality instruction developed by Fred Newmann (1993). The model contains five major components of the teaching process: higher-order thinking; depth of knowledge; connectedness to the world beyond the classroom; substantive conversation; and social support for student achievement. Connecting assessment and instruction was a focus of the STARR program. The STARR program based its content on Newmann’s work and those areas that flowed from his work.

The Center on Organization and Restructuring of Schools (CORS) at the University of Wisconsin-Madison in conjunction with Newmann and colleagues conducted research from 1991-1995 on authentic instruction and assessment. Their findings indicated that interactive teaching methods (e.g., paired reading, reciprocal teaching, multiple intelligences, numeracy strategies, choral reading) were associated with increased
learning (Newmann & Associates, 1996). Topics were chosen for the professional development content of STARR based on the above components of authentic instruction and assessment. These included cooperative learning structures and brain research that is applicable to classroom practice and multiple intelligences.

Newmann and Associates (1996) addressed pedagogy for improving teaching practice. They called these researched practices “authentic instruction and assessment.” Their researched practices were later supported by a more in-depth construct titled Productive Pedagogy (PP) (Gore, Griffiths, & Ladwig, 2004), which was developed and researched by the Queensland School Reform Longitudinal Study (State of Queensland, 2001). The research for PP was built on Newmann’s work.

The New Basics Project (New South Wales, 2003) was another product of the QSRLS research. The need to teach new basics as part of PP was due to new high-tech and print literacy requirements as well as skills in verbal face-to-face social relations and public presentation, problem identification and solution, and collaborative and group capacity. The need to simultaneously acknowledge different kinds of intelligence, dispositions, knowledge, and skills in order to engage with oral, print, visual and multimedia communications had become apparent. Knowing how to learn became the new focus of lifelong learning.

Results from these research projects indicated a positive correlation between using best practice strategies like those proposed in PP and the level of student learning. The results also supported, although indirectly, that providing professional development to learn about PP in the classroom and the context of teachers teaching their peers would be worthy of further study. In this study, the STARR curriculum based on “authentic
instruction and assessment” was examined to explore connections between the content, process and context of the program. Just as Newmann’s work was adapted and changed in the above studies, the STARR content was also allowed to change and grow during the years. However, decisions about what the content of the curriculum should continue to be based on researched topics and strategies.

The process of learning the content in the STARR professional development program was an important aspect of the experience. Thus, looking at the literature on collaboration in groups was important in framing my study.

Collaboration

According to Guskey (2000), there are three valued outcomes of professional development. They include enhanced teacher knowledge and skills, improved student learning, and significant changes in teachers’ attitudes, beliefs, or dispositions. The development of a strong professional community among educators is a key ingredient in improving schools (Fullan, 1999; Langer, 2000; Newmann and Associates, 1996). Collective collaboration or working as a team and taking collective responsibility for the group’s outcomes should be a focus of professional development. Looking at the process of collaboration in professional learning communities offers a way to connect the constructs of context and content within this study.

Collaborative Learning in Cohorts and Study Groups. Butler, Lauscher, Jarvis-Selinger, and Beckingham, (2004) described collaboration as a problem-solving pursuit of common goals where groups of teachers and/or researchers work together to develop new ways of teaching. Using a “communities of practice” (COP) framework, they studied collaborative initiatives. COP was conceived to describe how teachers develop an identity
concerning their participation in a community. The framework was used to enrich understanding of teacher learning and particularly to apply it to the professional development of teachers. In their study, Butler et al. organized teachers so they could collaborate in both local school groups and district wide groups. The all-school meetings began with opening sessions then divided into smaller groups. At the end of two years, they found teachers reflecting on their practice more, constructing new knowledge, and making positive instructional shifts. Furthermore, they found teachers sustaining the changes while support faded. The STARR program extended this framework by developing an additional step that included teachers teaching the new strategies and practices they learned to their peers.

Group learning in cohorts was found to be effective in developing a sense of belonging, confidence, and motivation (Twale & Kochan, 2000). However, what was studied and how learning occurred within cohorts needed further investigation. According to Scribner & Donalson (2001), finding the balance between group dynamics, including group climate, norms, roles, contextual factors, and productivity, was key to successful cohorts in educational leadership groups. They found transformative learning (i.e., learning that changes people’s meaning perspective) occurred amidst team members’ self perceptions as leaders. Cohort members’ experiences enabled them to gain knowledge and understanding even when the experience was wrought with tension. They concluded that exploring long term influences of the cohort experiences’ impact on learning was still needed.

Additionally, study groups, where professional development occurred as small groups of teachers collaborated, were found to positively impact teachers’ self-efficacy,
community and relationship building, ability to make connections across theory and practice, and support for curriculum reform (Arbaugh, 2003). These ideas of collaboration were used to explore the interaction of process with the content and context of STARR. The regional groups that planned and presented topics to peers had similarities to study groups.

**Perception Research**

During the STARR experience, teachers were expected to develop leadership skills in order to fulfill their role as teacher educators (Barth, 2001; Bogler & Somech, 2004; York-Barr & Duke, 2004). According to Dewey (1933), “if a teacher does not have an attitude to work at becoming an effective teacher, content knowledge and pedagogical expertise are not enough” (p.17). Dewey believed teachers needed three characteristics to connect knowledge and skill: open-mindedness, wholeheartedness, and responsibility. In order to understand how teachers viewed their learning and how it impacted their ability to teach their peers, I reviewed the literature on perception research and then focused on empowerment and efficacy.

In the general field of perception research, a distinction is made between three levels of perception: low, (i.e., feature extraction), where information is gained from sensory registers, middle, (i.e., feature integration), where mental integration of representations occur, and high, (i.e., every-day functionality) where organization and interaction with memory and knowledge occur (Bandura, 1977, 1993, 1997). In his teacher perception research, Bandura (1977) conceptualized and developed a theory of social cognition. He identified self-efficacy as the outcome of cognitive processes in which people construct beliefs about their capacity to perform at a given level of competence. This theory
provided the underpinnings for this study. Connecting the perception research, specifically empowerment and efficacy, to the context, content, and process enabled a way to construct meaning and understanding of findings in this study.

*Teacher Empowerment, Organizational Commitment, and Self and Collective Efficacy.* During the reform movement of the 1980s, organizational efforts toward empowering teachers were addressed. According to Maeroff (1988), three areas of concern for teachers included the need for improved status, increased knowledge and access to decision making. Building on that work, six dimensions of teacher empowerment were identified by Short and Rinehart (1992): decision-making, professional growth, status, self-efficacy, autonomy and impact. Essentially, decision-making refers to teachers’ participation in those decisions that affect their work. Professional growth refers to teachers’ perceptions that they have the opportunity to continually grow and learn through professional development. Status refers to feelings of professional respect teachers’ perceive colleagues to have for their knowledge and expertise. Self-efficacy refers to the teachers’ perception that they have mastery learning and are equipped to help students (or in STARR teachers’ case help other teachers) learn as well as competently develop curricula for students (teachers). Autonomy refers to teachers’ perceptions that they have control over various aspects of their teaching lives and impact refers to teachers’ perception that they can affect and influence others within the profession. Rinehart and Short (1994) found that teacher leaders in the Reading Recovery program perceived themselves as being empowered in decision-making, professional growth, self-efficacy, autonomy and impact.

In further examining the impact of the STARR professional development on
participants, this study also sought to find the long-term effects of participation. Bogler and Somech (2004) studied teachers’ perceptions of empowerment. Their study indicated “that teachers’ perceptions of their level of empowerment were significantly related to their feelings of commitment to the organization and to the profession” (p. 277). They investigated three outcomes of teacher perceptions of empowerment: 1) organizational commitment (OC); 2) professional commitment (PC); and 3) organizational citizenship behavior (OCB). OC referred to an individual’s identification with and involvement in a particular organization. PC referred to a person’s self esteem in relation to his/her work performance. OCB referred to extra role behavior by teachers who exert considerable effort beyond formal job requirements. Bogler and Somech found “among the six subscales of empowerment, professional growth, status and self-efficacy were significant predictors of organizational and PC, while decision-making, self-efficacy and status were significant predictors of OCB” (p. 277). They concluded, “teachers who view themselves as professionals or perceive opportunities to grow professionally may contribute more… as their commitment to the organization and to the profession increases” (p. 286).

In earlier research, Gibson and Dembo (1984) found when teachers believed they could make a difference with their students, they did. One aspect of empowerment, (i.e., efficacy), became the focus for its own body of research. The terms “perceived teacher efficacy” or “self-efficacy” were used interchangeably with empowerment (Goddard, Hoy & Woolfolk-Hoy, 2000).

Past studies (e.g., Bandura, 1993; Goddard, Hoy, & Woolfolk Hoy, 2000; Pajares, 1997) addressed the positive effects of perceived self-efficacy on educational productivity. According to Bandura (1986, 1997), four sources of needed information
shape efficacy. They include: 1) mastery experience, the most powerful source, where perceptions of a successful performance raises efficacy beliefs and contributes to perceptions that future performances will be proficient; 2) vicarious experience, where a skill may be modeled by someone believed to perform well and in turn the observer’s efficacy beliefs are enhanced; 3) social persuasion, where self-efficacy is shaped by a respected colleague or supervisor through positive feedback of performance; and 4) affective states, where the level of arousal information that excites or causes anxiety adds to the perception of capability or incompetence. Bandura (1997) suggested these information-shaping sources operate in collective groups as well. He stated, “the theory extends the analysis of mechanisms of human agency to the exercise of collective agency” (p. 7). In essence, collective efficacy can be defined as people’s combined beliefs that working together produces desired effects.

Building on Bandura’s research, Goddard, Hoy, & Woolfolk Hoy (2004) suggested the need to look at perceived collective group efficacy and its effects on education. They stated, “an approach is to ask group members to discuss their group capabilities together and come to a consensus about their sense of collective efficacy” (p. 6). They also suggested another way “is to focus on the extent to which there is agreement among group members across their individual perceptions” (p.6). Following this suggestion, researchers have recently studied perceptions of collective teacher efficacy (Bogler & Somech, 2004; Goddard, Hoy & Woolfolk Hoy, 2004; Wenzlaff & Wieseman, 2004). The tentative results indicated group efficacy perceptions appear to influence positive educational outcomes including collective efficacy positively contributing to organizations. Further research is needed to more fully understand this phenomenon.
Possibly the added insight would contribute to our understanding of what type of professional development offers the most promise for creating qualified teachers as advocated by No Child Left Behind (2001).

In Scribner’s study (1999a) relating teacher efficacy and professional learning, the level of personal teaching efficacy was found to influence how and in what ways individual teachers experienced professional development. His findings indicated the need to look at personal teaching efficacy in order to influence individual professional development. Scribner stated, “understanding how teachers experience professional learning is vital to create valuable (and valued) professional learning experiences. Few studies have examined this phenomenon in depth” (p. 231). Looking at the dimensions of empowerment and the connection with efficacy offered a lens to view the impact of STARR on teacher perceptions across this study.

Summary

A review of related literature was presented in this chapter in order to provide a framework for the study. The constructs of professional development where teachers learn to teach other teachers provided the context, authentic instruction and assessment comprised the content, collaboration in cohorts and study groups framed the process, and perceptions of empowerment and efficacy built the theoretical underpinning. These constructs were essential for the investigation, and their overlapping nature became apparent within the research findings. The essential purposes of successful professional development in creating empowered individuals who in turn were able to teach their peers were noted in the literature. The lenses of content, process and context were powerful in aiding the analysis of this study. They offered insight into looking at the
perceptions of STARR teachers concerning the impact of participation from this professional development experience. Few studies have focused on statewide professional development and fewer still on the long-term impact of participation in such professional development.

Chapter three presents the research methodology employed in this study. Specific information about the design, procedures, participants, data sources, data analysis and ethics are included.
CHAPTER 3: METHODOLOGY

This study described and analyzed the perceptions of teachers who participated in the professional development program STARR (Select Teachers as Regional Resources). An examination of exit surveys, followed by the examination of in-depth retrospective interviews, provided an understanding of the STARR program’s impact. The research questions were formulated to investigate topics and explore the perceived impact of content, process, and context of the STARR program on teachers and their teaching lives. Three questions guided my research. The first focused on a larger sample of existing survey data from 192 STARR Teachers. The second was an examination of 21 retrospective interviews. The third examined the impact of content, context, and process on the participants’ perceptions of the experience. This “purposeful sample” of participants provided a richer understanding of the phenomena in question (Bogdan & Biklan, 1998, p. 65).

Research Questions

The research questions investigated during this study were:

1. What were teachers’ perceptions concerning the impact of participation on their teaching lives during their professional development experience? [For 192 STARR Teachers, (1994-2004)]?

2. In what ways did perceptions of STARR participants evolve after ending their participation in the project?

3. How do the content, context and process of the STARR professional development experience impact teachers’ perceptions of participation?
Research Approach

In order to address the questions, I used a qualitative research process in the tradition of phenomenography. This approach for the study allowed me to gather and analyze data for inclusion in a descriptive report of the findings. Strauss and Corbin (1990) explained that a qualitative research approach was appropriate when used to examine details in a non-mathematical process. The philosophical paradigms that underlie this research included ontological, epistemological, and methodological assumptions.

The ontological assumptions relate to the essence of the nature of reality. In phenomenography (Marton, 1981, 1992, 1994), interpretations of reality “share the central idea that theoretical understanding emerges from an iterative process based on a constant sampling, comparison and analysis of transcribed excerpts from interviews or other discursive materials” (Richardson, 1999, p. 70). An iterative process involving the interviews allowed me to break down the data, conceptualize information into categories of description and refine the categories in order to make an accurate description of the teachers’ personal and or socially constructed knowledge (Marshall & Rossman, 1999). Glesne and Peshkin (1992) described the interview as “an interaction between two human beings” (p.83) with a purpose to discuss things that are not observable (e.g., feelings and attitudes) about a subject. Subsequently, using quotes and text from the interviews yielded authentic perspectives of my participants.

The epistemological paradigm concerns itself with dimensions of knowing as the essence of what developed in the attainment of understanding. The interview was used to investigate and describe how interviewees actively created meaning of their experience (Silverman, 2001). As the researcher, I represented the lived experiences of participants...
in order to attempt to organize and integrate the knowledge into something useful.

The methodological paradigm underlying this inquiry is the process of phenomenography. According to Marton (1981, 1992, 1994), the phenomenographic method of qualitative research is designed to discover and describe the qualitatively different ways phenomena are experienced, conceptualized or understood. Using the research tradition of phenomenography and a case study methodology guided me in designing and implementing this study.

**Phenomenography**

Phenomenography, according to Marton (1994), is aimed at “describing conceptions of the world around us” (p. 3). The recurring principle in all investigations of this type is “whatever phenomenon or situation people encounter, we can identify a limited number of qualitatively different and logically interrelated ways in which the phenomenon or the situation is experienced or understood” (p. 3). This research is characterized in terms of its object of research and in terms of methods used when studying the research object. Marton goes on to explain,

Phenomenography is the empirical study of the differing ways in which people experience, perceive, apprehend, understand, conceptualise various phenomena in and aspects of the world around us… The point is not to deny that there are differences in what these terms refer to, but to suggest that the limited number of ways in which a certain phenomenon appears to us can be found, for instance, regardless whether they are embedded in immediate experience of the phenomenon or in reflected thought about the same phenomenon. The different ways in which a phenomenon can be experienced, perceived, apprehended, understood, conceptualized etc., according to our way of describing them, are thus independent of the differences between experience, perception, apprehension, understanding, conceptualization etc. (p. 3)

In order to describe and analyze the STARR teachers’ experience, I collected all the statements concerning the impact of the professional development experience for these
participants from each survey and interview. The statements were then compared between and within surveys and interviews. Re-examination through an iterative process of modifying the descriptive categories and applying them repeatedly to the data led to the findings. I provided in narrative a structural description and emerging themes that suggested implications (Creswell, 1998).

Context of the Study

STARR Program

This study focused on Missouri’s STARR Teacher Program from 1994-2004. Typically, 27 teachers and 9 alternates were recruited each year to participate in a two-year long professional development program. An application process was used to select candidates for participation. In order to be considered, a teacher had to have three successful years of teaching experience. Additionally, two letters of recommendation, one from a supervisor and one from a colleague, had to be included with the application. If the teacher had experience presenting at workshops, a third letter from a participant was required. If an application was chosen, the teacher was contacted for an interview. From the interviews, three teachers and one alternate per each of nine regions (Appendix A) were selected to be STARR teachers. The teachers worked from the nine-university campus Regional Professional Development Centers (RPDC’s) during their sabbatical year of the program. After being selected, teachers were prepared to teach their peers research-based instructional strategies. Training for the program occurred during the first year of the program in and around central locations of the state (i.e., Jefferson City and Columbia). Multiple meetings were held during the summers and monthly meetings were held throughout the school year. The second-year teachers took a one-year leave of
absence and presented newly learned information to other teachers in their geographical region. Alternates remained in their classroom the second year; however, they would be called on to fill a STARR teacher’s position in their region if for some reason a STARR teacher was unable to fulfill their obligation to the program. Alternates could choose to reapply for the program to be regular STARR teachers after their year of training as an alternate.

*Professional Development Curriculum*

The core curriculum for the STARR program during the years 1994-2004 was based on Newmann’s (1993) along with Newmann and Associate’s (1996) research that addressed pedagogy for improving teaching practice. The researched practices presented were titled “authentic instruction and assessment.” Their findings indicated the interactive teaching methods (e.g., paired reading, reciprocal teaching, multiple intelligences, numeracy strategies, choral reading) that were based on the five major components of the teaching process associated with increased learning: higher-order thinking, depth of knowledge, connectedness to the world beyond the classroom, substantive conversation, and social support for student achievement (Newmann & Associates, 1996). Topics were chosen for the professional development content of STARR based on the above components of authentic instruction and assessment. These included brain research, cooperative learning structures, multiple intelligence, Socratic seminar, motivation, assessment, cooperative discipline, and reading and writing in the content areas. The program also examined curriculum alignment, Missouri State Standards, the Missouri School Improvement Program (MSIP), teacher leadership, and presentation strategies. Certain topics remained a core of the curriculum throughout the
years of this study. These included cooperative learning structures, brain research that is applicable to classroom practice, and multiple intelligences. Each topic had its own body of research. The STARR program based its content on Newmann’s work and those areas that flowed from his work.

A total of 230 teachers in 9 cohorts that each served two years participated in the STARR program from 1994 to 2004. Data were initially collected from 192 STARR teachers’ end-of-year evaluation questionnaires (Appendix E) that completed the previous surveys from 1997-2004. The first cohort of 22 teachers from 1994-1996 did not complete a survey. The 192 surveys represented 83% of all STARR teachers. Using the 192 Missouri Department of Elementary and Secondary Education’s (MO DESE) STARR End of Year Evaluation questionnaires allowed a longitudinal look at the program from its inception through 2004. It also allowed an examination of the content and process changes during this same time.

