The Effect of Collaborative Consultation Between the Regular Educator and the Special Educator on the Achievement of Students Labelled Learning Disabled in the Mainstream

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The effect of collaborative consultation between the regular educator and the special education on the achievement of students labelled learning disabled in the mainstream

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BY

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The effect of collaborative consultation between the regular educator and the special educator on the achievement of students labelled learning disabled in the mainstream

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Abstract

The effect of consultation on student achievement is an area in which much research is currently needed. This study addressed the issue of how collaborative consultation between regular and special educators effected student achievement. The study utilized a multiple baseline design across subjects to determine the effectiveness of the consultation program. The two-phased study (baseline and consultation) occurred over an eight week period in two third grade and one fourth grade classrooms.

The study involved three regular classroom teachers, one special educator and three students who were labelled learning disabled and who were mainstreamed into the regular classroom. The regular and special educators utilized nine steps for collaborative problem solving that were collected by West and Cannon (1986) to develop strategies to assist the three subjects. Through collaboration between the regular and special educators, target areas for each student were chosen and data collected.

A visual analysis of the results demonstrated that, for all three students involved in the study, changes did occur in a positive direction when consultation was initiated. A variety of strategies were used to bring about these changes and the strategies were maintained, redesigned, or altered
according to the results of the consultation between the regular and special educator.

Although this study has limited generalizability, the changes noted are of importance due to the fact that little or no research has been completed on the effect of consultation on student achievement. This study appears to demonstrate that consultation in this setting did benefit students who were in the regular classroom and labelled learning disabled. This study also provides a minute framework for more research on a larger scale with a variety of students to determine if consultation could become an alternative and an effective means to assist students in the mainstream.
Dedication

To My Parents: Scottie and Barbara DeWitt for all of their love and support of my goal to become a special education teacher
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especially appreciate their time commitment to my life at point when I had very little time to share.
The Effect of Collaborative Consultation Between the Regular Educator and the Special Educator on the Achievement of Students Labelled Learning Disabled in the Mainstream

Introduction

The relationship between the regular educator and the special educator concerning their roles in aiding the student in mainstreming programs has been an issue which has been discussed in the literature for several years. Gallagher (1974) expressed that in the 70's special educators were moving from the role of that of a resource teacher to that of sharing the responsibility with regular educators to educate students with handicaps. Meyen (1969) stated that there is a need for special educators to be prepared as in-service trainers to provide inservices to help all teachers prepare for the student in the regular classroom. Lilly and Givens-Ogle (1981) suggested that, in the past 10-15 years, great change has occurred by placing children with behavior disorders in the mainstream and emphasizing standard curriculum in both regular and special education.

A need for a change in the role of regular and special educators in relation to the student in the mainstream was expressed as long ago as 1962 when Reynolds suggested that children may be retained in the regular classroom if
consultation is occurring between the regular and special education teachers. Today this cry for change is still heard when Fimian & Santoro (1983) express, "... the time has arrived for special and regular education to merge into one unified system structured to meet the unique needs of all students (p. 102)."

The merger of regular and special education is a necessity. Currently the status of regular and special education has been referred to as "islands in mainstreaming" without any interaction (Johnson, 1986, p. 49). Martin (1986) believes that regular and special education are two subcultures of a main culture (education), and the fear is that these two subcultures can exist without contact, and therefore, without assimilation. If the purpose of mainstreaming is to integrate regular and special education, then to be successful, communication and cooperation must exist between the regular and special education teacher (Johnson & Johnson, 1980; Haris & Mahar, 1975). A push toward integration of these two subcultures is essential for effective mainstreaming.

Originally special educators set out on a pilgrimage to attempt to cure all children who are handicapped (Hensley, 1971). However, today special classrooms are saturated with so many students that students are being returned to the
regular classrooms (Hensley, 1971). Dunn (1968) stressed that education must stop the self-glorification of placing students into ineffective special programs. Instead, educators need to evaluate the current status of programs and determine the most effective or appropriate roles of the regular and special educator in regard to the student in the mainstream.

Roles in Mainstreaming

When focusing on serving a student in the mainstream, the regular and special educator have similar roles. Birch (1974) defines the role of the regular classroom teacher as "... given desires, facilities, and reasonable professional preparation, the average teacher can learn to educate exceptional youngsters in a regular class with the support and consultant services of special education personnel" (p. 1). An effective classroom teacher should be modifying instruction for all students; modifying the curriculum for children who are exceptional should not be an added burden (Bradfield, 1973). The role for the regular education teacher should also include setting an example by treating all students equally, a vital factor of acceptance for the student in the mainstream (Bliken, Bogden, Ferguson, Searl & Taylor, 1985).
The special educator's relationship to the mainstreaming process is that of a consultant (Adamson, 1983; Evana, 1980; Evans, 1981; McGrady, 1985; Sevick & Ysseldyke, 1986). The special educator can provide information to the teacher about the student who is being placed into the mainstream (Johnson & Johnson, 1980). The special educator can also generate, with the regular educator, alternative solutions when a student is having difficulties in the regular classroom even if the student does not meet the criteria for special education assistance. Special educators indicated this type of problem occurred often and was somewhat difficult to handle because by law they were not allowed to serve such students (White & Calhoun, 1987). In addition to supporting the classroom teacher, the role of the special educator should be to provide support and counseling for the child who is in the mainstream (Johnson & Johnson, 1980). Basically the special educator can be the one to ensure that the mainstream process is both successful and beneficial to the student yet not detrimental to other student's in the classroom.

Even before the push for mainstreaming began, the need for consultation between the regular and special educator was acknowledged (Dunn, 1968; Reynolds, 1962). Mainstreaming began to occur rapidly after Public Law 94-142
was initiated (Birch, 1975). Just recently the issue of merging the fields of regular and special education through consultation has been addressed.

**Concern for the Student in the Mainstream**

When considering the goal for the student in the mainstream the "goal for all students are the same, that of a productive and satisfying life (Gallagher & Bradley, 1972, p. 519)." The current goals of mainstreaming today are not following the goal expressed by Gallagher & Bradley (1972). Luftig (1980) found that placing a student in an environment where he/she cannot maintain self worth is actually increasing, instead of decreasing, their restrictive environment. A student in the mainstream faces a great challenge of "...bridging two worlds and functioning successfully in each of them..." (Adamson, 1983, p. 70). Students' needs cannot be meet in a dual system unless the systems work together because all students and teachers differ in their skills (Fimian & Santoro, 1983). Therefore, the student suffers when regular and special education work against each other rather than for the student in the mainstream.

An important factor to consider in mainstreaming is the effect on the child being placed in the mainstream. Bradfield (1972) found that students who are exceptional can
improve as much as their peers in academics, behavior, and attitude in the regular classroom. Students in the mainstream should not be treated differently from students who are not labelled and in the regular classroom. Students in the regular classroom felt that the teachers favored or spent too much time with children who were exceptional. As a result, the students in the regular classroom expressed a negative attitude toward the students who were exceptional (Bradfield, 1972). Actually students who were labelled exceptional and students who were not labelled were making the same statement because the students who were exceptional stated that they did not like "too much fuss" (Lynas, 1986, p. 32). This information provides significant evidence that teachers must carefully balance their role in aiding the student in the mainstream. However, as noted by Bliken et al. (1985) treating a student equally and not assisting the student at all are not the same concepts. A teacher should give equal assistance to all students, yet not ignore the student who is labelled nor provide extra assistance.

An area which must be closely monitored for the student in the mainstream is that of transition. Reynolds & Wang (1983) identify a common problem of mainstreaming they refer to as "disjointed incrementalism." They defined "disjointed incrementalism" as a problem with interrupting a student's
educational program when pulled from regular to special classes. In transition, students may miss skills which are important to their success in the regular classroom. To ease the transition process, the special education curriculum should not be "watered-down" but as similar to the regular classroom as possible (Kokoszka & Drye, 1981). This is a major factor of concern when moving from elementary school to high school level since students tend to be mainstreamed more at an older age (Travis, Thomas & Fuller, 1985). The skill levels must be adequate for them to function in the transitional courses. When the transition occurs the student should experience the same expectations and level of difficulty he/she was currently experiencing in the special classroom.

