

PEER TUTORING PROGRAMS

CENTRE FOR NEWFOUNDLAND STUDIES

**TOTAL OF 10 PAGES ONLY
MAY BE XEROXED**

(Without Author's Permission)

IRENE FUDGE



Peer Tutoring Programs

By

Irene Fudge

A Folio Submitted to the School of Graduate Studies

Memorial University of Newfoundland

in partial fulfillment of the requirements

for the degree of

MASTER OF EDUCATION

February, 1998



National Library
of Canada

Acquisitions and
Bibliographic Services

395 Wellington Street
Ottawa ON K1A 0N4
Canada

Bibliothèque nationale
du Canada

Acquisitions et
services bibliographiques

395, rue Wellington
Ottawa ON K1A 0N4
Canada

Your file Votre référence

Our file Notre référence

The author has granted a non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of this thesis in microform, paper or electronic formats.

The author retains ownership of the copyright in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.

L'auteur a accordé une licence non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de cette thèse sous la forme de microfiche/film, de reproduction sur papier ou sur format électronique.

L'auteur conserve la propriété du droit d'auteur qui protège cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

0-612-36121-7

Abstract

The purpose of the peer tutoring portfolio was twofold. First, it provides the opportunity to research and provide information on the peer tutoring process. Secondly, it indicates the current practices of several peer tutoring programs that are implemented within the province of Newfoundland's school system. The first paper focuses on the development, effectiveness, concerns, and theoretical basis of peer tutoring. The second paper highlights and elaborates on steps necessary for a successful peer tutoring program. The third paper presents and compares the answers to a questionnaire completed by five professionals. Each questionnaire indicates the approach taken to deliver a peer tutoring program in a school system. The topic of peer tutoring was chosen because it is my belief that such a program can become an important and integral part of any school program. Peer tutoring can be one of several instructional opportunities that can be used to help meet the needs of some students. It has become apparent that any school environment needs to offer a variety of strategies to help meet the unique and different needs of each child. One must not forget that strapped economic times have led to reduced spending and fewer professionals to help meet the needs of students. The implementation of a successful peer tutoring program can increase the learning opportunities offered to students when these opportunities would otherwise be reduced because of budget restraints.

Acknowledgments

Over the past year, I have had the opportunity to work with a number of excellent professionals whose interest, ideas and suggestions have made a great contribution to this study. In particular, Dr. William Kennedy, the supervisor for the portfolio, provided a great deal of guidance and advice.

I would also like to thank the five professionals who took the time to provide answers to the questionnaire. They provided such valuable information to this study and for that I am grateful. Finally, I would like to thank my family for their help. A huge thank you goes to my husband, Allan, for continuous advice and patience. A much deserved thank you also goes to my daughters, Amy and Julie, who helped with the typing and provided many hours of relaxation when it was time to take a break.

TABLE OF CONTENTS

Abstract	i
Acknowledgments	ii
PAPER 1: PEER TUTORING	1
Introduction	2
Historical Overview	4
Effectiveness of Peer Tutoring Programs	10
Concerns of Peer Tutoring	23
Theoretical Basis of Peer Tutoring	25
Conclusion	29
References	31
PAPER 2: IMPLEMENTATION OF PEER TUTORING	36
Introduction	37
Implementation of a Peer Tutoring Program	39
Selection of the Tutee	39
Selection of the Tutor	41
Matching of the Tutor and Tutee	43
Training of the Tutors	46
Program Monitoring	53
Determination of Lesson Content and Format	56
Scheduling of Sessions	57
Evaluation	60
Conclusion	63
References	64
PAPER 3: PEER TUTORING SURVEY	67
Introduction	68
Literature Review	69
Research Design	77
Conclusion	88
References	94
APPENDIX A	97

Paper 1

Peer Tutoring

Introduction

A review of the literature indicates a general agreement that peer tutoring includes a partnership involving a tutor (one who tutors) and a tutee (one who is being tutored) in which the primary goal is to improve learning. The literature reveals that peer tutoring can be (1) a peer age program that is not part of another program or (2) part of a peer helper program, sometimes referred to as a peer influenced academic intervention or student mediated tutoring in which tutoring is only one of the responsibilities of the helper (Miller & Peterson, 1987).

Even when peer tutoring is a separate program researchers use a range of terminology to describe the varying tutoring arrangements. According to Warger (1991) variations of peer tutoring approaches make use of three variables: age, location and ability. She suggests that peer tutoring can include same age tutoring (tutor and tutee are the same age) or cross-age tutoring (tutor is older than the tutee). Ehly & Larsen (1980), Annon & McDougall (1989), Goodlad & Hirst (1989) and Webb (1987) also distinguish between same-age and cross-age peer tutoring. However, Miller & Peterson (1987) and Blackbourne and Campbell (1991) refer to peer tutoring as including only those tutors and tutees who are the same age. Warger (1991) also categorizes peer tutoring in relation to where the tutoring takes place. For example, class wide tutoring refers to the tutoring that

takes place within a classroom with all students participating while pull-out tutoring occurs outside of the classroom or with one or two students off to the side of the classroom. Garcia-Vazquez & Ehly (1992) and Greenwood, Terry, Arreaga-Mayer & Finney (1992) also refer to a class wide tutoring arrangement. Lastly, as suggested by Warger (1991), tutoring variations exist that reflect the ability level of the student(s) involved. She suggest that you can have either (1) reverse-role tutoring whereby the student who has difficulty will tutor the more able student or (2) the tutor as expert meaning that the tutor has mastered the concept that is being taught to the tutee or is functioning at a higher ability level.

The above discussion indicates that there is a range of names being given to the tutoring process. This issue concerning the name used to describe "peer" work has also been the focus of concern for Carr, editor of Canadian Peer Counselor Journal. In 1994 a survey was conducted with 1200 active members of the Canadian National Peer Network. They found that over 30 different terms were used including peer helper, facilitator, peer counselor, peer tutor and peer assistant. However, for the purpose of this paper I shall refer to peer tutoring as a program that is structured to include a one-to-one teaching situation involving a tutor and tutee whereby the tutor teaches academic skills to the tutee.

Historical Overview

Allen (1976) reports that “the use of children to teach other children in the schools is not by any means a recent innovation, the idea has had a long and lively past” (p.5). Paolitto (1976) provides further evidence of the long history of tutoring when he concludes that “cross-age tutoring began as a practice rather than a concept” (p.232).

Wagner (1982) writes that the helping relationship between students in the schools can be traced to the first century A.D. when it was believed that Aristotle used peer tutoring by getting student leaders to take care of the many teaching details for him. Yet it is Quintilian who is often credited with suggesting the use of peer tutoring (Paolitto, 1976). Quintilian was the head of an oratory school in Rome from A.D. 69 to 88. He maintained that “one who has just acquired a subject is best fitted to teach it” (Wagner, P.11). During the seventeenth century the term monitor was used to refer to one who was overseeing, directing and examining. Later, during the eighteenth century Williams (cited in Wagner, 1982) introduced the term reciprocal assistants to refer to those students who taught other students.

However, it was not until the late eighteenth and early nineteenth centuries that the technique received widespread publicity and application (Ehly & Larsen, 1980). The Industrial Revolution in England created a situation where there were

large numbers of children who needed to be educated but very few trained teachers available to do the work. In 1778 Bell introduced a system of tutoring to help deal with the situation. Bell's system was remarkably systematic. Each class was paired off into tutors and tutees. An assistant teacher was assigned to each class to supervise and instruct the tutors. The assistant teacher reported to the teacher who was responsible for the order, behavior, diligence and the general improvement of the class (Goodlad & Hirst, 1989). Bell's system was enthusiastically accepted by a professional educator in England named Joseph Lancaster. Lancaster arranged the whole school into classes with a monitor appointed to each class. The monitor had to make sure that the students in class were teaching each other. Lancaster believed that children who taught were better able to learn materials because they were learning by reviewing rather than memorizing (Ehly & Larsen, 1980).

Lancaster and Bell (cited in Allen, 1976) wrote on the benefits of using such a system. Both commented on the improvement in behavior in school due to the younger children emulating the positive behavior of the older children who were placed in positions of trust and responsibility as teachers. They also noted that the tutor improved his or her understanding of the material that was taught. In addition, there were no long line-ups at the teacher's desk to get work checked and

the students no longer had to sit idle waiting for their teacher to give instructions (Goodlad & Hirst, 1989).

The fame of the student-teaching-student system for inexpensively educating school children quickly spread beyond the borders of Britain. The ideas were adopted by American and European educators and put into use. However, the popularity of the Bell-Lancaster system gradually waned over the years (Allen, 1976). The reasons cited for such a decline include; (1) general low standard of teaching by untrained children who were often only 8-9 years old; (2) facilities were inadequate for training professional teachers to use these techniques effectively; (3) money started to be provided for public education; (4) number of trained teachers available to teach increased and (5) growth of professionalism among teachers - a self conscious teaching profession is likely to look with disdain upon the idea that untrained young children can perform the skilled functions of a teacher. Gradually the use of peers to teach each other was likely to be found only in sparsely populated rural areas.

A history of Canadian education documents that it was no different from the rest of the world. In earlier years the number of teachers was not sufficient to meet the needs of the high number of students and consequently students helping students was used. However, as the number of teachers increased the need for

students to help other students decreased . In recent years it was felt that the educational system was not meeting the needs of some students. To help improve this situation other strategies would have to be implemented . It appears that peer tutoring was one of these strategies. Carr (1994) states that:

Peer helping in Canada has demonstrated considerable growth in the last 13 years. While just a handful of programs were in existence in 1981, the estimated number of programs now providing a peer-based service has risen to just over 3400. Peer programs exist in virtually every city and geographic region in Canada. School based peer programs are clearly the most popular, and an increasing number of school districts, all elementary, junior and secondary schools in the district have peer programs (p.6).

Newfoundland and Labrador has also experienced the introduction and development of the use of peers in the school setting. In 1990 the Federal Government announced a 296.4 million five-year Stay In School Initiative designed to address the alarming 30 percent high school dropout rate among Canadian young people. It was proposed to “target the preventive end of the workplace adjustment continuum” (Dave Stacey, personal communication, April 11, 1996). The new initiative included three major components with expenditures for the five years: (1) programs and services (166.3 million); (2) mobilizing

partners (76.6 million) and (3) information (53.5 million). The program under discussion, peer tutoring , was only one of the many projects approved under the programs and services costing 166.3 million. It is, therefore, very difficult to get an exact figure or even an estimate of the monies spent on peer tutoring programs in Canada and more specifically in the province of Newfoundland and Labrador. As a matter of fact, the CEIC was unable to provide information about how much money was spent in Newfoundland and Labrador on the programs and services.

Spain and Dyke (1993) investigated the programs developed since 1991 that were designed specifically for drop-out prevention. In their survey, they identified 388 programs that were being used in the schools. It is interesting to note that 60 of these programs were identified specifically as peer tutoring. However, it is highly likely that peer tutoring could also have been part of another larger program, for example, peer counseling. Spain and Dyke (1993) concluded that "tutoring, counseling and mentoring within the school and community appear to be some of the most popular strategies utilized to help the at-risk population"(p.6).

The Newfoundland and Labrador Department of Education has also recently become involved in the development of local peer tutoring programs. The first locally developed course was started in 1993-94 and has continued up to the present time. When asked why these peer tutoring programs were started, a

representative from the Department of Education felt it was largely due to the difficulties that some students were experiencing with some courses. At present four peer tutoring programs are being offered at the senior high school level. These courses include Peer Tutoring 1222, 2122, 2222 and 3222. It is interesting to note that the peer tutoring programs are offered as a one or two credit program at all levels of the senior high program. A consultant at the Department of Education commented that it was organized this way so that peer tutoring could be available to the students who need it at various levels of schooling.

In Education Statistics, Elementary-Secondary, the Department of Education has a summary of the number of schools and students involved in each of the peer tutoring programs. These are outlined in the following table:

Year	Number of Schools	Number of Students
1993-94	4	62
1994-95	6	69
1995-96	6	59
1996-97	6	74

It is interesting to note that all four peer tutoring programs were offered in each year with the exception of Peer Tutoring 1222 that was offered only in 1995-96.

Effectiveness of Peer Tutoring Programs

The effectiveness of peer tutoring has been well established through applied research (Miller & Peterson, 1987). There are those who argue that failure to use peer teaching in its various forms is a major waste in schools (Wagner, 1982). The discussion that follows will focus largely on the benefits of tutoring for the tutor, tutee and the instructional management personnel. These benefits will include both cognitive and noncognitive gains.