Twenty-one teachers were purposely selected for interviews making sure at least two teachers represented each cohort from 1994-2004. Two additional teachers served as pilots for the study’s semi-structured interview questions and initial data analysis. To select the 21 teachers to interview, lists were composed of the STARR teachers from each year 1994-2004. The first three teachers I contacted to participate were teachers I had heard about or were suggested by other educators as someone to interview (see Appendix B). If I could not contact some of the suggested teachers or they did not agree to participate, then I employed a system of random selection to reach my goal of 21 interviewees. This pattern continued until at least two teachers from each cohort agreed to participate.
The two teachers serving as pilots for the study’s semi-structured interview questions and initial data analysis were both females. One taught upper elementary and became an instructional facilitator who assisted teachers in her building with classroom instruction after returning to her own classroom for two years. Currently she is an assistant principal working on an Educational Specialist Degree. The second pilot teacher was an early elementary teacher who became an instructional reading facilitator upon returning from STARR. She then worked with middle school at-risk students, returned to early elementary for a short time and presently is back with at-risk middle school students. She also teaches university pre-service teachers part-time.

The 21 interview participants were all females and randomly represented eight of the nine regional professional development centers (RPDC’s). Two teachers from each cohort were interviewed except for cohort years 1996-1998, 1997-1999, and 2001-2003, in which three teachers were interviewed. The average teaching experience of the interviewees before they were selected for the STARR program was 15.2 years. Every interviewee had completed a masters degree or higher. Eight interviewees were elementary teachers, six were middle school teachers, two were high school teachers and five were teacher specialists (i.e., taught at-risk, special education, gifted and talented, elementary writing). The 21 STARR teachers interviewed changed teaching assignments and educational positions between zero and eight times prior to becoming STARR teachers (see Appendix C).

Written permission was obtained from all 21 participants and the two pilot teachers (Appendix D). Furthermore, permission to conduct this study was granted by the University of Missouri Institutional Review Board.
Design of the Study

Case Study Approach

The study was undertaken as a descriptive case study. The “bounded system” (Merriam, 1998, p.19) that distinguished a case study from other approaches was the set of 192 teachers initially and then the set of purposely selected 21 teachers that offered a retrospective view of the experience (Bogdan & Biklan, 1998). These teachers represent a particular case of professional development unique to the participants who experienced the phenomenon. A descriptive case study allowed comparisons and contrasts of details. I chose to study these teachers in order to understand their particular experiences shared as a particular case of professional development. According to Yin (1989), it is appropriate to use case studies when researching a “real-life context in which an intervention has occurred” (p. 25). In this case I looked at the complex dynamics of this professional development experience and the impact participation had on these particular teachers.

The case study approach guided my collection and analysis of data and was used in conjunction with a phenomenographic research tradition because it enabled me to understand the different ways the teachers experienced the phenomena (Marton, 1994). Phenomenography offers a way to scrutinize the transcripts of the teachers’ accounts by forming categories of description.

Role of the Researcher

I gained access to study the impact of participation for these teachers in this unique professional development program by contacting the director of the STARR program. I proposed my research plan and he offered access to previously gathered data. He gave me 192 exit surveys from former STARR teachers and contact information of past
participants. I also applied for and was approved to conduct the research by my university’s Institutional Review Board.

My interest in teaching and teacher education and, more specifically, the professional development that occurred among the participants within the STARR program, was the impetus for this research. My inquiry began after participating in the STARR program as an informal quest for self-understanding and evolved into a full-scaled investigation inspired by my experience upon returning to the University. As a former STARR participant, I had a unique vantage point as well as privileged access to participants and the survey data.

Data Sources and Collection Procedures

The outcome of the research was to provide understanding of the impact of the professional development experience on these participants (Marshall & Rossman, 1999; Marton, 1997). Sources included MO DESE STARR evaluation surveys (see Appendix E), semi-structured audiotape recorded interviews with former STARR teachers (see Appendix F), and a research brief compiled by Southwest Missouri State University Institute for School Improvement (2000). These three data collection methods are traditionally used in qualitative research. According to Glesne (1999), data selection techniques should “elicit data needed to gain understanding of the phenomenon in question and contribute different perspectives on the issues” (p. 31). These sources provided multiple data that were needed in order to gain understanding of the phenomena in question. I organized the data by inputting and storing all survey and interview data into QSR NVivo qualitative data analysis software. Organizing the data as it related to the research questions provided a way to manage the data and allowed for a way to
initiate the data analysis process.

**Surveys.** At the end of the two-year experience, teachers completed surveys created by DESE for the STARR program. The surveys were used to seek teachers’ views and opinions about the professional development experience. For this research, I focused on the surveys’ 16 open response questions about the professional development experience. The questions gave me the ability to look at immediate feedback concerning the impact of the program.

**Interviews.** I conducted 21 in-depth, audiotape-recorded interviews in order to capture teachers’ accounts of how they perceived and remembered the impact of the professional development experience. After teachers agreed to participate, I set up a time and place convenient for the interviewee so I could conduct a face-to-face interview. I conducted pilot interviews in March and April 2005 and the remaining interviews between May and July 2005 (see Appendix F). Written consent was collected from all interviewees (see Appendix D).

**Research Brief # 503.** This brief (Hough, Schmitt, & Haynes, 2000) was one of three created when MO DESE contracted with Southwest Missouri State University Institute for School Improvement to evaluate the STARR program. It was based on a survey that was conducted during the 1999-2000 academic school year. Some of the findings and demographic information were used to support this study. Research Brief # 503 was composed of Likert-type survey questions seeking the 93 past and present STARR teachers’ perceptions regarding common issues associated with the program’s organization, supervision, and working relationships with other agencies. I was granted permission to use the briefs from the DESE STARR office.
Data Analysis

Table 3.1 illustrates how each of the data sources informed the research questions associated with this study. Applying a qualitative approach to the data analysis allowed for the emergence of themes and patterns (Bogdan & Biklen, 1998). The use of descriptive case studies allowed similarities and differences in the data to be determined (Yin, 1993). According to Glesne and Peshkin (1992), “Coding represents the operations by which data are broken down, conceptualized, and put back together in new ways” (p. 133). It allowed me to take an in-depth look at the complex dynamics at work in an innovative statewide professional development program.

Table 3.1

<table>
<thead>
<tr>
<th>Data Collection Sources for Each Research Question</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Research Question</strong></td>
</tr>
</tbody>
</table>
| What were teachers’ perceptions concerning the impact of participation on their teaching lives during their professional development experience? | • Teacher survey  
• Research Brief #503 |
| Do the teachers’ perceptions concerning impact of participation on their teaching lives evolve over time (two through ten years post participation)? | • Teacher interview  
• Research Brief #503 |
| How do the content, context, and process of the STARR professional development experience impact teachers’ perceptions of participation? | • Teacher interview |

This phenomenographic case study (Marton, 1981, 1992, 1994) survey and interview data described the structure and essence of the experience of this phenomenon for these participants. In order to analyze the data, I borrowed from the tradition of grounded theory. I initially analyzed my data using techniques from grounded theory (i.e., open
coding, axial coding, and selective coding) (Strauss & Corbin, 1990). This approach offered a suitable method for this study because the nature of the questions required an in-depth understanding of the professional development program.

In order to answer question one, I worked with one of my committee members and organized the initial themes and patterns from the 192 surveys. The responses to the questions from the MO DESE survey were entered into QSR NVivo as the nodes training, collaboration, teaching differently, and the overall experience. These themes in the survey responses guided my analysis of the 21 interviewed participants.

I addressed question two using data gathered from the 21 selected interviewees. The audiotapes of each interview were directly transcribed verbatim into QSR NVivo. Analysis sought to explain the teachers’ retrospective perceptions concerning the long-term impact of the program. Table 3.2 shows the grouping of the survey and interview questions in relation to research questions one and two.

To answer question three, I returned to the interview data. This time I examined the data and organized the information according to the categories of the content, context, and process of the STARR experience.

Survey Analysis

During the preliminary reading of the survey data, I used the categories of training, collaboration, teaching differently, and the overall experience to sort all of the data. All statements about training went into the training node. Open coding gave me first impressions, thoughts, and directions about the survey data. These were analyzed for teacher perceptions and further free nodes were created. Some examples of training codes included information about content, knowledge building, teaching other teachers, and
leadership skills. *Collaboration* codes included learning in teams and learning in groups. *Experience* codes included benefits and challenges. *Teaching differently* codes included such comments as “of course I’ll teach differently” and ideas about benefits of changing practice.

Table 3.2

*Content Analysis Matrix of Teachers’ Surveys and Interviews*

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Survey Questions</th>
<th>Interview Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>What were teachers’ perceptions concerning the impact of participation on their teaching lives during their professional development experience?</td>
<td>1, 2, 3, 4, 9, 14, 16</td>
<td>6, 7, 8, 9, 10</td>
</tr>
<tr>
<td>Do the teachers’ perceptions concerning impact of participation on their teaching lives evolve over time (two through ten years post participation)?</td>
<td></td>
<td>All interview questions 1-12</td>
</tr>
<tr>
<td>How do the content, context, and process of the STARR professional development experience impact teachers’ perceptions of participation?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Next, I re-read the surveys looking for interrelationships between the categories using the process of “axial coding” (Strauss & Corbin, 1990, p. 211). For example, after reading through the data about training and knowledge building, all descriptions that related to the content of authentic instruction were coded with that information in tree nodes. The tree nodes allowed me to organize information further into sub categories. I then sorted information about specific content (selective coding) into categories that gave me findings about what content was valued most by participants. The category *collaboration* was an example of coding that allowed sub-categories to emerge. One sub-category was networking. Many teachers reported networking as a valued outcome of the collaboration experience. In one case, networking was a described benefit for a
participant who perceived a sense of accomplishments because of the networking. This was found through an iterative process that began with collaboration and supported the finding that teachers benefited from networking and collaboration with educators across Missouri.

The survey data were grouped in categories of cohort training years and analysis sought to find commonalities and differences among and between the groups. This method of analysis allowed me to examine data patterns of the whole group, individual professional development cohorts, regional groups and individual teachers throughout the ten years. The process of comparing data to initial categories enhanced understanding while providing multi-layered levels of conceptualization.

**Interview Analysis**

Open coding the interviews provided me with initial threads to follow. Examples of open codes included *networking, personal and professional growth, understanding the big picture, a sense of purpose, and changes*. I then went back and did a comparative analysis between the surveys and interviews in an effort to discover themes and patterns of descriptions between responses from the initial questionnaire and retrospective interview responses. One theme frequently discussed in both the surveys and interviews was personal and professional growth. However, the examples of growth changed between the surveys and the interviews. Specifically, survey responses addressed growth more in the short term i.e., building relationships and follow-up modeling in classrooms. Interview responses addressed personal and professional growth more in the long term i.e., having a sense of purpose and changing positions due to the impact of participation.

Using an iterative process of repeatedly going through the data and categorizing the
multiple ways teachers experienced participation in the STARR program resulted in the findings. The interview participants’ conceptions of the STARR program were interpreted with respect to existing theory on different ways people experience, conceptualize, perceive and understand various kinds of phenomena. (Marton, 1994). Within this framework, learning represented a qualitative change from one conception of reality to another (Marton, 1988).

Trustworthiness

Trustworthiness (Lincoln & Guba, 1985) was addressed within this study. Lincoln and Guba defined trustworthiness as the ability to “establish confidence in the truth” applicability of the findings to other contexts, consistency in analysis, and neutrality from “biases, motivations, interests, or perspectives” (p.281). Multiple sources were used in an attempt to increase consistency (Denizen, 1970; Patton, 1990). Other research peers, not involved in this study, offered perspectives in an effort to increase the overall credibility of findings. Outside peers also gave guidance and assistance in using the NVivo software for data management. Using NVivo provided a visible path that other researchers could follow to replicate the data collection and analysis.

In order to maintain trustworthiness (Lincoln & Guba, 1985) in the study, I employed member checking. I had a peer critical friends group (Short, 1994; Short & Greer, 1997) that helped validate the themes of teacher perceptions and beliefs that emerged from the data. They suggested staying focused on the survey and interview data relating to the impact of STARR on the participants. They also suggested using the data brief as a secondary source supporting my findings.

I employed debriefing at the end of each interview. This was done by asking if the
interviewees had any additional information to add about STARR and their experience that I did not ask. This information was added to support the categories of descriptions and placed in a sub-node of retrospective perceptions titled additional retrospective impact. Additionally, three interviewees were also contacted after the tapes were transcribed, coded and filed into initial categories according to the questions. They were asked if the initial analysis reflected their experience. I also made brief notes after each interview entitled “after the interview” where additional impressions were added as memos. These were also kept in NVivo. Talking with teacher participants and taking notes helped me to ensure credibility between the data and my own views of the STARR program.

As with any study, personal bias may influence the data analysis process. Researchers need to be mindful of ethical concerns both professionally (Tickle, 2002; Winch, 2002) and personally (Wolcott, 1995). As a past participant in the 1997-1999 STARR cohort, I was very mindful of potential researcher bias during data collection and analysis. My positive experience could have led me to see my study only through my personal lens. Rather, I took an approach Wolcott (1995) suggested, “Biases should be made explicit and used judiciously to give meaning and focus to a study” (p. 165). I chose three people from my cohort year in order to have a fuller picture of how participants that year perceived their experience. One person I knew well and had worked with while the other two were from other regions of the state so my familiarity with them was more limited. In this way, I focused on their professional experience and not solely my personal experience.

Permission was obtained from the human subjects review board, and all participants
were clearly informed of the purpose of this study. Consent forms stated that participants may withdraw from the study at any time. Confidentiality of participants was maintained by using codes. For surveys, teachers were identified by their cohort year and a number was assigned them (i.e., Teacher 17 (97-99, Survey). Similarly, interviewees were assigned a similar code (i.e., Teacher 1 (95-97, Interview).

A case study does not generalize to all groups of teachers, and thus, this case study illustrated the experiences of particular STARR teachers. Although the sample of 21 former STARR teachers was purposeful, the findings were specific to the teachers interviewed and may not be universal to other former STARR teachers. As a former STARR teacher, I acknowledged the potential for bias. However, the experience provided a unique vantage point as well as privileged access to participants’ language, experiences and responses (Wolcott, 1995).

This chapter described the methods used to gather and analyze the data. The data were obtained from exit surveys, semi-structured interviews and a previously compiled research brief about the STARR program. The described procedures were grounded in established research techniques. Presented in chapter four are study data and findings.
CHAPTER 4: FINDINGS

The nine STARR (Select Teachers as Regional Resources) cohort groups span the time from the inception of the professional development experience (1994-1996) through (2002-2004). I used survey data from 192 participants to capture and present the perceptions of STARR teachers immediately following their years of service. The first cohort (1994-1996) did not complete the surveys. I used interview data from two or three participants from each cohort (1994-1996 to 2002-2004) to present a retrospective view of participants’ perceptions. I examined survey responses to address my first question:

For nine STARR cohorts (1994-2004), what were perceptions of STARR teachers concerning the impact of training, collaboration, teaching differently, and the overall experience on participation during their professional development experience? I examined interview responses to address the second question: In what ways did perceptions of STARR participants evolve after ending their participation in the project?

I used research brief 503 from Southwest Missouri University Institute for School Improvement (Hough, Schmitt, & Haynes, 2000) to corroborate survey and interview findings. I also used Dr. Bob Bell’s presentation notes to the Missouri Legislature dated July 29, 2004 to corroborate current positions of former STARRs.

Next I used interview data to address question three and present my analysis of the influences of the STARR professional development program’s context, content and process on teachers’ perceptions. The interviews are retrospective perceptions of participation. These results were grounded in teacher-reported data pertaining to the professional development STARR experience.
Many interesting and potentially significant findings could arise from a self-study examination of my own experience as a former STARR participant. Teacher education and self-study provide important and interesting findings (Bullough & Pinnegar, 2001; Cochran-Smith & Lytle, 1999b; Hopper & Sanford, 2004). However, I chose to conduct an examination of what the collective STARR participants’ perceptions were concerning the experience of the professional development project. Locke, Spirduso, and Silverman (1997) said, “the focus of attention is on the perceptions and experiences of the participants” (p. 98). In taking their advice, I attempt to make clear how these teachers experienced professional learning both in the short-term immediately following the experience and in the long-term between one and ten years post participation of the experience.

The surveys and interviews were designed to assess teachers’ perceptions of participation in the experience. The four categories included training, collaboration, impact on teaching, and the overall experience. Surveys addressed the immediate feedback from engagement in the professional development experience, and interviews addressed retrospective feedback from engagement in the experience. I provided evidence for each of the categories pertaining to the teachers’ perceptions of the different aspects of participation. In order to see if perceptions were different between participants, I compared responses within surveys first. Survey responses represented feedback upon completion of the two-year experience. Then, in order to answer question two, I examined differences within interviews. This allowed me to examine retrospective feedback and how it varied from immediate feedback following engagement in the experience to see if perceptions changed over time.
Teachers’ Perceptions of Participation in STARR

In order to present the findings, I organized the information that addressed question one according to table 4.1.

Table 4.1

*Findings Organization Matrix*

<table>
<thead>
<tr>
<th>Categories</th>
<th>Sub-categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>Knowledge Building</td>
</tr>
<tr>
<td></td>
<td>Teaching Other Teachers</td>
</tr>
<tr>
<td></td>
<td>Leadership Skills</td>
</tr>
<tr>
<td>Collaboration</td>
<td>Regional Teams</td>
</tr>
<tr>
<td></td>
<td>Statewide Cohorts</td>
</tr>
<tr>
<td>Perceived Impact on Teaching</td>
<td>Differences in Teaching</td>
</tr>
<tr>
<td></td>
<td>Reasons for Teaching Differences</td>
</tr>
<tr>
<td></td>
<td>Benefits of Changing Practice</td>
</tr>
<tr>
<td>Perceptions of the Overall Experience</td>
<td>What the Program is Accomplishing</td>
</tr>
<tr>
<td></td>
<td>Benefits for STARR Teachers</td>
</tr>
<tr>
<td></td>
<td>Challenges</td>
</tr>
</tbody>
</table>

I began by examining the training. Data revealed that professional development training for STARR teachers had three foci: 1) knowledge building, where teachers learn new content; 2) teaching other teachers (presenting); and 3) developing leadership skills, where teachers learned problem solving and how to do their own research in order to prepare presentations. Next, I examined collaboration. This category was divided into
collaboration within large statewide cohorts and collaboration in small regional groups. The third category I examined was the perceived impact on teaching. This category was broken into subcategories that included overall differences in teaching and perceived reasons for the impact. I also explored the benefits for changing teaching practices. The final category was the overall experience. This category included (a) what the program is accomplishing; (b) benefits for STARR teachers; and (c) challenges STARR teachers encountered during the experience. Short-term influences were examined in question one.