In addition to the regular and special educators needing to adapt to the mainstreaming process, students may need to adapt to the process. In a study by Morgan, Young & Goldstein (1983), three students were mainstreamed into the regular classroom and taught to prompt the teacher for assistance, to praise the teacher after receiving assistance, and to prompt the teacher for approval. All three students were able to increase these behaviors which increased the assistance and praise from the regular classroom teacher.
Throughout the mainstreming process, the student deserves to be in a setting where he/she can maintain self worth, establish their identity within a specific classroom, gain acceptance by their peers, and most importantly learn to function in a regular classroom setting (Adamson, 1983; Bliken & et al., 1985; Fimian & Santoro, 1983; Gallagher & Bradley, 1972; Koskoszka & Drye, 1981; Luftig, 1980; Lynas, 1986; Morgan, Young & Goldstein, 1983).

**Concerns for the Special Educator**

Changes need to occur with the current role the special educator serves to benefit the student in the mainstream. One area in need of change is that of teacher preparation. While many authors suggest a move away from the resource type of classrooms, they introduce the concept of the special educator as a consultant (Adamson, 1983; Evans, 1980; Evans, 1981; McGrady, 1985; Sevcik & Ysseldyke, 1986). Two authors stress that if this change is to occur, then a change must also occur in teacher preparation programs (McGrady, 1985; Sevcik & Ysseldyke, 1986). Special educators need to be trained in communication skills (Davis & Davis, 1981), to utilize the skills of an effective consultant as listed by West and Cannon (1986), and to be trained as a consultant.
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In their current role, special educators expressed a need for more communication and support from their peers and supervisors. When surveying teachers in relation to dissatisfaction in their current role four major areas of concern were found: (a) lack of communication between superiors and other teachers, (b) inconsistent staff support, (c) an overabundance of clerical and paperwork, and (d) a lack of recognition (Lawrenceon & McKinnon, 1982). The reason teachers cited most as a reason for attrition is "hassles with administrators" (p. 41). In a report on stress, two-thirds of the teachers did not receive supervisory support and one-tenth did not receive peer support (Fimian, 1986). A total of one-tenth of the teachers surveyed did not receive either peer or supervisor support. When one of the support groups was absent, a stronger stress correlation was found (Fimian, 1986). Another study found that special educators receive little support and little or no time for communication. Often the special educator does not even have the lunch period to converse with peers (Milofsky, 1974). This problem indicates a need for more time to develop support and to communicate with peers and supervisors about the needs of students who are in the mainstream.
Another area of concern for the special educator is the need for role clarification. When studying the reason for burnout among special educators, Crane and Iwanicki (1986) found that burnout was closely associated with role conflict. Special educators often did not know that was their role or what others considered to be their role. The result was one of stress in not knowing what was expected. Role clarification is especially difficult since special educators are often removed from the regular curriculum without supervision and guidelines as to what they are to accomplish (Kokoszka & Drye, 1981; Milofsky, 1974).

Concerns for the Regular Educator

As the concern of the effect of mainstreaming has grown, much of the literature has focused on the regular classroom teacher. Fears are being expressed as to the preparation of the regular classroom teacher, the inclusion of individualization, the role of the regular educator in the mainstream, and the attitude, time commitment, and communication of the regular classroom teacher. These areas are addressed by many authors as they try to identify some of these concerns.

Researchers have investigated the area of teacher preparation from the teacher's perspective and from a research perspective. Teachers expressed that they felt
anxious, uncomfortable and ill-prepared with their current level of skills in dealing with students in the mainstream (Schultz, 1982; Simon, 1979; Williams & Algozzine, 1979). Atwood & Oldham (1985) found that out of 269 science teachers who were surveyed, only 57% felt they were prepared to teach students in the mainstream (Atwood & Oldham, 1985). In addition, regular educators expressed that a three semester hour college survey course in special education did not adequately prepare them to teach students in the mainstream (Alberto, Castricone & Cohen, 1978). Researchers fear that regular classroom teachers are not prepared to meet the needs of children who are special (Beare & Lynch, 1983, Gear & Gable, 1979; Hoover & Sakofs, 1985; Leyser, 1985). Cruickshank (1985) goes as far as being totally against "wholesale integration" with teachers and administrators who are ill-prepared to meet the needs of students in the mainstream.

A factor which is often neglected in teacher preparation in relation to the student in the mainstream is the preparation of music and physical education teachers. When investigating physical educators in relation to their mainstreaming abilities, 62% agreed that it was possible to do an efficient job with children who are handicapped in their class. However, 76% felt colleges were not adequately
preparing them for this function (Marston & Leslie, 1983). The music teachers also felt that students may be able to be successful in music, but they were unsure as to their role and felt inadequately prepared for students in the mainstream (Atterbury, 1986; Coates, 1985). Since students are usually integrated for music and physical education, these teachers need to be prepared as well as other regular educators to deal with students in the mainstream.

A need for role clarification was not only expressed by the music and physical education teachers but also by the regular classroom teachers (Atterbury, 1986; Bensky, Shaw, Gouse, Bates, Dixon & Beane, 1980; Maher & Hawryluk, 1983; Marston & Leslie, 1983; Schultz, 1982). In a survey conducted by Schultz (1982), the 102 elementary teachers expressed that they were unsure of their roles and responsibilities in the mainstreaming process. This fact is reinforced in a study by Bensky et al. (1980) in which it was found that P.L. 94-142 caused stress among regular educators because there was a lack of clarity in their roles and educators felt there was often a discrepancy between their perception of their role and other's expectations.

In their current role, many teachers have mentioned that they do not have adequate time to individualize the curriculum for students in the mainstream while attending to
the rest of the students in their classroom (Alberto, Castricone & Cohen, 1978; Knoff, 1985; Williams & Algozzine, 1979). Schultz (1982) found that this problem relates back to teacher preparation. Schultz noted that teachers felt they were not trained to consider individual differences in curriculum and instruction. The benefits of individualization would help all students, not only those students who are labelled (Bradfield, 1972). At the same time, the reality of the burden already placed on the regular educator must be kept in mind. Rauth (1981) pointed out that not only does the regular educator have to deal with students in the mainstream, but he/she must also deal with students who are gifted, on drugs, from poor homes, under peer pressure, etc.

Despite this burden of the current demands on the regular classroom teacher, the teacher's attitude toward mainstreaming can be an asset or a deficit to the student in the mainstream. The attitudes of regular educators toward mainstreaming have not been found to be highly positive (Bookbinder, 1986; Curtis, 1985; Larivee & Cook, 1979; Ringbladen & Price, 1981). Therefore, classroom teachers need to be aware of their attitude toward mainstreaming so that the student in the mainstream does not suffer from a teacher's negative attitude. If an attitude exists that
special education students are a burden and add an extra strain to the already overloaded curriculum, then regular educators may express an attitude which can have a harmful effect on mainstreaming. Their attitude appears to be less positive as the grade levels ascend (Larivee & Cook, 1979). Teachers, especially at the higher levels, need to be aware of their attitudes toward students in the mainstream.

Part of the current influence on attitudes may be with the use of labels. Foster, Yssledyke and Reese (1975) found that when different groups of educators viewed the same student with a label and without a label, the educators demonstrated biases, low expectation and pre-conceived notions toward the student with the label. In one instance the teachers were going to refuse placement for a student since they felt that a child with Down’s Syndrome could not function in the mainstream of education at the junior high level. However, the student did succeed much better than the teachers "expected" (Bookbinder, 1986).

Regular educators do not only sometimes display a negative attitudes toward the student in the mainstream, but they also display negative attitudes toward the mainstreaming process. Ringlaben & Price (1981) found that out of 101 teachers surveyed, one-fourth of the teachers did not feel mainstreaming was working. In contrast, 30% felt
that mainstreaming was working very well. Since the attitude toward mainstreaming is important, research may need to be completed to determine why only 30% feel that the system is working and then try to implement the effective practices into mainstreaming techniques. Larivee and Cook (1979) found that teachers' attitudes are affected by past success with students in the mainstream and the amount of support they receive from special educators and administrators.