Benefits for the tutor

The benefits of peer tutoring for the tutor are very diverse. The benefits cited in the literature include:

Achievement gains

Peer tutoring helps to improve achievement gains (Annon & McDougall, 1989; Pierce, Stahlbrand & Armstrong, 1984; Yogeve & Ronen, 1982; Jenkins & Jenkins, 1981). Jenkins & Jenkins (1981) give four explanations that could account for this. These include: (a) tutoring may be a chance for students to acquire new information; (b) students relearn or review information and skills that they have forgotten or for which their proficiencies have diminished; (c) they become more conscientious about classroom work because they don't want to risk losing tutorial

privileges and (d) a change in attitude indirectly influences the students involvement in learning. Medway (1991) proposed that tutors may benefit more academically from teaching than do tutees because tutors not only rehearse the material several times but teaching forces them to reorganize the material so that it becomes more understandable to them. The more the tutor is actively involved in the teaching process the more likely the tutor will learn new associations and elaborations of the material that has to be presented. Medway (1991) further suggest that this may account for the data showing that high achieving tutors learn most when paired with low achieving tutees since the tutee may demand more instructional ingenuity and therefore more reorganization of lesson material than high achieving tutees. Goodlad & Hirst (1989) concluded that tutors who find meaningful use of the subject matter of their studies may be inspired to seek more of it. In essence, these explanations give support to the old saying "one who teaches learns" (Warger, 1991).

Personal adequacy

Peer tutoring helps to develop a sense of personal adequacy for tutors (Allen, 1976; Goodlad & Hirst 1989; Lippett, 1976). Goodlad & Hirst (1989) suggest that since students are required to live up to their responsibilities as a tutor there is a greater chance that an enhanced feeling of self-esteem will develop. Through

tutoring the older pupils can experience the respect and admiration of younger pupils and provided that the tutoring tasks are properly planned the tutor can enjoy the experience of success in a social relationship. Allen (1976) and Bruner (1972) suggest that helping others may contribute significantly to the feeling of being useful which is particularly important for the adolescent who is caught between childhood and adulthood. A study of adolescents by Yogev & Ronen (1982) found that the self esteem increased in tutors but decreased in those students who did not tutor. This may suggest that the self image of adolescents may suffer during the teenage years and innovative school programs like peer tutoring may help in minimizing the potential break down of self esteem.

Personality development

Peer tutoring has a positive effect on personality development (Strom & Bernard, 1982). The interaction that occurs during the tutoring sessions provides opportunities for both tutor and tutee to observe and learn the many facets of human behavior. Strom & Bernard (1982) concluded that peer helpers who see themselves as successful and see others in a positive way may help counteract the development of social prejudice. According to Strom & Bernard (1982) social prejudice is where stereotypic knowledge colors our perceptions of the members of a particular social group. Strom & Bernard (1982) further explain that social

prejudice is at a minimum during preschool years but changes when boys and girls reach middle childhood. Strom & Bernard (1982) conclude that a peer program at the elementary level should provide experiences that enable children to see themselves favorably without having to find fault with others. Webb (1987) argues that the use of peer tutoring can foster cross-cultural and interracial awareness. When the students work together they each become aware of the lifestyles and traditions of each other. Jenkins & Jenkins (1981) and Yogev & Ronen (1982) advocate that the tutor will have increased empathy, altruism and understanding of individual differences. When students work together they become aware that each student is different and has different needs. Corn & Moore (1992) speculate that there will be improved socialization skills between the regular and special education student. Unfortunately there may be a tendency for little socialization between the regular and special education student. Tutoring provides the opportunities for students to tap the interest of each other.

Teaching learning process

Peer tutoring develops insight into the teaching learning process and help tutors build cooperation with their own teachers. Goodlad & Hirst (1989) states that peer tutoring offers tutors “the opportunity to reflect about the nature and purpose of education and may help to articulate their points of agreement and

disagreement” (p.12). Goodlad & Hirst (1989) refer to a “cultural migration” that occurs during peer tutoring in which those who are taught become teachers thus giving insight into what their teachers are trying to do.

Nurturing and responsibility

Peer tutoring helps tutors to learn to be nurturing and to take responsibility for others which may foster more socially mature behavior (Allen, 1976). A tutor who is a role model for a younger child constrains one’s behavior along socially desirable directions. The tutoring situation can be seen to offer an excellent way to facilitate positive experiences that are conducive to personal and social growth. Goodlad & Hirst (1989) suggest that peer tutoring can be a form of moral education in which those who act as tutors are given the opportunity to learn how to care for other people.

Benefits for the tutee

Just as there are many benefits derived from peer tutoring by the tutor, likewise, the literature outlines the benefits of peer tutoring for the tutee. These include the following:

Increased individual attention

Peer tutoring helps to increase individual attention for the tutee (Ehly & Larsen, 1980; Pierce, Stahlbrand & Armstrong, 1984; Allen, 1976). By virtue of the one-

to-one situation, the materials to be learned, can be matched closely to the learner's interests and ability. The tutee receives more immediate and frequent feedback on performance. Miller & Peterson (1987) suggest that the feedback and the individual attention help increase the chances of improved academic performance. Strayhorn, Strain & Walker (1992) contend that tutoring may affect the long term behavioural and mental health outcomes because of the opportunities it offers for increased growth of academic and interpersonal skills. These authors further speculate that academic abilities appear to be a "protective factor against anti-social behavior problems. Academic problems could promote behavior problems - a child who is constantly frustrated by failing to do academic tasks up to standard and who receives criticism for academic performances may become less cooperative because she\he is less happy and may reciprocate the perceived hostile messages received. Also, behavior problems may promote academic difficulties - the child who refuses to cooperate with academic tasks does not learn as much" (p.15)

Improved attitude

The tutee experiences an improved attitude toward school and learning (Ehly & Larsen, 1980). The tutee gets the extra help that he\she needs to keep up with the class and experience success while at school.

Increased contact

The tutee will have increased contact and opportunity for closeness with the instructor and corresponding learning efficiency (Pierce, Stahlbrand & Armstrong, 1984). Students trained as teachers may be able to find better ways to get students to understand material to be learned. For example, tutors may be more skilled than adults in interpreting nonverbal cues indicative of another child's comprehension. Children that spend time with each other may help facilitate their ability to decipher their own non-verbal behavior. Allen & Feldman (1975) examined the accuracy of children and adults in interpreting non-verbal responses. Through the use of videotapes they made records of a child listening to a difficult and an easy lesson. The videotapes were then shown to other children and adults who were asked to estimate how much each child understood the lesson. Results showed that children were more sensitive than adults to nonverbal cues indicative of a child's comprehension. The authors also suggest that a bond of friendship can develop between the tutor and the tutee that enhances the teaching. Goodlad & Hirst (1989) advocate that in the child-teaching-child situation it is more likely that an affective relationship will develop and this emotional component may be an important factor contributing to the child's learning. In addition, the children may

be able to communicate more effectively with each other than adults can communicate because children tend to use shorter and simpler sentences.

Increased concentration

The tutee may be more relaxed with a peer tutor and hence more able to concentrate on learning the materials (Ehly & Larsen, 1980). Fogarty & Wang (1982) suggest that the development of a harmonious relationship may help foster the motivation needed for improved learning.

Benefits for the teacher

The organization of a peer tutoring program will undoubtedly have benefits for the instructional management personnel (teacher). The possible benefits from such a program include the following:

More pleasant job

The teacher's job can become more pleasant (Goodlad & Hirst, 1989). First, the tutors may perceive their teachers as colleagues and an atmosphere of cooperation may develop. Secondly, large classes can be reduced into smaller groups reducing the strain of controlling large number of students simultaneously. Discipline problems may be reduced since peer tutoring gives children a great deal of attention.

Fewer routine tasks

Teachers can be freed from some routine tasks (Webb, 1987). The teacher will have more time to spend on more difficult tasks such as planning the curriculum and arranging conditions in which students can learn.

Personal satisfaction

Peer tutoring increases personal satisfaction for the teacher (Goodlad & Hirst, 1989). A successful peer tutoring program will require skills of management and organization. Once the teacher sees the benefits of the program he/she will be willing to put extra time into planning.

Expand the available resources

When a teacher uses peer tutoring the students have more resources to access to help meet their individual needs. Peer tutoring also increases the likelihood that students will be receiving the individual attention they need. (Pierce, Stahlbrand & Armstrong, 1984). Increasing the number of people who work with individual students will increase the amount of time students will have for appropriate tasks. The low performing student can deal more actively with the subject matter when the material is first presented in a group and then individually. The low performing students are not only exposed to the material but they have increased time working in a partnership to listen, to respond and to use new material. This

repetition is critical to low-performing students because it provides the chance to increase the time during which they are actively engaged with the academic material.

Improved interpersonal relationships

Peer tutoring encourages positive interpersonal relationships among students and between students and teachers. Cooperative learning methods produce mutual concern among students as well as feelings of obligation to and responsibility for classmates (Pierce, Stahlbrand & Armstrong, 1984).

Opportunities for the gifted child

The tutoring program provides enhanced opportunities for the gifted child who is trained as a tutor (Pierce, Stahlbrand & Armstrong, 1984). The gifted student will enrich his/her knowledge of the subject matter as well as learn about teaching and managing another's behavior.

Benefits for individual children

Peer tutoring can also benefit the educational services that are delivered to meet the needs of each individual child. Several possible benefits that surface in the literature include:

Intervention system

Peer tutoring may be a preferable intervention system to prevent inappropriate educational placements (Miller & Peterson, 1987; Greenwood, Terry, Utley, Montagna & Walker, 1993). There may be less of a need to refer students to special education programs in order to meet their instructional needs because peer tutoring may be able to do it. Sauve (1994) suggests that using peer tutoring as a stay in school initiative has helped special needs students to feel more comfortable and confident in their new environment as part of a regular school program as they develop important life skills such as time management.

Apply the knowledge across a broad range of curriculum areas

Once teachers learn how to implement peer tutoring they can apply the knowledge across a broad range of curriculum areas (Miller & Peterson, 1987). Kohler & Strain (1990) also argue that a wide range of skills can be taught or modified with a peer tutoring procedure.

Facilitate main streaming

Peer tutoring helps to facilitate the mainstreaming of disabled students into less restrictive settings (Miller & Peterson, 1987; Conway & Grow, 1988). In recent years there has been an increase in the number of tutoring projects involving disabled students. Social rejection and academic deficiencies are the two primary

problems facing disabled students (Goodlad & Hirst, 1989). Peer tutoring offers tutors a chance to interact with disabled tutees in a socially structured setting that offers excellent opportunities for interpersonal communication. Studies indicate that the attitudes of tutors towards disabled students improve after tutoring (Wagner, 1982). Since research has indicated social and academic gains for tutors, educators are beginning to use disabled students as a tutor instead of a tutee (Eiserman & Osguthorpe, 1986). Studies in which the disabled students tutor other disabled students indicate that there is an increase in positive social behavior. Reverse role tutoring gives the disabled child a chance to be placed in a position where they will be viewed as a competent teacher holding skills valued by non-disabled peers and thereby increasing their social acceptance. Sign language is one area in which the hearing impaired child can be a tutor because he/she is already fluent in the language and require little training to teach this topic that is virtually unknown to most non-disabled children (Goodlad & Hirst, 1989).

Instructional intervention

Peer tutoring provides a viable instructional intervention for behaviorally disordered children (Goodlad & Hirst, 1989). The behaviorally disordered student typically exhibits deficiencies in both academic and social behaviors. They may display little interest in academic work, have a poor self concept and have a poor

attitude toward school. A tutor is able to concentrate solely on the behaviorally disruptive student and can help correct inappropriate gestures before they escalate into disruptive behaviors (Maher, 1982). Maher (1982) further argues that peer tutoring, if used at the beginning of the school year, could be a potential preventive approach in helping to reduce or eliminate these behaviors before they are displayed as maladaptive behavior. In time these pupils may come to see their tutors as role models and imitate their behavior. In addition, these students will be given a chance to make academic gains. Scruggs & Osguthorpe (1985) write that the behaviorally disruptive student who is a tutor can improve his/her academic functioning if content areas are carefully chosen and if there is an appropriate difference in the level of functioning of the tutor and tutee. DuPaul & Henningson (1993) specifically address the effects of peer tutoring on ADHD Children. They suggest that peer tutoring may have great potential for these students because (1) individual and immediate performance feedback available from peer tutoring may increase the chances of a higher rate of appropriate responding and (2) tasks that require active responses to academic material (that is available from peer tutoring) help to channel potentially disruptive behaviors into constructive responses.

Concerns of Peer Tutoring

The above literature review and discussion has outlined benefits for the tutor, tutee, teacher, and educational system that would make peer tutoring appear very worthwhile. However, most programs are not without their critics. Some of the concerns expressed in the literature for peer tutoring include the following:

- (1) Elitism: Most peer support teams must be established through a selection process. Those who apply and are not accepted may be devastated (Weir, 1992). Weir suggests that those who are not selected could serve on a subcommittee working on various projects throughout the year that will allow them to be included along with the core team in the year end activities. He also suggests that the school avoid giving the selected tutors a high profile because of possible perceived imbalance of privileges.
- (2) The tutors need to know that there is an adult they can go to and discuss everything that the tutee may disclose during the tutoring session (Weir, 1992)
- (3) There is added pressure for these tutors to behave in a certain way (Weir, 1992). Weir advocates the use of a productive approach to be the most effective way to deal with any difficulties. This means that the student(s) would be reminded frequently of their responsibilities and with the understanding that they could be removed from the team after several warnings.