*Professional Development Training*

STARR participants engaged in a two-year long professional development experience focusing on effective instructional practices and assessment. Throughout the first year, participants attended seminars and used their own classrooms as labs to implement newly learned practices. During the statewide meetings, STARR teachers continued to learn new strategies. They also shared implementation experiences and engaged in reflection and collaboration with other participants regarding the new practices. The participants took a leave of absence from their classrooms during their second year in the program and worked together in small regional groups to prepare and present the learned instructional practices and assessments to other teachers. STARR teachers were expected to be leaders as they learned and implemented new information and then facilitated the learning of other teachers.

Of the 192 teachers who completed surveys, none said the training was less than adequate. They expressed their experience in the following ways: Sixty-one (31.8%) answered it was adequate. Their responses were similar to Teacher 10 (02-04, Survey), “The training was definitely adequate” or Teacher 7 (96-98, Survey), “I feel that I
received adequate training in the program.” The majority of teachers (123/64%) used superlatives (e.g., wonderful, excellent, best, good, superb, exceptional, and superior) to describe the training. Teacher 18 (98-00, Survey) said, “I thought the training was excellent!” Teacher 1 (02-04, Survey) said, “The STARR Program offered the best professional development training that I have received during the eight years of my teaching career” and Teacher 2 (97-99, Survey) responded, “The training provided an excellent foundation and made resources available for our further research and study.” Three teachers (1.6%) felt it was difficult to know for sure. Teacher 23 (02-04, Survey) reported, “The training aspect is hard to determine. I felt I was offered an adequate menu of cutting edge educational practices and [I was] provided with excellent role models for presenting those practices to others.” Five teachers (2.6%) answered by going directly into what more they needed to know during their presentation year. Teacher 9 (98-00, Survey) replied, “We needed more training on MAP [Missouri Assessment Performance]. If we understood this better it would have helped us tie in all other workshops to help those schools most concerned with increasing achievement in MO.”

All 192 STARR teachers suggested topics for further training and other presenters to be included in the training. The topics that were suggested changed over the years. Earlier cohorts suggested knowing more about authentic instruction. For example, Teacher 1 (95-97, Survey) suggested,

I would have used the following sequence: 1st Authentic Instruction-What is it? I think it is very important to start off with the big picture before we study the parts. A lot of us were confused with the opening workshops because we did not have the big picture, yet. 2nd- At this point I would start focusing on the individual parts that comprise Authentic Instruction and I would make explicit connections between the standards of A.I. & the specific strategies that help a teacher meet that standard. For ex.1. Social support- cooperative learning & multiple intelligences. 2. Depth of
knowledge - higher order thinking, Socratic seminar. 3. Connectedness - Integrated Instruction, etc.

Teachers from later cohorts focused on different topics, such as literacy. They were concerned with students learning to read, as well as reading and writing in the content areas. They also requested training on differentiated instruction. Teacher 14 from cohort 01-03 recommended, “I needed more training in differentiated instruction, reading and writing in general and developmental reading assessments.”

While the experience was always valued, in that the teachers perceived they were prepared for their job, suggestions from surveys were made throughout the years and acted upon in order to continuously improve the program (e.g., more content specific training was added for literacy in math and science, working with at-risk students, curriculum alignment, differentiating instruction and using assessment to drive instruction). However, Authentic Instruction remained the focus. While some foundational topics were covered throughout the years (e.g., brain research, multiple intelligence and cooperative learning structures), other topics were added as requests or needs developed.

Participants perceived the training to be of the highest quality. This was a major finding that was reported in Research Brief 503 (Hough, Schmitt, & Haynes, 2000) as well. Knowing the overall satisfaction of the professional development training was important; however, seeking a deeper understanding led me to ask what the teachers gained from the experience. Teachers reported they were prepared to fulfill the expectations of the program in three main ways: (a) they felt prepared with the knowledge to teach the topics they were taught; (b) they felt prepared with knowledge on how to present to their peers; and (c) they felt prepared with knowledge to be leaders and
find resources to do further research on their own if necessary. The following responses give evidence of this finding:

Knowledge of the topics. Teacher 5 (97-99, Survey) said, “The training we did receive was extremely valuable. I thought that focusing on a few key areas such as brain research, MI, and Cooperative Learning gave us a strong foundation to build upon.” In this case, Teacher 5’s mention of foundation was referring to a foundation of professional knowledge. Many teachers spoke of aspects of the foundation they were provided through the training. Teacher 3 (99-01, Survey) said,

Our training was quite fantastic! There is always more that you want or find out you need later, but I thought we were given a great variety of topics and information to prepare us or at least give us a base knowledge to find more if we needed.

Teacher 3’s foundation was helpful in preparing her to research and develop further topics. Teacher 11 (01-03, Survey) related that her foundation of knowledge also increased her self-confidence. She commented, “The training sent me out with confidence that I can do it no matter [what] the request, so I feel the program did an excellent job of preparing the participants.” In this case, the preparation increased self-efficacy for Teacher 11.

The most frequent content area often cited as impacting the knowledge base for teachers was the information on how the brain learns. This was mentioned in the surveys 151 times. The second most frequently cited area was cooperative learning structures, which was mentioned 77 times. Other frequently mentioned topics included literacy instruction, both in learning to read and in content area reading, multiple intelligences, and Socratic Seminar. Authentic Instruction, which was the main focus for all topics covered, was mentioned 40 times. In the short-term, the teachers reported that content
impacted their delivery of instruction during their first year of STARR within their own classroom. The second year they employed strategies they learned while they taught their peers. Teaching their peers required learning presentation skills along with gaining knowledge of the content.

*Knowledge for presenting.* During the training year, all teachers were asked to take notes on both the content being taught and the presentation styles of the presenters. Each year a presenter was brought in to teach presentation skills. The presenter focused on how to present by keeping the audience actively engaged while learning the topic. Through the years different people filled the role. The teachers appreciated some presenters more than others. Teacher 4 (00-02, Survey) said, “Rick DuFour’s presentation style was very audience participation oriented.” This teacher appreciated learning the presenter’s style. Teacher 5 (00-02, Survey) said, “I don’t know any specific person, but someone more skilled than… could do the workshop on preparing presentations. I’m sure there are STARRs out there that are good at this.” This teacher knew what she didn’t like. She also knew former STARR teachers had learned to present and would make fine role models.

Teacher 4 (97-99, Survey), explained her view on being prepared to present:

> I have always believed that the way to improve education is through the teachers. These are the people that directly affect the students. Because of this belief, the STARR program is a model of how a part of staff development should be done. Change is a slow process, but ‘teachers teaching teachers’ is a great idea. I have grown personally by becoming more tolerant of teachers that don’t want to improve- I know they can eventually move toward improvement in teaching, but it will be slow and support must be provided. Lead those that stand near the front and hopefully the others will follow. I have grown professionally. My knowledge base has increased and I learned many new things/ideas. I became a confident presenter on information I initially knew nothing about.
The above response offered evidence of perceptions on learning to present, but also gave a glimpse of the development of leadership skills. Referring to Teacher 5 (97-99, Survey) again, and seeing her comment as she continues to share what she gained from training, showed her developing leadership as well.

*Knowledge for leadership.* Teacher 5 (97-99, Survey) continued to explain about her knowledge development from the training:

> Because of these strong core subjects, there were few if any, requested workshops we could not build a foundation for and then research to fine tune a program to meet their needs. In my opinion the best thing you could do in this area is to continue presenting the most current and validated information for the times to your STARRs. It will continue to vary because of changing needs & society, but remember what Will Rogers once said, ‘Even if you’re on the right track, you’ll get run over if you just sit there!’ Well, you’re on the right track and served our group well in your choice of presentations.

The new foundation enabled her to research on topics requested. Teacher 1 (95-97, Survey) also explained the need to take a leadership role with a group of teachers. She said,

> We got the buy in going. The principal was not working real well with her staff so, she kind of backed out and let us take the lead with them. We just saw such growth out of that group of teachers.

Each year the teachers overwhelmingly agreed it was important for the program to grow and change in order to adequately prepare participants for their role in delivering professional development to their peers.

*Collaboration*

An integral aspect of the STARR program was collaboration. This included statewide collaboration, where cohorts formed and teachers worked and learned together from across the state for two years and regional collaboration, where teams formed within
cohorts to work together in small groups. These groups prepared workshops and presented to teachers in their local areas. Data concerning the regional collaboration came from question four of the survey that sought to learn teachers’ perceptions about the effectiveness of the regional teams.

*Regional Collaboration.* A difference of opinion among the 192 survey respondents regarding their experience with regional collaboration was reported: 128/77.5% teachers perceived their regional group to be effective, while 64/33% teachers perceived their group to be ineffective. Teachers from the first cohort (1994) suggested teambuilding exercises should be a part of the initial training sessions. Consequently, initial teambuilding exercises began with the second cohort (95-97). The teacher responses to whether or not the team was effective are shown in Table 4.2. The teachers in cohorts 01-03 and 02-04 reported the most positive responses.

Table 4.2

*Teachers’ Responses Concerning Effective or Ineffective Teams (95-04)*

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Effective Yes</th>
<th>Effective No</th>
</tr>
</thead>
<tbody>
<tr>
<td>95-97</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>96-98</td>
<td>17</td>
<td>7</td>
</tr>
<tr>
<td>97-99</td>
<td>14</td>
<td>9</td>
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<td>99-01</td>
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<td>13</td>
</tr>
<tr>
<td>00-02</td>
<td>16</td>
<td>7</td>
</tr>
<tr>
<td>01-03</td>
<td>21</td>
<td>6</td>
</tr>
<tr>
<td>02-04</td>
<td>21</td>
<td>3</td>
</tr>
</tbody>
</table>
Regardless of their perception of effectiveness within the regional group, all 192 teachers felt they satisfied the requirements of the program for being a STARR teacher. That is, they learned and presented content successfully whether individually or in groups. Teacher 17 (97-99, Survey) talked about her regional experience,

I feel that two of us formed an extremely effective team. We experienced a synergy I have never before been a part of. One of the regrets I have about this year is that we were never able to pull our third member into that energy field.

Many of the teachers that expressed they were part of an ineffective group reported that it was due to personality differences or different levels of commitment to the work. These differences often resulted in what I call “a two to one” group situation where two teachers formed an effective group and one was left out. This type of situation was reported 38 times from the eight cohorts between 1995 and 2004. Surprisingly, teachers reported that many groups resolved their differences and still maintained a degree of professionalism in order to maintain their commitment to the program. Teacher 5 (98-00, Survey) explained it this way,

Although we did not form an effective team, I feel we did effectively carry out the STARR mission. We did serve as regional resources and had contact with many teachers and students in our region. Our geographic location was one factor in this. Additionally, due to different personality types it was hard to really be a team.

Other teams did not resolve their differences, but carried on, as indicated by Teacher 23 (99-01, Survey),

I like to always look on the positive side of things, but no, I don’t feel we were an effective team. We were never all three together. I had a great colleague and made a wonderful friend in one of my teammates. I learned a great deal from her. When we were able to present together- which was rare because we were so busy- we had a great time. I feel that you really have to make an effort to be a team and that it has to be a continual effort
on everyone’s part! I felt really sad sometimes that it ended up the way it did.

Although this seems as though it may have made the whole experience negative, this teacher went on to say,

My experience was a very positive one. My training year was wonderful- I learned so much. I felt badly that we didn’t get along as well as most groups. I felt I really worked hard as a STARR and fulfilled my obligation to the best of my ability.

Teacher 6 (99-01, Survey) explained the difficulty of her team in this way,

Two on our team were effective. We were professional and hardworking. I regret that our entire team was not a strong unit. For whatever reason, one team member had a different agenda and work ethic. It was not an explosive situation, but there was some frustration.

Other teams had even greater difficulties and each teacher remained independent.

Teacher 3 (95-97, Survey) described her team:

We were unfortunately pretty dysfunctional as a team. Personalities will sometimes clash and that is to be expected. I wish that I had been more pro-active in searching for a solution to our problems. But, I became frustrated with a feeling of being caught in the middle. However, I do feel that we were able to function professionally when we were on task, in our workshops. I have recommended to next year’s team that regular am or pm weekly office meetings would be a great help.

These findings are consistent with those reported in Research Brief 503 (Hough, Schmitt, & Haynes, 2000) in that it also reported a variance in perceptions of a regional nature concerning the collaborative experience. Although some teacher groups felt ineffective, many groups did form effective teams.

Teachers explained the aspects of their teams that made them effective included: mutual respect, even when personalities were very different; support for each other’s strengths and weaknesses; a commitment to the program that transcended differences; and positive communication. Groups that had representation from K-12 felt that these
aspects across the grade level spread helped them support each other in a positive way.

Teacher 8 (97-99, Survey) described this benefit saying, “Our representation of K-12 was very helpful in being able to meet district needs.” Many groups maintained a professional working relationship while others developed both collegial and congenial relationships. Teacher 2 (02-04, Survey) expressed the team relationship in this way, “Our team was effective because we each had our own strengths and were able to learn from each other. We had personality differences as well as different fields of expertise.” Mutual respect for these differences helped this team be effective.

Teacher 15 (97-99, Survey) said,

> For some strange reason we bonded immediately! We were able to finish each other’s sentences and thoughts, which was really scary at times. We all believed so strongly in the program and its benefits (ultimately) for children that that became our focus!

Because of a commitment to the program and shared goals, this team perceived themselves as effective. Another example came from Teacher 13 (99-01, Survey),

> I found that concentrating on my teammates’ strengths and learning from them was a great help. I also kept the mind set that my job was to serve and meet the needs of teachers and schools. Therefore, I did what needed to be done to support and help my team and I feel they did the same.

These participants had a positive collaborative experience.

**Statewide Collaboration.** Survey responses indicated that STARR teachers’ perceived collaboration, within their cohorts, was positive. A fewer number of teachers talked about the statewide collaboration, yet it was mentioned by some teachers. In phenomenography it is important to explain all the different ways a phenomenon is experienced. Teachers appreciated collaborating with so many knowledgeable professionals from across the state. “I believe that my peers (STARRs) and I learned much from one another” (Teacher
She went on to say, “It was great to reflect with those who wanted to learn more and improve as teachers.” Another teacher said, “When I applied and was accepted, I didn’t know what I was in for. The bonds and connections between the STARR groups have been beneficial. Sharing among teachers always brings out the best. What a fantastic group of people to be associated with” (Teacher 4, 02-04). Another teacher from the same year said, “The networking with other STARR teachers was an exceptional tool. We were able to contact each other for advice/information on topics because of the team building we had participated in as groups” (Teacher 24, 02-04). Both regional and statewide collaboration were important aspects of the STARR program.

Impact on Teaching

Another researched aspect of the program was what effect it had on teaching. Benefits from increased knowledge included a perception of improved teaching. Teachers felt this perception of improved teaching was because of the chance to use their classroom as a lab. Survey question nine sought information from teachers concerning whether or not they thought they would teach differently upon returning to the classroom. All 192 teachers reported that participation in the STARR program improved their teaching. The following two comments are examples of this finding.

Yes, of course! I cannot imagine my teaching being stronger and better. I feel totally refreshed! It is almost as if I am starting over in my career. I am excited about starting next year. I can hardly wait. I am going to be good! (Teacher 23, 96-98, Survey)

I can’t begin to explain the changes that will occur. I am so different. My ability to teach and provide effective instructional strategies is imbedded into my practice. I know also that my door will be open. The idea that teaching is a lone experience is no longer acceptable. I have seen the power that comes from collaboration and I will be an instrument of change. (Teacher 19, 02-04, Survey)
These findings are consistent with Research Brief # 503 from Southwest Missouri State University Institute for School Improvement (Hough, Schmitt, & Haynes, 2000), which reported, “STARRs strongly agree that they are, in fact, better teachers as a result of having been a STARR” (p.10).

During data analysis, I found three distinct categories that addressed the impact on teaching: what the differences in teaching were, the reasons for the differences, and also what teachers perceived were the benefits of changing their teaching practices.

*Differences in Teaching*. Teachers reported that they would teach the new research based strategies that they learned through the STARR program. Teachers mentioned new teaching strategies 215 times. The following table lists the different strategies and the number of times the strategy was mentioned in the survey data.

Table 4.3

*Strategies and Number of Times Mentioned*

<table>
<thead>
<tr>
<th>Strategy Mentioned</th>
<th>No. Of Times</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperative Learn</td>
<td>49</td>
</tr>
<tr>
<td>Brain Research</td>
<td>38</td>
</tr>
<tr>
<td>Assessment</td>
<td>29</td>
</tr>
<tr>
<td>Multiple Intelligence</td>
<td>27</td>
</tr>
<tr>
<td>Plan Differently</td>
<td>27</td>
</tr>
<tr>
<td>Differentiation</td>
<td>26</td>
</tr>
<tr>
<td>Integration</td>
<td>15</td>
</tr>
<tr>
<td>Use Internet</td>
<td>4</td>
</tr>
</tbody>
</table>
One example of how a teacher said she would teach differently comes from Teacher 18
(01-03, Survey):

I will use so many of the specific ideas presented. I have developed a “toolbox” with the ideas I’ve gained so that I can have immediate access to them while planning. Overall, I think the brain research will change my teaching most. The way I present lessons will change to be more brain friendly. I also feel more comfortable using cooperative learning with my students. I am in the process of changing my assessments for my students to reflect brain research, MAP, etc.

While this teacher mentioned what changes in her teaching were going to be, others mentioned reasons they thought their teaching was impacted.

Reasons for Impact. Teachers mentioned different reasons for impact 148 times. These reasons were sorted into five categories. The following table shows teachers’ perceptions concerning the reason the program impacted their teaching:

<table>
<thead>
<tr>
<th>Reasons for Impact</th>
<th>Times Mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching Teachers</td>
<td>51</td>
</tr>
<tr>
<td>Collaboration</td>
<td>32</td>
</tr>
<tr>
<td>Time To Practice, Read, Research</td>
<td>27</td>
</tr>
<tr>
<td>Reflection On Practice</td>
<td>19</td>
</tr>
<tr>
<td>Networking</td>
<td>19</td>
</tr>
</tbody>
</table>

The following examples give evidence for different reasons the teachers felt the STARR program impacted their teaching.

The best thing that STARR has given me is that even at my busiest, what I was busy at was reading and studying for each workshop and as a result of
my teaching the workshop I really took in and understood so much more about teaching and learning. I also got great ideas from other teachers, learned a lot about leadership and school climate. The one thing that may be difficult is to return to my school and be judicious in my opinion about how things should be taught. I know what best practice is now and I’ll have to be careful about how to share that! (Teacher 14, 02-04, Survey)

I can’t wait to go back and really use Multiple Intelligences, Cooperative Learning, brain research, etc.! You know Glasser was right when he said you learn 95% of what you teach. I know this “stuff” so much better now that I have taught it to others. (Teacher 20, 97-99, Survey)

These teachers valued teaching other teachers and a chance to research and practice the strategies.