In conclusion, currently the concerns for the regular educator who is involved with students in the mainstream has a number of variables. The concerns include: a) the ability and preparation of regular educators to individualize and to deal with the unique problems of a variety of disabilities (Schultz, 1982; Simon, 1979; Williams & Algozzine, 1979), b) the lack of definition in the role and responsibilities of the regular educator (Atterbury, 1986; Bensky, Shaw, Gouse, Bates, Dixon & Beane, 1980; Maher & Hawryluk, 1983; Marston & Leslie, 1983; Schultz, 1982), c) the provision of a support system (Larivee & Cook, 1979), d) the strain upon the time commitment of dealing with students in the mainstream (Alberto, Castricone & Cohen, 1978; Knoff, 1985; Williams & Algozzine, 1979), and e) the attitude of teachers toward students (Curtis, 1985; Foster, Yssledyke & Reese,
1975; Larivee & Cook, 1979) and the mainstreaming process (Ringlaben & Price, 1981). These variables are all issues which must be addressed to enhance the mainstreaming process for both teacher and student through the use of consultation between the regular and special educator.

Concerns for Both Regular and Special Educators

Many problems currently mentioned in the literature are factors that effect both the regular and special educator. One major factor which has had a strong influence on the success of mainstreaming is the amount of funding that is available. Rauth (1981) states that educators are expected to integrate regular and special education and to implement programs which cost billions of dollars, and yet no one wants to pay for these programs. Chandler (1986) expressed that the term "supplementary aids and services" (p. 125) was invented when it was thought that schools would receive full funding for these aids and services. Today teachers are trying to provide these services as intended without appropriate funding.

Funding has not only caused problems with the efficiency in which services can be provided, but the current funding system has also encouraged labeling. Regular educators were found to have negative attitudes toward students who were labeled (Foster et al., 1975;
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Bookbinder, 1985; Larivee & Cook, 1979). Gillung & Rucker (1977) found that both regular and special educators had lower expectations of children who were labeled. Currently our ayatem funds programs on the contingency of labels, therefore, special educators cannot provide assistance to students or teachers if a student is not labelled. Since labels are currently necessary for funding, then the effects of labels should be a conscious concern for both the regular and special educator so that the lower expectations which are often associated with labels do not become an expectation for a student.

Communication should be an area in which both regular and special educators are continuously striving to improve. Increased communication would allow educators to express role clarification, allow for an exchange of knowledge, and benefit the relationship between the regular and special educator (Carberry, Waxman & McKain, 1981; Gickling & Theobald, 1975; Graham, Bardy, Hudson & Carpenter, 1980; Hegarty, Pocklington & Lucas, 1981; Maher & Hawryluk, 1983; Wallace, 1976). One factor that may hinder communication is that special educators fear that they are being "pushy" by giving the regular educators information on how to teach (Heagarty et al., 1981). At the same time, regular educators suggest that they do not have enough information
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to teach students in the mainstream and would welcome support and suggestions from the special educator (Graham et al., 1980; Hegarty et al., 1981; Maher & Havryluk, 1983).

The concern over teacher preparation is not just a current one, but one that must also be considered in the future (Lilly & Givens-Ogle, 1981). In a study by Graham, Bardy, Hudson, and Carpenter (1980), it was found that, in a survey of 144 regular educators and 23 resource room teachers, both groups expressed that they did not feel the regular educator was prepared to teach in the mainstream. Since the sample of special educators was so small, this stresses that many regular educators may doubt their preparation in regard to the student in the mainstream. These doubts in addition to the lack of clarity of the roles of regular and special educators may be contributing to the high levels of stress among both groups of educators.

Wallace (1976) makes a very valid point about the use of classification systems and their relation to role conflict. The classification of learning disabilities can vary from 1% to 30% educators do not know who they are to teach, so how can they what they are to teach (Algozine, Yasseldyke, & Christenson, 1983)?

Conflict exists even among educators on the perceived effectiveness of the mainstreaming process. In a study it
was found that teachers in the regular classroom felt mainstreaming was effective while teachers in special classrooms did not feel it was effective (Graham, Bardy, Hudson & Carpenter, 1980). In order for mainstreaming to succeed both regular and special education must be willing to research and attempt new techniques to remediate many of the problems that currently exist with the mainstreaming process. One concept that is currently receiving much attention in the literature is the concept of consultation.

Consultation

The concept of consultation is defined through various fields of study. West and Idol (1987) have investigated the various methods and techniques of consultation involved in psychology, medicine, and education. Many of the methods place the responsibility of the problem onto the consultant. Most methods involve a consultant addressing specific problem areas and discussing these areas with the consultee and the result is providing aid to the student or client (West & Idol, 1987). Brown & Brown (1975) make the point that counseling and consultation are two very different concepts. In consultation there is a sharing of the problem between the consultant and consultee whereas in counseling there is a counselor/client relationship. In the consultation process, the power and the problem are shared
equally by those involved, but in the counseling model the counselor takes on an elitist role over the client.

The characteristics of an effective consultant vary according to the model and the field of consultation. West and Cannon (1986) have completed a national Delphi study on the skills essential for collaborative consultation to occur between regular and special educators. The personal characteristics West and Cannon (1986) found to be essential were the "ability to be caring, respectful, empathic, congruent, open, maintain rapport, implement appropriate responses, positive self-concept, enthusiastic attitude, willingness to learn" and many more. Paolucci-Whitcomb & Nevin (1986) provide some basic principles to consider when using the consultation process: a) mutual leadership, b) cooperative conflict resolution, c) skillful use of interview skills, active listening, d) use of nonjargon language, and e) positive interaction. These principles provide a means for non-threatening exchange of knowledge, skills, and problems in order for both regular and special educators to reach a common goal of finding solutions to problems for the student in the mainstream.

The Issue of Consultation for the Special Educator

A change is occurring in the role served by the special educator. McGrady (1985) stated that, "resource rooms are
still valuable, but we must attack the problem of how to help the learning disabled in the regular classroom with their 'learning limitations'" (p. 465). This change will require revisions in the preparation of the special educator. McIntosh (1979) list the following four skills that the special educator needs to implement to provide better integration of services for the child in the mainstream: a) the skills to work with regular educators, b) the knowledge to adapt regular classroom materials, c) the ability to give, score and interpret testing materials to the regular educator, and d) to aid in scheduling and designing programs to meet individual student needs.

The special educator must learn to consult with the regular educator to allow an exchange of knowledge and ideas to occur (Adamson, 1983; Evans, 1981; Knoff, 1984; Norwich & Cowne, 1985; Sevcik & Ysseldyke, 1986; Wixon, 1980). Davis and Davis (1981) expressed, "It is very important for the regular classroom teacher who has a learning disabled student mainstreamed into his or her class to establish and maintain close contact with the special education teacher (p. 423)." This contact will allow the special educator to share information about the student's behavior and academic achievement and to offer suggestions to make mainstreaming successful.
Since the special educator can provide information which will benefit the regular educator and vice versa, communication is essential, especially in consultation (Davis & Davis, 1981). If teachers are to consult, then they need to not only make suggestions but also to listen. White and Pryzwansky (1982) trained special educators in the area of active listening. The results were that regular educators found the special educators more empathic which yielded more communication. The special educator needs to keep the communication lines open and to be aware of the needs of all educators in dealing with students in the mainstream including educators in music and physical education (Atterbury, 1986; Marston & Leslie, 1983).

If communication is occurring, then both the regular and special educator can share their knowledge, however, some considerations need to be made to make this interchange of information successful. Burroughs (1985) suggests that if special educators are going to be involved with the student in the mainstream, they also need to be involved in the planning of the curriculum so they are aware of the scope and sequence of skills involved in the curriculum. A problem for the special educator to consider is that they may need to rid themselves of the attitude that they can "cure" all children and all problems. Special educators
should freely share their information on how to individualize instruction and to be open to new suggestions and even new programs which might be beneficial to the student in the mainstream (Deno, 1970; McIntosh, 1979). In 1968, Dunn went as far as to suggest that regular educators should be responsible for the majority of the education for all students with the special educator serving as a prescriptive teacher sharing effective strategies when a problem arises.

