Peer coaching in early childhood

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Abstract
Researchers have reached a consensus that early childhood educators should have sufficient knowledge and skills in child development and early childhood education issues. This is because the quality and success of programs designed for early childhood education lie in the qualifications of the teacher in charge of such programs. These requirements are especially true for vulnerable and disadvantaged children. Therefore, it is incumbent upon the early childhood educators to provide the children and their families with rich and meaningful educational experiences because they are often held accountable for the outcome of the children. This literature review demonstrates that one way in which early childhood educators can achieve this is through peer coaching. Peer coaching provides early childhood educators with excellent opportunities for experimentation, exchange of professional ideas, shared problem-solving, observation, and reflection. Although research has neglected peer coaching in early childhood, the small number of available studies demonstrated that peer coaching can effectively enhance professional growth for teachers in early child education. This observation is strengthened when the studies investigating the effect of peer coaching in K-12 are considered. Studies have adopted both qualitative and quantitative designs in their approaches. The samples have often involved student teachers on practicum, practicing teachers in early childhood education, as well as K-12 teachers, and some have used early childhood experts as coaches. Instruments that have been used for data collection have been reliable, as demonstrated by their measure of internal consistency. Findings from these studies call for changes in the way practicum is approached, and also in the way professional development for teachers in early childhood should be done. Further, the studies strongly reject the use of evaluation or judgment in peer coaching because this compromises collaboration, which is at the heart of peer coaching. Future research should specifically focus on the effect of peer coaching on the achievement of the child in early childhood education.
Peer Coaching in Early Childhood

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By
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has been approved as meeting the research requirement for the
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Abstract

Researchers have reached a consensus that early childhood educators should have sufficient knowledge and skills in child development and early childhood education issues. This is because the quality and success of programs designed for early childhood education lie in the qualifications of the teacher in charge of such programs. These requirements are especially true for vulnerable and disadvantaged children. Therefore, it is incumbent upon the early childhood educators to provide the children and their families with rich and meaningful educational experiences because they are often held accountable for the outcome of the children. This literature review demonstrates that one way in which early childhood educators can achieve this is through peer coaching. Peer coaching provides early childhood educators with excellent opportunities for experimentation, exchange of professional ideas, shared problem-solving, observation, and reflection. Although research has neglected peer coaching in early childhood, the small number of available studies demonstrated that peer coaching can effectively enhance professional growth for teachers in early child education. This observation is strengthened when the studies investigating the effect of peer coaching in K-12 are considered. Studies have adopted both qualitative and quantitative designs in their approaches. The samples have often involved student teachers on practicum, practicing teachers in early childhood education, as well as K-12 teachers, and some have used early childhood experts as coaches. Instruments that have been used for data collection have been reliable, as demonstrated by their measure of internal consistency. Findings from these studies call for changes in the way practicum is approached, and also in the way professional development for teachers in early childhood should be done. Further, the
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Chapter 1

Introduction

Description of Topic

This review is designed to explore the importance of peer coaching in schools and the effects of peer coaching on children’s learning. Following a review of salient research, the final chapter of this paper will present recommendations for teachers, administrators, and future researchers to provide adequate professional development for educators in their quest to become better teachers, as well as conduct more research in the area of peer coaching at the preK-12 level.

Peer coaching as defined by Donegan, Ostrosky, and Fowler (2000) is a confidential process through which two or more professionals work together to reflect on what they are currently doing, refine current skills and build new ones, share new ideas with one another, or solve problems in the classroom. “Although coaching has been long used in athletic training programs and leadership programs, its application to early childhood teaching is relatively new” (Neuman & Cunningham, 2009, p. 533).

Ideally coaching teams are developed during the training process. “If we had our way, all school faculties would be divided into coaching teams who regularly observe one another’s teaching and provide helpful information, feedback, and so forth” (Joyce & Showers, 1982, p. 6). Brownell, Yeager, Rennells, and Riley (1997) suggested that collaboration between school professionals can be developed and sustained, and that it benefits both students and teachers. Leggett and Hoyle (1987) found peer coaching to be an effective strategy in improving teachers’ instructional skills.
Recent research supports the oft-repeated phrase from parents that “it all comes down to the teacher,” when describing the quality of their children’s school experience (Neuman & Cunningham, 2009, p. 556). This statement is true, but to make a great teacher takes a great school with great professional development opportunities.

According to Neuman and Cunningham (2009), Early Reading First, established as a component of the No Child Left Behind legislation, raised the bar for teacher quality by calling for intensive professional development to equip teachers with the content knowledge and skills necessary for effective instructional practices in early education. No Child Left Behind and many other initiatives call for states to improve the quality of their early childhood care and education workforce. However, policy makers and researchers still have limited knowledge about effective professional development programs and their potential impact on instructional practices (Neuman & Cunningham, 2009).

Rationale

“A child’s achievement is likely to be affected by his or her instructional history—the cumulative effects of instruction in previous grades” (Neuman & Cunningham, 2009, p. 535). Research done by Neuman and Cunningham found children assigned to three effective teachers in a row scored at the 83rd percentile in math, whereas children assigned to three ineffective teachers in a row scored at the 29th percentile. If this is true, then we need to hold our teachers accountable for the student learning. We also need to provide those teachers who are not performing well with coaches and support to help them achieve their goals and improve their teaching.
"Coaches make sure you are always teaching to the best of your ability and make sure you are always asking, are the children learning what they need to learn?" (Skiffington, Washburn, & Elliott, 2011, p. 13). I believe this question sums up the reason why I chose to select peer coaching as the topic for this review and the importance of children learning what is expected based on the standards and benchmarks of the particular district.

The enhancement of teachers’ professional development and expertise has become a predominant area for educational reform (Kohler, Crilley, & Good, 1997). In contrast to the traditional methods of staff development that relied on one-shot inservice training, educators are noting schools must be organized to promote teachers’ continual learning and expertise. Providing teachers with effective ways to improve their teaching is extremely important. The challenge for researchers and school leaders is to provide professional development that promotes general educators’ use of research-based practices that can be sustained and delivered with fidelity (Kretlow, Wood, & Cooke, 2011). Peer coaching is a research based method where teachers work together to improve their teaching in their natural environments. “You watch me teach, I’ll watch you teach, and together, we’ll learn about teaching” (Kohler, Ezell, & Paluselli, 1999, p. 154).