Benefits of Changing Teaching Practice. The 192 teachers mentioned 125 benefits that might result from changing their teaching practices. There were six main categories of benefits. The following table lists the categories and the number of times each benefit was mentioned.

Table 4.5

Benefits and Times Mentioned

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Times Mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased Empowerment</td>
<td>47</td>
</tr>
<tr>
<td>Renewed Love of Teaching</td>
<td>33</td>
</tr>
<tr>
<td>Increased Professionalism</td>
<td>16</td>
</tr>
<tr>
<td>Increased Leadership</td>
<td>13</td>
</tr>
<tr>
<td>See the Big Picture</td>
<td>11</td>
</tr>
<tr>
<td>A Spiritual Feeling</td>
<td>5</td>
</tr>
</tbody>
</table>
The following examples show evidence for perceived benefits. Teacher 22 (98-01, Survey) said,

   The STARR experience, especially this year as a presenter, has re-ignited my love of teaching! I have learned so many new strategies and ideas, not only from the training, but from contacts with teachers in my region. I know I will be a better teacher because of this experience.

This teacher was empowered through her increased efficacy and professional growth. Her renewed love of teaching was another benefit. Teacher 15 (98-01, Survey) shared the following perceptions about benefits from teaching differently.

   I thought I was such a good teacher before the STARR program. Sometimes I cringe at some of the things I had my students do. Now I really see and understand the whole picture. I will stay current and use my leadership journals to implement the things I read about. I am totally pumped and ready to get back with the kids. I am a teacher and the STARR program helped me realize the importance of my place with students in the classroom. I am thinking about becoming a principal for the leadership aspect because too many aren’t seeing the whole picture.

This teacher benefited from the changes in her teaching in a similar manner as the previous teacher, and additionally addressed the benefits of seeing the big picture and increased leadership. Throughout the years, STARR teachers perceived they were better teachers as a result of the program.

The Overall Experience

   STARR participants perceived the experience to be of the highest quality. Every participant reported the professional development program as a valuable experience. This supports a major finding from the Southwest Missouri University Institute for School Improvement Research Brief 503 (Hough, Schmitt, & Haynes, 2000) as well. Several participants said it was the best experience of their life both personally and
professionally. Most wanted at least one more year in the field to continue presenting.

What made this a positive experience for participants?

Survey questions sought teachers’ perceptions of the overall professional development experience. Teachers answered the question in a similar way. They addressed benefits of participation and challenges. One benefit included the perception that the STARR program was accomplishing positive changes for Missouri educators and for STARR teachers themselves.

*What the STARR Program was Accomplishing.* Throughout the years teachers listed accomplishments they felt the program provided for Missouri educators and for themselves. In order to demonstrate the richness of the data the following quotes from the different cohorts 1995-1997 through 2002-2004 are shared and support the findings.

Teacher 16 (95-97, Survey) listed the following program accomplishments:

1. Validated teacher knowledge.

2. Teachers and administrators liked the fact that practitioners were giving the workshops because the information was first tried out in the classroom.

3. Allowed STARRs to have access to nationally known people, to have time for research, and materials to do research with, to have colleagues to reflect ideas with, to be treated as accomplished professionals.

Teacher 14 from the same cohort said, “I think this program is one of the most likely ways to initiate real change because its focus is on the classroom teacher!”

Teacher 19 (96-98, Survey) reported accomplishments such as, “Teachers learn from teachers, personal opportunity to become versed in the best pedagogy and strategies in education, taught me the value of working as a team, teachers realize they can take risks and try new approaches.” Also from cohort 96-98, Teacher 13 said,
The biggest accomplishment is that the program has brought “big league” thinkers and leaders in education to small districts via the STARR teachers. New strategies and ideas would not be available to all Missouri teachers so easily if not for STARR. The program also has fostered personal growth. I am a better teacher/administrator/person for having been a STARR. I learned organization skills and became more aware of state resources through STARR.

Teacher 11 (97-99, Survey) said the following about accomplishments:

I feel the program is creating positive change in our classrooms. I think the program has grown and will continue to grow. It offers awareness, the need for knowledge, resources, enthusiasm for current research and educational approaches, and allows STARRs as well as those we reach to refurbish an interest or zest for education.

From the same cohort above, Teacher 17 contributed these thoughts about accomplishments.

It has for me and for many of my peers, provided a sense of efficacy that is incredible. Not only do I believe in the new school reform practices, I now know “I can do it.” We have a list of comments by participants verifying they feel the same way.

Teacher 6 (98-00, Survey) added the following list of accomplishments.

Teachers teaching Teachers! Someone teachers can relate to

A great overall Professional Development Program that needs to be shared with other states.

Knowledge- To be used with both students and teachers

Treating teaching/teachers as professionals

Another response from 98-00 came from Teacher7

The STARR program has created a highly professional network of teachers who have been trained in a wide range of educational topics… Many times groups commented about how connected they felt to us because we were teachers, not just presenters who had not been in the classroom for several years. The STARR program has created a very good reputation for offering “teacher friendly” information delivered professionally. My peers now come to me when they have a question about new strategies or programs they’ve heard about. Most of the time,
because of our exposure to new information, I’ve heard of it or can get information about it through the network of STARRs.

The next four cohorts continue to support the findings concerning accomplishments.

Teacher 11 (99-01, Survey) categorized accomplishments that impacted pre-service teachers through administrators.

First and second year teachers- helping them with the nitty-gritty of schools, providing them with a place to sound off, ask questions and address problems that may be overwhelming them.

Junior and senior college students- a chance to learn from “real” teachers’ techniques, shortcuts and strategies that worked for them.

Classroom teachers- the latest educational techniques, sounding board, an outside source to other districts

Students- a chance to experience instructional strategies from a new and different face for at least one class period

Administrators- a fresh look at teachers from an outside source, someone who sees the school’s strengths and weaknesses and is able to ask critical questions, an opportunity for principals to realize they have “master” teachers in their building

From the same cohort Teacher 17 offered this list of accomplishments.

Keeps teachers current on best practice

Demands that you question and examine your educational beliefs

Teachers see you as a peer rather than an expert

STARR teachers gain a broader perspective on education reform, theory and practice

You grow in confidence and become a much better speaker

Helps universities recognize gaps in their programs

According to Teacher 18 (00-02, Survey) accomplishments included:

1. Provides professional development to small districts with few resources.
2. Teachers are cycled through STARR program, this gives more MO teachers this outstanding opportunity to grow and sharpen skills.

3. Exposes teachers to best practices and research for effective instruction.

Teacher 19 from the same cohort listed the following:

Helping teachers be more reflective in their teaching techniques

Promoting more leaders in the instructional process

Helping to give schools that lack staff development $ a way to attain good staff development

Providing teachers with skills from national presenters that wouldn’t ordinarily receive these skills

Teacher 15 (01-03, Survey) said, “I have grown personally and professionally. Teachers teaching teachers, is powerful!” From the same cohort, Teacher 16 listed the following two accomplishments:

Professional development has been elevated to a place of value when real teachers give presentations/information to real teachers. That is authentic professional development!

STARR has been the experience I never dreamed could happen. It has the learning you need for professional growth in all areas.

From the final cohort of this study, Teacher 10 (02-04, Survey) listed the following accomplishments:

Meets need for required professional development

Offers innovative teaching techniques, great networking, wonderful resources and friendships

It is building community in schools

I’m teaching from the heart again.

Teacher 21 (02-04, Survey) concluded her list of accomplishments saying, “The program has inspired me to make a difference with teachers so they can make a difference with
students.” Through the years, these teachers perceived the STARR program was accomplishing positive benefits both personally and professionally for Missouri educators and for themselves.

**Benefits Categorized.** On the 192 surveys, teachers mentioned benefits 1,730 times and challenges 255 times. All 192 surveys mentioned benefits such as teachers were pleased to be chosen, teachers valued learning from each other and the experts, and teachers learned from presenting to other teachers. Teacher 1 (02-04, Survey) provided a typical response.

The most enjoyable experience was being selected for an exciting staff development opportunity and presenting to others. I strongly believe I made my weaknesses, strengths. Another benefit is learning from the other STARR teachers and building relationships with such knowledgeable teachers (a definite plus and resource). Having the opportunity of receiving training from the experts was a chance of a lifetime.

This teacher shared that enjoyment from the experience included personal growth satisfaction from being chosen to participate and professional growth of learning from peers and experts. Teachers throughout the years voiced these benefits. The remaining benefits could be broken down into three main categories: Increased knowledge, increased opportunities, and an increased sense of empowerment.

**Increased Knowledge.** Teachers listed increased knowledge as a benefit to participation 426 times. Teacher 20 (00-02, Survey) said,

The training was wonderful. I learned so much and my classroom began to look and feel differently. I was changing too, [I was] more energized, more focused. The first few workshops were a little stressful… but then things began to flow. I was more confident and I think it showed personally and professionally. I am sad the year is over, but filled with anticipation in returning to my district. I hope to continue to grow professionally. I have books and resources to last… This has been one of the best years of my life. I recommend the program to anyone who cares
about education, wants to grow and help others. Thanks for the opportunity.

Teacher 2 (95-97, Survey) said,

The training and opportunity to share with top educators from around our state was better than a Master’s degree in terms of new learning. The visits to schools around our region reinforced my belief in teachers and our commitment to education.

Teacher 4 (02-04, Survey) echoed these comments by reporting that she “gained a wealth of knowledge for more than a degree because of the applicable nature of the training. Everything can be directly related to my instruction.”

These responses gave evidence to the impact of increased knowledge on these teachers’ teaching as well as other personal and professional benefits from increased knowledge. Twenty-six teachers felt they saw the “big picture” of education, now.

Teacher 18 (02-04, Survey) said,

My view of education has been broadened so much. I had only known education as my school and my district. I loved seeing what was going on ‘out there.’ Thank you for this experience, it has truly changed me as a teacher and as a person.

Teacher 7 (02-04, Survey) said, “I see so much more of the big picture now; I just feel so much more well rounded as a teacher after the training. I have both given and received.”

Twenty-six teachers reported that they appreciated a spiritual sense about their new knowledge. Teacher 3 (99-01, Survey) said, “I feel truly blessed to have had this opportunity to learn more and become a better teacher, help encourage others, and to make some great friends!” Increasing knowledge was an important benefit for these participants in STARR.

*Increased Opportunities.* Teachers also answered the question about the overall experience saying because of STARR, they had increased opportunities. They listed
opportunity benefits 447 times. Some opportunities were reported as personal for teachers. Teacher 11 (02-04, Survey) said, “This has been a gift of a grandest level. The opportunity to train, present, learn, grow, the networking and relationships formed are absolutely precious. The influences will continue - no one knows how far it will reach.” The opportunities were also considered professional, as reported by Teacher 16 (99-01, Survey), “The STARR program has opened many new opportunities. I teach at the college part-time, I have a new position, and I’ve made many new professional relationships because of this opportunity.” These teachers felt positive changes occurred both personally and professionally as a result the opportunities impacted these teachers.

*Increased Sense of Empowerment.* Teachers listed several benefits from gaining confidence, knowing they helped make a difference to other teachers, feeling valued, being more professional and just generally being more empowered. Different dimensions of empowerment were mentioned 281 times. Professional growth was mentioned most often (110 times), followed by self-efficacy (78 times), status (46 times), impact (28 times), autonomy (12 times), and decision-making (7 times).

The following examples give evidence of the dimensions of empowerment.

Professional growth, status, and efficacy are implied within a comment from Teacher 2 (95-97, Survey),

> I was highly supported by my peers who were genuinely happy for me and proud of my selection. (That doesn’t always happen). This year I have come to feel really whole and at home. I believe in what I am doing and love doing it. The teamwork in the office has been gratifying. I feel good about where I am personally and professionally. A new job has been created in my district to use the skills STARR has helped develop.

Along with other dimensions, impact is evidenced in Teacher 19 (01-03,’s Survey) comment,
This program has been the most exhilarating experience of my life. I originally agreed to do it because my principal recommended I should go through the process. The rocket that I got on that day has yet to slow down. I’m doing things and being given opportunities that teachers with five times my experience are never approached about in their lifetimes! Principals ask me for advice; people with PhD’s want my opinion! I’ve been asked to assist and mentor teachers who went to schools that wouldn’t have even considered my application! I help people. I couldn’t ask for a greater feeling of fulfillment.

Teacher 8 (96-98, Survey) said, “Two years to a new me; could be the title of a book reflecting my experiences of the past two years. The former me wasn’t as self-confident, organized, or well rounded as the new me I’ve gradually developed.” Teacher empowerment was a reported benefit of participation to these STARRs.

Challenges and Overcoming Challenges. Teachers were both elated with becoming a participant in this professional development program and fearful that they may not be able to fulfill the expectations of the project. STARR teachers conveyed challenges 255 times. A general notion of having a lack of confidence, credibility and worth was voiced the most (85 times). Teacher 3 (01-03, Survey) said, “I had seen several STARR presentations and thought it would be a great opportunity, but I NEVER dreamed I could be one.” Another teacher shared, “After the first day I was in awe of the wealth of knowledge in the room and wondered if I belonged” (Teacher 2, 99-00, Survey).

Teachers also conveyed that their concerns were soon alleviated. Teacher 2 (99-00, Survey) went on to say, “I then settled in and truly began to learn and grow on a regular basis. My confidence grew at every turn and when asked to begin presenting, I felt very prepared!” Teachers also reported feeling overwhelmed with so much to know and do as reported by teachers 63 times. They mentioned time issues, workload, and added stress for family members. An example of this came from Teacher 4 (01-03, Survey), “Early
August was tough! We had so much work to accomplish that our team was working nights and weekends (That was hard on my family). I wondered what I had gotten myself into.” Additionally, the driving time and number of miles driven was voiced as concerns 28 times. Teacher 2 (98-01, Survey) gave an example of this concern,

The STARR year itself started off well if not a little stressful. I really enjoyed the process, but about half way through, the driving started to wear me down. That was the worst part- 5000 miles in a month really takes its toll on you.

Again, after voicing a concern each of the teachers went on to express that the overall benefits outweighed the challenges. The teacher above ended by saying, “Overall the program was great, but I want to go back to my school and my kids…”

Teachers mentioned challenges about presenting 32 times. Reasons included difficult audiences, equipment/material problems, the amount of planning required and a hectic schedule. Some teachers felt a sense of apprehension in presenting. Some evidence exists that this tension served to build self and collective efficacy. Teacher 8 (97-99, Survey) gave a glimpse of this tension,

I was really apprehensive about presenting to peers. The second summer of training I really focused on presenters’ style. I think it came from Madeline Hunter that ‘when you feel uncomfortable in a situation know that you are growing.’ I felt uncomfortable at the beginning and I know I grew. Now, I feel uncomfortable going back to the classroom. I know I will continue to grow. I can get teary-eyed just thinking about the end. The friendships and not having contact on a regular basis will be tough.

Teachers also reported seventeen times about concerns of returning to the same teaching situation. For example, Teacher 1 (95-97, Survey) stated,

Would it be too pretentious to call my experience an odyssey? I really feel like I’ve crossed a bridge and that I have entered a whole new landscape in my career. This is both exciting and worrisome. I’m excited about what I now know and understand, but I’m worried about making the transition back. Once you know more it’s hard to accept going back to the status
quo. Yet, I know how the system pressures its teachers. It will be difficult to do all I’d like to do, but I’ve concluded that I somehow managed to progress before I came here and I will somehow do it after I leave.

Teachers in earlier cohorts as well as later cohorts expressed this tension between excitement and fearfulness concerning some aspect of the program. Teacher 3 (95-97, Survey) responded about the overall experience,

I was extremely proud to be asked and intimidated by being a part of such a good team… It became very important to me that I know the trust they put in me. I felt inadequate at so many times… I’ve been humbled, encouraged, confused, re-focused and especially energized. I have re-affirmed my belief that teachers are the greatest, hardworking people on the face of the earth.

A similar response came from Teacher 3 (02-04, Survey),

This has been the best professional experience I have ever had. I was certainly nervous and unsure of myself in the beginning, but I have grown to believe that I have valuable knowledge and expertise to share with others. I am more positive and excited about my future in this profession. Most of all, I value my relationships with the others in the program. To be surrounded and supported by excellent teachers has been invaluable to me. The stressful aspects were mostly overcoming nervousness, but that caused me to grow.

The benefits and challenges for these teachers served to affirm their commitment to the profession and enhanced overall efficaciousness.

Many teachers wished the program continued at least one more year for them. They felt they were finally getting good in their role and the time was over. Teacher 15 (02-04 Survey) shared it this way, “I would do the STARR job another year gladly. Just when you really are starting to ‘get it’ and are making progress with a team of district teachers-you have to leave!” Eleven other teachers mentioned a similar comment, “Just when you’re getting good its over.” Teachers also wished that all teachers could experience the program’s benefits as Teacher 21 (95-97 Survey) expressed,
I was so excited about being chosen for the STARR program. From the outset, I was apprehensive about what was entailed and not sure about some of the information that was presented to us. I started to do more reflection on what I do as a teacher, which was difficult for me previously. It wasn’t until we actually started to do presentations that all of the pieces fit together. As the year went along, I felt more and more comfortable answering questions and sharing with teachers. I wish I could continue in the program after this year, but all good things must come to an end. I will carry and use much of what I have learned back to my classroom. I am also working on our PDC committee to change the negative attitude toward professional development. I wish all teachers could have this type of positive experience.

Survey professional growth perceptions related mostly to perceived impact on peers due to modeling lessons or mentoring as well as developing a sustained relationship with groups throughout the sabbatical year. Survey perceptions related personal growth in relationship building and appreciation for others different from themselves. These were short-term responses. Many teachers felt the benefits of STARR ended with their exiting the program.

Teachers’ Retrospective Perceptions of Participation in STARR

Twenty-one teachers offered a retrospective view of their perceptions concerning the professional development training, collaboration, impact on teaching, and the overall experience. Interview questions provided a view of the long-term impact of STARR on participants’ perceptions. These interviewees were between one and ten years post participation.

Retrospective Professional Development

Interview question six asked former STARR teachers to share what they recalled about their training relating to how they were prepared, presentation topics and presenters, and the organization of the program. The 21 teachers who participated in the interviews recalled the training experience in a similar manner to the surveys. They still
felt the training was very high quality. However, interviewees spoke of how they valued the training even more as time passed. Teacher 1 (96-98, Interview) explained,

I’d say everything I knew in 40 years, I doubled in two, those training years. That’s how I put it. I learned so much and I don’t know if it was true for you, but I didn’t know the quality of the training I was getting until later. I didn’t have an appreciation for who [it] was [that was] doing the training. As far as the presenters, I learned from the gurus, from the best, but I didn’t know they were gurus until later. I would pick up things like Time magazine and see their picture. [I’d] pick up educational leadership magazine and I’d carry around the article when I’d do my workshops. It was an article called the brains behind the brain. They had 5 of the top leading neuroscientists in the world and we had had multiple days studying with 4 of the 5.