- (4) The delivery of a tutoring program will place tremendous demands on the trainees/leaders of the tutoring program (Weir, 1992). These people must be prepared to give a great deal of time and energy to the team because of the many facets of the program. Weir (1992) suggest that this could be alleviated by: (a) responsibility for the team be divided among 2-3 staff members; (b) responsibility be assigned to the students for the team work required; (c) the tutoring program be run for 4-5 months of the school year rather than for the whole school year.
- (5) Peer instructors employ a limited range of teaching strategies and appropriate use of reinforcement (Medway, 1991). A tutor who has a limited range of teaching strategies may not be able to get the tutee to understand the material.
- (6) The risk of there being a low incidence of spontaneous praise to the tutee (Medway, 1991)
- (7) There is the possibility that peer tutoring can be abused by students who want to get out of study hall by asking for tutoring help (Corn & Moore, 1992)
- (8) Accountability - who is responsible? (Greenwood, Carta & Hall, 1988). These authors question who will take the responsibility if the tutoring doesn't work - tutor, teacher advisor, tutee.

(9) Peer competence - the ability of peer tutors to provide the continuous, high quality services needed to help meet the needs of the tutee (Greenwood, Carta & Hall, 1988).

Theoretical Basis of Peer Tutoring

The theoretical foundations of peer tutoring are diverse and no unifying theoretical framework is readily evident from the literature (Miller & Peterson, 1987). Miller & Peterson (1987) suggest that lack of framework may well limit the cohesiveness of the existing research. The theories that have been proposed to help explain the effectiveness of different tutoring approaches include (1) Role model, (2) Gestalt, (3) Help seeking, (4) Social skills, and (5) Behaviourist .

Sarbin (1976) proposed the role model to help explain the effectiveness of the peer tutoring programs. According to Sarbin enacting the role of teacher conveys competence, prestige and authority. Therefore, the more tutors see themselves as having these qualities the more their self-esteem and school attitudes will improve. Sarbin further suggests that switching tutorial roles may overcome the tutee's feelings that they are less competent and worthy of the tutor. Goodlad and Hirst (1989) suggest that the behavior of a child given the role of teacher who is working with a younger child will be constrained by the

expectations of that young child. Hence, the older child will develop a sense of sympathies with their teachers and perhaps develop a deeper respect for learning. Goodlad & Hirst (1989) also point out that the role taking model can apply to the tutee. Communication is inhibited by differences in culture between teacher and learner; it is facilitated if pupils perceive their teachers as inhabiting a similar world to their own (Goodlad & Hirst, 1989). The role model theory would suggest that pupils will learn better from tutors who are similar in general culture and background than from teachers who may be perceived as belonging to an alien world. Pierce, Stahlbrand and Armstrong (1984) outline the influence of a positive role model. They suggest that using a role model may exert a powerful influence on constraining the tutor's behavior along socially desirable channels and a tutee may try to imitate a tutor; for example, keeping attention on learning materials, using efficient study skills, and good interpersonal skills. Ehly & Larsen (1980) also outline the importance of a peer model to emulate. They suggest that "this modeling factor may be one of the most powerful factors in the peer tutorial model" (p.120) Children are able to observe another student who remains focused on the academic materials, approaches the learning materials in a calm and competent manner and is interested in helping the tutee learn. Webb (1987) also offers support for modeling. He states that while teachers may more flawlessly

demonstrate cognitive skills than do tutors, the tutor often provide higher efficacy because students believe greater efforts may result in achievement equal to a tutor while matching a teacher's ability is generally impossible.

Allen (1976) offers support to the Gestalt theory to explain the effectiveness of peer tutoring. The Gestalt theory hypothesizes that learning will occur when the learner locates an item in an intellectual structure. That is, "children who teach other children have to struggle to make material meaningful to the learner and therefore have the opportunity to reflect upon their own leaning process. This opportunity may increase the tutor's awareness of the patterns of learning and consequently help them to develop their skill in seeing problems in new and different ways " (p.15).

Allen (1976) also suggests that behaviorist theory can help explain why peer tutoring is successful. Behaviorist theory "asserts that learning will be efficient if every response to a question by a pupil is rewarded; the reward acting as a stimulus to the pupil to make another step in learning" (p.26). Ehly & Larson (1980), Pierce, Stahlbrand and Armstrong (1984) and Topping (1991) all stress the importance of immediate and frequent feedback on performance for the tutee as opposed to delayed error correction. Kohler & Strain (1990) indicate that the tutor can control reinforcers and can give them contingent on a targeted behavior. Its

much easier for a tutor to do this as they work with 1-2 students than it is for a teacher to do with a class of 20-30 students. Nadler and Fisher (1986) proposed that the help seeking model could be applied to the peer tutoring process.

According to this model the tutee who receives help from a very competent person will experience an increase in self-esteem but will not be motivated to increase his/her own performance. The tutee may think that no matter how hard he/she works he/she will not perform as well as the tutor who is so competent. However, when a tutor and tutee are similar in ability it is challenging to both involved and will potentially motivate each to try and improve his/her performance. The tutor works to stay ahead of the tutee and the tutee knows that if he/she works hard he/she can do as well as the tutor. The traditional method of high ability paired with low ability may cause the tutee to feel emotionally threatened to the point that he/she considers him/her self to be of a lower status than the tutor. Nadler and Fisher (1986), therefore, stress that attention must be given to student pairing to help minimize these problems.

The above discussion has outlined several possible explanations for the success and failure of peer tutoring programs. Since there is not one unifying theoretical framework one may speculate that the success of such programs may indeed be a combination of several or all of the above mentioned theories.

Conclusion

The peer tutoring process has been used for centuries. It was first introduced to help alleviate the problem of overcrowded classrooms and a scarcity of properly trained teachers. More recently, however, tutoring has been initiated in schools to provide opportunities for the students to get the extra help that will improve the chances of that student succeeding. The focus has been placed on the student as tutor as opposed to teacher because research has shown that it is the student who probably has the better chance of building a rapport with another student that will lead to positive learning experiences. There have also been times when the peer tutoring program have been used specifically to address a specific social concern or problem. For example, the federally funded stay in school initiative program made use of peer tutoring to help address the country's drop out rate among our student population (Spain & Dyke, 1993).

Since its beginning users of the process have written about the advantages of such a program for the tutor, tutee, teacher and the educational system. The advantages for the tutor include achievement gains, improved self esteem, respect for and appreciation of the teaching process, feelings of usefulness and learning to become responsible for others. Possible tutee benefits include increased individual attention improving the chances of improved academic performances, improved

attitude towards school because of positive learning experiences and development of a rapport between the tutor and tutee that helps the tutee concentrate more on work. Discussion of peer tutoring benefits for the teacher and educational services available to the student have largely focused on the process as an intervention system to prevent or reduce inappropriate educational placement which is especially important for the special education and behaviorally disordered child.

One cannot discuss the advantages of peer tutoring without also mentioning the disadvantages of such a program. The organization and delivery of a successful program requires a tremendous amount of commitment from those who are involved in its delivery. There are serious concerns regarding the tutors. For example, the selection process should not exclude any tutor who is genuinely interested and tutors that are selected must not be seen as having more privileges than other students. The selection of the tutees must be chosen carefully as well to avoid the problem that they are asking for tutoring help in order to get out of other responsibilities such as study hall.

Reference

- Allen, V. L. (1976). Children as teachers: Theory and research on tutoring. New York: Academic Press.
- Allen, V. L. & Feldman, W. C. (1975). Interpreting non-verbal responses. In Pierce, M. M., Stahlbrand, K. & Armstrong, S. B. (1984). Increasing student productivity through peer tutoring programs. Texas: Pro-ed.
- Annon, K. & McDougall, D. (1989). Cross-age peer tutoring: Cognitive and affective benefits. Multi-Culturalism, 12(2), 29-32.
- Blackbourn, J.M. & Campbell, J. (1991). A multiple baseline analysis of the effect of peer tutoring on the academic performances of a second grade child with learning disabilities. Psychological Reports, 69, 177-178.
- Bruner, J. (1972). Immaturity its uses; Nature and management. In Annon, K. & McDougall, D. (1989). Cross-age peer tutoring: Cognitive and affective benefits. Multi-Culturalism, 12(2), 29-32.
- Carr, R. A. (1994). Peer helping in Canada. The Peer Counsellor Journal, 11(1), 15-18.
- Conway, N.F. & Grow, L. (1988). Mainstreaming special class students with mild handicaps through group instruction. In Wargner, C.L. (1991). Peer tutoring: When working together is better than working alone. Eric, 30.
- Corn, K.L. & Moore, D.D. (1992). Research for the s.t.a.r.s. - Students teaching and reaching students: A two-faceted peer facilitating program at Greenfield-central high school. The School Counselor, 40(1), 68-72.
- DuPaul, G.J. & Henningson, P.N. (1993). Peer tutoring effects on the classroom performance of children with attention deficit hyperactivity disorder. School Psychology Review, 22(1), 134-143.

Educational Statistics: Elementary-Secondary (1996). Department of Education, Government of Newfoundland and Labrador.

Ehly, S.W. & Larsen, S.C. (1980). Peer tutoring for individualized instruction. Boston: Allyn and Bacon, Inc.

Eiserman, W.D. & Osguthorpe, R.T. (1986). Intellectually handicapped students as tutors: Implementing total class tutoring. Eric Document Reproduction Service. No. Ed 283 349; EC 192 779

Fogarty, J.L. & Wang, M.C. (1982). An investigation of the cross-age peer tutoring process: Some implications for instructional design and motivation. The Elementary School Journal, 82(5), 451-469.

Garcia-Vazquez, E. & Ehly, S.W. (1992). Peer tutoring effects on students who are perceived as not socially accepted. Psychology in the Schools, 29(3), 256-266.

Goodlad, S. & Hirst, B. (1989). Peer tutoring: A guide to learning by teaching. New York: Kogan Page.

Greenwood, C.R., Terry, B., Utley, C.A., Montagna, D. & Walker, D. (1993). Achievements, placement, and services: Middle school benefits of classwide peer tutoring used at the elementary school. School Psychology Review, 22(3), 497-516.

Greenwood, C.R., Terry, B., Arreaga-Mayer, C. & Finney, R. (1992). The classwide peer tutoring program: Implementation factors moderating students' achievement. Journal of Applied Behaviour Analysis, 25(1), 101-116.

Greenwood, C.R., Carta, J.J. & Hall, R.V. (1988). The uses of peer tutoring strategies in classroom management and educational instruction. School Psychology Review, 17(2), 258-275.

- Jenkins, J.P. & Jenkins, L.M. (1981). Cross-age peer tutoring. In Annon, K. & McDougall, D. (1989). Cross-age peer tutoring: Cognitive and affective benefits. Multi-Culturalism, 12(2), 29-32.
- Kohler, F.W. & Strain, P.S. (1990). Peer-assisted intervention: Early promises, notable achievements, and future aspirations. Clinical Psychology Review, 10(4), 441-452.
- Lippett, P. (1976). Learning through cross-age helping. In Annon, K. & McDougall, D. (1989). Cross-age peer tutoring: Cognitive and affective benefits. Multi-Culturalism, 12(2), 29-32.
- Maher, C.A. (1982). Behavioural effects of using conduct problem adolescents as cross-age tutors. Psychology in the Schools, 19(3), 360-364.
- Maher, C.A. & Zins, J.E. (1989). Psychoeducational interventions in the schools. New York: Pergamon Press.
- Medway, F.J. (1991). A social psychological analysis of peer tutoring. Journal of Development Education, 15(1), 20-26.
- Miller, J.A. & Peterson, D.W. (1987). Peer-influenced academic interventions. In Maher, C.A. & Zins, J.E. (1989). Psychoeducational interventions in the schools. New York: Pergamon Press.
- Nadler, C. & Fisher, E. (1986). Theoretical basis for peer tutoring. In Goodlad, S. & Hirst, B. (1989). Peer tutoring: A guide to learning by teaching. New York: Kogan Page.
- Pierce, M.M., Stahlbrand, K. & Armstrong, S.B. (1984). Increasing student productivity through peer tutoring programs. Texas: Pro-ed.
- Paolitto, D.P. (1976). The effects of cross-age tutoring on adolescence: An inquiry into theoretical assumptions. Review of Educational Research, 46(2), 215-237.

- Sarbin, M. (1976). Theoretical basis for peer tutoring. In Goodlad, S. & Hirst, B. (1989). Peer tutoring: A guide to learning by teaching. New York: Kogan Page.
- Sauve, P. (1994). Peer tutoring reduces dropouts. Peer Counselor Journal, 11(1), 18-21.
- Scruggs, T.E. & Osguthorpe, R. (1985). Tutoring interventions within special education settings: A comparison of cross-age and peer tutoring. In Warger, C.L, (1991). Peer tutoring: When working together is better than working alone. Eric, 30.
- Spain, W.H. & Dyke, I. (1993). Dropout Prevention and Youth in Transition Programs. A Resource Book, Newfoundland Department of Education.
- Strayhorn, J.M., Strain, P.S. & Walker, H.M. (1992). The case of interaction skills training in the context of tutoring as a preventive mental health intervention in schools. Behavioural Disorders, 19(1), 11-26.
- Strom, R.D. & Bernard, H.W. (1982). Educational Psychology. California: Brooks/Cole Publishing Company.
- Topping, K. (1991). Achieving more with less: Raising reading standards via parental involvement and peer tutoring. Support for Learning, 6(3), 112-115.
- Warger, C.L, (1991). Peer tutoring: When working together is better than working alone. Eric, 30.
- Wagner, L. (1982). Peer teaching: Historical perspective. Connecticut: Greenwood Press.
- Webb, M. (1987). Peer helping relationships in urban schools. Eric Digest.
- Weir, D. (1992). Peer support programs at the elementary level: Pros and cons. The Albert Counselor, 20(2), 3-6.