**Purpose of Review Results**

The purpose of this literature review is to examine research to determine the effects of peer coaching on early childhood student learning. Throughout this paper you will find a variety of examples that support peer coaching in the early childhood classroom. By belonging to a collaborative community, teachers share burdens and pressures and, because they know each other well, teachers are more likely to assist their colleagues when appropriate (Brownell et al.,
Through collaboration teachers will be better able to meet the needs of their students and therefore have a positive effect on student learning.

In addition, this review will help readers understand how effective peer coaching can be in the classroom and how important coaching is, whether you are new to teaching or have been teaching for many years. In a study by Kohler et al. (1997), results showed that 70% of teachers who participated in coaching thought that their newly developed techniques produced marked improvements in students' academic skills and competencies.

**Importance of Review**

It is important not only to determine how to best implement peer coaching, but also how best to have a positive effect on student learning at the same time. The purpose of this review is to help educators see the value of peer coaching and how it can result in higher student achievement over time. As you will see, there has not been a lot of research in the United States in the area of peer coaching conducted at the early childhood level. My goal is to provide concrete evidence to support peer coaching in the early childhood classroom, as well as to identify where further research can be conducted.

Teachers who participate in peer coaching learn how to use the valuable skills of teaching and collaboration or working together for a similar outcome. When collaboration between teachers occurs, certain fundamental characteristics can be observed. These characteristics include a shared vision for student learning, common commitment and collaboration, communities of care, frequent, extended, positive interactions between school faculty and leaders, and administrative leadership and power sharing (Brownell et al., 1997).
It is important for school administrators to understand the importance of our ever-changing children in our classrooms. They need to put effective professional development in place for appropriate results. Of course, it needs to be tested to be sure it is working, but so many times as teachers we sit through long hours of professional development that holds no meaning to our teaching and we leave with no useful information. Leggett and Hoyle (1987) found peer coaching to be an effective strategy in improving teachers' instructional skills. Peer coaching cannot replace professional development, but it can improve the teacher performance in the classroom.

In Japan, groups of teachers come together to discuss lessons that they have first jointly planned in great detail and then observed as the lessons unfolded in actual classrooms. This lesson study strategy has been proven to be extremely effective in Japan at an elementary school (Lewis, Perry, & Hurd, 2004). The lesson study and peer coaching are related in that a team of teachers work together to plan a lesson and then work together after being observed and reflect on what worked and what did not work. As successful as it is there, one would think in the United States we can make peer coaching as effective as the lesson study in Japan. Even though peer coaching is different from the lesson study, they do have similarities and if done correctly, they can both have positive results.

In early childhood education, Neuman and Cunningham (2009) found that early childhood caregivers attended more frequently and engaged in higher quality teaching practices when preschool specialists or coaches worked alongside them, demonstrating, modeling, and providing support to teachers. Peer coaching becomes more than just collaboration between teachers. It is a relationship that is built upon the fundamentals of teaching and two teachers
caring about those children so much that they want to make a difference in the lives of the children in their classrooms.

**Terminology**

For the purposes of this paper, I am defining the following terms:

*Coaching by experts* – Based on the premise that teachers who possess a certain level of expertise and who are specifically trained can provide assistance to other teachers through coaching. Sometimes veteran teachers serve as mentor teachers to coach novice teachers (Ackland, 1991).

*Coaching for new teachers* – Designed for new teachers to the district where they are invited to join an ongoing staff development program designed to provide follow-up peer coaching as soon as each instructional skill is introduced (Leggett & Hoyle, 1987).

*Direct Instruction (DI)* - Highly effective instructional practice on the premise that all students can learn and all teachers successfully teach if given effective training in specific techniques (Kretlow et al., 2011).

*Early Reading First* - This is a program administered through the U.S. Department of Education to provide financial support to school districts and other eligible public or private organizations to better serve children from low-income families. Through the Early Reading First program, the Department of Education offered competitive 6-year grants to local education agencies to provide support for early language, literacy, and pre-reading development for preschool-age children, with a particular focus on students from low-income families (Neuman & Cunningham, 2009).

*Guided practice in a group* - Provides teachers with an opportunity to practice
note taking and giving technical feedback in a classroom setting before actually working
with a coaching partner (Leggett & Hoyle, 1987).

Lesson Study - A professional development approach that originated in Japan
where teachers reflect on the experience of planning, teaching, observing, revising, and
reteaching a lesson after being observed by a team of teachers (Lewis et al., 2004).

On-site coaching - In a selected building teachers who had completed a 6-hour peer
coaching workshop were given the opportunity to participate in two days of
coaching practice (Leggett & Hoyle, 1987).

Peer Coaching - A confidential process through which two or more professionals work
together to reflect on what they are currently doing, refine current skills, build new ones, share
new ideas with one another, or solve problems in the classroom (Donegan, Ostrosky, & Fowler,
2000).

Reciprocal Teaching – Implies a reciprocal relationship. Most programs of this form
courage teachers to learn instructional techniques together, to watch each other try them out in
the classroom, and to give each other constructive feedback (Ackland, 1991).

Released time seminars - Teachers were released from their classrooms, through
the use of substitute teachers, to attend seminars conducted by master learning specialists
(Leggett & Hoyle, 1987).

Research Questions

Many early childhood teaching professionals believe that without professional
development, we cannot grow to become better better teachers. Using the peer coaching method,
teachers learn from each other. Of course there is some professional development first to explain
the process and establish guidelines, but the technique is simple. Teachers sit down together and talk about what is working and what isn’t working during a pre-conference. After the pre-conference, the teacher sets up a time for his or her coach to observe him or her teaching a targeted lesson. The teacher being observed stays in his or her natural environment and either videotapes him or herself, or the coach comes into the classroom and observes and provides immediate feedback during a post-observation meeting in order to better meet the needs of their students.

The goal of this review is to provide educators with research based information that will provide them with the foundation, resources, and confidence to begin using peer coaching in their schools to increase student learning. For this reason, I chose to focus my review on the following questions:

1. What kind(s) of early childhood peer coaching is most effective and best supports student learning?

2. What are the effects of peer coaching?

3. What are some ways peer coaching can be implemented in schools to better meet the diverse needs of the students.
Chapter 2

Methodology

The methodology I chose to use, select, and analyze the research is provided in this chapter. I will explicitly demonstrate how sources were organized and reviewed to provide concrete evidence to support my final conclusions. Finding current research and information on peer coaching at the early childhood level has proven to be difficult. Much of the research about peer coaching that has been conducted has been done at the higher grade levels of school. This fact has forced me to modify my methodology somewhat.