Two examples of how the role of the special educators is changing is occurring in Bicester, Great Britian and in the Granite School District in Utah. In Bicester a remedial department is being integrated into the whole school and special educators help students who are special in all classes. The students are not removed, but the special educator consults with the regular educator and programs are designed to meet each student's needs in the regular classroom (Thomas & Jackson, 1986). The approach in the Granite School District is similar and is called "keeping track." Instead of just placing the student in the mainstream to sink or swim, the student is monitored at first daily and then as needed by the special and regular educator or any other person who is involved in the student's education in regards to achievement and behavior. This
method is beneficial in that it encompasses many professionals and increases the student's support group. The negative aspect of this program is that there is a greater strain on the time commitment of both the regular and special educator (Adamson, 1983). Both of these approaches encourage consultation among professionals and the results appear to be benefitting the most important person, the student.

The suggestions in both programs mentioned above of changing communication, improving consultation and sharing ideas have been found effective (Evans, 1981). However, the major barrier facing special educators today is that of time. In the examples cited above the special educators expressed that getting to all of the classrooms and consulting with all of the teachers was often difficult. Evans (1981) suggest that perhaps special educators should be relieved of some of their clerical work so that more time for consultation could occur. In Evans' study in 1980, special educators expressed that they currently spent only one-half as much time as they felt they should as a consultant. Again this point is supported by Burrough's (1985) study in which teachers expressed that it was often difficult to find time to consult. Burroughs suggested that teachers need clarification in their role so that
consultation can occur. Therefore, teachers need to receive clear expectations. Time needs to be incorporated so that teachers can have time to consult, communicate, and share ideas to benefit the student in the mainstream.

Consultation is just beginning to be investigated and utilized in education and in research. In a study conducted by Evans (1980), 80% of the special educators saw consultation as 5% or less of their current duties. With such a small percentage, no wonder regular educators are making statements, such as, "A handicapped child creates a tremendous work load if special education doesn't provide some assistance" (Goodspeed & Celotta, 1982, p. 406). Regular educators appear to be requesting for the special educator to spend more time as consultants (Evans, 1981; Knoff, 1984). Since teachers express this need and statistics show that a very small percentage of the time is being utilized for consultation and assistance, then perhaps the role of the special educator needs to be reconsidered and teachers need to be prepared to fulfill a consultation role (Sevcik & Ysseldyke, 1986).

The Issues of Consultation for the Regular Educator

Consultation could provide a means for change in an area of concern in that a teacher receives preparation for a student with special needs before the student enters the
teacher's classroom (Alberto, Castricone & Cohen, 1978; Naor & Milgram, 1980). In a 3 year program implemented by Gillis-Olion and Olion (1985) educators in early childhood received training before receiving students. This program demonstrated changes in the educators' ability to diagnose, the ability to design programs, the methods of discipline, and in the confidence levels of the educators.

Consultation does not always have to be a time consuming approach. It may be as simple as providing information. For example, Karash (1986) conducted a study by giving teachers pamphlets which contained information about mainstreaming while a control group received pamphlets about the history of education. The outcome of the study was that the teachers who received information about mainstreaming had a more positive attitude than did the control group. This suggests that receiving information on the various aspects of mainstreaming through consultation may be beneficial.

Regular and special education teachers need to be trained to provide a link on behalf of the child who is handicapped in the regular classroom. According to Norwich (1985), teacher training courses need to a) provide skills in identifying students with special needs b) coordinate needs of children who are special into the curriculum and,
c) train teachers to meet those special needs. In Britain, teachers can take a course which instructs them in the skills of identification, intervention, curriculum development, consultation skills, and provisions for children who are special. The trained regular educators then serve as consultants for students with special needs and for other regular educators in their building (Norwich, 1985). This type of a program could be a new way to consult which might be acceptable to regular educators, since a regular educator would understand the problems and concerns of other regular educators.

The establishment of a link also involves the preparation of regular educators. A definition of the regular educator's role in relation to the student who is handicapped needs to be established (Goodspeed & Celotta, 1982). All individuals who are involved in the education of students who are handicapped need to be aware of their role including the music educator and the physical educator (Atterbury, 1986; Coates, 1985; Marston & Leslie, 1983). One way in which teachers may better understand their role is by providing practical experience in dealing with students in the mainstream. Hoover (1984) implemented a project in which students in a regular education preparation program taught for two weeks in special education. The
results did not show a significant gain, as assessed by their cooperating teacher, in their observed ability to deal with students with special needs in the regular classroom. However, this concept may be effective if a longer time span could occur.

Regular educators should be certain to treat students who are in the mainstream equal to the other students in their classrooms. Bliken et al. (1985) interviewed a teacher who emphasized that she attempted to treat the students in the mainstream equally by consulting with the students and making them feel they were "her kids" so that they would feel like they were a part of the class. At the same time teachers should avoid over-protecting the student in the mainstream and allow the student independence (Lynas, 1986).

As it is important for the student in the mainstream to be treated fairly, it is also important that the regular educator be treated fairly throughout the mainstreaming process. In order for teachers to be involved, the educational system needs to decide who is responsible to provide cooperative education for the student in the mainstream, and the extent of the role of the regular educator.
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(Alberto, Castricone & Cohen, 1978). Since regular educators are a part of the mainstream process, they should be included in all phases of the referral process and then receive support after the student is placed in their classroom (Deno, 1970; McLaughlin & Marsh, 1978; McIntosh, 1979). Equality for the regular educator should be included in all steps of the mainstreaming process. The regular educator can provide valuable information to the special educator on the subject matter being taught, the difficulty level, and the expectations for classroom behavior (Davis & Davis, 1981). If regular educators become more involved and develop consultation skills, this could be a valuable asset for the mainstreaming process (Burroughs, 1985; McKenzie, Egner, Knight, Perelman, Schneider & Garvin, 1970). A consultant team of classroom teachers could provide support and develop strategies in dealing with the student in the mainstream (Burroughs, 1985).

Students in the mainstream should not be a burden for the regular classroom teacher. In fact, "Many teachers commented that planning lessons for pupils with special needs in mind had forced them to think through the material more and to plan accordingly, to the benefit of all pupils in the class" (Hodgson, 1985b, p. 117). Working with children in the mainstream may provide a way for teachers to
re-evaluate their teaching approaches and to look for the most effective way to teach each individual student in the mainstream.

**Issue of Consultation For Both the Regular and Special Educator**

A solution to the current problems in mainstreaming could be a provision in the system which will be viewed as positive by both regular and special educators (Lynas, 1986). If a revision of the system is going to occur, the roles of both educators must be evaluated. Rauth (1981) states, "Nearly 70% of the handicapped children served by the schools receive some portion of their education in the regular classroom" (p. 31). In regard to this enormous figure, an integration of educators needs to occur to provide support for this mass of students receiving their education in the regular classroom (Hodgson, 1985b).

Regular educators need extra support. In a study of 211 teachers, Knoff (1985) found that teachers would not be willing to accept children with handicaps if special education services were discontinued. However, they would willingly work with special educators if the time were available in order to help the student in the mainstream. Since students are diverse beings, a merger of the skills of both educational areas would provide through consultation a
more efficient system that could have the potential to meet all students' needs (Stainback & Stainback, 1984).

Another factor which greatly influences the effect of the mainstreaming process and consultation is training and support. In the section on individual concerns for the regular and special education teacher preparation programs were discussed. The literature supported the concept that once teachers received a teaching certificate, this should not be the end of their education. Continual knowledge can be provided through in-services which have been found to provide teachers already in the field with support on how to survive in the mainstream. In-services can also provide educators with up to date information on ways to improve the current practices used in the mainstream (Carberry, Waxman, & McKain, 1981; Harasymiw & Horne, 1975; Zigmond, 1985).