Teacher 3 (01-03, Interview) also spoke of an increased appreciation over time. “My opening comment is that the training was awesome. I can not say enough good (sic) about how it made me grow as a professional.” She went on to address what she valued about the training,

I truly appreciated all the presenters there, but the ones I think I respected the most were the ones who had been in the classroom as well as had the research background to support it. Talking research is one thing, but actually making it work in the classroom is something I needed to know; have you done this?

Another teacher said, “What was best about it was the professionalism, the training you got from professionals, I say, first hand” (Teacher 1, 95-97, Interview). An appreciation for the knowledge and presenters was clear in the interviews. The difference between the surveys and interviews concerning the training appeared to be the level of value teachers placed on their preparation. When given the interview question, “Please tell me about the training,” all 21 teachers responded with superlatives in describing the training. Teacher 2 (96-98, Interview) said,

My recollection was that the training was fantastic. I enjoyed everything we went to. The organization I felt was good. I didn’t have any major
difficulty getting to any of the training or any of the logistics of anything. That was all very well done. I recall the topics very clearly. You think about that and that was in 96-97. Those things, the training is still fresh.

Teacher 2 (98-00, Interview) shared her retrospective view,

The STARR program was undoubtedly the best professional development and helped me to grow professionally, of any program I think I can imagine being involved in. I think it’s a prototype that all states should go to as far as professional development because it reaches so many people within the state and within the regions and helps those smaller school districts where those teachers do not possibly stand a chance of getting outside help within their district because there just is not the kind of funding for them to get the kind of professional development they need to get. With the STARR program they can have ongoing professional development throughout the year. They can choose the topic of need and then the STARRs are trained in the most current issues in education.

The retrospective interviews showed teachers’ level of response changed from one where they felt they were prepared to meet the expectations of the program to one where they had an increased level of appreciation and valued their training to a greater degree.

Knowing they valued their training to a greater degree was helpful, however to gain deeper understanding I asked, “What aspects did you value?” Teacher 2 (96-98, Interview) said, “The training is still fresh.” I prompted her further by asking, “Could you give me some examples?” She went on to say,

We did a lot of work with cooperative structures with Spencer Kagan. I really enjoyed that. It was a fantastic tool that we could give teachers. Brain research with Pat Wolfe and Robert Sylvester, he had done a book right along about that time and we heard from him. We did, had several different presentations on multiple intelligences and did hear Thomas Armstrong, not the most riveting presenter, very scholarly though. Heard from Bena Kallick and she was fantastic. She talked about Socratic seminar as well as other things. We also did a lot because DESE third cycle Missouri School Improvement Program (MSIP) was requiring some real development of curriculum within districts. So a lot of new requirements came down right about that time. So, we did a lot of training with DESE personnel on how to help schools meet their third cycle curriculum requirements. We also had a lot of training on authentic assessment and things related to the MO assessment program in general,
how to help teachers prepare to teach in a manner that would help students
do well on that test. We had a lot of variety of things. I sat here this
morning thinking about them and they came to me just as quickly as if it
was last year. It was all very, I couldn’t believe the names that I was, of
people I was getting to hear in person. They were the names of authors I’d
been reading through my master’s work and in journals and things like
that. Here I was actually getting to go hear them and talk to them and in a
small group often times. That was great.

This teacher valued the content, the research, and working with the researchers. Another
teacher expressed what she valued:

I was just really impressed of the quality of presenters they got for us. It
was really impressive that speakers were very well known and they had
published the books. I liked the fact that we went through with the same
group of people so we had that common experience, those common
experiences that we could talk about then from month to month when we
got together. The topics were very timely. (Teacher 1, 99-01, Interview)

This teacher valued the content and presenters, and additionally valued the cohort
experience of learning together. Teacher 1 (97-99, Interview) attributed current success to
the training experience. She said,

I still think back, I know that the STARR training has a tremendous
amount to do with what I am doing now. I can just remember thinking I
was excited every single time I came home from one of the trainings we
had and I think it was because of the variety of things we got to hear
about. I think also that the intensity of it; we were out of the classroom on
a pretty regular basis that year and spent a lot of the time in the summers.
Because it wasn’t something [heard] and then you don’t talk about it for
six months, that’s why it stuck. Because we were in the classroom and you
had the opportunity to go back and really try some of the things that you
heard about. I think probably the thing that appealed to me most; it’s hard
to put a finger on one thing, the brain research that was really brand new at
that point in time. It was so new to me and just made so much sense and it
just made me think differently about how I worked with kids and
responded to students and even now that I work more with adults the same
thing holds true. I still find myself sharing that information on a regular
basis.
This teacher appreciated the content as well as the process of the program. She valued the chance to learn, practice, and reflect with her peers throughout the time of the training. She felt it had a long-term effect on her current work.

In the long term, teachers reported they continued to employ the strategies in their current roles. Many went on to learn more about brain research and cooperative learning. Teacher 1 (98-00, Interview) shared,

I spent ten days with Spencer Kagan and learned not only the basics, and hearing the basics again, but then hearing how to present his materials. I went to the trainer of trainers workshop the second week and after that during my presentation year he came twice to places where I was presenting and modeling in classrooms and it was amazing to spend the whole day with him. Now Spencer and I present keynote often together.

In the long term, retrospective interviews supported a deeper sense of value from the experience. Learning the content, how to present, and leadership skills during the professional development project had implications beyond the initial experience.

*Retrospective Collaboration*

Next I looked at the retrospective interviews to see what teachers had to say about collaboration. STARR teachers were asked to recall if the group they collaborated with was effective. From the 21 interviews, 14 teachers stated their group formed a positive collaborative group and seven stated they did not. Those teachers that formed a positive collaborative group responded in similar ways as the survey respondents did. Teacher 1 (98-00, Interview) explained,

We were very different, but yet we were able to pull out our strengths, each one individually and then put them together as a whole. We each, when we planned together for a presentation the things that we were doing, we each brought into it our own specialty, the thing that we were strong in. Even the way that we organized it, one person actually typed everything up, we all sat together and brainstormed and put the ideas out there and began to pull them together, but one, always made sure that we
had the funny piece that belonged there. One always made sure that all the T’s were crossed. I had a combination of those things really, but the heart of letting people know we cared about them and being inviting and supportive and that piece of going back after a presentation to come back in and model and work with them more individually so that we could get more of an outcome. I think that we were an effective team.

Teacher 1 (95-97, Interview) said,

We were most effective. We got to the point where when we presented together, if one forgot something, or someone asked a question, we could finish each other’s sentences. We were very lucky.

Some teachers spoke of how deep the bonds between members were. Two interviewees became emotional remembering the experience. Teacher 2 (95-97, Interview) said,

We all came from different cultural backgrounds. It was a little bit of a challenge at first learning how to work with each other. The biggest reward of my being a STARR teacher was learning to work with that group and we were successful. And it worked. We bonded and we needed to. We learned from each other and now I’m going to cry. I probably learned the most.

Another spoke of how her group members remained close,

We were effective. We worked on each other’s strengths and we complimented each other. We would help each other get ready in the office. The only bad thing was we didn’t really get a lot of time to present together and really shine like we could. When we worked together we would finish each other’s sentences. We worked really well together. We still stay in touch, our kids get together… (Teacher 2 interview 02-04).

For those who remembered their groups as ineffective, the differences seemed to fade over the years. One example of how a more negative response became less negative was from Teacher 14 (01-03, Survey). In the survey she said, “We struggled a lot.” Then in the interview she responded, “We got along well enough for the most part. One teacher was a wonderful person; she was just different than I was.”
Interview responses also included comments that addressed the statewide collaboration. Interviewees valued Networking and learning from one another. These characteristics were a positive aspect of collaboration within the STARR program.

Teacher 2 (94-96, interview) said it this way:

The large group was for the most part a very talented group of teachers. You were constantly interacting and getting to know and networking with teachers across the state. That was the value in all of that, the networking was incredible. If somebody was interested in one topic they could give you information and steer you in the right direction. If they had workshops on one thing that you didn’t have they would share the workshops back and forth. Every workshop that we put together we shared with every other MO group, person in the STARR program. That was really neat. I have this great big notebook of all these presentations and all the different strategies for presentations. Again, the large group collaboration was just invaluable. We looked forward to going to Jeff City. We looked forward to playing and also to learning and visiting each other’s area and working with groups across MO. That was really, really fun.

This response was typical of the collegial and congenial nature of collaboration in the statewide cohorts. Both regional and statewide collaboration were important aspects of the STARR program. The impact had lasting effects on participants that went beyond the initial experience.

*Retrospective Impact on Teaching*

Interview question nine sought information from former STARR teachers regarding whether or not they taught differently in the years following their participation in the program. All 21 interviewees said they taught differently after the STARR experience.

Teacher 2 (94-96, Interview) gave an example of the impact of STARR on her teaching:

I taught very different. I couldn’t wait to get back into the classroom actually, just to use all the things I had learned. I felt like I was very different as a teacher and my kids were much more responsive as a result of my new learning. So, that I found very exciting.
Teacher 1 (96-98, Interview) had this to say about the impact of participation on her teaching:

I tell people this, that I was trying to get up a hill for 15 years and then I became a STARR teacher. I did a complete 180 and took off down the other side. I was so bad and I also say I feel like the lady in the airport whose husband set off the bomb on the airplane and she went around to people coming off that plane all bandaged saying I am so sorry, so sorry. I feel like I need to go back to 15 years of kids going I’m so sorry, I’m so sorry. I wasn’t the best I could be. I thought I was. What changed for me was I thought teaching was all about me. I thought I had to have tremendous bulletin boards, tremendous handouts, tremendous lesson plans. I always wanted to be a great teacher, always. I always wanted to do everything high energy, keep the class moving, give them great information, know my stuff, but what STARR made me realize was it’s not about me. It’s totally not about me and it changed me from being a teacher to a facilitator. It changed me to think about Johnny in the middle. My students are now in the middle. Everything I do, I consider what’s best for them.

Beyond sharing how they taught differently, interviewees spoke of additional benefits due to changing their teaching practice. Benefits included an enhanced sense of efficacy, increased leadership opportunities, changes in professional status to roles where they continued to teach other teachers, and the feeling that they achieved a new level of professionalism. These and other accomplishments impacted the perceptions of former STARR teachers.

Retrospective Perceptions of the Overall Experience

The overall experience was addressed in interview questions eight and ten. I sought responses from teachers about what were the most memorable aspects of participation in the program and what were their greatest accomplishments during and after the experience. The interview responses shared common benefits of the overall experience.
The 21 interviewees mentioned benefits of the overall experience 58 times. The following table shows the categories and the number of times each category was mentioned.

Table 4.6

*Interview Benefits and the Number of Times Mentioned*

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Times Mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaboration</td>
<td>10</td>
</tr>
<tr>
<td>Professional Growth</td>
<td>9</td>
</tr>
<tr>
<td>New Level of Professionalism</td>
<td>8</td>
</tr>
<tr>
<td>See The Big Picture</td>
<td>7</td>
</tr>
<tr>
<td>Impact</td>
<td>7</td>
</tr>
<tr>
<td>Status</td>
<td>7</td>
</tr>
<tr>
<td>Increased Efficacy</td>
<td>3</td>
</tr>
<tr>
<td>Decision Making</td>
<td>3</td>
</tr>
<tr>
<td>Autonomy</td>
<td>2</td>
</tr>
<tr>
<td>Learn From Experts</td>
<td>2</td>
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</tbody>
</table>

The following examples give evidence of the benefits. Teacher 2 (98-00, Interview) said the following about collaboration,

Meeting professionals with the same type of goal from all over the state was just, it energized you. There were people that you met and you’d never met them before and you could just hear the enthusiasm build in the room where everybody met. That was just at a point in my career where I’d been teaching for the length of time that I had, almost 20 years and to get in with a group of teachers, some of them who were beginning teachers, some who were veteran teachers, and some who were near retirement and to work with them and to hear their enthusiasm about
education and what they were doing for children and to all have a common
goal was very memorable and making those relationships and connections.

This teacher’s comment gives support to the notion that collaboration may support the
development of collective efficacy. Teacher 2 (01-03, Interview) spoke about the
professional growth. She said,

I think STARR teachers live and breathe teaching. That’s what I think was
probably the neatest thing about the whole program, working with those
people and learning with them and that kind of thing. And of course the
training, that never again, I’ll have that opportunity to learn that much in
that situation. That is probably the most memorable.

The collaboration and professional growth contributed to the perception STARR
teachers had that the overall experience made them feel they achieved a new level of
professionalism. Teacher 1 (95-97, Interview) commented on the enhanced perception of
professionalism this way,

A memorable part I think was the feeling of being a professional. It was
the feeling of being appreciated as a talented educator who DESE had
confidence in spreading the news. That professionalism and supported
positiveness, we can do this and we’ve got something to share. I loved it.
That’s what I share with teachers that ask about it. I think it was the
situation.

Seven teachers reported that the overall experience allowed them to now see the big
picture of education. Teacher 3 (97-99, Interview) said,

I think the most memorable part was being able to go out into schools and
work with teachers and see a whole different view that I hadn’t seen
before. Coming from a fairly affluent suburban school district, I just kind
of thought everyone was kind of like me. Then when you go out you see
that there are little schools that have six teachers and are kind of in the
Morton building down in the middle of nowhere along a gravel road and
really saw some really powerful teaching going on.

The remaining 24 benefits mentioned by interviewees addressed dimensions of
empowerment. Seven related to the benefit of impact, seven others to status, three to
increased efficacy and three to decision making. Two addressed autonomy and two more the impact of learning from experts. Teacher 2 (97-99, Interview) addressed the impact of the overall experience this way,

You know that’s so hard because every single day that we worked in that office together and every single training session we went to was wonderful. I know when you say that to people they say oh, you’re just having fond memories because it’s been a few years ago. But, every single day I went into work, I felt like I accomplished something because you brought something to some teacher somewhere that might improve the instruction in the life of a kid in that classroom. Well you can’t have a better feeling than that. Plus, I got to work with people I like every day. We laughed every day. I have never worked so hard, had so much fun and accomplished so much. The days would just fly by. The day would be gone before you had the chance to think about the day even starting. We were being continuously productive and feeling like you were making a change. That was very, very important to me. I think probably the most memorable part of the experience for me was just that it was a time where I felt like I was very effective as an educator and that I reached a lot of kids. I will never know their names, I will never see their faces, but I know I reached them because I worked with that teacher in that building that was really burned out and gave her some ideas that made her day a little bit better and the next time we went back in the building she said I’m using this or I’m using that and my kids are getting it and they are paying attention to me and I know that we were reaching kids so I think that probably would be the most memorable part of the experience for me.

This teacher was impacted by the overall experience and empowered by the impact she had on others. Other evidence of dimensions of empowerment was voiced in Teacher 1 (97-99, Interview):

I think a memorable part, and it’s hard to think of one, it may sound strange, but it was a completely different way about going about business. A teacher’s life is so regulated by the students and the schedule that you are driven by, that having that flexibility and being in different places on different days, one day you’re in a school another at a meeting in Jeff City and another you’re in the office and another doing something else. There is none of that variety in teaching in a classroom. That was like opening up a whole new world. It was really an opportunity to learn constantly. That has always appealed to me. I think that was a huge part of what I remembered the most. I constantly felt that there were always opportunities to learn more.
Interviewees supported survey findings that the overall experience was valued and valuable. They gave evidence that the experience’s impact continued to influence teachers’ future in the profession. The support that this professional development experience promoted lifelong learning and a greater commitment to teaching was also made clear in how the teachers reported their perceptions concerning the overall experience. The personal and professional growth of these teachers went beyond the ending of the program. The following accomplishments reported by the interviewees give evidence that teachers perceived the benefits of participation in STARR to be long term.

*Accomplishments.* The 21 interviewees recalled accomplishments during STARR in a similar manner as the survey responses. Many said the accomplishment was being a STARR teacher. The accomplishments that were reported after the conclusion of the STARR experience focused on perceived opportunities that occurred from being a participant in the program (Appendix C). The table lists current roles former STARR teachers reported they now have. The level of education prior to and after STARR and the number of times they changed educational positions prior to and after STARR are included. The table shows many interviewed STARR teachers continued their education and took new positions of leadership after their STARR experience.

Similar evidence of accomplishments was reported in the July 29, 2004 presentation to the State Board of Education, Dr. Bell reported the following information was known about former STARR teachers: one past STARR is a superintendent, three are assistant superintendents, five are principals, one is an assistant principal, three are RPDC assistant directors, six are RPDC consultants, two work for universities, two work for DESE and one retired STARR serves on a board of education.
The accomplishments reported by interviewees ranged from changing grade levels and taking on additional responsibilities to changing to administrative positions and other positions in order to reach a greater number of people and share their learning. These STARR teachers perceived they achieved a new level of professionalism. Personal accomplishments that interviewees reported included awards and recognitions as well as leadership positions in national organizations (e.g., National Staff Development Council, National Council for Teachers of Mathematics, and National Writing Project). Former STARR teachers have authored books covering topics such as literacy and literacy with regard to at-risk students, and another STARR participant has written articles on cooperative learning structures.

Teachers’ perceptions that were reported in interviews related to the impact of the experience on their current role in education. Of the 21 interviewees, seven remain classroom teachers, at least part of the day. All who remained in the classroom have additional responsibilities relating to mentoring, curriculum, and/or professional development. Some districts further support these teachers by allowing them to take up to 20 days a year to present to other peers either locally or nationally. Seven are in administrative roles, (i.e., curriculum support personnel, principals, assistant principals, assistant superintendents, regional supervisors, and curriculum directors for their districts.) Three have changed to other educational roles (i.e., foundation program director, national presenters and consultants). Three have retired, but continue to teach in higher education and/or remain involved with professional development. One has recently moved and is seeking a position in adult education.
Interviewees related perceived reasons for the roles they are now engaged in came about as a result of participating in the STARR program. While some felt they would have gone into administrative roles regardless of the STARR program, the experience changed their perception of the leadership role. One former participant, Teacher 2 (96-98, Interview) said,

I guess what I learned after the STARR program going into administration, I just have a different classroom. I don’t have children in my classroom, I have adults. It’s a hard thing to learn. We talk a lot about being instructional leaders, but how do you accomplish that as a principal. I think it has a lot to do with your evaluation practices and how you get into the classrooms and look at what teachers are doing and how they are doing it and those kinds of things. I think just giving me that foundation and ability to be an instructional leader rather than a manager of programs; I guess that has been the greatest influence on my career. I also know when I finish in public education, the STARR program has let me know that I really want to go back into higher education and work with student teachers and possibly teach in an educational administration program and create that class that I feel like is missing.