Method to Locate Sources

At the start of my search, I focused mostly on early childhood peer coaching. I quickly realized this was too narrow and broadened my search to include all peer coaching. Through further investigations, I concluded to look for what kinds of peer coaching were being used in early childhood to meet the needs of the children and the staff within the district. Although some of the research I found was generalized to all children, not just early childhood, I was able to gather high quality information that could be applied to teachers with young children in their classrooms. I also looked at the Lesson Study, completed in Japan, which is similar to peer coaching.

While searching through quality research and articles, I used a variety of tools and methods to locate information relevant to my topic. I found many journal articles using the ERIC search engine on the Rod library homepage through the University of Northern Iowa. I also located other sources through the use of Google Scholar, and the reference lists of many of the research articles I reviewed.
Finding quality pieces of research became easier after examining the reference lists of many of the articles I already had. Some of the articles I chose were essay based, but they did help me to provide some insight on peer coaching and student learning in the early childhood classroom.

Some of the key words I used when exploring information included: peer coaching, peer coaching in early childhood, effects of peer coaching, teachers supporting teachers, and reciprocal teaching. However, I found the most beneficial way to locate articles was from the reference lists of many of the articles I have print out through the assistance of the Interlibrary Loan Department and the Rod Library Distance Learners services.

**Method to Select Sources**

While selecting quality sources, I began focusing my search for primary and early childhood classrooms where teachers used peer coaching, I also looked at articles and research written about the importance of peer coaching. My goal in doing this was to reflect on what has been viewed as the most effective ways of using peer coaching in schools and the importance of peer coaching at any grade level, especially early childhood. The main articles I selected had been primarily from 1997-2011; however some dated back to 1982 and because of the importance of these articles to my knowledge and understanding of the field, I chose to include them.

**Procedure of Analyze Sources**

The procedure I used to analyze the sources was an annotated bibliography. As I read and reflected on the sources, I took notes and recorded quality quotes which helped to summarize the main ideas of each article.
With the assistance of reading other graduate papers and through the help of colleagues, I also completed a chart that compared and contrasted the main ideas and points of articles and the research. The components I recorded were the authors' names, research questions, participants, procedures, measures used, analyses, results, and finally the authors' conclusions. This method helped me to compare and contrast the articles and research in an organized and systematic way. Some overarching themes I chose were peer coaching, teachers supporting teachers, and student learning outcomes. I used these themes to organize my research and arrange my paper to later draw my conclusions on how peer coaching is affecting children's learning.

Criteria to Include Literature

While gathering current research and articles, I was looking for information about peer coaching that could be applied in an early childhood classroom. I wanted to include information about early childhood and peer coaching.

The research I found to be most useful has been action research done with peer coaching in early childhood classrooms, focusing mostly on preschool through grade 3. This type of research gave clear examples and real situations where teachers were asking questions to each other and guided in finding their own answers. The research I found also mainly focused on helping teachers reach their full potential. In addition, I included many articles that were not research based, but that proved to have valuable information that led to other sources of research. I primarily included articles no later than the past ten years; however, I did include a few that dated back no earlier than 1982.
Chapter 3

Literature Review

A kindergarten and preschool teacher's knowledge, skills, and practices are essential factors in the learning of a young child and the child's preparation for school (Sheridan, Edwards, Marvin, & Knoche, 2009). There is consensus in literature that the quality and success of programs designed for early childhood education lie in the qualifications of the teacher in charge of such programs, especially in language and literacy development, as well as child development (Neuman & Cunningham, 2009; Neuman & Wright, n. d.; Sheridan et al., 2009). The expectation holds true for the vulnerable and disadvantaged children (Neuman & Wright, n. d.). Such early educators are required to provide children and families in their care with rich and meaningful educational experiences because they are often held accountable for the outcome of the children. This expectation is in place despite the fact that resources are often limited in early childhood (Sheridan et al., 2009). Therefore, there is a need to address this issue. One way in which knowledge, skills, and practices of early educators can be improved is through peer coaching (Showers & Joyce, 1996; Zwart, Wubbels, Bergen, & Bolhuis, 2007).

Effects of Peer Coaching

The available literature on peer coaching strongly indicated that peer coaching can significantly enhance the professional development of the teachers (Showers, 1985; Showers & Joyce, 1996; Zwart et al., 2007). This is because reciprocal peer coaching presents excellent opportunities for experimentation, exchange of professional ideas, shared problem-solving, observation, and reflection (Zwart et al., 2007). Hanft, Rush, and Shelden (2004) defined coaching as the "voluntary, nonjudgmental, and collaborative partnership that occurs [between
early childhood educators or professionals] when one desires to learn new knowledge and skills from the other" (p. 1). The definition implies that coaching does not have an evaluative or judgmental aspect. Additionally, it shows that coaching occurs among professionals, in this case, early childhood education professionals, or educators. The primary aim of peer coaching in early childhood should be to improve application of strategies or interventions specific to the child with a view of improving the learning outcomes of the child (Sheridan et al., 2009). The purposes of peer coaching include building teacher communities that would practice and enrich their skills; developing shared language and common understandings that later result in improvement of curriculum implementation; and helping in acquiring new skills to help translate college training into practical teaching (Showers, 1985).

**Implementation of Peer Coaching**

Peer coaching makes it possible for the teachers to observe one another and exchange support, companionship, feedback, and assistance in a co-equal or nonthreatening fashion (Kohler et al., 1997, p. 240). The basic components constituting coaching in early childhood education include advancing evidence-based development of skills, and enhancing application of appropriate skills through teaching practices (Sheridan et al., 2009). These two components indicate that coaching should be based on research; educators involved in coaching should ensure that they rely on research to obtain evidence they should use in nurturing appropriate skills that would improve the child's learning outcome. Specific aspects of coaching in early childhood education include independent and/or shared observations, action as defined by demonstration and guided practice, self-reflection, provision of feedback, and evaluation of the coaching relationship (Hanft et al., 2004; Sheridan et al., 2009). It should be noted that the
evaluation in this sense is on the entire coaching process, not on the teaching practices of each teacher. Coaching does not involve evaluative or judgmental observations of the other teacher. There is every indication that coaching can be an efficient approach to improving teacher effectiveness (Neuman & Wright, n.d.; Showers, 1985; Showers & Joyce, 1996). However, empirical research on peer coaching, teacher qualifications, and improvement in early childhood is significantly limited (Neuman & Cunningham, 2009; Neuman & Wright, n.d.). Most researchers have focused on K-12 (e.g. Bowen & Roth, 2002; Roth & Tobin, 2001) and neglected the preschool and kindergarten teachers. Nevertheless, studies are being carried out examining teaching in early childhood. Some studies have used student teachers on practicum while others have used practicing teachers. In early childhood education, effective teachers should demonstrate that they understand child development, and that they possess the skills required to provide the young children with appropriate learning opportunities (Neuman & Cunningham, 2009).