The success of mainstreaming should be a factor which is important to all of society. Gordon-Leukhardt (1986) found in comparing the literature on mainstreaming and the actual practices, that mainstreaming can be a success if the following variables can be controlled a) regular educators' attitudes b) social aspects and ability of the students, c) attitudes of the special educator, d) attitudes of children who are not handicapped, e) curriculum and instructional modification and f) students' and parents' attitudes. In
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schools where mainstreaming appeared to be successful, these variables were controlled and monitored.

One program which reported to have had success in integrating students without actually mainstreaming them involved the sharing of classroom by a regular and special educator. The special educator decided that her students were too involved to be able to function in the regular classroom. However, she still wanted integration to occur. Therefore, this teacher and a regular educator got together and began to integrate their classes by putting on plays, having parties, making presentations for each other, and serving as tutors. The final step of the program featured switching classroom for a day. The outcome was that the children in the regular classroom asked many questions about the children in the special classroom, and the special educator was able to clear up some preconceived notions or misconceptions. The regular educator realized the work that goes into individualized planning and expressed some fear over how to handle discipline. Both teachers shared the opinion that for a program such as this to work, the teachers involved must be flexible and open-minded (Neira & Kucko, 1986). Although this was not an example of consultation, perhaps it is an example of something that could be done to answer the question which Bodgan (1983)
stresses needs to be asked, "What can be changed to make mainstreaming work (p. 427)?"

An example of another program which is bringing regular and special education together through consultation is a program called a Collaborative Children Service Demonstration Center (CSDC) which is currently in effect in the Pittsburgh school systems. This approach allows for students to be mainstreamed a large part of the day. The resource teacher at the secondary level worked with students in his/her room 1 to 2 hours a day. The remainder of the day was spent assisting students and teachers in the regular secondary classrooms. The results of this program indicated that students were passing their classes with grades ranging from 57.3% to 90.2%. More than 80% of the students passed more than one-half of their classes. No data were given on the grades of students before this program since mainstreaming was occurring at a much lower rate (Zigmond, 1985).

As noted in both previous examples, teachers in the mainstream need to combine their skills to benefit their students (McLaughlin & Marsh, 1978; Neira & Kucko, 1986; Ross, 1984; Wallace, 1976; Zigmond, 1985). Ross (1984) suggested that the regular educator and the special educator should work in the classroom together to help all students
who need support. This concept is one that sounds logical, but before this will occur a great change is needed in the current system. One place in which this change should occur is in the higher educational institutes. If professors stay in their own little worlds of regular education and special education and do not combine their curriculum and collaborate on ways to help students and educators in the mainstream, then why should teachers be expected to cross these boundaries (Martin, 1986). As best expressed by Shepard (1987), "Why keep secrets?" (p. 328).

The extremity of separation currently occurring was found in a comparison study of regular and special educators (Keller, 1986). The data showed that regular and special educators were separated in all the areas studied, but amazingly principals and special education supervisors perceived the differences between the educators to be rare. This demonstrates the need for integration, because it may be assumed, without it actually occurring, that regular and special educators are similar and do work together.

Much of the literature is considering mainstreaming as an issue in which a merger needs to occur between regular and special education (Johnson, 1986; McGrady, 1985; Shepard, 1987; Stainback & Stainback, 1984). Many of the suggestions made by researchers are in relation to this
future concept of a merger. Bogdan (1983) believes that the entire concept of mainstreaming has been missed. Mainstreaming currently means adding students into the existing environment (an appendage) instead of changing the environment to meet the student's needs (an alteration). Instead of adjusting the students, it may be the system that needs to be adjusted (Stainback, Stainback, Courtnage & Jaben, 1985). Consultation may be an approach which could be used to adjust the current system. Shepard (1987) expressed that less time needs to be spent in identifying and classifying children and more time bringing the field of regular and special education together.

Bogdan (1983) believes that mainstreaming works. Bogdan suggests that it is the politics and lack of organization, skill and will that are currently causing the system to fail. The regular educators are often deemed not qualified to serve the student and the special educators often believe that students need to be served outside of the regular classroom (Martin, 1986). Both of these factors go against the entire concept and provide no solution for mainstreaming students who are special into the regular classroom.
Consultation as a Solution

In much of the literature the role of the special and regular educator in relation to the mainstream are discussed simultaneously. Both fields must work together to provide effective programs for the student in the mainstream by sharing their sources of knowledge, successful methods and through co-operation even though there may be differences in teaching strategies to benefit the student in the mainstream (Burroughs, 1985; Davis & Davis, 1981; Johnson & Johnson, 1980). In addition, both groups of educators should encourage the interaction of children who are handicapped and children who are not handicapped (Johnson & Johnson, 1980). Most importantly, both groups of professionals should be respected for their abilities and the important contributions they can make to the student in the mainstream.

Through consultation the special educator can assist the regular classroom teacher instead of removing the student from the regular classroom. The student remaining in the regular classroom provides a means to leave the student in the least restrictive environment (Garden, Casey, & Christenson, 1985a). Consultation also provides a support system to bridge two worlds when students are involved in transition from special to regular education, and could
eliminate the problem of "disjointed incrementalism" (Reynolds & Wang, 1983).

Consultation can provide a means of role clarification by changing the special educators roles from one of a teacher of many subjects to a support personnel for regular educators. Consultation provides a means for more communication and a method of a support group of working as a team of professionals (Idol, Paolucci-Whitcomb & Nevin, 1986). Through further research it may be found that, consultation provides clarity to role of the special educator in the mainstreaming process. Currently research has already established skills and steps to be used in the mainstreaming process (Idol, Paolucci-Whitcomb, & Nevin, 1986; West & Cannon, 1986).

Consultation addresses the issue of preparation in dealing with students with handicaps. For the regular educator, consultation may minimize their time commitment to the student in the mainstream because of the added support in dealing with problems. However, the factor of time is still considered a problem in consultation according to Garden, Casey & Christenson (1985b). Still teachers have expressed favorable attitudes in using the consultation process which may influence their attitude toward students with disabilities and to the mainstreaming process (Garden,
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Casey & Christenson, 1985b). As stated earlier, a great deal of research still needs to be completed with the concept of consultation and the benefits that the regular educator may reap.

The concept of consultation is considered a positive approach for both regular and special education because consultation has been found to a) increase communication between professionals; b) develop mutual responsibility for the education of the learner; c) place the focus on student's needs instead of categorization; d) provide a method to remediate the number of inappropriate referrals and; e) demonstrate economic efficiency (Garden, Casey, & Christenson, 1985; Idol, Paolucci-Whitcomb, & Nevin, 1986). By providing a system which is economically efficient the excess funds could be used for an increase in the number of staff and for release time for regular and special educators to consult (Idol et al., 1986; Huneycutt & Harris, 1987). The use of consultation addresses many of the issues of concern for both regular and special educators.

If consultation is to occur in the regular classroom, some changes in our current system will have to be made. Time must be made available beyond lunch hours and recess duty, for teachers to communicate and for consultation to develop (Idol et al., 1986). In addition, colleges and
universities must start preparing teachers to be effective in consultation instead of only focusing on instruction (Lilly & Givens-Ogle, 1981). When implementing the consultation model, caution must be used to not demonstrate an "expert attitude" (Davis, 1982; McGlothlin, 1981). The best person to consult is often an educator who has already established credibility with the other educators in the building (McGlothlin, 1981).

The barriers that sometimes exist between the fields of special education and regular education must be eliminated for consultation to develop. The two fields must work in harmony so that educators can be mutually responsible for students' learning and for professionals to exchange their knowledge. If the approach through consultation can be a student-centered approach, as suggested by Idol, Paolucci-Whitcomb, & Nevin (1986), then the focus would not be on a label, but on the problem(s) the child is experiencing in the regular classroom. Removing the focus from a label could help to change the negative attitudes currently expressed with the use of a label (Bookbinder, 1986; Foster, Yssledyke & Reese, 1975). Consultation between the regular educator and the special educator may produce new methods which could be attempted before removing the student from the regular classroom and issuing a label.
to that student's problems. If assistance can be provided in the regular classroom, students can be allowed to function in the least restrictive environment (Garden, Casey & Christenson, 1985).