Others felt they never would have wanted the position of an administrator, but after being a STARR participant Teacher 2 (97-99, Interview) explained,

I had no intention of ever leaving the classroom. I was going to be a classroom teacher forever. If you’d said are you going to be an administrator? I’d say absolutely not. I’ve seen what those administrators do and I don’t want anything to do with that. After going into the STARR program, I got a completely different picture of administration. As a classroom teacher you really don’t see the impact an administrator can make. You see kind of the day to day running of the school, but you don’t get the overall picture. Working as a STARR teacher, working with principals at well over 150 or 180 schools, whatever it was we saw that year, each of those principals had an approach to professional development that was focused helping their teachers be better teachers, and in essence reaching a lot more kids than they did as classroom teachers. That experience really made me think administration really is teaching in a different vein. It really is. It’s a teacher teaching teachers. It’s still guiding people to benefit kids. It’s just a different tact and I liked it and I went back and got my degree in administration after the STARR program because I felt like that was an area where I could make an impact and still reach kids and maybe reach more kids than I did in my classroom.
with 30 kids 5 hours a day and I reach 150 kids a year. As an administrator I can probably reach 100’s of kids a year. So yes, it definitely had an impact on my career because I went back and got my degree in administration as a result.

Some roles former STARR teachers took on helped fill a personal sense of purpose driven response inspired by their professional development experience. These were long-term responses.

STARR teachers perceived the program enabled them to have many opportunities. While each of the aspects of the STARR experience had benefits and challenges, the overall experience was positive for these STARR teachers. The different aspects of the program had overlapping similarities. In order to understand these overlapping characteristics I examined the content, context, and process of STARR.

Influences of STARR’s Content, Context and Process on Participants’ Perceptions

Each aspect of the STARR experience provided a perceived sense of personal and professional growth for participants. During training, teachers experienced learning new content in a process of collaboration and a context of learning to teach their peers. I examined the content, context and process to find if the experience impacted teachers’ perceptions.

Content

Authentic instruction was the original focus of the professional development in the STARR program. Topics included brain research, cooperative learning structures, performance assessment, and other topics that flowed from authentic instruction. As time passed, the foci expanded to include motivation, literacy skills, curriculum alignment, and other currently researched practices. Through the years, teachers requested more topics and suggested presenters who should be included in the training. While
participants always valued the experience, suggestions were made throughout the years and acted upon in order to continuously improve the program (e.g., adding more content specific training for literacy in math and science; working with at-risk students; differentiating instruction; and using assessment to drive instruction). However, authentic instruction remained the focus. Teachers appreciated the content of the program and reported that learning about this content gave them the ability to connect the research to practice. This perceived ability to apply research to practice was a powerful benefit of the STARR program content. Throughout the years, an appreciation for the content increased. Former STARR, Teacher 1 (96-98, Interview) shared,

I had some really good basic knowledge about being a presenter. I also had a lot of speech and drama. I’d been a speech and drama teacher. I was able to combine those I already knew with what I’d say is double; I doubled the capacity of my brain.

STARR Teacher 9 (00-02, Interview) stated,

I really enjoyed the brain research and how that applies to learning. I have a personal interest in that and I need to push it and do something on my own, but I’m very interested in that and how that works. I consider that still all the time in my work.

Teacher 2 (01-03, Interview) said,

The focus of the workshops was right on target with NCLB. It was starting to be talked about a little bit. Reading and writing has always been a focus, so the training on reading/writing was important. I think strategy-based teaching and the thing that I really picked up on a lot was the brain research. David Sousa was over my head several times, but his book for the special needs students, was very good. That was the research that brought it down to when Larry Miller came in and presented from a classroom experience. It was like wow. That really works. A lot of brain research is something that I think as educators we could do in the classroom and implement easily.

Teacher 2 (98-00, Interview) said,
Probably my favorite presenter was Pat Wolfe with the brain-based learning. I think I learned so many things about so many topics. There was cooperative learning, assessment, classroom management, theory of multiple intelligences, emotional intelligence, Socratic seminar, I did realize during my STARR training that I knew enough about cooperative learning from the one shot workshops to be extremely dangerous to my students. Things that I took back into the classroom from the STARR training were just immeasurable. Actually knowing how to put my students into cooperative groups and what a true cooperative learning experience was for my students was something I incorporated into the classroom a lot. After doing one of the activities that we had learned as a STARR teacher, I had one little active student just jump out of his chair and say, ‘This was the best day I’ve ever had in school.’ So things like that just really made a difference.

For these teachers the content was valuable as well as the format they used to learn the content. Using the classroom as a lab to implement new strategies helped connect research into practice.

**Context**

The idea of teachers being prepared to teach their peers has been used with success in many settings. However, this setting in combination with the content and process, allowed teachers to develop a new perceived level of professionalism. Teachers who participated in the STARR program were expected to be leaders who could teach their peers the content they learned during the training phase. As teachers learned new content they were instructed to take notes on the topic as well as on the presenters’ style and active ways of engaging participants. STARR teachers were encouraged to ask researchers and other presenters’ questions about content and the way they delivered the content. Teachers communicated with presenters during and after workshops. Many contacted the experts throughout the course of the program in order to get advice on planning their own workshops. In addition, participants were encouraged to create a network of communication with other participants in order to share materials, resources,
and advice. This context offered an environment of empowerment where participants learned valuable content through a valued process. Whether participants chose to stay in their classroom or go into other aspects of education, they perceived themselves as achieving a new level of instructional leadership. Teacher 2 (97-99, Interview) related an opinion of this level of professionalism saying,

I think that is a really, really fabulous role model for educators to have that person who is leading the program to work as a collaborator with you as opposed to kind of a top down kind of leadership. It’s a person who leads with you. They attend the workshops with you. They dialogue with you. That to me was a tremendous, tremendous role model and something that I try to continue to do to this day. If teachers are going to a workshop that’s important for the building, I try to go to the workshop, too. I think that’s important that you be a person who works with teachers, not a person who works above teachers. That was modeled in the STARR program. I assume that it’s probably still the same today, but it certainly was that way under Bob Bell.

The context of teachers teaching teachers impacted the perceptions of these STARR teachers.

Process

The STARR program used a process of collaboration in cohorts and small regional groups to prepare teachers to teach their peers. The cohorts learned together for two years. During the first summer, teachers attended multiple meetings for two or three days per meeting. For the first meeting, teachers stayed in Jefferson City. The first meeting was an orientation and community building time where teachers engaged in active learning strategies to learn more about themselves, the program, the cohort, and the regional group they would be working with during their sabbatical year. Subsequent meetings were workshops presented by various researchers, authors, state department representatives, and other experts on different topics that comprised the content of the
program. Teachers were required to practice the new strategies in their classrooms and keep a journal of the experience. The director, Bob Bell, visited each classroom at least one time during the first year of training. Participants also shadowed active STARR participants for at least one presentation in the spring of their training year and discussed office responsibilities and procedures. The second summer, participants again had intense training on content topics as well as presentation skills and how to plan workshops in order to prepare them for their year in the field. During the sabbatical year teachers planned workshops and presented to peers in their region. When requested, STARR teachers also worked with different state department initiatives.

During the second year, the regional collaborative groups worked together preparing and presenting topics to other teachers. The collaborative groups that learned to work together well in planning and presenting perceived a very positive experience and felt successful as a collaborative (regional) and collective (statewide) group. They cited reasons for their success were respect for each other, even when each member of the group was very different from the others. They found a way to use each other’s strengths and support each other’s weaker areas. Each had a desire to live up to the program’s expectations and a sense of responsibility to make a difference for their peers and students. They also increased their perceived self and collective efficacy. Teacher 1 (96-98, Interview) said,

We always planned together. When I would hit the office, I would blink and it would be 5:00 o’clock. I mean I had and I could work there another two to three hours. It was always so much to do to get ready. We wanted to be good. We wanted to know our stuff so there was so much planning time and making even better overheads then what we had, making better handouts and getting good sources together for our participants to show and share. I think we all three of us were real determined to be effective in what we were assigned to do. We didn’t want to fall on our faces.
Teacher 2 (95-97, Interview) addressed collaboration saying,

Well that was probably one of the biggest challenges initially of being a STARR teacher. First of all being a classroom teacher I had limited collaborative experience. That wasn’t so much the trend in 95-96, collaborative team work in schools as it is now. Of course at our school we had team meetings and staff meetings, group kinds of things. I was a classroom teacher pretty much and had pretty much control of how I conducted my day. That was the same for all of the STARR teachers in my group. We were a very diverse group. We had a lady that was a teacher from the city. This was a different cultural experience for me and for her as well. Here’s a county teacher and pretty county inducted. What I mean is it’s a pretty homogenous population out here. It’s SES well off and I was used to working with that population of people. To work with someone from the city that was a different ethnicity and from a different culture was at first a little bit of a challenge. The other woman in our group was also a classroom teacher from up north in another county. We all came from different cultural backgrounds. It was a little bit of a challenge at first learning how to work with each other. The biggest reward of my being a STARR teacher was learning to work with that group and we were successful. And it worked. We bonded and we needed to. We learned from each other and now I’m going to cry. I probably learned the most. Most of our work was in the city public schools. The person that was from the city public schools was well respected and admired and we were able as a team to make a difference in the district because of her.

Those groups that did not work well together cited an inability to accept each other’s personality and character traits to the point that they could not be collaborative and instead went out on their own to accomplish the program’s expectations. Many cited they were sorry they could not overcome their differences but still felt a sense of personal accomplishment in their individual work. These teachers perceived an increased self-efficacy and collective efficacy in the process of the program but failed to experience a sense of group efficacy. Teacher 2 (94-96, Interview) explained an example of this:

We had one person on the team that was not very collaborative. She was not a team player and that made it very, very difficult, especially in that first year. She wasn’t motivated to go out and get presentations and she wanted to do it her way and she wanted to do it by herself. That made it
very stressful at times. So the two of us went on and did our piece. We had a wonderful time and wonderful experience, but I think the large group worked well, the smaller group, I think in the selection of that, really look closely at group dynamics. I think that is a major piece. Also a threesome is always more difficult no matter what. That would be a consideration to think of as well. All and all I just can’t say enough for the group of people I worked with in the large group. The people that we see and they continue to grow and still in MO education at different levels now, great opportunity.

The process of learning in cohorts and collaborative groups impacted these STARR teachers. Having the time to reflect and share experiences was valuable to these teachers.

The STARR program created the desire for these participants to make an impact on their profession with the end result being the desire for children to be the benefactors. It was the perception that STARR teachers took seriously their role as teacher educators. The overlapping nature of the content, context and process of the STARR experience influenced the perceptions of program participants. The content helped them connect research to practice. This occurred through the process of using classrooms as labs to implement the content. The context of teachers teaching teachers solidified knowledge of content. The process of learning in cohorts and through collaboration impacted personal and professional growth. Increased self and collective efficacy impacted perceptions of increased opportunities. Increased opportunities led to commitments to advanced positions and educational roles.

Summary of Findings

With regard to the first research question, teachers’ perceptions concerning the impact of participation on their teaching lives during their professional development experience included two broad themes: personal growth and professional growth. Teachers perceived themselves as more knowledgeable personally and professionally
because of the experience. For question two, on how 21 past STARR teachers’ (1994-2004) perceptions of impact of participation on their teaching lives evolved over time (two through ten years post participation) included two broad themes: a greater sense that the content was valuable and an increased value for the program. The impact continued beyond the professional development experience. The analysis of question three regarding how the content, context and process of the STARR professional development experience impact teachers’ perceptions of participation included two broad themes: short-term impact and long-term impact. Short-term influences impacted personal and professional growth. Long-term influences impacted commitment to the profession.

Chapter four provided findings that resulted from analysis of the data for this study of the STARR professional development program from cohorts 1994-1996 through 2002-2004. Chapter five includes interpretations and implications and offers suggestions for future research.
I investigated the perceptions of teachers concerning the professional development program STARR (Select Teachers as Regional Resources). This statewide sponsored program is an example of an approach to professional development that prepares teachers to teach their peers effective instructional classroom strategies. This chapter includes a summary of the findings, a discussion of the findings in relation to the literature discussed in the research review, and an explanation of the contribution of this study to teacher development and quality teacher preparation. I conclude with implications for professional development, teaching, teacher education, and suggestions for future research.

The purpose of this research was to describe and analyze the findings of this case study that investigated perceptions of teachers who participated in the professional development program titled STARR. The focus of this study was the perceptions of teachers concerning the experiences and impact of participation. Three research questions guided both data analysis and writing the description: 1) What were teachers’ perceptions concerning the impact of participation on their teaching lives during their professional development experience; 2) Do the teachers’ perceptions concerning impact of participation on their teaching lives evolve over time; 3) How do the content, context, and process of the STARR professional development experience impact teachers’ perceptions of participation?
Summary of Findings

*Research Question One: Impact of Participation*

The first research question investigated teachers’ perceptions of the professional development program titled STARR. Teachers reported they grew both personally and professionally. Three themes emerged from examining the training, collaboration, differences in teaching and the overall experience: training related to the content of the program; collaboration and differences in teaching related to the process; and the overall experience related to the context of the program. The National Staff Development Council (NSDC, 2001) reported that looking at content, context, and process standards should be included in determining high quality professional development. Based on my study, I assert that these teachers valued the content, context, and process of the STARR program.

*Theme one.* Teachers valued the program’s content in that it was valuable in connecting research to practice during and after the experience. For these teachers, the most valued topic was how the brain learns. Many said they considered the brain information in all the work they did. The content for the program was based on Newmann’s (1993) Authentic Instruction and Assessment. Teachers felt the information on how the brain learns helped them connect the ideas of Authentic Instruction and Assessment to classroom application.

*Theme two.* These teachers felt the context of teachers learning to teach their peers had a lasting effect on them personally and professionally. The positive effects of learning from researchers and experts as well as networking with many educators
impacted these teachers. Many teachers reported they now saw the “big picture” of education. The context provided an environment where teachers felt empowered.

Theme three. The process of this professional development experience positively affected the perceptions of these teachers. Through the use of statewide and regional group collaboration, many teachers developed a greater sense of self and/or collective efficacy. Those teachers who worked well collaboratively in their smaller regional groups attained even greater efficacious benefits.

Research Question Two: Perception of Lasting Effect

The second research question asked if the perceptions of the teachers evolved over time. The interviewees from this study had completed the professional development experience between one to ten years prior to being interviewed. Teachers reported that the impact of participation continued beyond the program. They stated that the effects were on both personal accomplishments and professional commitments.

In the short-term, teachers’ accomplishments related mostly to perceived impact on peers due to modeling lessons or mentoring as well as developing sustained relationships throughout the sabbatical year. Teachers’ sense of accomplishments also related to perceived growth and appreciation for others different from themselves. Teachers’ commitments ranged from returning to their same position, to changing grade levels, taking on new roles such as administrative roles or roles as professional developers.

In the long-term, teachers perceived that participation in the experience had impacted their current role in education. For these teachers, participation in STARR created a desire and inspired them to seek a greater purpose in education. Many sought higher education degrees, positions as leaders in local, state and national organizations, and
educational leadership roles. Each teacher attributed his or her accomplishments to the benefits of participating in the STARR program.

Research Question Three: The Interdependent Effect of Content, Context, and Process

The third question investigated how the content, context, and process of the STARR professional development experience impacted teachers’ perceptions of participation. The interrelated effects of the content, context, and process impacted these teachers. While each construct carried and stood on its own merits, the strength of the interdependent relationship of each construct allowed teachers to reach a sense of accomplishing a new level of professionalism. Therefore, based on the findings from this case study, I propose that attending to the content, context, and process when creating professional development experiences (as this program did) has the potential to provide teachers with a valued and valuable learning experience (Scribner, 1999a). The effect may provide teachers with a sense of accomplishing a new level of professionalism.

Elements of an Effective Professional Development Model

Based on the findings described above, I developed a model to represent how content, context, and process can be interrelated (see Figure 1). The model integrates the findings from the three research questions to show how the content, context, and process worked interdependently. This illustration shows a model of the STARR program and aids in describing and analyzing the impact of the program on participants.

The model begins with a research base of professional development that contains effective components as suggested by NSDC (1993, 2001) and NFIE (1996) and supported by findings from researchers (i.e., Garet, et al, 2001; Guskey, 2000; Knapp, McCaffrey, & Swanson, 2003; Senge, 1990). The model has a curriculum content of
research based effective instructional practices (Gore, Griffiths & Ladwig, 2004; Newmann, 1993; Newmann & Associates, 1996) that teachers learn. Applicants are selected who receive professional development the first year. They use their classrooms as labs to practice implementing the newly learned strategies. Next, the model has a context of teachers learning to teach other teachers (Lieberman & Wood, 2003; Olson & Besch, 1982). They learn and then share the new learning with their peers the second year during which they engage in evaluation processes for feedback. Finally, the model contains a process for learning in statewide and regional groups. The smaller regional collaborative groups (Arbaugh, 2003; Short & Greer, 1997) then present the new learning to their peers the second year.

The goal of STARR is to empower teachers to be leaders that in turn provide professional development for their peers. Ultimately, improving the quality of teaching improves student achievement (National Commission on Teaching and America’s Future, 1996).

Each construct of content, context, and process worked interdependently resulting in the perceived sense of a new level of professionalism. Content knowledge was solidified through the context of teachers teaching other teachers. The process of using classrooms as labs and collaboration in order to learn, implement, and reflect on the new content encouraged an enhanced sense of efficacy. Teachers found the process valuable because the content was engaging and they had a need to know it well in order to support the program goals of teaching other teachers. Because teachers valued the content, and engaged in the process to be prepared to fulfill the context of the program, which was the
expectation of teaching other teachers, they experienced an increased sense of commitment to the profession.

**Elements of Effective Professional Development: An Interdependent Picture**

![Diagram of professional development](image)

*Figure 1.* A model of professional development. This figure illustrates the *interdependent* constructs of content, context and process based on STARR teachers’ perceptions of impact of this professional development experience.
Discussion

The following discussion is organized to address the findings. I used the research literature from the review as a basis of comparison between this study and other research. All the participants of this study felt the STARR program was a valuable experience and they valued being STARR teachers. Similar to Marton’s (1994) research, the teachers in this study experienced participation in varied ways. The categories that described these participants’ experience included training, collaboration, differences in teaching, and the overall experience. This study’s findings help to extend the literature on the conceptions of learning (Marton, 1981, 1992, 1994). Marton’s work investigating the qualitatively different ways that people experience a phenomenon gave a way to look at the structural and referential aspects of conceptions of learning. He described the structural aspect as the different components that make up the experience and the referential aspects as the way to describe contextual meanings of the experience. Because I was positively impacted by the experience of being a STARR teacher, I expected to find other teachers were positively affected as well. However, the degree to which other teachers shared the positive effects of the program surprised and greatly impressed me. All STARR teachers said they grew both personally and professionally. Many of the teachers felt the experience was one of the best they ever had. They said it was life changing. The content enhanced professional growth. The process enhanced personal growth and the context of teaching other teachers impacted both personal and professional growth.