Wong and Nicotera (2003) carried out a literature review on peer coaching. The authors reviewed publications mostly published in the 1990s and 2000s. In total, 15 publications were reviewed, 10 being published in the 1990s and five being published between 2000 and 2009. The publications included scholarly articles, reports, and a statute, the No Child Left Behind Act of 2001. The purpose of the review was to assess peer coaching types, identify peer coaching effective strategies, as well as discuss essential support structures that would make peer coaching a success. On the types of peer coaching, documents identified technical coaching, team coaching, challenge coaching, cognitive coaching, and collegial coaching. Technical and team coaching are concerned with the incorporation of new curriculum and instructional techniques
into daily routines of the teacher (Becker, 1996; Showers & Joyce; 1996; Wong & Nicotera, 2003), and therefore the aim of this kind of coaching should be to enable teachers to improve the ways they integrate new techniques with existing ones. Collegial and cognitive coaching aim to enhance existing practices of the teachers through methods such as redefining techniques; developing collegiality; advancing professional dialogue, and helping teachers to do effective reflection on their own teaching (Becker, 1996; Wong & Nicotera, 2003). The challenge coaching is concerned with the identification and treatment of a specific problem. Challenge coaching can be applied at the classroom or grade level, or even school level (Wong & Nicotera, 2003). Among all these types of peer coaching, the basic common feature is that a peer is involved. However, the strategies employed in each often differ.

Effective Peer Coaching

Effective peer coaching programs are defined by an established culture of standards and expectations, proven ability to improve instructional capacity, ability to support a process of continuing evaluation, and linking practices in the classroom to the policy context (Wong & Nicotera, 2003). Wong and Nicotera (2003) observed that peer coaching should not be used for evaluation purposes. Actually, literature demonstrates that evaluation or judgment should be distinct from peer coaching. However, Wong and Nicotera reported only one study that recommends evaluation during peer coaching. In the same aspect, Showers and Joyce (1996) have suggested that feedback should be eliminated from the process of peer coaching because “when teachers try to give one another feedback, collaborative activity tends to disintegrate” (p. 4). Collaborative planning is an important aspect of peer coaching as it brings about division of labor among teachers as well as use of the other teacher’s products. Threatening collaboration
would compromise the entire process of peer coaching. To be successful, peer coaching efforts need trusting relationships, administrative support, clear engagement expectations, assessment of the outcomes release time for peer coaches, and funds (Becker, 1996; Wong & Nicotera, 2003).

Normally, preservice teachers find it difficult to put the teaching methodologies they learn in their methodology lectures into actual classroom teaching (Bowen & Roth, 2002; Roth & Tobin, 2001). This has been the basis through which a number of scholars have carried out studies on paired teaching to determine if it could be used to reduce the problems that face student teachers on placement. Showers and Joyce (1996) have noted that peer coaching can be used to improve “classroom implementation of training” (p. 1). Therefore, peer coaching can be an effective tool in reducing the gap that exists between university methods classes and teacher practice in the actual school classroom. Additionally, peer coaching improves staff development efforts and provides new teachers to the profession assistance as they implement new strategies (Showers & Joyce, 1996).

Kohler et al. (1997) designed a study of which the primary objective was to investigate the impact of peer coaching through four basic ways: 1) the impact of peer teaching on teachers’ acclimation of a new method of instruction; 2) the processes associated with the new instructional strategy; 3) the focus of the interactions of a teacher with a peer coach; and 4) the teachers’ ongoing satisfaction with the newly innovated method of instruction. The participants in this study were four elementary teachers together with the classes they taught. Three of the four teachers had taught for approximately 19 years, while one of them was beginning her second year in the teaching profession. One of the authors, Kerry M. Crilley, served as the coach. There were four steps involved. In the initial step, the participants taught independently
using the new approach, while in the second step, the teacher taught with the coach. In the third step, the teacher taught alone using the new instructional strategy (Kohler et al., 1997). The first teaching was required to act as a pretest, while the second teaching with the coach was to act as the intervention. The third teaching would be taken as the post-test. The thinking was that any improvements likely to be noticed in the teacher performance would be attributed to the coach. Therefore, it would be concluded that coaching had resulted in improved teachers’ performance with the new instructional strategy. To determine the teachers’ acclimation of the instructional innovation, the researchers measured teachers’ activity organization, kinds of teaching resources and tasks, and teachers’ directions for student participation, among others.

In accomplishing the objective on process associated with the new instructional strategy, Kohler and colleagues collected data on teachers’ academic talk, engagement of the students with academic materials, and student-student and students-teacher social interactions. Teachers were well-trained on the goals and activities of the study. The new instructional innovation was an integrated instructional approach that makes it possible for teachers to blend teaching and learning activities intended to accomplish the steps identified by Rosenshine (cited in Kohler et al., 1997). The steps included a review of the previous lesson; presentation of new content; provision of guided practice; provision of continual feedback and correctives; opportunities for independent practice; and weekly and monthly review and assessment. The researchers developed an integrated instructional approach as an instructional strategy that could be used to accomplish these steps. The integrated instructional approach consisted of four steps. Step one involved a brief review of prior content. This gave way to the second step, or mini-lesson, which should last for 10-15 minutes. The mini-lesson involved presentation of new content. The third
step involved guiding students’ practice while step 4 was defined by feedback and scaffolds. Upon getting correct responses from most of the students, the teacher implemented a reciprocal learning strategy. This strategy made it possible for the children to apply the skill with their peers as they continued to receive assistance from the teacher who acted as a monitor. After 15 minutes, the teacher closed the reciprocal learning strategy to embark on closure and summary of the lesson (Kohler, Crilley, & Good, 1997).