The fact that consultation has been proven to reduce the number of inappropriate referrals and to remediate many of the problems in the regular classroom are important factors (Garden, Casey, & Christenson, 1985). McIntosh (1979) points out that many times regular educators are believed to be unqualified to deal with students who are handicapped. Therefore, the student is removed from the regular classroom and referred for special education services. This practice not only goes against the principles of mainstreaming, but could account for a part of the rapid growth each year in the number of children served in special education (Algozine, Ysseldyke, & Christenson, 1983). Combine the facts that consultation reduces the number of inappropriate referrals for special services, and that consultation has been found economically efficient, and the summation of these points provide a strong case for a greater use of consultation between the field of regular and special education (Huneycutt & Harris, 1987).

Today a great deal of development has been completed in models of delivery in regard to consultation research (Idol,
Paolucci-Whitcomb & Nevin, 1986). West and Idol (1987) express that a need exist for single subject research on the effectiveness of the consultation models in order to determine if consultation is more effective than resource rooms or if consultation should support the resource services, or if different methods are effective for different degrees of involvement. Much of the current research available is in the fields of medicine, psychology, and behavioral disorders, but the concept of consultation is rapidly gaining attention in the area of learning disabilities (West & Idol, 1987).

This study addressed the effects of consultation on increasing a student's level of academic achievement. No matter what professionals might gain, or how economically efficient the process might become, the ultimate goal of education is to increase a student's levels of academic achievement. Therefore, this study addressed the issue of consultation in regard to the degree that consultation between regular and special educators increased or decreased the level of student achievement for students who were labelled learning disabled.
Method

**Subjects**

The subjects in this study were three children identified as learning disabled and who currently received services in a resource classroom for 30 minutes a day. The subjects were classified as learning disabled (LD) according to the State of Illinois definition which reads:

Children with "Specific Learning Disabilities" means children between the ages of 3-21 years who have a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in imperfect ability to listen, think, speak, read, write, spell or do mathematical calculations. Such disorders include such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. Such terms do not include children who have learning problems which are primarily the result of visual, hearing or motor handicaps, or mental retardation, emotional disturbance or environmental disadvantage (State of Illinois, 1983, p. 122).

Through collaboration between the resource teacher, the school principal and the researcher, three subjects were
chosen who needed extra assistance beyond the resource room
and whose classroom teachers would be willing to participate
in a research study.

Subject one was a white female age 9 years 11 months
who lived with her parents. The Wechsler Intelligence Scale
for Children-Revised (WISC-R) indicated a full scale score
of a 93. She was determined eligible for LD services based
on the discrepancy between her IQ score and achievement
scores in math and spelling. The subject was currently in a
third grade classroom with LD resource support.

Subject two was a white male age 10 years who lived
with his parents. He received a full scale score of 100 on
the WISC-R. He was determined eligible for LD services
based on the discrepancy between his IQ scores and his
achievement scores in math and reading. The subject was
currently in a fourth grade classroom with LD resource
support.

Subject three was a white female 10 years 6 months of
age who lived at home with her parents. She received a full
scale score of 75 on the WISC-R. She was determined
eligible for LD services based on the discrepancy between
her IQ scores and her achievement in reading and math. She
is currently in a third grade classroom with LD resource
support.
Setting

The consultation program was initiated in a K-6 school in Central Illinois in a town of approximately 15,000 people. Subjects One and Three were in a third grade classroom with 28 students and 29 students respectively, and Subject Two was in a fourth grade classroom with 31 students. The three subjects all received resource room instruction from an instructor in the same resource room.

The settings for the consultation program varied in each classroom but the days of consultation were Monday, Wednesday and Friday for all three subjects. Data were collected on Subject One in a small room called the "reading closet" which was approximately twenty feet by twenty feet. This room was separate from the regular classroom with a door that could be closed to eliminate competing stimuli. During the first 15 minutes of the consultation program, Subject One was to be doing independent work while the classroom teacher worked with a reading group. The next 45 minutes of each day were set aside for reading instruction by the regular classroom teacher in the reading closet with five other subjects.

Subject Two was observed by the consultant from a table in the center of the back of the classroom. The subject was observed for 20 minutes each day at a table in the back of
the classroom during the weeks of baseline. During intervention, the subject worked with the consultant at the table for 20 minutes on Monday and Friday and for 40 minutes on Wednesday. The language period included teacher instruction, time to complete assignments, and test.

Subject Three was observed by the consultant from a table in the center of the back of the classroom. The consultant observed and worked with the subject at the table for 45 minutes each day during the math period. The 45 minute period included time for the classroom teacher to instruct the subjects on a lesson, time to return assignments, and time for subjects to complete the new assignment.

Procedures

Design

A multiple baseline design across subjects was used to evaluate the effectiveness of each consultation program. This type of design was utilized in order to determine if a change would occur in the baseline data each time consultation was initiated. Each individual was exposed to the consultation program at staggered intervals after baseline data were recorded.
**Apparatus**

The material used to record behaviors consisted of two stopwatches used by the consultant and the observer for duration recordings. Note cards were used to record frequency data.

Materials used for intervention with Subject One consisted of a tape player, cassette tape, *Spelling: Words and skills* (Beech, et al., 1984), file folders, construction paper, eraseable marker, writing activities from *Creative creatures: Writing* (Sweeney, Bailey, & Murphy, 1985) and spelling activities from *Communicating* (McElmurry, 1984). The program materials for Subject Two focused on class activities and assignments. The materials for Subject Three included the use of precision teaching (White, 1986), a clock in with hands that could be manipulated, and teacher-made time flash cards.

**Consultation program**

The consultation program was developed through collaboration between a special education teacher and three different regular classroom teachers. The special educator, certified in both learning disabilities and elementary education, was a teaching assistant completing a Master's degree in special education. The special educator had completed subject teaching and 21 hours in a master's
program and served as a teaching assistant for a cross categorical college course. The years of elementary experience of the classroom teachers involved in the study was as follows; subject one 12 years, subject two 18 years, and subject three 21 years.

The consultation program utilized the 9 best practices for collaborative problem-solving as described by West and Cannon, (1986).

The regular and special educator engaging in collaborative consultation will:
1. Recognize that successful and lasting solutions require commonality of goals and collaboration throughout all phases of the problem-solving process.
2. Develop a variety of data collection techniques for problem identification and clarification.
3. Generate viable alternatives through brainstorming techniques characterized by active listening, nonjudgmental responding and appropriate reframing.
4. Evaluate alternatives to anticipate possible consequences, narrow and combine choices, and assign priorities.
5. Integrate solutions into a flexible, feasible and easily implemented plan of action relevant to all persons affected by the problem.

6. Adopt a "pilot problem-solving" attitude, recognizing that adjustments to the plan of action are to be expected.

7. Remain available throughout implementation for support, modeling and/or assistance in modification.

8. Redesign, maintain, or discontinue interventions using data-based evaluation.

9. Utilize observation, feedback, and interviewing skills to increase objectivity and mutuality throughout the problem-solving process.

During an initial meeting with all three classroom teachers these nine best practices by West, & Cannon, (1986) were discussed. An appointment was made with each individual teacher to discuss the second stage of the practices regarding collecting data on areas identified as possible problems. During the initial meetings, the following areas of concern were identified as targets for data collection:

**Subject One.** The teacher identified the major problem areas as independent on-task behavior and the subject's
current level of achievement in writing and spelling. The regular and special educator decided to record writing and spelling scores each week and to record weekly the duration of on-task behavior throughout the study. The behavior was recorded when the subject’s eyes were focused on the correct page/assignment and was completing the task without assistance from the instructor.

Subject Two. The classroom teacher identified the major problem areas of the subject as raising his hand to answer a question yet not knowing the correct answer (behavior A), speaking in a tone too soft for the teacher to hear (behavior B), and not completing assignments in a time frame comparable to his classmates (behavior C). When the subject raised his hand and was called upon by the teacher, behavior A was recorded using a frequency count for the number of questions he answered correctly and the number of questions he answered incorrectly. A frequency count was used to record behavior B according to the number of times the teacher asked the subject to repeat a statement. Data on behavior C were collected using duration recording in relation to the amount of time the first subject took to finish an assignment in addition to the amount of time the last subject took to finish. This number was divided by two to determine a class average for completing an assignment.
Subject Two's time was recorded and divided by the class average to determine his percentage in comparison to the class average. The goal was for subject two to reach the class average with a percentage at or below 100%.