- Yogev, A. & Ronen, R. (1982). Cross-age tutoring: Effects on tutors' attributes. The Journal of Educational Research, 75(5), 261-268.

Paper 2

Implementation of Peer Tutoring

Introduction

Miller and Peterson (1987) suggest that the planning and implementation of a peer tutoring program “ should be completed within the context of the entire educational services system”(p.88). These authors outline four steps in program planning that will help improve the chances of a successful peer tutoring program. These include :

(1) Needs assessment must be completed for the students. Data can be obtained from curriculum - based assessments, reviews of standardized test results, evaluations of daily work and observations by students’ teachers. The data should highlight which students need additional help and in what areas extra help is needed. There also has to be an assessment on the needs of teachers and other support staff. The assessment should indicate what teachers know about the peer tutoring process, and how much time they are willing to commit to such a program. Lastly, a needs assessment must be completed to ascertain the readiness of the organization in which the tutoring will take place. It is crucial that the organizers of the peer tutoring know that the administration and the parents have a full understanding of the process and are willing to give support in terms of time and resources for a successful program.

(2) Program goals and objectives must be established dependent on the results of the needs assessment. If goals are not clearly established, the program will be hampered by an unclear understanding of what it is designed to accomplish. Well planned program goals and objectives also help program planners to design appropriate education activities.

(3) The 3rd step in peer tutoring is the actual implementation and delivery of the program to the students. Though there is a great deal of overlap by various authors as to what components have to be considered, Miller & Peterson (1987) and Pierce, Stahlbrand, and Armstrong (1984) and Webb (1987) have included the following: (a) Program supervision and management (b) determining lesson content and format (c) scheduling of the sessions (d) selection of the tutor and tutee (e) training the tutor and (f) monitoring of the program.

(4) The 4th step outlined by Miller & Peterson (1987) is the evaluation of the peer tutoring program. Evaluation must proceed from the objectives for the program (Topping, 1988). The evaluation results will demonstrate effectiveness (or lack of) and how you can improve the program so it is more effective in the future. Evaluation evidence may convince colleagues of the value of peer tutoring. Evaluation also acts as a reinforcement for oneself (Topping, 1988). If you have concrete data about the success of the project which is independent of your own

views, one will feel that you are working from a more solid foundation. This paper will elaborate on the implementation and evaluation of the peer tutoring process.

Implementation of a Peer Tutoring Program

Careful consideration of all program components will help to assure the success of the peer tutoring program (Miller and Peterson, 1987). This is particularly important if the project is a first venture (Topping, 1988). After all, people are more willing to participate in a program if it has worked well the first time.

Selection of the Tutee

The research on peer tutoring indicates that the selection of the tutee should be based on the goals of the program (Miller and Peterson, 1987; Warger, 1991). For example, if the goal of the program is to provide extra instruction to improve academic performance in a specific area then you would choose student(s) who would benefit from such instruction. Needless to say, selection of the tutee should be done carefully so that maximum benefit can be achieved through the program.

Ehly & Larsen (1980) writes that the three factors that should be considered when selecting a tutee include: (1) Potential of the student to profit from the tutorial sessions and (2) Student's attitude and beliefs about him/her self and (3) the learner's behavior can be handled by the tutor without constant supervision. They suggest that the child who has severe learning problems or behavior difficulties can also benefit, although greater teacher attention may need to be given to help meet the demands placed on the tutor.

Koskinen & Wilson (1982) indicate that a range of students can be chosen to be tutored. Miller & Peterson (1987) advocate that successful programs have involved tutees of a wide range of ages (primary grades through college) and abilities. These may include the talented or gifted students who need direction in their independent study, students with skill deficiencies, average students who need individual attention and those who have a special interest or have missed classes. However, Annon & McDougall (1989) warn that caution must be exercised because peer tutoring can become a dumping ground for problem children. Topping (1988) also warns that peer tutoring programs cannot be used to compensate for fundamental weaknesses in the teaching or infrastructure within a school.

There are different views as to how the tutee should be selected. Koskinen & Wilson (1982) feel that chances for success are increased if students volunteer to be tutored. Topping (1988) advocates the use of advertisements on posters and handbills to reach potential tutees. He also suggests that students can be approached on an individual basis. He cautions that if this is done a clear form of words should be prepared which is used consistently with everyone. Fogarty & Wang (1982) and Blackbourne & Campbell (1991) suggest that the classroom teacher choose the tutee. Still others, like Topping (1988) remind us that if parents are aware of the tutoring program they can request that their child become a tutee.

Selection of the Tutor

The selection of the tutors for the peer tutoring program requires considerable time and attention. The literature reveals that the selection of tutors can be based on either their academic or social attributes (Constable, 1979; Fogarty & Wang, 1982). Even if the goals of the peer tutoring program are mainly academic in nature, students of varying intellectual levels can tutor successfully as long as training and supervision focuses on the specific needs of the learner in the tutoring arrangement. Pierce, Stahlbrand, Armstrong (1984); and Jenkins &

Jenkins (1981) state that some evidence indicates that teachers need not select the best student as tutors; low achieving students can tutor younger, lower achievers in order to minimize the effects of subject-matter deficits. Koskinen & Wilson (1982) further suggest that the slower learner could tutor the younger child. However, when the tutor is involved with the exceptional or handicapped child additional considerations will be needed to provide for the student's unique instructional needs (Ehly & Larsen, 1980). These additional considerations could include specific tutorial procedures with content materials and procedures on how to deliver these materials.

There are some authors who argue that interest and social characteristics represent the most important considerations in tutor selection (Ehly & Larsen, 1980). Allen & Feldman (1976) write that, since the tutor will serve as a role model for the tutee, it is essential that the tutor behave in a socially acceptable manner. "Tutors who demonstrate sensitivity, responsibility, appropriate social skills, and the ability to remain on task will be able to master and maintain necessary tutoring skills" (Miller & Peterson, 1987, p.94). However, Miller & Peterson (1987) suggest that if the program has to use less socially adept tutors then tutor training should be highly structured and the tutors' skills carefully monitored.

The literature indicates numerous ways in which the tutor is chosen. Corn & Moore (1992) indicate that tutors can be chosen from the Honor Roll at school with referrals from teachers and the guidance department. This would certainly ensure that tutors are academically prepared to tutor. Other authors advocate that tutors should volunteer followed by further screening by teachers (Fogarty & Wang, 1982 and Constable, 1979). This would help ensure that those tutors involved are truly interested in what they do. Muirhead & McLaughlin (1990); Fogarty & Wang (1982) and Constable (1979) suggest that every effort should be made to give every volunteer tutor a chance to tutor. Topping (1988) goes further and suggests that there should be "stand-by tutors" available to ensure that absence from school of the usual tutor can be covered. Muirhead & McLaughlin (1990) caution that no one should force a reluctant student to become a tutor.

Matching of the Tutor and Tutee

The importance of the time given to matching the tutor and tutee can never be underestimated. Ehly & Larsen (1980) suggest that much of the effectiveness of peer tutoring lies in the personal nature of the relationship between the tutor and

tutee. These authors suggest that the guidelines for matching should be set up before the program starts.

The literature review indicates that there is not a general agreement as to who is involved in the matching of the tutor and tutee. Ehly & Larsen (1980) suggest that the teacher who has the extended experience with the students should participate in the matching process because he or she can recognize the cognitive and affective strengths of both the tutor and tutee. Topping (1988) argues that it is desirable to take the individual preference of the participants themselves into account. He does caution, though, that allowing completely free child selection of the tutor is likely to generate a degree of chaos whereby some tutors will be over-chosen and others will not be chosen at all. He puts forth a possible compromise allowing each tutee to select three choices (both negative and positive) on a secret ballot. Mallette, Harper, Maheady & Dempsey (1991) advocate the random assignment of the tutors and tutees. A random assignment reduces the perception that people were paired for personal reasons. Sometimes personality differences between tutor and tutee exist that lead to uncooperativeness. Annon & McDougall (1989) suggest that in these situations reassignments to other partners should be made. Ehly & Larsen (1980) suggest that using a Likert scale may help to avoid such a situation.

There does seem to be a general agreement that the goals of the tutoring program will definitely affect the pairing process (Ehly & Larsen, 1980). For example, if tutee academic development is the priority then the tutor must be chosen such that he/she can help the tutee. If the goal of the program is to improve social skills then the tutor must be proficient in that area. Topping (1988) suggests that a rule of thumb is to keep a differential of about two years in attainment between the tutor and tutee. He cautions to avoid the situation of where the most able tutor is paired with the least able tutee because it may create a situation where the gap in ability is so wide that little stimulation is available from the tutoring materials for the tutor. On the other hand if a minimal differential in ability is not maintained and the tutor's abilities are approximate to those of the tutee then very little gain in attainment can be expected from the tutee.

Some authors have expressed concern regarding the importance of other variables such as sex of the tutor and tutee and pairing of friends. Ludke & Hartup (1983) and Annon & McDougall (1989) advocate that the tutor and tutee should be of the same sex. Contrary to this, Foot & Barron (1990) suggest that tutor and tutee should be of opposite sex. Ludke & Hartup (1983) feel that the tutor and tutee should be of the same sex as research indicates that boys & girls prefer this arrangement. There were no explanations given as to why tutor and

tutee should be of the same sex or opposite sex. It appears that the choice is more of a personal nature and depends on the individual tutor and tutee.

Foot and Barron (1990) & Topping (1988) advise that pairing friends as tutor and tutee must be done with extreme caution. It is often assumed that the friendship presumes a pre-established pattern of interaction between the tutor and tutee which is expected to alleviate the need for social management during the tutoring sessions such that the tutor can concentrate on the demands of the tutoring. However, Foot & Barron (1990) explain that friendship may impose greater burdens because of a need to re-negotiate the new social relationship. Their study showed that the level of interaction between the tutor and tutee during the tutoring session was high but this had no effect on test scores representing the quantitative measure of learning.

Training of the Tutors

Tutor training is likely to be the most important ingredient of a successful tutoring program (Foot & Barron, 1990; Koskinen & Wilson, 1982; Lippitt, 1976; Miller & Peterson, 1987 and Schmidt, 1991). The literature review outlines the following reasons why tutor training is important:

- (1) Tutors have to be taught how to be a good role model especially when one considers the benefit for the tutee having a model to emulate (Ehly & Larsen, 1980).
- (2) Tutor must be trained when and how to refer students in critical need for personal counseling to the counselor, thus avoiding possible tragedy (Schmidt, 1991).
- (3) Unless trained, tutors may act like the worst teachers they have ever had. They need to learn better alternative methods (Lippitt, 1976).
- (4) Untrained tutors may not make appropriate use of reinforcement and will only make use of a limited range of teaching behaviors (Medway, 1991).
- (5) Tutors who expect too much from the tutee may put too much pressure on the tutee. There is a need to create a learning environment which is non-threatening to the learner (Lippitt, 1976; Ehly & Larsen, 1980).
- (6) Tutors need a range of guidelines dealing with different types of student behavior (Koskinen & Wilson, 1982).
- (7) One should never assume that children naturally know how to teach because they may bring to the tutoring session their own implicit theories of teaching which may be deficient in terms of their sensitivity to the needs of the learner (Barron & Foot, 1991).

- (8) Untrained tutors may rely on coercive strategies, do the work for the tutee or mark improperly (Strom & Bernard, 1982).

Ehly & Larsen (1980) state that the “training must reflect the goals and objectives of the tutoring program and will vary with the teacher, tutor and the requirements of the tutoring program” (p. 202). Rings & Sheets (1991) and Pierce, Stahlbrand & Armstrong (1984) emphasize that training programs for tutors must keep the theory of student development and learning principles in mind. Since the underlying purpose of tutoring programs is to help students to become self-directed learners and to make academic gains then tutors have to be trained in methodology as well as content to be prepared for the role of tutor. The literature indicates a wide range of things that tutors can do to help students attain the specified objectives. It is important to note that these suggestions come from a variety of sources. Tutors are, therefore, more likely to help their tutees attain the specified objectives of the lesson if they can:

- (1) Establish rapport with the tutee helping to create a learning environment which is non-threatening to the learner (Ehly & Larsen, 1980; Pierce, Stahlbrand & Armstrong (1984). Annon & McDougall (1989) note that tutors should be taught how to express empathy towards the tutee providing a caring environment.