The study found that the focuses of teachers’ coaching interaction were closure procedures, directions issued for the expected or desired cooperation skills, and the content of the mini-lesson, which also determined its length. The other area of concern was incentives or rewards for cooperative behavior among students. It was further established that all the teachers refined their procedures after they had collaborated with the coach. Additionally, it was demonstrated that upon coaching, the teachers improved the duration they spent on instructional activities. For example, it was observed that the teachers increased the length of time they spent on mini-lessons upon coaching. Generally, the findings of the study demonstrated that significant changes occurred following the coaching. In other words, the teachers performed better in their third teaching compared to baseline teaching. The improvement in teaching can be attributed to coaching.

This study suffers some key limitations, some of which the authors acknowledged. For instance, the coaching model used in this study does not follow a reciprocal peer coaching model that allows teachers to take turns in the teaching process and to work together with a view of improving teaching and learning. In doing so, teachers get the opportunity to learn from each other as they plan instruction, develop support materials, and observe the other teacher.
Reciprocal coaching could not be used in this study because the instructional strategy used, integrated instructional strategy, was new and none of the teachers was conversant with it. Reciprocal peer coaching actually reduces the threatening atmosphere that the model adopted here may bring. However, with the coach having three years experience in reciprocal peer coaching, efforts were made to ensure that the teachers did not feel threatened in any way. This was done by giving the teachers opportunities to make some decisions, such as selecting items for discussion and asking them to freely talk about how they felt about the sessions (Kohler, Crilley, & Good, 1997).

In addition, the results of the study may not easily be generalized. This is because the model of this study used only one coach. It therefore may not be possible to determine whether the effects of the coaching itself were responsible for the findings, or whether the coach had some unique skills that may be responsible for the observed results (Kohler, Crilley, & Good, 1997). Another weakness of the study that the authors have not identified is that it is not possible to attribute the improved performance in the third teaching to coaching only. Other forces may have been in play. For instance, the performance may improve because the teacher has become used to the method after teaching for the first and second time, but not because the teacher was coached. Additionally, the students may also have gained some experience with the strategy during the first and the second teaching and therefore performed well in the final teaching. Despite these setbacks, the study has demonstrated that coaching is an effective method of improving teacher performance. This study compares with the study by Roth and Tobin (2001) in that the two studies did not employ reciprocal coaching. Again, the two studies are similar in
that the classes were being observed as the actual teaching progressed. This is unlike Bowen and Roth (2002), who interviewed student teachers who had completed their teaching practicum.

Roth and Tobin (2001) sought to investigate co-teaching as a teacher preparation model that could be adopted with a view of addressing the problems experienced by student teachers on placement as they attempt to translate classroom theory on teaching methodology into classroom teaching practice. The authors reported various episodes in which a university supervisor, preservice teacher, and a master teacher co-participated in teaching. One of the stories demonstrated the gap that exists between theory and practice. In that story, the preservice teacher was left alone by the cooperating teacher to develop his own teaching methods and establish rapport with the students. Upon observation by the university supervisor and methods instructor, the preservice teacher performed poorly because, in part, some of the students were disengaged, not paying attention, and not interested in the lesson. The preservice teacher attributed this to his methods class that failed to provide him with teaching methods that work instead of providing many theories that to the student teacher were ideal. These observations raise various issues about the knowledge that student teachers receive in university classrooms. In particular, it raises two possibilities: either the knowledge is inappropriate for teaching or the knowledge is not transferable (the knowledge should be transferable from the university lecture hall or classroom to the school classroom).

Assuming that the universities offer the appropriate teaching methodologies (which should be the case anyway), it appears that the problem occurred with transfer of that knowledge into practical classroom situations. To show ways in which this can be addressed, Roth and Tobin (2001) described situations in which co-teaching has been successful. One such case
involved a preservice teacher teaching structure and bonding in the presence of the methods instructor and cooperating teacher. The authors used an excerpt from the field notes taken by the methods instructor demonstrating useful opportunities that the cooperating teacher and the methods instructor helped exploit. Had it not been for these two, the opportunities would have been wasted. The opportunities arose when students asked questions but the preservice teacher either ignored them or answered them briefly, without going into required details as the questions demanded. Generally, the cases demonstrated that co-teaching can effectively address the problems experienced in transferring university classroom theory on methodology into school classroom teaching. According to the authors, co-teaching makes it possible for the practicum teachers to “experience appropriate action at the right time” (Roth & Tobin, 2001, p. 741). Co-teaching becomes shared experiences for student teachers on placement that form the basis of their professional conversations.

Motivated by the difficulties involved in translating theory into practice by student teachers, Bowen and Roth (2002) sought to examine ways in which teaching practice for preservice teachers could be improved. In other words, the authors sought to reduce the gap existing between actual methodology employed in teaching and teaching they received during lectures in class. In particular, the authors sought to determine if teaching in pairs for preservice teachers could reduce such difficulties. The authors adopted a qualitative design in which they interviewed preservice teachers who had adopted paired teaching during their practicum placement. The student teachers had been trained on the same teaching methodologies for sciences, but had differences in their backgrounds and teaching interests. The interviews concerned the practicum experiences of student teachers who had used paired teaching during
their previous placements. Each pair of student teachers had been placed under the guidance of a single master teacher. The reason as to why two individuals with different backgrounds and teaching interests were chosen to co-teach was to provide opportunities for the problems and benefits associated with paired practicum teaching to emerge. Additionally, the attitudes of the student teachers toward secondary school were considered to ensure that those who disliked secondary school paired with those who liked high school (Bowen & Roth, 2002).

However, there was a pair that consisted of student teachers with similar attitudes toward secondary school (that of liking): similar presentation, and similar main teaching subjects. With the guidance of the master teacher, each pair was asked to develop their own teaching method that they thought would be the best. The paired practicum placements enactment was defined by the approach used in planning classes, distributed teaching role, and interactions with peers. In all shared classes, joint planning occurred and teaching roles shifted in each class. Again, in all shared classes, some joint planning was adopted in planning classes. Where some joint planning was coupled with individual planning, teaching roles shifted in shared classes, as some peer debriefing indicated interactions with peer coaches. Moreover, in situations in which there were no shared classes, planning of classes involved joint planning or voicing critique. In such cases, a distributed teaching role was defined by stable teacher role in classes, and in some classes, roles were switched. The classes were characterized by some peer debriefing, which indicated the kind of interactions with the peer. The paired practicum lasted for six weeks (Bowen & Roth, 2002). The findings demonstrated that six of the student teachers were happy with the paired teaching experience while two of the others observed that the paired teaching experienced was a negative one. The negative experiences were attributed to personality clashes or different
teaching styles. Two student teachers observed that the experience was both positive and negative (Bowen & Roth, 2002).