Subject Three. The teacher identified the only major problem area as the level of accuracy of completed math assignments. The subject's graded math assignment was received by the special educator weekly and the level of accuracy was recorded.

After data were collected, the regular and special educator collaborated to address steps 3-9 of the best practices by West and Cannon (1986). The following joint decisions were made:

Subject One. Consultation would focus on increasing the level of independent on-task behavior. The areas of spelling and writing would be interrelated as task for the subject to focus her independent on-task behavior.

Subject Two. Consultation would focus on decreasing the amount of time the subject took to complete assignments and the number of times he raised his hand and answered questions correctly. The length of time the subject took to complete assignments was chosen as the target behavior because the subject could complete the assignment in the allotted time, but he continuously erased and rewrote
correct answers. The regular and special educator felt this was a skill which could be altered so that the subject would have more time to focus on other tasks.

Subject Three. The consultation program would focus on increasing the level of accuracy of completing math assignments. This area would be addressed by the consultant working with the subject during the math period. The purpose of the program was to assist and ensure that the subject understood the concepts and directions presented by the classroom teacher.

Consultation Intervention

The consultation program for subject one focused on several different methods to increase independent on-task behavior. The classroom teacher and the consultant observed that the subject's problem was that she did not begin a task promptly and that once she began a task, she did not continue to focus on the task. The consultant worked with the subject for an average of 15 minutes a day to discuss her behavior, to focus subject's attention on an assigned task and to record on-task behavior. The consultant continued to observe the subject and made further recommendations during a 45 minute reading period directly following the 15 minutes of discussion three days a week.
The intervention strategies for subject one were as follows: During weeks one and two baseline data were collected. During week three a folder of alternative reading and writing activities were given to the subject from Creative creatures: Writing (Sweeney, Bailey, & Murphy, 1985) and Communicating (McElmurry, 1984) so that when homework was complete the subject knew of an activity in which to focus her attention. The following list of five rules were also given to the subject: (a) use all free time to work on assignments, (b) read all directions carefully, (c) complete each activity carefully and correctly, and (d) check all assignments for correct spelling, and (e) correct answers before turning in assignment. These rules, placed on red construction paper, were taped to the subject's desk. The subject was told to review the rules before beginning an assignment and after completing an assignment.

During week four, the regular and special educators decided to make a spelling practice tape for the subject each week. The tape contained the spelling words for the week and the correct spelling was given 30 seconds after pronunciation of the word for self-correction. Through collaboration between the subject, the classroom teacher, and the consultant, the subject was allowed to do independent activities in the reading closet. This step was
taken on the condition that the subject would stay on-task while being in the reading closet. This method of intervention was designed because the subject commented that the regular classroom was too distracting for her to complete her assignments.

The program for week five consisted of the addition of a laminated piece of poster board. The board served as a homework sheet in which the subject was to write assignments to be completed. When an assignment was complete, the subject was to wipe off the completed assignment.

Once a strategy was introduced, it was continued throughout the program as were the following additional techniques. During weeks three through eight, the consultant reinforced on-task behavior with verbal praise approximately every three minutes the subject was on task. Comments such as, "Look at how much you have completed", or "Good, you have started on your next assignment." In addition, during a 15 minute period the consultant would assist the subject in organizing her day and the assignments she had left to complete. The subject was reminded each week of an extra credit box in the classroom which the teacher had made available to all subjects when work was completed.
Subject Two. The intervention strategies for subject two were as follows: Baseline data were collected week one through four during a 20 minute language class period on three different behaviors. During week five, the consultant assisted the subject during language period on Monday and Friday for 20 minutes and on Wednesday for 40 minutes. The consultant focused on the subject raising his hand only when he had the correct answer, speaking in a loud tone when answering a question, and completing assignments at a pace near the class average.

The concern of the subject raising his hand only when he knew the correct answer was addressed by the subject telling the consultant the correct answer before he was allowed to raise his hand. Verbal praise was given when he raised his hand and gave the correct answer at an audible level. When he raised his hand and did not respond with the correct answer, the consultant and the subject would discuss the question to determine the correct answer. The subject was also reminded that he should only raise his hand when he knew the correct answer.

Completing assignments at a pace near the class average was addressed by telling the subject that he needed to read each question carefully before choosing an answer. Once he determined the answer, then he would make his choice and
move immediately to the next question. This strategy was chosen because the subject continually erased his answers and wrote the same answers again. The consultant informed the subject that he should only erase an answer if he was certain it was incorrect. The subject was also encouraged to increase his speed of writing by not pressing the pencil so hard against the paper. When the subject wrote, he used so much pressure that it caused his answers to be difficult to erase and his writing speed to be hindered.

**Subject Three.** The intervention strategies for subject Three were as follows: in weeks one through six baseline data were gathered. During weeks seven and eight the consultant worked with the subject directly in the classroom during math instruction. The consultant and subject sat in the back of the room and would complete the assignments given by the teacher. The consultant would provide supplementary materials such as precision teaching (White, O. R., 1986) and manipulative materials to assist the subject in understanding the concepts presented by the classroom teacher from the *Heath Mathematica Textbook* Level Three (1985).

During week five, a graduate assistant who had completed 14 hours in a master's program in special education observed the classrooms of Subjects One and Two.
The observer who was doing a reliability check on Subject One was seated approximately 15 feet away from the view of the subject. During the reliability check on Subject Two, the observer was seated at the table beside the consultant and the subject. No reliability checks were made by the graduate assistant on Subject Three because the classroom teacher graded the assignment and the consultant checked the graded worksheet to establish reliability.

Results

Figure 1 depicts the behaviors which were targeted for consultation before and after intervention. A visual analysis of the plotted data demonstrate the effectiveness of the consultation program. The baseline data represent the target behaviors before consultation and the consultation data represent the target behaviors after consultation was initiated. The subjects' behaviors all demonstrated a positive level of change when the consultation program was initiated.

The following levels were recorded during baseline. Subject One worked independently on-task with a range from 0% to 16.66% of the period with a mean of 8.34%. Subject
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Figure 1

**baseline**

**consultation**

- **Subject 1**
  - Independent on-task behavior
    - Mean: 8.34%
    - Mean: 93.23%
  - Spoke at appropriate level
    - Mean: 53.33%
    - Mean: 100%
  - Raised hand and gave correct answer
    - Mean: 52.08%
    - Mean: 93.33%
  - Completed assignments in comparison to class average
    - Mean: 128.01%
    - Mean: 109.85%
  - Accuracy on mathematics assignment
    - Mean: 52.91%
    - Mean: 83.26%

- **Subject 2**
  - Behavior A
  - Behavior B
  - Behavior C

- **Subject 3**
Two's behaviors ranged from 33.33% to 80% for speaking at appropriate levels with a mean of 53.33%, from 33.33% to 75% for the number of times he raised his hand and gave the correct answer with a mean of 52.08% and from 103.57% to 151.72% with a mean of 128.01% in relation to the goal (100%) of completing an assignment in comparison to the average time of the class (amount of time Subject Two took to complete task/class average to complete task). Subject Three completed math assignments during baseline with accuracy ranging from 25% to 66.66% with a mean of 52.91%.

When the consultation program was initiated, the following data were recorded. Subject One demonstrated a change from a baseline mean of 8.34% to an increased level of on-task behavior from 88.64% to 98.97% with a mean of 93.23% during consultation. Subject Two demonstrated an increase from a baseline mean of 52.08% to a mean of 93.33% on behavior A and from a baseline mean of 53.33% to a mean of 100% for behavior B during the time of consultation. Subject Two did not establish a stable level of completing assignments compared to the class average of 100% on behavior C. A change was noted on behavior C with an average of the baseline data of 128.01% compared to an average of 109.85% during intervention. Subject Three demonstrated an increased level of accuracy on math assignments from a
baseline mean of 52.91% to a range of 84.85% to 91.67% with a mean of 88.26% during consultation.