- (2) Secure and maintain the tutee's attention during the tutoring sessions (Miller & Peterson, 1987; Pierce, Stahlbrand & Armstrong, 1984).
- (3) Provide concise instructions and clear expectations for the tutee's behavior and for learning expected during the sessions (Miller & Peterson, 1987; Pierce, Stahlbrand & Armstrong, 1984)
- (4) Give a straightforward presentation of the new information.
- (5) Praise the tutee for a correct response
- (6) Correct the tutee by (a) modeling the correct answer, (b) saying the answer with the tutee or (c) requiring the tutee to say the answer alone (Lazerson, Foster, Brown & Hummel, 1988; Pierce, Stahlbrand & Armstrong, 1988).
- (7) Avoid any form of punishment (Ehly & Larsen, 1980; Pierce, Stahlbrand & Armstrong, 1984)
- (8) Avoid using subtle clues to prompt the tutee (Pierce, Stahlbrand & Armstrong, 1984). Miller and Peterson (1987) advocate the use of clues, shaping and prompting appropriately to encourage correct responses.
- (9) Stay on task and pace the lesson at a reasonable speed
- (10) Use specific criteria to judge when an objective has been mastered
- (11) Use a consistent system of reinforcement. Pierce, Stahlbrand & Armstrong (1984), Ehly & Larsen (1980) and Miller and Peterson (1987) suggest using

verbal praise for correct response as well as intermittent tangible reinforcers when appropriate.

- (12) Keep accurate records of tutee progress (Miller & Peterson, 1989; Pierce, Stahlbrand & Armstrong, 1984).
- (13) Locate, organize and use efficiently the prepared tutoring materials (Miller & Peterson, 1987).
- (14) Make tutees aware of instructional support materials & school resources they can use by themselves (Rings & Sheets, 1991). This will help promote the tutees' independence and create less of a dependence on the tutor.
- (15) Effectively communicate with the tutee (Rings & Sheets, 1991). The tutor needs to be an active listener and to help the tutee to clarify and monitor their goals.
- (16) Accommodate individual learning styles (Rings & Sheets, 1991). Too often the tutor assumes that the same learning strategy will work for everyone. Hence, the tutor has to be made aware of such individual differences and have an array of learning strategies to accommodate these differences.
- (17) Aware of cultural individual differences that can play a role in the learning process (Rings & Sheets, 1991).

- (18) Be aware of and use learning strategies with the learning disabled child (Rings & Sheets, 1991).

A further review of the literature also gives some guidelines as to the (a) length of the training, (b) who is involved in the training and (c) the technique used during training to prepare the tutor for the program.

There is no agreement within the literature review as to how long the training should be. Miller & Peterson (1987), Pierce, Stahlbrand & Armstrong (1984), and Koskinen & Wilson (1982) say that the length of training will vary based upon the skills tutors have already acquired, tutor's ages, and the complexity of the material to be taught. In essence, the training will be as long as it takes for the tutor to acquire the essential skills. Some authors do suggest varying times; for example Annon & McDougall (1989): 6 weeks, Fogarty & Wang (1982): 3 training sessions; Mallette, Harper, Maheady, & Dempsey (1991): one 30 minute session. Koskinen & Wilson (1982) further suggest that additional training is usually needed while the tutoring program is in progress. It is obvious that the training length would be dependent on the number and depth of skills that will be taught to the tutors.

The authors make several suggestions as to who can be responsible for the training of the tutors. Schmidt (1991) feels that the counselor and the teacher can

work together to train the tutor. Koskinen & Wilson (1982) advocate the use of teachers, former tutors, consultants and school specialists to help train the tutors.

The techniques suggested for tutor training are varied. Miller & Peterson (1987), Warger (1991) and Yogeve & Ronen (1982) suggest the use of modeling of appropriate tutoring behaviors. They suggest that the teacher model with the student and eventually the students model for each other. Miller & Peterson (1987) as well as Pierce, Stahlbrand and Armstrong (1984) suggest the use of role playing to enhance the acquisition of skills. Topping (1988) and Yogeve & Ronen (1982) advocate the use of lectures to help train. You would have to make sure that the language used is easy for others to understand. Lippitt (1976) suggest that a seminar approach would be taken whereby tutors could exchange ideas. Topping (1988) and Koskinen & Wilson (1982) also promote the use of written information in the form of a pamphlet. In fact, Koskinen & Wilson (1982) have written such a pamphlet called **A Guide for Student Tutors** that outlines and discusses important points on how to tutor successfully. Yogeve & Ronen (1982) also mentioned the use of case analyses using closed-circuit T.V and other audio-visual aids.

Program Monitoring

There is unanimous agreement in the literature that the peer tutoring program requires monitoring (Pierce, Stahlbrand, & Armstrong, 1984; Topping, 1988). The reasons given as to why monitoring is a necessary component of the program have included the following:

- (1) to help students stay on track and make sure that the tutee advances only after demonstrating mastery (Beirne-Smith, 1991)
- (2) to collect student performance data (Miller & Peterson, 1987)
- (3) to provide praise for appropriate teaching and on-task behaviors (Miller & Peterson, 1987)
- (4) to model appropriate teaching behaviors (Miller & Peterson, 1987)
- (5) to provide immediate assistance when problems arise
- (6) to provide retraining (Pierce, Stahlbrand & Armstrong, 1984)
- (7) remotivating students when necessary (Pierce, Shalbrand & Armstrong, 1984)
- (8) to ensure that technique does not show signs of “drift” (Topping, 1988).
- (9) to see that tutorial pairs are maintaining a positive social relationship (Ehly & Larsen, 1980; Topping, 1988)

- (10) to ensure that materials are being used in an appropriate sequence or with reference to relevant levels of difficulty
- (11) to ensure that an appropriate level of feedback is given to the tutee (Ehly & Larsen, 1980)
- (12) to monitor basic organization of the program and attendance of the tutors and tutees, availability of materials, appropriate space for tutoring (Topping, 1988)

The literature also offers suggestions as to how the monitoring could be done. Topping (1988) believes that the students involved in the program may be the first to report difficulty or seek help (self-referral). It is crucial that both the tutor and tutee know who they can go to when the need arises. Topping (1988) even suggests that students be encouraged to report any difficulties they may be having. Self-recording is another way to monitor the program's progress (Topping, 1988; Miller & Peterson, 1987). Topping (1988) and Eiserman & Osguthorpe (1986) advocate that the tutor and tutee use daily logs to keep track of their progress. The record keeping can be shared by the tutor and tutee. The tutee can record basic details such as date, materials used and work completed while the tutor can add words of praise or other comments. These daily logs should be checked each week by the supervising teacher to make sure things are going well.

Many projects also arrange regular meetings between teachers and the tutors and tutees (Topping, 1988). These can occur with the tutors and tutee separately or together and with them in groups or as individuals. These meetings provide the opportunity to discuss how the project is going. Group meetings can be valuable for the tutors and tutee to see that other pairs have the same problems. On the other hand, individual meetings will help elicit more feedback from the shy individual though it may be more time consuming. Lippitt (1976) even suggests that the monitor have staff meetings at regular intervals so that the staff can evaluate progress, support the team's efforts and plan changes if necessary.

Perhaps of all the monitoring procedures direct observation is by far the most rewarding (Topping, 1988; Miller & Peterson, 1987). Observation provides the ideal opportunity to observe tutor-tutee pairs and the chance to provide praise for appropriate teaching and on-task behaviors, to model appropriate teaching behaviors and to provide immediate assistance when problems arise. It also allows the monitor to collect data not only on tutee progress but also on the skill level of the tutor. Data collection is important not only as a monitoring procedure but to be used in evaluation of the project later on.

Determination of Lesson Content and Format

The literature review would suggest that a great deal remains to be written about the lesson content of the tutoring program. However, there are several points worth noting.

First, there is no limitation to the content area that can be included in a tutoring program (Koskinen & Wilson, 1982). Secondly, the lesson content should be directly related to the specific objectives established according to the results of the needs assessment (Corn & Moore, 1992; Miller & Peterson, 1987). Jenkins & Jenkins (1981) suggest that lessons should be directly related to the curriculum and academic tasks taught in the classroom. This may help facilitate generalization and increase the chances that the tutee will maintain the skills that they acquire during the tutoring sessions in other academic settings. Topping (1988) strongly recommends using a pre-existing package for those doing a peer tutoring program for the first time. He feels that using such a package will already have a background of evidence from other workers which one may compare results.

Scheduling of Sessions

Generally the scheduling of tutoring sessions will consider five things. (Topping, 1988). These include (a) time- when will the tutoring take place (for example after school, lunchtime) (b) place- physical space in which the tutoring pairs will meet (c) duration or how long each tutoring session will last, for example 1 hour, 30 minutes (d) frequency- how many times will the tutor and tutee meet and (e) project period referring to how long the tutoring program will continue.

The literature reveals that the time in which tutoring takes place will vary. Tutoring can take place before and after class (Koskinen & Wilson, 1982); during lunchtime (Sauve, 1994) and in the evenings (Sauve, 1994). However, the arrangements made are constrained by the transport arrangements of the tutor and tutee. Whatever time tutoring is arranged, consideration of several practical issues must be kept in mind. These include: (1) existing classroom schedule should not clash with tutoring times (Miller & Peterson, 1987) (2) written confirmation of times and days should be sent to the tutor, tutee and monitor (Koskinen & Wilson, 1982); (3) the availability of the tutor and tutee should help determine the scheduling (Miller & Peterson, 1987) (4) tutoring sessions should not interfere

with the pre-existing extracurricular activities students enjoy (Ehly & Larsen, 1980) and (5) scheduling should be done carefully to avoid cancellations during the program (Annon & McDougall, 1989).

Securing the physical space to accommodate the tutor and tutee for the program requires serious thought. It needs to be worked out beforehand to allow for consistency for the program (Ehly & Larsen, 1980). Topping (1988) stresses that a positive social atmosphere is more likely to be fostered if the students have adequate personal space and are comfortable during tutoring. It's equally as important that the space provided be free from noise that may interfere with the work of the tutoring pair. In addition, the space provided needs to have adequate seating arrangements to make everyone comfortable. The space available to the tutoring pair may include not only the school but also the public library as well as the home.

There is a great deal of variation in the literature concerning the duration of the individual session. Topping (1988) reports that tutoring sessions of 30 minutes seem to be the most common period. He writes that the minimum of fifteen minutes is necessary to accomplish anything. He also notes that it is rare to find tutoring sessions more than 60 minutes. Topping (1988) cautions against such long sessions because if the tutoring pair is exhausted at the end of the session one

or both may come to the next session with less enthusiasm. Jenkins & Jenkins (1981) feel that the length of the session should be based on the ability of the tutee to stay on task. They suggest that for a primary student the tutoring should occur daily for at least 20 minutes. Koskinen & Wilson (1982) also think that the age of the students as well as the purpose of the program should help determine the length of the session. They suggest that the elementary child could have a 20-30 minute session while a high school student could have a longer session. Barron & Foot (1991) suggest that the sessions vary according to the task. For example, if the task is specific then a short time is recommended. Ehly & Larsen (1980) feel that the students themselves should determine the length of the sessions depending on the ability and tolerance level of those involved.

The literature reveals varying suggestions for the frequency with which the tutoring sessions should take place. Warger (1991) stresses that the tutoring must be regular. This is essential to help the student(s) stay familiar with the system. Ehly & Larsen (1980) feel that the frequency of the sessions should reflect on estimated average ability of the students to meet the instructional and behavioral objectives of the program. Koskinen & Wilson (1982) believe that the sessions have to be frequent enough to provide continuity for the student; they suggest tutoring occurring twice a week. Jenkins & Jenkins (1981) would prefer tutoring

to take place daily and Topping (1988) feels that three times a week is sufficient.

There is a general consensus among the authors that the project should have an initial fixed period of commitment (Koskinen & Wilson, 1982; Topping, 1988). A fixed date allows everyone involved to see the commitment within boundaries. Koskinen & Wilson (1982) feel that the program length should be decided by the teachers dependent on the assessment of the needs as well as the tutor and tutee interest. Topping (1988) suggests that the program run for a minimum project period of six weeks. He believes that this length of time is needed to discern the impact of the process. It is then much easier to obtain feedback and to evaluate the outcomes that may provide direction for future changes.

Evaluation

Some form of evaluation will certainly be a feature of the tutoring project (Topping, 1988). Essentially the evaluation will help the organizer to assess whether the predetermined goals and objectives of the program have been met (Ehly & Larsen, 1980). If the evaluation suggests that what has been done has not worked then there is a need for adjustment and improvement of the organization on a subsequent occasion (Topping, 1988). Positive evaluation results enhance the

motivation of the tutoring participants as well as the co-ordinators motivation (Topping, 1988).

The literature shows that both process and product data have to be collected (Ehly & Larsen, 1980; Miller & Peterson, 1987; Topping, 1988). This helps insure that the organizational as well as the outcome aspects of the program are being looked at. Topping (1988) outlines that the process data can include such things as (a) training (b) review meetings are carried out (c) complete records (d) availability of materials (e) development of positive tutorial relationships (f) appropriate use of tokens & points (g) rates of attendance and (h) teacher/ administrator/parent satisfaction. Topping (1988) and Miller & Peterson (1987) point out that the process data can be analyzed to see what, if any, effect it had on the product data.