There was one particular pair that described both the paired teaching and the practicum as positive. This was the pair that was placed in the same classes for the whole practicum, and they were free to jointly make decisions on how to implement their responsibility. The student teachers expressed satisfaction with the independence in planning lessons. They also ensured that they coordinated in determining the goals for the class and the steps to be taken in ensuring that such goals were achieved. The presence of the co-teacher during lessons provided opportunities for overall peer-coaching opportunities. Further, the comments that student teachers received from their paired member, as well as the reflections on how to make their own comments on the other, made it possible to reflect and refine on one’s practices. Additionally, student teachers expressed the possibility of improving their classroom management techniques during their lesson after watching their co-teachers work (Bowen & Roth, 2002). The success of this pair acts as a model for transition from a successful student to a professional teacher, then this pair demonstrates the way such transition should occur. One condition for the success of this transition is that “there must already be an articulation in many of the aspects of practical knowledge between the master teacher and the student teachers on placement” (Bowen & Roth, 2002, p. 35). Contrarily, negative experiences reported provide an idea about improper articulation of the student’s predispositions, prior practical knowledge, and the master teacher’s aspects.

Generally, the study demonstrated that problems experienced by preservice teachers on placement may be greatly reduced through paired teaching. Student teachers often find their
practicum difficult for a number of reasons. First, some students go to schools in which they are strangers. Such students feel out of place and find this environment threatening and disempowering. The time given for the practicum may be not enough for them to make friends, prepare for their classes, and teach. Second, student teachers find their practicum disempowering because there are many conditions arising from the information they received at the university during training and actual reality on the ground. Placing them in pairs made it possible for them to solve classroom issues together, to come up with teaching aids and resources together, and to have some considerable control over their destiny. It is more effective doing these endeavors with an equal peer compared to a department head or master teacher, with whom they may not be entirely free. Additionally, there is also a risk involved when this is done with a master teacher or a department head because they may be assessing the performance of the student teacher. Such ideas would only make the student teacher anxious. Therefore, peer coaching for preservice teachers is one of the most effective ways of advancing the practicum experiences of preservice teachers on placement.

One weakness associated with this study resulted from the length of the paired practicum. Literature demonstrated for paired teaching greatly affected the experiences of the teachers. Therefore, in this study, it may be observed that the experiences of the teachers are, to a considerable extent, limited by the short teaching period. Additionally, it may not be possible to attribute the negative experiences for the practicum described by some student teachers as arising from the paired teaching. This is because the effect of school administrators, other teachers, and outside community is likely to affect the general experiences of the student teacher during the placement. The study suffers another weakness in that the authors do not demonstrate whether a
preservice teacher's experience with practicum and paired teaching directly corresponded with student achievement. In other words, it is not clear whether the preservice teachers perceived the paired teaching and the entire practicum experiences as positive improvements to student learning.

Compared with Roth and Tobin (2001), differences arise. For instance, in the paired approach described by Roth and Tobin (2001), the teacher, the coach, and the master teacher were required to take part in the collective responsibility for the learning of the student during the entire period. Again, the class structure in Roth and Tobin (2001) was more restrictive than the structure adopted for the current study. Another difference evident in the two studies reviewed involves the resources to support learning. Roth and Tobin (2001) considered the coop (master teacher or cooperating teacher), other student teachers, other practicing teachers, Small Learning Community coordinator, methods instructor, and high school students. However, Bowen and Roth (2002) do not clearly show whether these resources were being considered carefully and their effects accounted for. Furthermore, Roth and Tobin (2001) showed that administrators, parents, and the outside community are part of the learning communities.

Another perceivable difference between these two studies has to do with methodology employed. Whereas Bowen and Roth (2002) used interviews to collect data on participants' perceptions of past experience (paired teaching practicum), Roth and Tobin (2001) relied on participative observations during the actual teaching. The different ways in which data was collected appear to be appropriate for each study. For Bowen and Roth (2002), the aim was to find out how the preservice teachers experienced the paired teaching. However, for Roth and Tobin (2001), the aim was to find out if student teachers effectively transferred their university
classroom teaching methodology into actual school teaching when in cooperation with the teacher and the methods instructor.

It should be noted that the studies examined so far concerned themselves with teaching in secondary schools. However, Walsh and Elmslie (2005) reported a study involving early childhood students in paired practicum in kindergartens and preschool. The purpose of this qualitative study was to examine the experiences and perceptions of both the student teachers involved in paired practicum and practicing teachers toward paired teaching. Other aims of the study involved identifying ways in which paired early childhood student teachers on placement worked together; articulating pairing outcomes; and identification of practices and principles that affect the success of paired teaching in early childhood. The data was collected through the use of semi-structured surveys that provided qualitative data. The study was a trial in which the researchers paired 100 students taking early childhood education in an Australian university. For their first 20-day practicum, the students were placed as pairs in 48 preschools and kindergartens. The primary criteria for pairing students were practicum site preferences which were determined by their geographical proximity from the students’ homes. The student teachers were acquainted with team working, working with peers, and tutorials that enabled the students to know each other; all through a workshop day. Host teachers were also acquainted with the practicum through symposia designed to equip them with knowledge and skills in cooperative teaching, how pairs could work effectively, university expectations, and the role of the host teacher. Generally, the teachers were equipped on how to support teachers on practicum. For the evaluation design, the authors used a qualitative action research design that is defined by planning, action, and observation. The data on participant perceptions and experiences was
collected using semi-structured telephone interviews and semi-structured surveys that needed short written responses; these provided the quality of the experiences that was rated on the rating scale, as well as data for three case studies. The method of data collection differed with the data collection tools employed by Roth and Tobin (2001) and Bowen and Roth (2002). Whereas these two studies relied on one particular tool for data collection, Walsh and Elmslie (2005) relied on multiple tools. These would provide supplementary data. In the current article, the authors reported the data collected through telephone interviews and semi-structured surveys for both the teachers and student teachers.