Researchers have called for more in-depth analysis of the personal and professional growth that occurs in professional development (Birman, et al., 2000; Guskey, 2000; Scribner, 1999a). According to Gore, Griffith and Ladwig (2004), the content needs to be
attended to in determining professional development about effective teaching. The importance of the context for teacher learning also needs to be studied further (Grant & Gillette, 2006; Short & Greer, 2002). According to Wentzlaff & Wieseman (2004), the importance of process needs to be attended to in professional development about effective teaching as well. They suggested looking at what occurs in cohort learning. Other researchers offered different perspectives based on collaborative groups for professional development (Arbaugh, 2003; Butler, et al, 2004).

Teachers’ Perceptions of the Impact of STARR

A major finding of this study was that the STARR program empowered teachers and they perceived that they achieved a new level of professionalism. An example of this was what Teacher 2, (Interview 95-97) said,

After the program I guess getting to come back to my old school district in a different capacity and I knew that I didn’t really want to go back to the classroom because I felt that I was ready for a new challenge and change and professional development I learned was my passion. So I was able to come back and work on change with teachers in my own district which is even tougher. That was a huge accomplishment. It was humbling, but a great accomplishment.

Teachers gained new knowledge of effective instructional strategies. They gained new skills in presenting to their peers and they felt impassioned to make a positive educational impact. The STARR program contained most of the aspects of quality professional development recommended by NFIE (1996) with an additional component of teacher responsibility for teaching their peers. The aspect of teaching other peers gave these STARR teachers an enhanced sense of self and collective efficacy.
According to Goddard, Hoy & Woolfolk-Hoy (2004) positive efficacy judgments about self or group capabilities depend on self or group assurances. Individuals or groups must feel that they have capabilities to successfully execute tasks. They further stated,

When individuals and collectives choose to work in pursuit of certain attainments, their actions reflect the exercise of agency. Because agency refers to the intentional pursuit of a course of action, we see school organizations as agentive when they act purposefully in pursuit of educational goals. (p. 5)

Goddard, Hoy, and Woolfolk-Hoy still questioned how perceptions of group capability might be changed to strengthen organizational cultures. They felt this aspect of collective efficacy beliefs was still understudied.

The STARR program was an agentive organization as the collective goals were for purposefully preparing teachers who in turn would teach other teachers. Bandura (1997) addressed four efficacy shaping sources, each which indeed had bearing on the STARR program: mastery experience, vicarious experience, social persuasion, and affective state.

Mastery experience. As STARR teachers successfully presented to their peers they gained confidence. This is consistent with Bandura’s (1997) research that the perception that one’s performance has been successful raises efficacy beliefs that future performances will be proficient. Conversely, Bandura found perceptions of negative performances lower efficacy beliefs. Although teaching peers was a challenge for many STARR teachers, the support system of networking and collaboration diminished negative effects of difficult presentations and with experience teachers felt proficient. The STARR program offered a context that enabled and encouraged these teachers to have a positive mastery experience even when situations were sometimes difficult. Both the National Writing Project (NWP) research (Lieberman and Wood, 2003) and Reading
Recovery program research (Pearson, 2003) showed teachers had enhanced perceptions of efficacy after participation in the respective professional development. Other sources of efficacy also contributed to success. STARR teachers perceived themselves successful through the vicarious experience within the training.

*Vicarious Experience.* The presenters who taught the content of the program modeled strategies in a manner STARR teachers were to emulate and incorporate into their presentations. Because the teachers highly regarded the content and skills of the presenters, they felt an enhanced sense of efficacy. The common purpose of teaching other teachers contributed to an organizational sense of collective efficacy. Goddard, Hoy & Woolfolk-Hoy (2004), building on Bandura’s (1997) social cognitive theory, suggested observational learning could affect perceived collective efficacy in organizations. For STARR teachers the additional benefit from networking with the presenters, helped support the work of these teachers. Being able to observe the presenters plus having a chance to interact with them and then further engage in collaboration and networking with collaborative teams, strengthened the impact of vicarious experience for these teachers.

*Social Persuasion.* Social persuasion is another possible source that shapes efficacy beliefs. Encouragement alone may not empower teachers; however in a setting where encouragement is credible and the persuader has established trustworthiness, it may counter self-doubt following a negative experience (Bandura, 1997). The teachers in this study networked with their regional and statewide groups. The extensive support system positively impacted the efficacy levels of these teachers. Goddard, Hoy and Woolfolk-Hoy (2004) suggested that the increased efficacy could foster commitment to
organizations such as schools. Collective efficacy beliefs were enhanced within the STARR program.

*Affective States.* Anxiety or excitement adds to perceptions of capability or incompetence. Organizations with strong beliefs in group capability rise to the challenges of tolerating disruptive forces. Goddard, Hoy, and Woolfolk-Hoy (2004) suggested a need for more research on the impact of the affective states of organizations on the collective efficacy beliefs and performance of participants. For STARR teachers in this study, the expectations and support for the program increased beliefs that their responsibility in teaching other teachers needed to override any obstacles, including personal differences with other individuals with whom they worked. These teachers recognized their leadership status and were able to overcome personal differences for the good of the program.

In addition to past research on efficacy, I found an aspect of efficacy not yet defined in the literature. For those participants who developed a positive collaborative experience within their region as well as in their cohort, they experienced what I termed a sense of “*Collaborative Efficacy*”. I defined this as planning together in a group in which all participants believe they can be effective in achieving shared goals (teaching other teachers) to a greater extent than they could individually. It entails the process of holding each other accountable, promoting each other’s assets and strengthening weaknesses. Teacher 13 (99-01 survey) put it this way,

I found that concentrating on my teammates strengths and learning from them was a great help. I also kept the mind set that my job was to serve and meet the needs of teachers and schools. Therefore, I did what needed to be done to support and help my team and I feel they did the same.
As in the medical field where the combined effects of medications may be greater than an individual drug, the combined effects of the components of the STARR program were greater than the individual parts. Many, but not all, regional groups shared this sense of collaborative efficacy.

Many teachers were concerned about returning to their school settings that were entrenched in negative climates. Research suggested that building teachers’ capacity for efficacy may help them influence an organization’s culture. Bogler & Somech (2004) addressed this as organizational citizenship behavior (OCB) where teachers are willing to take on extra roles and responsibilities within school organizations. Teachers with an enhanced sense of OCB could have a significant impact on the success of an organization. STARR teachers were ready to return to their districts and make a difference in whatever capacity they could. They returned to their positions with a new sense of purpose. They had been empowered through engagement in the different aspects of a STARR teacher’s responsibility and they were now ready for new challenges. Many former STARR teachers had positions created for them that made use of the new capabilities participation in the program provided. The roles they returned to fill may have remained the same or changed; however, the teachers in this study all added additional tasks to their professional responsibilities.

*Teachers’ Perceptions of the Lasting Effect of Participation in STARR*

Professional development training seeks to empower participants with new knowledge, skills, and attitudes (Guskey, 2000). For these teachers, the content, context, and process of the STARR program provided enhanced knowledge and skills, and changed attitudes that continued beyond the time of participation.
Concerning knowledge building and skill development, the findings of this study were similar to Newmann and Associates (1996) study that addressed pedagogy for improving teaching practice. Their researched practices were later supported by a more in-depth construct, Productive Pedagogy (PP) (Gore, Griffiths, & Ladwig, 2004) (see Appendix G) which was developed and researched by the Queensland School Reform Longitudinal Study (State of Queensland, 2001). The research for PP was built on Newmann’s work. Like the STARR program, those implementing PP had success using the content to support reform curriculum. Additionally, STARR teachers reported that knowing more about how the brain learns helped connect the research about the learned instructional strategies to their practice. Being able to connect the research to practice impacted these teachers in their work in the years following their STARR program experience. The content knowledge and skills helped these teachers build a new knowledge foundation and an appreciation for the relevancy of educational research.

Similar to Wenzlaff and Wieseman (2004) finding that cohort-based graduate programs and collaborative environments promoted meaningful learning and a sense of empowerment, the STARR program used the cohort and collaborative group experience within a professional development context to develop teacher leaders. Teachers felt they now knew the “big picture” of education. According to Gilles (2004) programs that encouraged teachers to broaden themselves may result in a renewed vitality and understanding in those teachers. Understanding the ‘big picture’ enabled them to be more effective leaders. They understood education from a larger perspective because they experienced it in many facets. Time in others’ classrooms, and in district and university activities helped them view education through a larger lens. They saw beyond their part
in the process. Furthermore, the learning had a long lasting impact on classroom practice and subsequent professional opportunities for these teachers. This study supported Wenzlaff and Wieseman’s assertion that “teachers need teachers to grow” (p. 113). STARR teachers’ attitudes and beliefs were impacted because of the professional development experience. The long-term impact addressed the call for finding professional development that is valued and valuable (Scribner, 1999a) and maintains an impacting effect over time (Lieberman & Wood, 2003).

*The Interdependent Effects of Content, Context, and Process*

Group learning in cohorts was found to be effective in developing a sense of belonging, confidence, and motivation (Twale & Kochan, 2000). They concluded that what was studied and how learning occurred within cohorts needed further investigation. The STARR program was designed to address the need for relevant content within an empowering context and by supporting a collaborative process. According to Scribner & Donalson (2001), finding the balance between group dynamics including group climate, norms, roles, contextual factors, and productivity, was key to successful cohorts in educational leadership groups. They found transformative learning (learning that changes people’s meaning perspective) occurred surrounding team members’ self-perceptions as leaders. STARR cohort members’ experiences enabled them to gain knowledge and understanding even when the experience was wrought with tension. Like Scribner’s study, this study’s participants developed leadership skills. This study also explored the long-term influences of the cohort experiences’ impact on learning.

Because of the interdependent nature of the STARR program’s content, context, and process, teachers perceived themselves as achieving a new level of professionalism.
Former STARR teachers experienced many opportunities and accomplished many professional successes following their participation in the professional development program. These teachers attributed the accomplishments to being a part of the STARR program.

According to Dewey (1933) “if a teacher does not have an attitude to work at becoming an effective teacher, content knowledge and pedagogical expertise are not enough” p. (17). Dewey believed teachers needed three characteristics to connect knowledge and skill: open-mindedness, wholeheartedness, and responsibility. The STARR program positively impacted these teachers’ attitudes.

Bogler and Somech (2004) found, “Among the six subscales of empowerment, professional growth, status and self-efficacy were significant predictors of organizational and professional commitment (PC), while decision making, self-efficacy and status were significant predictors of OCB” (p.277). The researchers concluded, “Teachers who view themselves as professionals or perceive opportunities to grow professionally may contribute more… as their commitment to the organization and to the profession increases” (p. 286). STARR teachers desired to make a positive difference in the field of education. This program addressed issues of needed school renewal as espoused by Goodlad (1984) and Goodlad, Soder and Sirotnik (1990).

Conclusions

*What Can Be Learned From This Case of Professional Development?*

The overarching purpose for this research was to investigate the impact of participation on the participants of the professional development program titled STARR. I learned that these teachers were empowered through participation in the professional
development and that the impact continued beyond the experience. Additionally, I learned that the interdependent effect of content, context and process of this professional development experience for these teachers helped them to perceive that they had achieved a new level of professionalism. These teachers were inspired to seek ways to make additional contributions to their educational profession. These findings led to the development of a model of effective professional development.

*What Is The Significance Of This Study In Relation To The Research?*

The enactment of No Child Left Behind (2001) carries an expectation that quality teachers will be in every classroom across the nation. A former STARR teacher addressed the impact of STARR this way,

> The STARR program was undoubtedly the best professional development and helped me to grow professionally of any program I think I can imagine being involved in. I think it’s a prototype that all states should go to as far as professional development because it reaches so many people within the state and within the regions and helps those smaller school districts where those teachers do not possibly stand a chance of getting outside help within their district because there just is not the kind of funding for them to get the kind of professional development they need to get. With the STARR program they can have ongoing professional development throughout the year. They can choose the topic of need and then the STARRs are trained in the most current issues in education. (Teacher 2, 98-00, Interview)

The new level of professionalism these teachers perceived they achieved was attained through the program’s content, context and process. The long-term effect may contribute to developing quality teachers throughout our nation.

Teachers teaching teachers, a notion supported by researchers, (Gilles & Wilson, 2004; Lieberman & McLaughlin, 1992; Olson & Besch, 1982) combined with the process of collaboration (Arbaugh, 2003; Butler, et al., 2004; Little, 2002; York-Barr & Duke, 2004) used to learn content (Gore, Griffiths & Ladwig, 2004; Newmann & Associates,
1996) to teach peers, supported the call for understanding valuable and valued professional development for teachers (Scribner, 1999a). This case study offered a model of how to look at the interdependent constructs of content, context, and process in developing and researching effective professional development. It also addressed the importance of taking a longitudinal view of the impact of professional development on participants.

Implications

The need for quality teachers throughout the nation is a current theme among policy makers and researchers. To achieve this desired state, teachers need to be aware of the importance of their professional role in education. This study provides implications for professional development and teacher education

*Implications for Professional Development*

Professional development projects I reported on earlier in this study (i.e., NWP, Reading Recovery, Project Central) found empowering teachers was a positive way to encourage change. Like teachers in the aforementioned programs, all former STARR teachers’ perceived participation in the program enhanced both self and collective efficacy. Additionally, in this study, I found those participants who developed a positive collaborative experience within their region as well as in their cohort experienced what I termed a sense of **Collaborative Efficacy.** The implication of this finding supports collaboration as effective and additionally supports the added component of planning together to teach peers should be considered an integral part of professional development designs. For the teachers in this study, the process of collaboration was not the only effective component of the program, the content and context were also important. The
overlapping nature of the content, context and process of the STARR experience influenced the perceptions of program participants. The content helped them connect research to practice. This occurred through the process of using classrooms as labs to implement the content. The context of teachers teaching teachers solidified knowledge of content. The process of learning in cohorts and through collaboration impacted personal and professional growth. Increased self, collective, and collaborative efficacy impacted perceptions of increased opportunities. Increased opportunities led to commitments to advanced positions and educational roles. Therefore, it could be suggested that tending to the interdependent nature of content, context and process is important for developing effective professional development. Looking at each component in an interdependent way offered a way to explore how teachers improved their teaching and supported one another as they worked to transform their practice (Borko, 2004).

*Implications for Teacher Education*

Learning to teach the relevant topics to other teachers was an important aspect of the STARR program. I found teachers most valued the content information about how the brain learns. Teachers reported that this knowledge helped them connect research to practice and influenced how they taught. Therefore keeping abreast of this burgeoning field of brain research has important implications for teacher education.

Other professions have already looked to brain research to influence decisions about their organizations. Recently, Weisman (2006), a science writer for Globe Newspaper Company, reported in the publication *Brain in the News* that a business firm seeking to make changes in their organization was advised to use brain research to guide their strategic plan.
Research from Duke University found that the brain has a natural propensity to resist change and that it pushes back when told what to do (Weisman, 2006). This is attributed to the brain’s desire for homeostasis, the movement toward equilibrium and away from change. However, when brains were allowed to problem solve on their own rather than being told how to do something, especially by authority, they released an adrenaline-like rush of neurotransmitters.

Managers were advised to use this knowledge when launching new initiatives. One exercise they devised was having employees make vision statements that enabled them to create a mental map of objectives leading them to find solutions to problems. After engaging in the process of making a mental map of the vision statement, brain-scanning technology was used to view some employees’ brains. If the visual cortex lit up, meaning people held a picture of the map in their mind, they were more likely to be on board with the change then those whose visual cortex did not light up when they were reading the vision statement.

This is just one of many examples in many fields using brain research to influence decisions being made about business, medical, legal, and marketing techniques. Knowing information about how the brain learns may or may not have a positive impact. As well as having ethical implications, the need to bring educators in on the research and its implications should now be a part of teacher education.

Traditionally, teacher education has had a foundation of being based on learning theory. While knowing the theory is essential for educators, looking at brain research and how the brain learns may be a foundation to base explanations of other learning theories.
Teacher preparation programs may take another approach to how they prepare future teachers.

S. L. Huntze, a teacher educator, (personal, recorded communication, November 4, 2002) shared her view of the implications of brain research on teacher preparation:

My belief is in, I hope the near future... I would consider the brain research to be the organizer for everything else. I would use it as an organizer to go in and create the set about what happens physiologically when learning occurs, how it is we know that, or beginning to know that, and use it as an organizer for the other theories. It’s not that we don’t have something to learn from behavioral theory, or social cognitive or cognitive information processing, or constructivism. It’s that the language of all of those theories was created and worked with at a time when we couldn’t look inside the head. We didn’t know what was really happening. So I would see the brain research as being the organizer for our students to think about what’s happening with their kids when they learn... But I think being able to put those things in the perspective of what we can in fact see in terms of the physiology of the brain will make a huge difference. So the word revolutionizes is a little over used, but I think really, truly ten years out the brain research will revolutionize how we approach teacher preparation. At least that piece that has to do with well, how kids learn. We will speak with much more authority. I am a firm believer that at any age, but certainly at the age most of my students are, they have to have a framework for understanding everything because otherwise it’s a million bits of information. Even if they recall it, they have no idea when to retrieve the different bits. They’ve got to have a framework. They need to be able to put it all together. I have to say in all honesty, I have my own concerns about whether or not their beginning understanding of how kids learn, survive their teacher preparation program.

Developing a better understanding of teacher learning within the context of teacher education will be an important component of future work in teacher development.

Building on this study’s contribution concerning the importance of content like the brain research and connecting research theory to practice, the context of teachers teaching teachers creating an empowering environment, and the process of collaboration in developing self, collective, and collaborative efficacy beliefs will give researchers direction in future studies on what makes quality teaching.
Directions for Future Research

The goal of this study was to describe and analyze the perceptions of teachers who participated in the professional development program STARR (Select Teachers as Regional Resources). The focus of the study was the impact of participation on these teachers both in the short and long term. This goal has been achieved. These teachers were positively impacted by their participation in the experience. Many future research questions could be addressed in extending this study. For example, one would be what was the effect of this professional development approach on student learning?

As a past participant in the professional development experience, I recommend a more structured component to gathering pre and post data during the first year of the program while teachers are using their classrooms as labs. I also believe correlation studies could be conducted comparing student achievement scores in districts where extensive professional development was delivered by STARR teachers and student scores where there was none. After many years of data collection, the state department should have baseline data available to use as a point of comparison.