The data demonstrate that ascending changes occurred at the points of intervention for Subject One on week 3, for Subject Two on week 5 and for Subject Three on week 7. The increase for all three subjects demonstrates an increase in the level of performance each time the consultation program was initiated. These staggered ascending changes eliminate the threats to internal validity due to maturation, history, and the use of the measuring instruments.

The issue of the maintenance is an important factor. Therefore, the consultant visited the school every 2 weeks after the conclusion of the study for the rest of the semester. Data continued to be recorded and the consultation strategies used were continued to determine the maintenance of the program. Subject One maintained a level of independent on-task behavior at 89% and 91%. For Subject Two, behavior A maintained at 100% during both maintenance checks, behavior B maintained at 66% and 100%, while behavior C was observed during the first maintenance check at 104% with no assignments being completed during the second maintenance check. Subject Three maintained at a level of 89% and 95% for the completion of mathematics assignments.
Reliability checks were made on weeks 5 and 8 by another graduate student trained in behavior recording techniques. The inter-observer agreement for Subject One was 94.9% for week 5 and 98.78% for week 8. The level of agreement was at 100% for Subject Two on both behavior A and behavior B during weeks 5 and 8. Observations were not recorded on behavior C during weeks 5 and 8, because no class assignments were completed.

Discussion

The purpose of this study was to determine the effects of consultation on student achievement. It does have limited generalizability due to the small sample population and the limited setting. However, it has provided an empirical demonstration that consultation was an effective intervention option in this particular setting to change targeted areas for students who are learning disabled and in the regular classroom.

There were several inherent features of this study, independent of the consultation program, that may have had an effect on the data. For Subject One, the classroom teacher was sick the last 6 days of the program. This factor may account for the decrease in on-task behavior from week 7 to week 8. Subject Two was absent for 4 days. Therefore, data for weeks 2 and 3 were both gathered during
week 3. Additionally, a Hawthorne effect was noted for Subject Two when the classroom teacher called on the student 50% of the time he raised his hand during the consultation program compared to an average of 25% during baseline. Finally, for behavior C, change did occur, but it was not stable at the end of the study with only 2 data entries being recorded during intervention. The consultant did subjectively note a change in behavior C in that the subject was no longer the last student to complete the assignments as he was during baseline period.

For Subject Three the variety of the math assignments may have affected the study. The major emphasis during weeks 1-4 was on multiplication and during weeks 5-8 was time and money. The consultation program was initiated during week 7 so this did not appear to be a significant factor affecting the data.

This study has limited generalizability due to a) a limited population, b) the teachers involved were not randomly selected, c) the consultation was provided by a single special education teacher, d) the teachers were aware of the data being collected, and e) the program was initiated in a school in which it is common for students from the University to assist students in the classroom. The limited population allows the results to be applied only
to the specific students in this specific setting. More research with a larger population would have to be completed before the results could be generalized. The teachers need to be randomly selected in order to consult with a representative population. Since all of these teachers volunteered for the program, this may not have been a representative population. Since the consultant was the same for all students, the skills or personality of the consultant may have effected the program. The teachers involved in the program were all aware of the target areas for data collection, therefore, they may have unintentionally influenced the data. Finally, the program occurred in a school in which it is common for students from a University to assist students in the classroom. For this reason, the students receiving assistance from the consultant may not have felt a stigma that might have occurred in another school system.

The amount of generalization of the behaviors that increased with consultation must be determined. The changes in this study were recorded only during a limited time period each day. The subjects need to be observed in a variety of settings and the behaviors recorded to determine if the behaviors have generalized to other settings.
Although no attitudinal research was completed during this study, the students and teachers involved with this program all made positive comments about the program. The students made statements such as, "I get a lot done when you are here," or "I like language when someone is here to help," or "I sure do know a lot of correct answers." The teachers commented that they saw a positive change in the students and appreciated the assistance to individualize instruction in the classroom. The building principal stated that he was very skeptical in the beginning of the program, but was impressed with the final results of the study. Only a small number of people were involved, but the positive comments do indicate a positive attitude toward the consultation process.

This study addressed some of the issues of concern for the student in the mainstream discussed in the literature. The consultant provided extra support in the classroom to assist the student facing the challenge of "...bridging two worlds (regular and special education) and functioning successfully in each of them..." (Adamson, 1983, p.70). As in the study by Young & Goldstein (1983), students were aware of the expectations of their classroom teachers, because the consultant provided continuous communication and feedback between the students and the classroom teachers.
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This study also addressed some of the concerns for the regular educator as expressed in the literature. The concern of some regular educators that not being prepared for children with special needs was addressed by providing the support of a special educator who is trained to develop individualized instruction (Schultz, 1982; Simon, 1979; Williams & Algozzine, 1979). The consultation program provides a support system to deal with classroom problems (Larivee & Cook, 1979). In addition, the issue of a lack of time for the regular educator to individualize is addressed by adding the extra support of the consultant in the classroom (Alberto, Castricone & Cohen, 1978; Knoff, 1985; Williams & Algozzine, 1979). A factor must be considered in regard to time. The consultation process can take a great deal of time to be developed if done properly.

A benefit to the special educator regarding consultation is that it provides a means to communicate with the regular educator the mainstreaming process (Lawrenson & McKinnon, 1982; Milofaky, 1974). The special educator gains knowledge from the regular classroom teachers in regard to role expectations for the special educator in the mainstream (Kokoszka & Drye, 1981; Lawrenson & McKinnon, 1982). In addition consultation provides a method for the special
educator to integrate services to assist all individuals involved in the mainstream process (McIntosh, 1979).

The level of generalization of a consultation program must be determined. If consultation is only effective during the period that the consultant is in the room, then a problem with consultation exists. The consultant can only serve the room for a limited time each day. Therefore, the generalization of the behavior to other areas is crucial. A need for further study should involve the minimum and maximum amount of time needed for an effective program, with different categories of individuals, with different degrees of disabilities and with a variety of settings. A study could be conducted within a number of different school districts with each school focusing on a different variable of the issues of generalizability mentioned.

This study, even with its limitations, produced results that are relevant and important to education and the issue of consultation. First, with only minor changes and limited time for communication in the students' programs, effective changes were made. Second, the students, teachers and principal all made positive statements at the conclusion of the program about the use of consultation. Third, the target for consultation determined by the regular and special educator were not always academically oriented with
3 out of the 5 targets being behavioral changes. This observation may indicate that perhaps programs should not just focus on academics but also on how to survive behaviorally in the regular classroom.

More research is needed on the effectiveness of consultation and should include: (a) larger sample populations within a variety of school systems, (b) attitudinal research regarding teachers' and students' feelings after being involved in the consultation process, (c) the level of maintenance which occurs after consultation is withdrawn, (d) a comparison of the effectiveness of consultation to resource room assistance, (e) the effect of training programs for the use of consultation, and (f) the effects on the amount of time that is committed to the consultation process.

Some future issues that need to be addressed in regard to the consultation process are: (a) the caseload that a consultant can serve, (b) the provision of consultation to students not labelled, (c) the equal ownership of the consultation process between regular and special educators, (d) the economic efficiency of the process, and (e) the time strain upon both the regular classroom teacher and the special educator.
Consultation may someday become a means to serve all students who are in need of individualized instruction in the regular classroom. This concept could provide a method to eliminate the use of labels and provide a trained professional to assist all students in need of specialized instruction in the regular classroom. Services may still need to be offered full time for students with severe needs. However, for students who can function in the regular classroom, consultation may provide a means to serve these students in the least restrictive environment currently available.

While consultation may not be the solution to all of the problems presented in the literature, it could prove to be a beneficial intervention strategy for both students and educators. Research needs to be conducted to determine the level of the benefits of the consultation process and to address some of the issues mentioned in this paper and in the literature. Once the consultation process has been proven effective, perhaps then education can prepare to utilize consultation as an effective approach of dealing with students who have special needs in the regular classroom.
References


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