The findings of the study demonstrated that both the student teachers and their hosts who participated in the practicum were satisfied with paired teaching, although more student teachers (87%) than host teachers (62%) reported satisfaction with paired teaching in kindergarten and preschool settings. A slightly lower proportion of students satisfied with the practicum (82%) expressed their wish to participate in paired teaching again. Further, the study provided factors or practices and principles that impact on the success of paired teaching. The practices included preparation for practicum, briefing and debriefing, making a positive start, availability of a supportive learning environment, fair assessment of students, and lateral thinking on how pairs could effectively work together. Other practices involved ensuring that the host teachers had adequate time, and the context of the school in which the practicum was being carried out. These values determined whether the paired teaching would be successful or unsuccessful. If these issues were properly addressed, paired teaching became a success. Other than practices, the study also identified the principles that affected the success of paired teaching. These principles included student compatibility and student differences, which need to be anticipated and affirmed
(Walsh & Elmslie, 2005). The authors recommended that these practices and principles should inform pairing of student teachers for the practicum.

It has been demonstrated that teacher quality is the most important variable in student achievement (Neuman & Cunningham, 2009). Using this understanding as background for their study, Neuman and Cunningham (2009) designed a study to determine the most effective method of improving teacher knowledge and quality early language and literacy practices for early childhood education. They used participants from 177 child care centers and 114 home-based sites. The data used for the study belongs to Project Great Start Professional Development Initiative, which was intended to improve language and literacy capabilities of early childhood educators in high-priority areas. The participants were assigned through randomization to any of the three groups. The sample consisted of both intervention and comparison teachers. With Group three as the control group, Group 1 involved a 3-credit course in early language and literacy, while the Group 2 intervention included both the course and ongoing coaching. All the participants were caring for children aged 3 through 5, either in family settings or licensed child care centers in Michigan. The intervention, the professional development course, consisted of a 45-hour, 3-credit course in early language and literacy development that was provided in a college located near the child care site of the participants, since four colleges were used. The purpose of the course was to provide the students with content knowledge that was judged to be necessary for the practice in early language and literacy. The other intervention, coaching, focused on assisting participants to use strategies informed by research to enhance child outcomes in language and literacy.
Neumann and Cunningham's (2009) coaching model was greatly informed by Koh and Neuman's (2006) model. This model specified the manner in which coaches can offer effective coaching. It involved the following elements: on site coaching to provide opportunities for learning through modeling and demonstration; balanced and sustained training that uses teachers in continuing education as coaches; facilitated reflections through observation, listening, and support; high interactivity through establishing rapport, building trust, and engendering mutual respect; provision of descriptive feedback as opposed to evaluative or judgmental feedback; and identification of priorities and developing effective strategies to address them. Therefore, in light of these elements, the coaching model used in the current study involved a cycle defined by coaches engaging teachers' reflections and setting goals; coaches helping teachers to identify desired outcomes as well as the strategies that could be used to achieve such outcomes; collaboration, as defined by an action plan developed together and showing how the implementation of new practices will be done; all of these strategies formed the basis of more reflections and action. The coaching lasted for a year.

The measurements taken were for the growth in teacher knowledge and teacher practice. Different instruments were used to measure these variables. The instrument used to measure the teacher knowledge was author-constructed. 'Teacher Knowledge Assessment of Early Language and Literacy Development' was a multiple-choice, true-false assessment for measuring the growth in knowledge of early language and literacy for the early childhood educators taking part in the study. The reason for constructing a test was that literature did not provide any tool for such a purpose. They dedicated 45 items to language and literacy while 22 items were on basic knowledge of child development. Neumann and Cunningham carried out pretest and posttest
measures, with the average time for each test administration being 45 minutes. The accuracy of the instrument was ascertained by experts; and then pilot tested using 302 early childhood students in their second year. The internal consistency of the instrument (Cronbach's alpha) was found to be .96, which implied that the instrument had an excellent reliability. However, it should be noted that the piloting was done with students while the actual research was to be carried with actual educators. The concern is whether the consistency would be the same if piloting had been done with practicing educators; or whether the results obtained from the study would be the same if the instrument had been used for student teachers on practicum (Neuman & Cunningham, 2009).

To measure the quality of teacher practice, two published instruments were used. The Early Language and Literacy Classroom Observation (ELLCO) was used in center-based classrooms to measure the language and literacy environment for learning. It is made up of three interdependent instruments: the Literacy Environment Checklist--books, word cards, alphabet, teacher dictation, alphabet puzzles, and writing implements; the Classroom Observation and Teacher Interview--reading aloud, writing, assessments, and technology presence or absence; and the Literacy Activity Rating Scale--nature and duration of literacy activities during the period of observation. The instrument has high internal consistency (Cronbach’s alpha) of .90. This is an indication that the ELLCO is a reliable instrument. Another instrument used for assessing the teacher practice was Child/Home Early Language and Literacy Observation (CHELLO). It measures the language and literacy practices that are specific to the features of the context in regard to family and home-based child care settings. The instrument has two tools dependent on each other: Literacy Environmental Checklist--presence or absence of items such as books; and
the Observation and Provider Interview-psychological supports. The instrument has a good internal consistency (Cronbach’s alpha) of .82 (checklist) and .91 (observation) (Neuman & Cunningham, 2009).

The findings from this experimental, quantitative study did not give significant differences in teacher knowledge among the groups. However, significant differences in the quality of teacher practices were noted in that both received the course training and ongoing coaching. This implied that both course work and coaching are among the useful ways of improving teacher quality, but coursework alone was not effective (Neuman & Cunningham, 2009). The relevance of the study to peer coaching lies in the fact that coaches were trained early childhood educators with prior experience in teaching in early childhood. Again, the coaching model adopted, as described, expected the coaches and the early childhood educators to work together in various aspects. In particular, Koh and Neuman (2006) observed that “student achievement is higher in the classrooms of teachers who interact more extensively with their coaches” (p. 2). The interaction between teachers and the coaches may be seen as a way of peer coaching. Additionally, the authors noted that there were interactions between the care givers and the coaches.