The product data will include curriculum- based as well as affective outcomes. Topping (1989) points out that “most adequate evaluation will include at least a ‘before and after’ assessment of some sort, hence the need for planning to be built in from the outset” (p.59). Miller & Peterson (1987) note that peer tutoring should include an assessment of student achievement. As pointed out by Topping (1989) the organizer will have to decide whether to use non-referenced testing (comparing progress with normal expectations) or criterion-reference

testing (check the mastery of specific knowledge or information). Jenkins & Jenkins (1981) advocate using non-referenced achievement data as well as direct and daily measurement of academic skills closely related to the material being taught. If affective variables are included in the program goals, evaluators may wish to measure self-concept, attitude toward the intervention subject matters, student's attitude toward school classmates, on-task behavior, nature and quality of verbal interaction. Both Topping (1988) and Miller & Peterson (1987) suggest the use of direct observational data with which to assess affective variables. They also suggest using existing paper and pencil tests (checklist, rating scales) questionnaires developed by program staff or structured student interviews.

Once the evaluation data have been collected and analyzed the results should be given to all groups within the system (Miller & Peterson, 1987). The school staff and administrators should receive a report on the impact of the program. If the program planners think that it is appropriate, the evaluation information should be provided to the parents and other members of the school community. This could possibly increase the likelihood that future program efforts will be supported.

Conclusion

The literature review indicates that a peer tutoring program cannot be a separate entity for the rest of the available educational services. Instead, the program should be an integral part of the educational system. Peer tutoring should be seen as one of the many possible ways to meet the educational needs of students.

The review of the literature also emphasizes the importance of following steps to improve the chances of a successful program: (1) needs assessment to determine what the peer tutoring should focus on (2) establishment of goals and objectives (3) delivery of the program to the students and (4) evaluation of the program to see if the program objectives were met.

Generally, the research suggests that there must be flexibility with a peer tutoring program. This allows the program monitor to make any necessary changes that are needed to make the program successful. Evaluation of the program will also provide feedback that may indicate that changes will have to be made when planning the next peer tutoring program. Peer tutoring will be more effective if it is not viewed as a “one shot deal”.

Reference

- Allen, V. L. & Feldman, R. S. (1976). Studies on the role of tutor. In V. L. Allen ed. *Children as teachers*. New York: Academic Press, 1976.
- Annon, K. & McDougall, D. (1989). Cross-age peer tutoring: Cognitive and affective benefits. Multi- Culturalism, 12(2), 29-32.
- Barron, A. M. & Foot, H. (1991). Peer tutoring and tutor training. Educational Research. 33(3), 174-185.
- Beirne-Smith, M. (1991). Peer tutoring in arithmetic for children with learning disabilities. Exceptional Children, 57, 330-337.
- Blackbourn, J. M. & Campbell, J. (1991). A multiple baseline analysis of the effects of peer tutoring on the academic performance of a second grade child with learning disabilities. Psychological Reports. 69, 177-178.
- Constable, D. J. (1979). Peer tutoring. Its effects on reading achievement and attitudes. Educational Research Institute of British Columbia, Vancouver, B.C.
- Corn, K. L. & Moore, D. D. (1992). Research for the s.t.a.r.s. - Students teaching and reaching students: A two-faceted peer facilitating program at Greenfield Central High School. The School Counselor, 40(1), 68-72.
- Ehly, S. W. & Larsen, S. C. (1980). Peer tutoring for individualized instruction. Boston: Allyn and Bacon Inc.
- Eiserman, W. D. & Osguthorpe, R. T. (1986). Intellectually handicapped students as tutors: Implementing total class tutoring. Eric Document Reproduction Service No. Ed 283349, EC 192779.
- Fogarty, J. L. & Wang, W. C. (1982). An investigation of the cross-age peer tutoring process: Some implications for instructional design and motivation. The Elementary School Journal, 82(5), 451-469.

- Foot, H. & Barron A. M. (1990). Friendship and task management in children's peer tutoring. Educational Studies, 16(3), 237-250.
- Jenkins, J. P. & Jenkins, L. M. (1981). Cross-age peer tutoring. In Annon, K. & McDougall, D. (1989). Cross-age peer tutoring: Cognitive and affective benefits. Multi-Culturalism, 12(2), 29-32.
- Koskinen, P. S. & Wilson, R. M. (1982). Developing a successful tutoring program. New York: Teachers College Press.
- Lazerson, D. B., Foster, H. L., Brown, S. L., & Hummel, J. W. (1988). The effectiveness of cross-age tutoring with truant junior high school students with learning disabilities. Journal of Learning Disabilities, 21, 253-255.
- Lippitt, P. (1976). Learning through cross age helping. In Annon, K. & McDougall, D. (1989). Cross-age peer tutoring: Cognitive and affective benefits. Multi-Culturalism, 12(2), 29-32.
- Ludke, R. J. & Hartop, W. W. (1983). Teaching behaviors of 9 and 11 year old girls in mixed-age and same-age dyads. Journal of Educational Psychology, 75, 908-914.
- Mallette, B., Harper, G. F., Maheady, L. & Dempsey, M. (1991). Retention of spelling words acquired using a peer-mediated instructional procedure. Education and Training in Mental Retardation. 26(2), 156-164.
- Medway, F. J. (1991). A social psychological analysis of peer tutoring. Journal of Developmental Education. 15(1), 20-26.
- Miller, J. A. & Peterson, D. W. (1987). Peer influenced academic interventions. In Maher, C. A. & Zins, J. E. (1989). Psycho educational interventions in the schools. New York: Pentagon Press.
- Muirhead, W. M. & McLaughlin, T. F. (1990). The effects of peer tutoring spelling game on academic performance and student performance. Child and Family Behavior Therapy. 12(14), 1-10.

- Pierce, M. M., Stahlbrand, K. & Armstrong, S. B. (1984). Increasing student productivity through peer tutoring programs. Texas: Pro-ed.
- Rings, S. & Sheets, R. A. (1991). Student development and metacognition: Foundations for tutor training. Journal of Developmental Education. 15(1), 30-32.
- Sauve, P. (1994). Peer tutoring reduces dropouts. Peer Counselor Journal, 11(1), 18-21.
- Schmidt, J. J. (1991). A survival guide for the elementary middle school counselor. New York: Center for Applied Research in Education.
- Strom, R. D. & Bernard, H. W. (1982). Educational Psychology. California: Brooks/Cole Publishing Company.
- Topping, K. (1988). The peer tutoring handbook: Promoting co-operative learning. Massachusetts: Brookline Books.
- Warger, C. L. (1991). Peer tutoring: When working together is better than working alone. Eric, 30.
- Webb, M. (1987). Peer helping relationships in urban schools. Eric Digest.
- Yogev, A. & Ronen, R. (1982). Cross-age tutoring: Effects on tutors' attributes. The Journal of Educational Research. 75(5), 261-268.

Paper 3

Peer Tutoring Survey

Introduction

The concept of children teaching other children is not a new idea (Allen & Feldman, 1976). The literature indicates that it was first used to help alleviate the problem of one teacher having so many teaching duties. Wagner (1982) notes that in the first century A.D. Aristotle had students teach to help him with his many teaching duties. This practice continued to the Industrial Revolution as the small number of teachers faced the challenge of educating the large number of students. However, as the number of teachers increased the need for the student to teach other students decreased.

In recent years there have been increased interest and use of students-helping-students. This has been largely due to the efforts of the schools to provide as many opportunities as possible to the student to get the extra help that would improve his/her chances of succeeding. There has also been a growth of interest in Quintilian's belief that "one who has just acquired a subject is best fitted to teach it" (Wagner, 1982,p.11).

One could speculate that the future of public education will continue to make use of the student-helping-student process. Therefore, one must have some

idea of how to organize and implement such a program. Surely, those who are already involved in implementing such a program would have valuable information that could be used by those who are venturing into this practice.

Literature Review

The literature review outlines and discusses a wide range of benefits of tutoring for the tutor, tutee and the instructional management personal (teacher). The benefits cited for the tutor include: (1) achievement gains (Annon & McDougall, 1989; Pierce, Stahlbrand & Armstrong, 1984; Yogeve & Ronen, 1982; Jenkins & Jenkins, 1981); (2) development of a sense of personal adequacy (Allen & Feldman, 1976; Goodlad & Hirst, 1989; Lippitt, 1976); (3) personality development (Strom & Bernard, 1982); (4) insight into the teaching learning process that could help build cooperation with teachers (Goodlad & Hirst, 1989) and (5) students learning to be nurturing and to take responsibility for others which may foster more socially mature behavior (Allen, 1976). The benefits for the tutee may include (1) increased individual attention (Ehly & Larsen, 1980; Pierce, Stahlbrand & Armstrong, 1984; Allen, 1976); (2) improved attitude toward school (Ehly & Larsen, 1980); (3) increased contact and opportunity for closeness

with the instructor and corresponding learning efficiency (Pierce, Stahlbrand & Armstrong, 1984) and being more comfortable with a peer tutor and (4) being able to concentrate on learning the materials (Ehly & Larsen, 1980). In addition, the teacher may derive the following benefits : (1) teacher's job can become more pleasant (Goodlad & Hirst, 1989); (2) freedom from some routine tasks (Webb, 1987); (3) personal satisfaction (Goodlad & Hirst, 1989); (4) expansion of available resources from which students can choose and thus increased likelihood that students receive the individual attention they need (Pierce, Stahlbrand & Armstrong, 1984); (5) improved interpersonal relationships (Pierce, Stahlbrand & Armstrong, 1984); (6) enhanced opportunities for the gifted child (Pierce, Stahlbrand & Armstrong, 1984); (7) prevention of inappropriate special education placements that would lessen the need to refer students to special education programs in order to meet their educational needs (Greenwood, Terry, Utey, Montagna & Walker, 1993; Miller & Peterson, 1987); (8) facilitation of the mainstreaming of disabled students into less restrictive settings (Conway & Grow, 1988; Miller & Peterson, 1987).

The research indicates that there are four steps that should be followed to improve the chances of a successful peer tutoring program (Miller & Peterson, 1987; Pierce, Stahlbrand & Armstrong, 1984; Topping, 1988; Webb, 1987). These

steps are : (1) needs assessment; (2) establishment of goals and objectives; (3) implementation and delivery of program to the students and (4) evaluation of the program. A needs assessment should be completed for both the students and the teacher. The students' needs have to be identified so teachers know what the tutoring program needs to focus on. The needs of the teacher will indicate how much teachers know of such a program and how willing they are to participate. The goals and objectives of the program will be directly derived from the needs assessment of the students and teachers. It is virtually impossible for the authors of the literature review to outline the objectives that have to be met since each tutoring program is designed to meet the needs of a particular student(s).

However, the literature does give some suggestions as to how to implement and evaluate a peer tutoring program. Though there is overlap by various authors as to the components necessary for the implementation of a program there is general consensus that consideration has to be given to program supervision, lesson content and format, scheduling of session, selection of tutor and tutee, tutor training and monitoring of the program.

The selection of the tutors for the program requires considerable time and attention. A tutor may be selected based on either academic or social attributes. Students of varying intellectual abilities can tutor successfully (Topping, 1988).

Low achieving students can tutor younger, lower achievers in order to minimize the effects of subject-matter deficits (Jenkins & Jenkins, 1981). Ehly & Larsen (1980) argue that interest and social interaction are important considerations. Since the tutor serves as a role model it is important that he/she behave in a socially acceptable manner. Several suggestions are made as to how the tutor should be selected. These include being chosen from the Honor Roll (Corn & Moore, 1992), volunteers with screening from teacher (Fogarty & Wang, 1982) and teacher referral (Corn & Moore, 1992).

Likewise, the selection of the tutee requires attention. Needless to say the selection of the tutee is based on the goals of the tutoring program (Miller & Peterson, 1987; Warger, 1991). Ehly & Larsen (1980) believe that two factors should be considered when selecting a tutee. These are (1) the potential of the student to benefit from the tutoring and (2) the student's attitudes about his/her self and whether the learner's behavior can be handled by the tutor. Tutees can be chosen from any grade level and can be of varying abilities. Different views exist as to how tutees should be chosen. Koskinen & Wilson (1982) feel that students who volunteer have a better chance to get a great deal from the program. Topping (1988) also suggests this approach but suggests that possible tutees can be approached on an individual basis. He also advocates that parents can ask for their

child to be a tutee if they are aware of such a program. Blackbourne & Campbell (1991) and Fogarty & Wang (1982) suggest that the classroom teacher offer names of possible tutees.