A second question to research would be regarding the retention rate for educators who participated in the STARR program as compared to the regular teacher population. Did teachers who might otherwise leave the profession at a typical attrition rate choose to remain due to the perception that they were a valuable asset to the profession? While my study was a beginning look at how teachers perceived they achieved a new level of professionalism, further investigation into how to improve professionalism and what constitutes a new level of professionalism is still needed. Many teachers in this study developed a sense of collaborative efficacy as well as enhanced self and collective
efficacy. This notion may provide further insight into the benefits of learning in collaborative groups. Short and Greer (2002) suggested empowered teachers promote professionalism. What does this new professionalism look like and how is this brought about? A study further investigating what caused some groups to gel and attain the notion of collaborative efficacy is needed.

In order for this new professionalism to occur, I believe it is essential to first organize the education profession around a unified goal of understanding learning through basic research. Once we understand most of the laws and principles that underlie effective actions of teaching practice, teacher development programs can be established reflecting the knowledge. The premise, as in other effective professions, will be stated up front. Education practice will be based on research evidence and subjected to change when new research supports a change. Standards based on collaborations from research findings first and then from craft knowledge of practice will be established. In order to establish norms of practice, professional groups, government agencies, and consumer groups must be included.

*A Possible Future Organizational System for Teacher Preparation*

Smylie (1995) stated, “We will fail, as we have failed so many times before, to improve schooling for children until we acknowledge the importance of schools not only as places for teachers to work but also as places for teachers to learn” (p.92). So much is riding on our society’s ability to recognize the importance of teaching and teacher education. Recently, with the dawn of modern technology, Mind, Brain, Education (MBE), based on science and craft knowledge, has been introduced. It is a pioneering field connecting the wealth of perspectives from cognitive science, neuroscience, and
teaching practice. The contributions of cognitive science and neuroscience to understanding learning, teaching, and development of thought and emotion, as well as the roles of biology, knowledge, and culture, are goals of this interdisciplinary field (Fischer & Biddle, 1998; Fischer & Rose, 1998).

Given the premise that learning changes the brain, modern imaging techniques allow neuroscience to connect mind, emotion, and artistic creation with the interaction of our biological brain, bodily senses, and the physical world. This knowledge may be applicable to teaching practices. Understanding learning and the uniqueness of learners will inform teacher education both formally and practically (Zull, 2002). Another goal of this new field is to provide a tool in formulating strategies solving research problems in human development and learning and teaching in relation to educational practice. Developing a better understanding of teacher learning within the context of teacher education will be an important component of future work in teacher education. Looking at MBE research may lead to developing better programs for teacher learning.

The literature on teaching and teacher education is rich with research. However, the complexity of learning and social interaction has made the practical piece of teaching more and more challenging. Knowing students from multiple perspectives, as suggested in MBE theory, may assist practitioners in more effectively and rewardingly pursuing knowledge and performing their craft successfully. Beginning to introduce MBE theory and researching the impact it has on teacher education is a new endeavor for researchers. This integrated, fresh new approach benefits from the expertise of many fields (Fischer & Fusaro, 2006).
Transforming the teaching profession from its historical traditional role of the teacher as an imparter of knowledge to teacher as practitioner demands a complex interconnecting of disciplines. Practitioners would know curriculum and would also understand why and how to apply the appropriate pedagogy necessary to meet students’ needs. Focusing our research on this understanding requires analysis of how we learn. Just as the medical profession moved from treatment of patients based on general observational knowledge and alchemy to practicing medicine from the point of understanding how the human body works, medical practitioners improved patient care. Similarly, educators moving from generalized treatment of students towards understanding how individuals learn may improve the teaching practitioners’ success in understanding and teaching to the needs of all learners. This understanding may come as we closely analyze how the mind and brain interact in learning. What we know so far about this interaction is the brain’s main function is to allow survival. Our mind allows us to thrive. This natural propensity for survival and thriving has many implications for educational settings. Creating the environment in a classroom that promotes thriving, not just surviving, needs to be our purpose. Using successful models we have followed in the past combined with forward views of mind, brain, and education may promote a better education system. The context or community environment is the sociological piece of the research that may indicate what makes or breaks the learning potential of a setting.

Researching what makes an effective context or setting for learning, such as a non-threatening environment, as well as the content and process, will lead to intentionally establishing learning environments where optimal learning may occur. This ability to move from one level of understanding to another level of knowledge requires a teacher to
scaffold the process. A teacher must negotiate with the learners through modeling, conferencing, and hands-on practice (Fischer & Rose, 1998).

MBE theory may have something to offer teacher education. Further research is most definitely needed. The knowledge about cognition, brain research, and how this connection may impact teacher education offers new hope to teacher education. Now is the time for universities to come on board. Taking a cautionary stance and proceeding with a focus that attempts to integrate findings from brain science into educational practice requires an understanding of how behavior, cognitive science, and neuroscience interact. Once we understand these three areas, we will be better able to make critical appraisals of educational practices. Our understanding may allow for effective judgment of research programs used to inform teaching and learning (Bruer, 1999). Mind, Brain, and Education (MBE) research may indeed revolutionize the educational profession and transform it to a new system that recognizes, values, and strives to promote all educational stakeholders as successful, contributing citizens with solid morals, integrity, and character. We should expect nothing less from our schools.

Zeichner (1999) challenges colleagues saying:

There is no more important responsibility for a school, college, department, or faculty of education than to do the best job that it possibly can in preparing teachers to teach in schools of our nation and to support the learning of teachers throughout their careers. If we are not prepared to take this responsibility more seriously and do all that we can to have the best possible teacher education programs, then we should let someone else do the job. Taking more seriously the new scholarship in teacher education and using it to help us make our programs better is one important part of this responsibility. (p.13)

STARR teachers took seriously their role as teacher educators.
APPENDIX A: Missouri Regional Professional Development Centers (RPDC) Map

APPENDIX B: Request for Interview

Dear ________,

My name is Debra Weingarth and I received your name from __________. I was a STARR teacher (97-99). I am currently working on my Ph.D. in teacher education. I am doing my dissertation on the perceptions of STARR teachers from their STARR experience. I am asking former STARR teachers 12 interview questions. Would you consider being a part of my study? If you are interested, I will email you the specifics and arrange to come and interview you. I look forward to hearing from you.

Best Regards,

Debra Weingarth
djw4gb@mizzou.edu
573-486-3091
### APPENDIX C: Teaching Assignments and Educational Positions of STARR Teachers

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Teaching Experience Prior to STARR</th>
<th>Level of Ed Prior to STARR</th>
<th>Current Education</th>
<th>Changes in Position Prior to and After STARR</th>
<th>Current Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>94-96</td>
<td>13</td>
<td>Masters</td>
<td>Working on Ph.D.</td>
<td>3/5</td>
<td>Assistant Superintendent</td>
</tr>
<tr>
<td>94-96</td>
<td>23</td>
<td>Masters</td>
<td>Masters</td>
<td>2/3</td>
<td>University Instructor</td>
</tr>
<tr>
<td>95-97</td>
<td>24</td>
<td>Masters</td>
<td>Masters Plus</td>
<td>4/2</td>
<td>NWP/College Instructor</td>
</tr>
<tr>
<td>95-97</td>
<td>15</td>
<td>Masters</td>
<td>Working on Ph.D.</td>
<td>4/3</td>
<td>Staff Development Coordinator</td>
</tr>
<tr>
<td>96-98</td>
<td>14</td>
<td>Masters</td>
<td>48 Hrs. toward Ph.D.</td>
<td>3/0</td>
<td>MS Teacher Curric. Coord./ College Instructor</td>
</tr>
<tr>
<td>96-98</td>
<td>14</td>
<td>Masters</td>
<td>Working on Dissertation</td>
<td>0/2</td>
<td>Assistant Superintendent</td>
</tr>
<tr>
<td>96-98</td>
<td>21</td>
<td>Masters</td>
<td>Masters Plus</td>
<td>5/3</td>
<td>Works for RPDC</td>
</tr>
<tr>
<td>97-99</td>
<td>9</td>
<td>Masters</td>
<td>Masters</td>
<td>3/2</td>
<td>National Consultant</td>
</tr>
<tr>
<td>97-99</td>
<td>7</td>
<td>Masters (During)</td>
<td>Working on Specialist</td>
<td>1/3</td>
<td>MS Principal</td>
</tr>
<tr>
<td>97-99</td>
<td>22</td>
<td>Masters Plus</td>
<td>Admin. Certification</td>
<td>5/1</td>
<td>Assistant RPDC Director</td>
</tr>
<tr>
<td>98-00</td>
<td>10</td>
<td>Specialist</td>
<td>Writing Ph.D. Dissertation</td>
<td>1/2</td>
<td>National Consultant</td>
</tr>
<tr>
<td>98-00</td>
<td>17</td>
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<td>Masters</td>
<td>2/2</td>
<td>District Math Coordinator</td>
</tr>
<tr>
<td>99-01</td>
<td>8</td>
<td>Masters</td>
<td>Working on Specialist</td>
<td>0/2</td>
<td>Gifted Coord. Prof. Dev.</td>
</tr>
<tr>
<td>99-01</td>
<td>7</td>
<td>Masters (During)</td>
<td>National Board Certified</td>
<td>0/2</td>
<td>4th Grade/ National Consultant</td>
</tr>
<tr>
<td>00-02</td>
<td>12</td>
<td>Masters Plus</td>
<td>Masters Plus</td>
<td>1/2</td>
<td>Ed Foundation Coord.</td>
</tr>
<tr>
<td>00-02</td>
<td>18</td>
<td>Masters Plus</td>
<td>Working on Specialist</td>
<td>8/2</td>
<td>Mentor/ Math Prof. Dev.</td>
</tr>
<tr>
<td>01-03</td>
<td>14</td>
<td>Masters</td>
<td>Masters</td>
<td>5/1</td>
<td>Looking for Adult Ed. Position</td>
</tr>
<tr>
<td>01-03</td>
<td>28</td>
<td>Masters</td>
<td>Masters</td>
<td>3/0</td>
<td>HS Science/ ½ Science Coord.</td>
</tr>
<tr>
<td>01-03</td>
<td>15</td>
<td>Masters</td>
<td>Masters</td>
<td>3/0</td>
<td>KDG./PDC</td>
</tr>
<tr>
<td>02-04</td>
<td>8</td>
<td>Masters</td>
<td>Masters</td>
<td>0/0</td>
<td>1st Grade/PD</td>
</tr>
<tr>
<td>02-04</td>
<td>21</td>
<td>Masters</td>
<td>Masters</td>
<td>4/0</td>
<td>HS English/ Consulting</td>
</tr>
</tbody>
</table>
APPENDIX D: Former STARR Consent Letter

This consent form is to grant permission for myself, ______________________, to participate in a research project. The purpose of this research is to describe and analyze the perceptions of teachers who participated in the professional development program, STARR. In order to better understand impact of participation, the focus of this study is the perceptions and experiences of STARR Teachers in relation to training, collaborative groups, their actual experience, how/if they taught differently, and the program’s effect on continued accomplishments after STARR. I would like permission to use your recorded interview responses and any other artifacts you feel compelled to share with me, in this study. Your participation is completely voluntary. You may drop out of the study if you change your mind about participating. Your identity will be kept completely confidential. The University of Missouri-Columbia under the supervision of Richard D. Robinson, Ph. D., sponsors the project. The University of Missouri Institutional Review Board has approved the project. If you have any questions about this study, you may contact me at (573) 486-3091, or for any questions about human subject research you may contact the campus Institutional Review Board at (573) 882-9585.

Your voluntary participation is appreciated.

Respectfully,

Debra Weingarth

(Please return the signed consent to Debra Weingarth at the time of your interview.)

I give my permission to be included in the STARR Teacher study.

__________________________________________  ______________________
(Teacher’s Signature)                        Date
APPENDIX E: MO DESE STARR End of Year Evaluation Survey

IN ANSWERING THE FOLLOWING QUESTIONS, PLEASE CONTINUE ON THE BACK OF THE PAGE WHERE NEEDED.

1. Did you receive adequate training? What more should have been offered? Was the sequence appropriate? Overall what did you need to better prepare you to accomplish your job as a STARR teacher?

2. List any additional speakers from which you feel future STARR teachers could benefit. Please indicate the topics, their names, and what impressed you about them.

3. Should the program be more structured? If so, what are your suggestions?
   Overall, how could the program be organized to function more effectively?
4. Do you feel your group formed an effective team? What made your group so effective or why was your team not as effective as it could have been? (If it is felt your team was ineffective, please briefly describe what you perceived caused the problem.

5. List and or describe any unexpected, nerve-racking, uneasy, etc. experiences encountered during the year.

6. List and or discuss any major success(es) you had during the year.
7. After presenting to a large group, did you return to work with smaller groups and/or individuals? If so, were you able to see change? Describe what you observed?

8. Is there a way to determine if teachers teach differently and students receive better instruction as a result of the work that is done by STARR teachers? Discuss your ideas.

9. Upon returning to the classroom this coming year, will you teach differently? Explain.
10. So that success can be realized as soon as possible, what suggestions do you have for the new (selected this May) group of teachers early in their training?

11. Do you feel the shadowing experience was helpful to the group of STARRS who will be presenting this year?

12. Do you feel the “changing of the guard” experience was helpful to the group of STARRS who will be presenting this year? How could this experience be improved?
13. What “tips for success” (or mistakes to avoid) do you have for the group of
   STARR teachers getting ready to present?

14. In reflection, make a list of what you think the program has accomplished and/or
    is accomplishing: Be all inclusive- teachers to whom you’ve presented, peers,
    yourself, others.

15. In reflecting upon the entire STARR process, how could the program be
    improved?
16. Briefly describe your experience for the two years. Begin with when you first knew you were accepted to the present. (Include what has been most enjoyable about being a part of the program and any negative or stressful aspects.)

17. Will you be returning to your district this coming year? Yes ____ No _____. If yes, will you be returning to the same position? Yes ____ No ____. If no, what will your new position be? __________________________________________

If not returning to your district, what new position have you accepted and with what district/company/organization? ___________________________________

THANK YOU FOR BEING A STARR!
APPENDIX F: Semi-Structured Interview Questions for Selected Participants

1. When did you serve as a STARR Teacher?

2. Tell me about your teaching history prior to your participation in STARR?

3. Tell me about what you did after your STARR participation, up to and including now?

4. What degree did you hold prior to STARR?

5. Have you worked on course work or an advanced degree since STARR?
   ___ yes ___ no   If yes, please explain.

6. Thinking of your time as a STARR Teacher, please tell me what you recall about your training relating to how you were prepared, presentation topics and presenters, and the organization of the program.

7. Thinking of your time as a STARR Teacher, please tell me what you recall about the group collaboration of the team you worked with. Were you effective or not? Please explain.

8. Thinking of your time as a STARR Teacher, please tell me your most memorable part about the experience.

9. Thinking of your time as a STARR Teacher, please tell me what you recall about how/if you taught differently after completing the program.

10. Thinking of your time as a STARR Teacher, please tell me what you recall were your greatest accomplishments during and after the program.

11. Do you think being a STARR Teacher affected your career after the program?
   ____ yes ____ no. Please explain.

12. Please tell me anything else you would like to tell me that I didn’t ask?
APPENDIX G: Categories of Productive Pedagogy

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher-order thinking*</td>
<td>Are higher-order thinking and critical analysis occurring?</td>
</tr>
<tr>
<td>Deep knowledge*</td>
<td>Does the lesson cover operational fields in any depth, detail or level of specificity?</td>
</tr>
<tr>
<td>Deep understanding*</td>
<td>Do the work and response of the students provide evidence of depth of understanding of concepts or ideas?</td>
</tr>
<tr>
<td>Substantive conversation*</td>
<td>Does classroom talk break out of the initiation/response/evaluation pattern and lead to sustained dialogue between students, and between teachers and students?</td>
</tr>
<tr>
<td>Knowledge problematic*</td>
<td>Are students critiquing and second-guessing texts, ideas and knowledge?</td>
</tr>
<tr>
<td>Metalanguage*</td>
<td>Are aspects of language, grammar, technical vocabulary being foregrounded?</td>
</tr>
<tr>
<td>Knowledge integration*</td>
<td>Does the lesson range across diverse fields, disciplines and paradigms?</td>
</tr>
<tr>
<td>Background knowledge</td>
<td>Is there an attempt to connect with students’ background knowledge?</td>
</tr>
<tr>
<td>Connectedness to the world</td>
<td>Do the lesson and the assigned work have any resemblance or connection to real-life contexts?</td>
</tr>
<tr>
<td>Problem-based curriculum</td>
<td>Is there a focus on identifying and solving intellectual and/or real-world problems?</td>
</tr>
<tr>
<td>Student control</td>
<td>Do students have any say in the pace, direction or outcomes of the lesson?</td>
</tr>
<tr>
<td>Social support</td>
<td>Is the classroom a socially supportive, positive environment?</td>
</tr>
<tr>
<td>Engagement</td>
<td>Are students engaged and on-task?</td>
</tr>
<tr>
<td>Explicit criteria</td>
<td>Are criteria for student performance made explicit?</td>
</tr>
<tr>
<td>Self-regulation</td>
<td>Is the direction of student behaviour implicit and self-regulatory or explicit?</td>
</tr>
<tr>
<td>Cultural knowledges</td>
<td>Are diverse cultural knowledges brought into play?</td>
</tr>
<tr>
<td>Inclusivity</td>
<td>Are deliberate attempts made to increase the participation of all students of different backgrounds?</td>
</tr>
<tr>
<td>Narrative</td>
<td>Is the teaching principally narrative, or is it expository?</td>
</tr>
<tr>
<td>Group identity</td>
<td>Does the teaching build a sense of community and identity?</td>
</tr>
<tr>
<td>Citizenship</td>
<td>Are attempts made to foster active citizenship?</td>
</tr>
</tbody>
</table>

Source: (Gore, Griffiths, & Ladwig, 2004, p. 378).
*A 'proxy' item extending Newmann’s concept of "authentic pedagogy".
REFERENCES


VITA

Debra Jean Weingarth was born May 5, 1953 in Blue Island, Illinois. She was the youngest of three children born to John and Thelma Bannon. As a family member, she traveled throughout the lower 48 continental United States, as well as Canada and Mexico learning about many people, places and things. She graduated from Illinois State University in 1975 with a Bachelor of Science Degree in Elementary Education. In 1992, she received her Master of Science Degree in Elementary Education from Maryville University in St Louis, MO. She received her Ph.D. Degree in Elementary Curriculum and Instruction with an emphasis on Professional Development from the University of Missouri-Columbia in 2006.

As a teacher her experience spanned the grade levels of preschool through sixth grade as well as undergraduate pre service teachers and adult practitioners. She has taught in private, parochial, and public school education in urban and suburban settings. Debra served as a STARR Teacher from 1997-1999. The experience compelled her to pursue the doctoral degree. She is a charter member of the International Mind, Brain and Education Society and is ready to explore new horizons.