Evidence and Ideas Synthesized

In conclusion, the review has revealed that early childhood educators should be knowledgeable on child development and early childhood education issues. The review has further demonstrated that peer coaching is an effective tool for professional development. Additionally, the review has demonstrated that paired teaching has been used in studies mostly to investigate the effect of peer coaching on student outcomes and teacher experiences. In most
studies, peer coaching was in the form of paired teaching and co-teaching. There is controversy on whether peer coaching should have feedback, and evaluation/judgmental observations. The majority of the studies recommended that evaluation should be eliminated from peer coaching, but agreed that feedback is part of peer coaching. Generally, the studies have demonstrated that peer coaching can effectively improve learning in early childhood.
Chapter 4

Conclusions and Recommendations

Conclusions

The available literature on peer coaching strongly indicated that peer coaching can significantly enhance the professional development of the teachers (Showers, 1985; Showers & Joyce, 1996; Zwart, Wubbels, Bergen, & Bolhuis, 2007). This is because reciprocal peer coaching presents excellent opportunities for experimentation, exchange of professional ideas, shared problem-solving, observation, and reflection, with no evaluation or judgments (Hantf, Rush & Shelden, 2004; Zwart et al., 2007). The primary aim of peer coaching in early childhood should be to improve application of strategies or interventions specific to the child with a view of improving the learning outcomes of the child (Sheridan et al., 2009). The purposes of peer coaching included building teacher communities that would practice and enrich their skills; developing shared language and common understandings that later resulted in improvement of curriculum implementation; and helping in acquiring new skills to help translate college training into practical teaching (Showers, 1985).

This review has been designed to answer the three research questions. What kind(s) of early childhood peer coaching is most effective and best supports student learning? Reciprocal peer coaching presents excellent opportunities for experimentation, exchange of professional ideas, shared problem-solving, observation, and reflection (Zwart et al., 2007). What are the effects of peer coaching? Peer coaching includes building teacher communities that would practice and enrich their skills; developing shared language and common understandings that later result in improvement of curriculum implementation; and helping in acquiring new skills to
help translate college training into practical teaching (Showers, 1985). What are some ways peer coaching can be implemented in schools to better meet the diverse needs of the students? Coursework and coaching are among the useful ways of improving teacher quality, but coursework alone was not effective (Neuman & Cunningham, 2009). Koh and Neuman (2006) observed that “student achievement is higher in the classrooms of teachers who interact more extensively with their coaches” (p. 2).

Identification and Synthesis of Insights

Peer coaching makes it possible for the teachers to observe each other as they exchange support and companionship in a co-equal, non-threatening manner (Kohler et al., 1997). The literature has indicated that the basic components constituting coaching in early childhood education include advancing evidence-based development of skills, and enhancing application of appropriate skills through teaching practices (Sheridan et al., 2009). These two components indicated that coaching should be based on research; and that educators involved in coaching should ensure that they rely on research to obtain evidence they should use in nurturing appropriate skills that would improve the child’s learning outcomes. Specific aspects of coaching in early childhood education include independent and/or shared observations, action as defined by demonstration and guided practice, self-reflection, provision of feedback, and evaluation of the coaching relationship (Hanft et al., 2004; Sheridan et al., 2009). It should be noted that the evaluation in this sense is on the entire coaching process, not on the teaching practices of each of the other teachers. Coaching does not involve evaluative or judgmental observations of the other teacher. There is every indication that coaching can be an efficient approach to improving teacher effectiveness (Neuman & Wright, n.d.; Showers, 1985; Showers
& Joyce, 1996). However, empirical research on peer coaching, teacher qualifications, and improvement in early childhood is significantly limited (Neuman & Cunningham, 2009; Neuman & Wright, n.d.). Most researchers have focused on K-12 (e.g. Bowen & Roth, 2002; Roth & Tobin, 2001) and neglected the preschool and kindergarten teachers. Nevertheless, studies are being carried out examining teaching in early childhood. Some studies have used student teachers on practicum while others have used practicing teachers. In early childhood education, effective teachers should demonstrate that they understand child development, and that they possess the skills required to provide the young children with appropriate learning opportunities (Neuman & Cunningham, 2009).

**Recommendations**

In light of the findings of this review, the following recommendations are in order.

• First, policy measures should be put in place to ensure that early childhood educators are equipped with sufficient knowledge on childhood development and early childhood education issues. However, since literature has demonstrated that offering courses on early childhood education to practicing teachers alone does not result in significant improvement in knowledge, such training should be combined with peer coaching to ensure that effective professional development occurs.

• Second, for student-teachers on practicum, paired teaching should be encouraged. Paired teaching can occur in situations in which two student teachers are involved in peer coaching and paired teaching. Where possible, students should be given the opportunity to choose their companions because literature has demonstrated that in one study, student teachers believed that they could have found the paired teaching experience positive if they had been with
a different companion. Since students had no opportunity to choose their peers for the peer coaching process, it shows that student teachers should be allowed to choose with whom to be paired.

• Third, student teachers on practicum and new teachers should be encouraged to do co-teaching with an experienced teacher, and where possible, a university methods instructor. This would ensure that all possible opportunities for learning are sufficiently exploited. It would also ensure smooth and effective application of theory into practice.

• Fourth, evaluation or judgment should not be part of peer coaching. Therefore, teachers involved in peer coaching should realize that they are of equal status with each other, even when a master teacher and a university methods instructor are involved. Neither party should make attempts to evaluate and judge the other because this would compromise the collaborative nature of peer coaching. During co-teaching, the master teacher should not be there to point out mistakes or weaknesses; rather his or her presence should be to help the student teacher exploit all the possible opportunities of learning.

**Future Projects/Research**

Future research should focus on the effect of peer coaching on early childhood educators as opposed to K-12 teachers. This is because a small number of studies have used early childhood teachers as participants. Additionally, research on peer coaching in childhood education should endeavor to establish the effects of such peer coaching on children in kindergarten and pre-school. Studies have tended to focus on the effect of peer coaching on teachers, and greatly neglected the impact of peer coaching on students.

**Educational Policy**
The literature has demonstrated that early childhood education does not receive as much policy attention as K-12 education. This may explain why resources are limited in early childhood education. To curb this problem, educational policy makers will have to pay particular attention to early childhood education. Educational policies may also demand that peer coaching be embraced in early childhood education, both for student teachers on placement and for practicing teachers. Peer coaching should be recognized as an essential teacher development tool for early childhood educators.

**Educational Practices of Myself and Others**

Peer coaching cannot replace professional development, but it can improve the teacher performance in the classroom. Peer coaching is beneficial if used correctly. Highly qualified or masters level teachers should be coaching the new teachers so the teacher being coached gets the most out of the coaching process. Even though it does take time, it has proven to be worth the effort in making the job of a teacher much easier. With a little extra time and effort, many schools can implement peer coaching to help out struggling or new teachers in order for the children to get the most out of their education.
References