Tutor training is probably the most important ingredient of a peer tutoring program (Barron & Foot, 1991; Koskinen & Wilson, 1982; Lippitt, 1976; Miller & Peterson, 1987; Schmidt, 1991). The literature outlines and discusses a number of reasons why training should be provided. Tutors need to learn (1) how to be a good role model (Ehly & Larsen, 1980), (2) when to refer students to the counselor (Schmidt, 1991), (3) how to make appropriate use of reinforcement (Medway, 1991), and so on. Undoubtedly the training has to reflect the goals and objectives of the tutoring program and will vary with each program (Ehly & Larsen, 1980). The literature suggests a wide range of skills that must be taught to the tutor. These include: (1) establishing rapport with the tutee (Ehly & Larsen, 1980); (2) securing and maintaining tutee's attention (Miller & Peterson, 1987); (3) providing clear expectations for tutee's behavior (Pierce, Stahlbrand, and Armstrong, 1984); (4) giving straightforward presentation of material (5) praising the tutee (6) correcting the tutee (7) avoiding punishment (8) avoiding using cues to prompt tutee (9) staying on task (10) using specific criteria to judge when an objective has been met (11) using a consistent system of reinforcement (12)

keeping accurate records (13) locating and using prepared tutoring materials (14) making tutee aware of materials they can use (15) communicating efficiently with the tutee (16) accommodating different learning styles (17) becoming aware of cultural individual differences and (18) becoming aware of and using learning strategies with the learning disabled child.

Tutor training has other aspects that need consideration including length of the training, who does the training and techniques used for the training. There is no agreement within the literature as to the length of the training. Annon & McDougall (1989) suggest 6 weeks while Mallette, Harper, Maheady & Dempsey (1991) suggest one 30 minute session. Others, like Miller & Peterson (1987) and Koskinen & Wilson (1982) say that the length of the training will depend on the age of the tutor, complexity of the material to be taught and the skills the tutor already possesses. Generally the literature suggests that school personnel such as the counselor, teacher and school specialist can do the training (Koskinen & Wilson, 1982; Schmidt, 1991). Koskinen & Wilson (1982) also advocate the use of former tutors to help with the training. Finally, various methods of training are suggested in the literature. These include modeling by both the teacher and the student (Warger, 1991; Yogeve & Ronen, 1982); role playing (Miller & Peterson, 1987), lectures (Topping, 1988), written information (Koskinen & Wilson, 1982) ,

seminars among the tutors (Topping, 1988) and case analysis using closed circuit TV and other audio-visual aids (Yogev & Ronen, 1982).

The scheduling of the tutoring sessions requires considerable attention if the program is to run smoothly. Topping (1988) suggests that there are five things that must be considered. These include : (1) when the tutoring will take place (2) where the tutoring will take place (3) how long the tutoring sessions will last (4) how often the tutor and tutee will meet and (5) how long the tutoring program will last.

The literature indicates that the times will vary when tutoring takes place. It can take place before and after classes (Koskinen & Wilson, 1982), during lunchtime (Sauve, 1994) and in the evenings (Sauve, 1994). It is crucial that the space needed for tutoring is worked out beforehand to allow for consistency (Ehly & Larsen, 1980). The space provided should be free from noise and have adequate seating arrangements. The suggestions for the length of the tutoring sessions vary with the authors. Jenkins & Jenkins (1981) feel that the length of the session should be based on the ability of the students to stay on task. Koskinen & Wilson (1982) think that the tutoring time will depend on the age of the child; for example primary child - 20 minutes; elementary child 20-30 minutes and high school longer than 30 minutes. Barron & Foot (1991) suggest that tutoring time may vary

according to the task; for example if the task is specific then a short time is recommended. Similarly the literature gives varying suggestions for the frequency with which tutoring takes place. Warger (1991) stresses that the sessions have to be regular to keep the students familiar with the system. Ehly & Larsen (1980) believe that the frequency of the sessions should reflect how much time the student needs to meet the objectives of the program. Koskinen & Wilson (1982) specify that tutoring should take place twice a week while Jenkins & Jenkins (1981) suggest tutoring take place daily. There does seem to be a consensus among the authors that the tutoring project should have a fixed period of commitment needed for the program. Topping (1988) goes a bit further and suggests that a program run for less than six weeks will not provide enough time to see if the tutoring has made a significant contribution.

There is unanimous agreement in the literature that some form of evaluation should be part of the tutoring program. The evaluation not only will determine if the goals and objectives have been met but will provide insight into ways to make improvements for future programs. Numerous authors suggest that both process and product data have to be collected (Ehly & Larsen, 1980; Miller & Peterson, 1987; Topping, 1988). The process data will include records, materials, training, meetings, attendance, tutorial relationships. Topping (1988) points out that the

process data can have a direct influence on the product data. The product data can include curriculum based and affective outcomes.

Research Design

The author of this report is interested in finding out how peer tutoring programs are being organized and implemented in the Newfoundland school system. More specifically, five schools that are currently implementing a peer tutoring program have agreed to submit data for this project. The descriptive research method is used since it involves collecting data in order to answer questions concerning the current status of the subject matter (Gay, 1987). Descriptive data are usually collected through a questionnaire, interview, or observation. The data for this study has been collected using a questionnaire (Appendix A).

The questionnaire includes seven questions. It could have been much longer. However, Gay (1987) notes that mailed questionnaires often suffer from lack of response. To avoid this, fewer questions were chosen thus making it less of a chore to complete. Also great care was taken in wording each question so that each one indicated a point specific to the tutoring process. For example, question

#1 specifically asked the grade levels to which peer tutoring is offered. The questionnaire was sent to five professionals involved in a peer tutoring program. Each one was contacted individually to see if they would be interested in completing the questionnaire. These professionals were chosen either because they were known to the researcher to be involved in peer tutoring programs or someone else directed them to her. All five professionals completed and returned the questionnaire within two weeks.

Each question of the questionnaire is discussed fully. Hence the response for each question on the individual questionnaires is noted and compared to see how the responses are similar and/or different. Each respondent is assigned a number (1-5). Each school is designated as K-12, Junior High or High School.

Respondent 1 : Junior High (8-9)

Respondent 2: Middle School (5-6-7)

Respondent 3: All Grade (K-12)

Respondent 4: All Grade (K-12)

Respondent #5: High School (7-12)

Question 1: To which grade level is peer tutoring offered?

Respondent #1 reports that peer tutoring is available to everyone at the school. Respondent #2 reports that the Grade 6 students receive tutoring from the Grade 7 students. Respondent #3 notes that tutoring is available to all students at the school. The two all grade schools are similar in that the tutoring focuses mostly on the grades 7-12 students but can be available to the lower grades upon request as identified by the special needs teacher. It does seem that tutoring is being offered to the different grades. This would seem to be in agreement with Koskinen & Wilson (1982) who suggest that tutoring can be made available to students of all ages.

Question #2: How are the tutors selected?

Respondent #1 reports that tutors are selected by teacher recommendation along with parental approval. Fogarty & Wang (1982) noted the role of teachers in the selection process. Respondent #2 also selects the tutors in consultation with the classroom teacher. However, she indicates that the tutor's grades and personality/attitude are considered because tutors need to be good role models. Feldman, Devin-Sheehan, & Allen (1976) and Ehly & Larsen (1980) both argue that since the tutor is a role model for the tutee then social characteristics have to be considered in the tutor selection. Respondent #3 also reports a similar selection

process. Home room teachers consider academic performance but more importantly the characteristics that would make the tutor a helper. For example; patience, understanding, good communication. Once identified by the classroom teacher prospective tutors are approached to see if they are interested in being tutors. Respondent #4 also uses the teacher recommendation to select tutors. However, he also gets students who are interested to apply and then they are selected on the basis of academic standing, personality, and ability to relate to others. Constable (1979) suggest that every volunteer tutor should be given the chance to tutor. The only problem the researcher sees with this approach is that you run the risk of having someone apply to be a tutor who isn't a good candidate for academic or social reasons. Respondent #5 chooses tutors primarily on a volunteer basis. He views the students as individuals, who love to help and who in essence are "natural helpers". However, before students volunteer the guidance counselor visits the classes and explains the value of peer tutoring. Those interested are given the opportunity to explore why they want to help. The researcher would hope that information given to the students along with the discussion would help "weed-out" students not suited to be tutors.

Question #3: How is the tutee selected?

Respondent #1 selects the tutee by self referral, teacher referral and parent

referral. Since these students are Junior High they are old enough to ask for tutoring. Koskinen & Wilson (1982) believe that chances for success are increased if students volunteer themselves. Topping (1988) believes it important to make parents aware of such programs so they can request that their child be placed in the program. Evidently this school is making parents aware of such a program. Respondent #2 chooses possible tutees in consultation with the Home room teacher based on the students' grades. Respondent #3 also consults with the classroom teacher for possible tutees. Teachers are asked to recommend not only those students who could benefit from the support of a tutor but also those who are committed enough to take full advantage of the opportunity. Once students are recommended, they as well as their parents are contacted to see if they would participate. Like respondent #1, respondent #4 selects tutees by self, parent and teacher referrals. However, respondent #4 finds teacher referral to be the most commonly used. Respondent #5 like respondent #1 and #4 uses self referral, parent and teacher referral to select tutees. However, this guidance counselor puts a lot of emphasis on the self referral process. Needless to say those who do a self referral would be very interested in getting as much from the tutoring as possible.

Question #4: Is training provided for tutors?

Respondent #1 reports that training does take place. The guidance counselor

does the training for a duration of 3-4 hours. Materials used include peer training manuals (not specified) which deal with organization, time management, study skills and attitude. Interestingly enough the literature indicates that the guidance counselor is one member of school personnel who can do the training (Schmidt, 1991). Respondent #2 also reports that training takes place. The training lasts for about a month. However, the training is done by a grade 6 or 7 Language Arts teacher. This may be the best choice because the teacher would best know the subject matter to be tutored and would know what the tutor needs to be made aware of. The tutors focus on just two academic areas-math and language arts. The training does not use any particular materials. Instead, conversation between teacher and students focus on study skills, work habits, attitude, motivation, organizational skills, reading interest and level, home environment and setting goals and routines. Several of the topics covered in training deal specifically with the two academic areas covered in tutoring. (Eg: reading level and interest). Like respondent #1 and 2, respondent #3 indicates that training takes place for the tutors. Training is done by the guidance counselor and usually consists of 2-3 one hour sessions. The resources used for training by respondent # 3 include **A Guide for Student Tutors** by Koskinen & Wilson, **Youth Helping Youth** by Mynck & Erney and locally developed materials. The tutor and tutees sign a

contract/agreement outlining their responsibilities associated with participation in the program. This would seem to be a good idea because it makes sure that both tutor and tutee are aware of their responsibilities. The time assigned for training seems to coincide with suggestions made in the literature (Fogarty & Wang, 1982).

Respondent #4 reports that the tutors receive training. The guidance counselor spends 5-6 hours completing the training. Videos and other training materials (not specified) used cover topics including roles and responsibilities, tutee(s) feelings, working with teachers, need for confidentiality, dealing with reluctant students and how motivation affects performance.

Respondent #5 notes that only a little training is provided to the tutors. The counselor gives two training sessions early in the school year. Topics covered include understanding the needs/reservations of the tutee, different learning styles, how to do follow-up appointments and communication skills. Several of the topics covered in this training programs are also recommendations made in the literature review. For example, becoming familiar with learning styles (Rings & Sheets, 1991) and effective communication (Rings & Sheets, 1991).

Question #5: How often does peer tutoring take place?

The frequency with which the tutoring occurs differs for the respondents.

Both respondents #1 and #2 plan tutoring to occur during lunchtime once a week. Koskinen & Wilson (1982) caution that sessions have to be frequent enough to provide continuity for the student. The researcher wonders if once a week can provide such continuity. However, it is regular and this is important according to Warger (1991) who feels that regular sessions allow the students to stay familiar with the system. The amount of time for tutoring has not been specified. Since it occurs during lunchtime and one has to assume it occurs once lunch is finished there may not be much time left for tutoring. Respondent #3 plans tutoring to occur after school for a minimum of one hour per week. The advantage of having it after school is that if more time is needed the tutoring pair can carry on and not worry about getting to the next class. Since these students are of high school age the one hour session would seem appropriate. Even though respondent #4 operates a peer tutoring program in a K-12 school like respondent #3 differences do exist. Respondent #4 offers tutoring 2-3 times a week of 30-60 minutes compared to one, one hour session offered by respondent #3. The frequency of these sessions may very well provide the needed continuity for the student. (Koskinen & Wilson, 1982). Topping (1988) would most likely prefer this arrangement since he advocates tutoring to occur 2-3 times a week. Respondent #5 appears to be the most flexible when organizing the tutoring sessions. He reports that there is no

scheduled time for each week. Instead, tutoring times vary each week. This lack of continuity could possibly cause concern when one considers the importance that some authors such as Warger (1991) place on the tutoring being on a regular basis. There is no indication as to how long the tutoring sessions last.

Question #6: How is the effectiveness of the tutoring process evaluated? Is there ongoing evaluation provided?

Respondent #1 reports that peer tutoring is evaluated on an ongoing basis. First, the student's attendance at the tutoring session is recorded. One would assume that the continuation of the student's attendance at the sessions would indicate maintenance of the student's interest and hence effectiveness of the program. Secondly, classroom evaluation of the students work is on-going. One would expect the student's work to be maintained or to improve. This is the kind of product evaluation that Topping (1988) refers to in his book when he suggest that the product evaluation looks solely at the end product of the tutoring project. Respondent #2 also reports that evaluation includes process data. Each week attendance and time-on-task are evaluated. In addition, at the end of the year the tutor, tutee and parents complete a questionnaire. Information gained from all the persons involved in the process could possibly highlight problems that can be worked on before the project starts up again.

Respondent #3 does not have any formal evaluation to evaluate the effectiveness of the peer tutoring. There is informal evaluation including anecdotal reports and causal observations. These same methods of informal assessment are suggested by Topping (1988) and Miller & Peterson (1987). However, this respondent reports that despite using several different approaches the peer tutoring program has not performed as intended. The concern for the respondent is that neither tutor and tutee are as regular in their participation as hoped. The respondent goes further and admits that the program is difficult to gage and somewhat questionable. Perhaps the concern expressed suggests that there is a definite need for formal evaluation of some sort. Lack of proof of effectiveness of the program may possibly help explain the lack of participation by both tutor and tutee. After all, people are more apt to participate if they see that it makes a difference.

Respondent #4 reports evaluation methods similar to those of respondent #1 & #2. First, a discussion is held with the tutors and the tutees to talk about the program. If rapport has been built between the tutor, tutee and the respondent then a discussion could yield valuable information. Secondly, evaluation includes on-going consultation with the teacher(s) regarding the tutees marks and classroom behavior. As suggested by Topping (1988) a “before and after” assessment needs

to be completed. One would hope that the classroom teacher could report an improvement in academic achievement or classroom behavior during the tutoring program.

Respondent #5 has taken a slightly different approach to evaluation of the program. At the beginning of the program each tutor receives a pamphlet that he/she has to fill in after tutoring a student. This booklet keeps a record of the student's activity as a peer tutor. Occasionally the respondent meets with individual students and discusses concerns expressed by them. The booklet can be viewed by both tutor and respondent to see what has been done. It's a good idea to meet occasionally with the students rather than wait till the end of the project. Once a concern is expressed it can be addressed soon and helps improve the chances of a successful program. Surprisingly there is no mention of the teacher being consulted concerning tutoring effectiveness.

Questions #7: Where does tutoring take place (Home or school)?

Respondents #1 & #2 report that tutoring takes place at school. This is the most logical place since students involved are readily accessible. Respondent s #3, #4 and #5 report that tutoring takes place both at home and at school. However, respondent #5 notes that it occurs at home only if the tutor is familiar with the family and both homes/parents agree. It is crucial if students are going to other

homes to tutor that both the tutor and tutee parents are aware of the arrangement. After all, it is a school sponsored program and the school always assumes responsibility. It is interesting to note that no home tutoring occurs with respondents #1 and #2. This could be explained by the fact that samples 1 and 2 are much larger centers than samples 3, 4 or 5. Transportation after school hours for those in samples 1 and 2 could be a problem and hence it may be easier to have the tutoring at school.

Conclusion

The responses to the questions on the questionnaire indicate that various aspects of peer tutoring are organized differently for each school. The results of this survey certainly indicate that peer tutoring takes place regardless of whether it's a K-12, Junior or High School setting. Of particular interest was that the two K-12 schools had tutoring mostly organized for their senior students. This probably occurs because (1) special needs teachers do the extra tutoring for the K-6 students or (2) senior students are much more comfortable receiving help from a peer as opposed to a teacher.

The tutoring programs surveyed use a variety of methods to select the tutors. However, the recommendations of the classroom teachers are most often used in the selection process. Another selection method used is that of interested students applying to be tutors. It is reassuring to note that emphasis is placed on both the academic and social qualities of the tutors. Both of these qualities must be considered if the school hopes to choose tutors who will help meet the needs of the tutees.

The responses given for tutee selection indicate that several methods are used for the process. It is particularly interesting to note that several of the schools have the parents of the students involved. This is very encouraging because throughout the years the idea of home and school working together has been promoted. It is also worth noting the use of self referral as part of a tutee selection process. This is in keeping with the research that says that the student who comes to the tutoring sessions knowing that they want the help will have a better chance of getting the most from the tutoring. A willing tutee also makes the task of the tutor much easier; the tutor does not have to spend time during the tutoring to help the student overcome apprehension concerning the process.

Since the literature review emphasizes the importance of tutor training, it is impressive to see that all tutoring programs surveyed have training of one form or

another. As the literature suggests, these peer tutoring programs use different school personnel to do the training. The guidance counselor does the training in 4 of the 5 programs surveyed. A broad range of topics are covered during training including time management, organizational skills, working with teachers, need for confidentiality and learning styles. All or one of the topics could affect the tutoring process. Several programs cover similar topics; for example respondents # 2 and #4 deal with attitude, motivation, and reluctant students. Still, other programs cover topics unique to themselves; for example respondent #4 is the only one who talks about the need for confidentiality and working with teachers. A variety of resources used for training include videos, manuals and conversation. All five tutoring programs do some training. However, the time spent on training seems very little when one considers the many possible topics that tutors need to be briefed on. For example, respondent #5 reports that very little training is done. The other respondents report little time spent on training ranging from 2-3 one hour sessions to 5-6 hours. It is difficult to judge how much time is spent training with respondent #2 because he/she does not specify how many hours in a month are used for training. The researcher's concern is that the training provided may not be sufficient for the tutor to experience successful tutoring. It would be unfortunate if tutors experience failure because of lack of training for preparation for tutoring.

The frequency of the peer tutoring programs vary for each of the programs. Three of the five programs have peer tutoring occurring once a week while one program has tutoring occurring 2-3 times per week. The times also vary for each session ranging from 30-60 minutes. It is essential that the tutoring times are sufficient enough to meet the needs of the tutee. The researcher has concern that tutoring is not set up on a weekly basis. According to Warger (1991) tutoring needs to be done on a regular basis and this is something that is lacking with this tutoring program.

The evaluation methods used to assess the effectiveness of the tutoring program are varied. Generally, the teacher is part of the evaluation scheme. The respondent checks with the teacher(s) to see if there is an improvement in the student(s) marks and behavior in the classroom. The concern expressed by respondent #4 about how worthwhile such a program is certainly indicates that evaluation has to be built into the peer tutoring program but may indicate other concerns as well. Evaluation results not only let you know how effective the program is but also give directions on how to improve so it can become more effective. But perhaps more importantly, they allow those who are involved in the program to get some personal satisfaction in knowing that what they are doing is making a difference or improving if it isn't.

There seems to be a consensus with all five samples that the tutoring takes place at school. However, several samples do have tutoring occurring in the home. Tutoring at home would certainly solve the problem of tutoring conflicting with school activities taking place during school time. Caution must be taken with home tutoring and this seems to be done since the respondents check to make sure that home tutoring goes ahead only if there is agreement by all those involved.

Overall the answers to the questions on the questionnaire have provided very valuable information. The information given indicates that peer tutoring programs can be organized in many different ways. Flexibility is needed if schools have to organize the programs to meet the needs of their students. One must always remember that students are all different and that situations are different for all areas.

Regardless of the degree of flexibility for each tutoring program every program must be organized such that it includes the following:

- (1) A needs assessment has to be completed. The results of the needs assessment will provide the information needed to develop the goals of the program.
- (2) The implementation of the program will have to make sure that (a) someone is designated to monitor the program, (b) tutors receive adequate training to prepare

them for the responsibilities in working with a tutee, (c) sessions are scheduled on a regular basis to give continuity to the program.

(3) The program needs to be evaluated not only to demonstrate to those involved that it is useful but also to highlight anything that can be changed in the future to make it better.

Reference

- Allen, V. L. (1976). Children as teachers: Theory and research on tutoring. New York: Academic Press.
- Allen, V. L. & Feldman, R. S. (1976). Studies on the role of tutor. In V. L. Allen ed. Children as teachers. New York: Academic Press, 1976.
- Annon, K. & McDougall, D. (1989). Cross-age peer tutoring: Cognitive and affective benefits. Multi- Culturalism, 12(2), 29-32.
- Barron, A. M. & Foot, H. (1991). Peer tutoring and tutor training. Educational Research. 33(3), 174-185.
- Blackbourn, J. M. & Campbell, J. (1991). A multiple baseline analysis of the effects of peer tutoring on the academic performance of a second grade child with learning disabilities. Psychological Reports. 69, 177-178.
- Constable, D. J. (1979). Peer tutoring. Its effects on reading achievement and attitudes. Educational Research Institute of British Columbia, Vancouver, B.C.
- Conway, N. F. & Grow, L. (1988). Mainstreaming special class students with mild handicaps through group instruction. In Warger, C. L. (1991). Peer tutoring when working together is better than working alone. Eric, 30.
- Corn, K. L. & Moore, D. D. (1992). Research for the s.t.a.r.s. - Students teaching and reaching students: A two-faceted peer facilitating program at Greenfield Central High School. The School Counselor, 40(1), 68-72.
- Ehly, S. W. & Larsen, S. C. (1980). Peer tutoring for individualized instruction. Boston: Allyn and Bacon Inc.
- Feldman, R. S., Devin-Sheehan, L., & Allen, V. L. (1976). Children tutoring children: A critical review of research. In Allen, V. L. (1976). Children as teachers: Theory and research on tutoring. New York: Academic Press.

- Fogarty, J. L. & Wang, W. C. (1982). An investigation of the cross-age peer tutoring process: Some implications for instructional design and motivation. The Elementary School Journal, 82(5), 451-469.
- Gay, L. R. (1987). Educational Research: Competencies for analysis and application. Columbus, Ohio: Merrill Publishing Company.
- Goodlad, S. & Hirst, B. (1989). Peer tutoring: A guide to learning by teaching. New York: Kogan Page.
- Greenwood, C. R., Terry, B., Utley, C. A., Montagna, D. & Walker, D. (1993). Achievement placement and services: Middle school benefits of classwide peer tutoring used at the elementary school. School Psychology Review, 22(3), 497-516.
- Jenkins, J. P. & Jenkins, L. M. (1981). Cross-age peer tutoring. In Annon, K. & McDougall, D. (1989). Cross-age peer tutoring: Cognitive and affective benefits. Multi-Culturalism, 12(2), 29-32.
- Koskinen, P. S. & Wilson, R. M. (1982). Developing a successful tutoring program. New York: Teachers College Press.
- Lippitt, P. (1976). Learning through cross age helping. In Annon, K. & McDougall, D. (1989). Cross-age peer tutoring: Cognitive and affective benefits. Multi-Culturalism, 12(2), 29-32.
- Mallette, B., Harper, G. F., Maheady, L. & Dempsey, M. (1991). Retention of spelling words acquired using a peer-mediated instructional procedure. Education and Training in Mental Retardation. 26(2), 156-164.
- Medway, F. J. (1991). A social psychological analysis of peer tutoring. Journal of Developmental Education. 15(1), 20-26.
- Miller, J. A. & Peterson, D. W. (1987). Peer influenced academic interventions. In Maher, C. A. & Zins, J. E. (1989). Psycho educational interventions in the schools. New York: Pentagon Press.

- Pierce, M. M., Stahlbrand, K. & Armstrong, S. B. (1984). Increasing student productivity through peer tutoring programs. Texas: Pro-ed.
- Rings, S. & Sheets, R. A. (1991). Student development and metacognition: Foundations for tutor training. Journal of Developmental Education. 15(1), 30-32.
- Sauve, P. (1994). Peer tutoring reduces dropouts. Peer Counselor Journal, 11(1), 18-21.
- Schmidt, J. J. (1991). A survival guide for the elementary middle school counselor. New York: Center for Applied Research in Education.
- Strom, R. D. & Bernard, H. W. (1982). Educational Psychology. California: Brooks/Cole Publishing Company.
- Topping, K. (1988). The peer tutoring handbook: Promoting co-operative learning. Massachusetts: Brookline Books.
- Wagner, L. (1982). Peer teaching: Historical perspectives. Connecticut: Greenwood Press.
- Warger, C. L. (1991). Peer tutoring: When working together is better than working alone. Eric, 30.
- Webb, M. (1987). Peer helping relationships in urban schools. Eric Digest.
- Yogev, A. & Ronen, R. (1982). Cross-age tutoring: Effects on tutors' attributes. The Journal of Educational Research. 75(5), 261-268.

Appendix A

Peer Tutoring Questionnaire

Peer Tutoring Questionnaire

Directions

As we discussed on the phone this is the questionnaire that you agreed to complete on how peer tutoring is administered in your school.

Once again, thank you for taking the time out of your busy schedule to complete this questionnaire. Your assistance is very much appreciated.

Please answer the questions in the space provided.

1. To which grade levels is peer tutoring offered?

2. How are the tutors selected?

3. How is the tutee selected?

4. Is training provided for the tutors? If yes, briefly outline who does the training, materials used during training and how long training last.

5. How often does peer tutoring take place?

6. How is the effectiveness of the tutoring process evaluated? Is there ongoing evaluation provided?

7. Where does tutoring take place (home or school)?



