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THESIS ABSTRACT

Inconsistent methods of communication between general education teachers and special education teachers regarding students with special needs in the general education setting have led to poor monitoring of these students. This inconsistency led this researcher to create a database and communication log where teachers can have easy access to information concerning all the students with special needs in all of the classes they teach, as well as a forum in which to communicate with their respective special education teachers.

Through a review of existing academic literature, it was found that there is a benefit to constant communication and collaboration between general education and special education teachers. When all teachers maintain constant communication and collaborate on a regular basis, it is especially beneficial to students with special needs. One of the challenges teachers face is the lack of time during the day to be able to collaborate. A possible solution to this problem lies in technology. Many districts already have in place some form of information management systems, and some may use multiple databases to manage their student information.

A possible solution to the inconsistent method teachers are currently using to manage students with special needs in the general education setting and to provide feedback to their case managers is the Special Education Log/Database. The purpose of the Special Education Log/Database is to have a centralized location where all teachers can find students’ information, such as the students’ case managers, their class schedules, and even a copy of the teacher IEP notification. Additionally, the teachers can then give feedback to the case managers about specific students’ progress in class. This information is then stored and archived for IEP purposes.
KEYWORDS: communication, collaboration, information management systems, database, IEP, teacher IEP notification.
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I would like to dedicate this project to my husband and our future child, Samantha, who have been with me throughout this journey.

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“puzzles” The Special Education Log/Database

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Chapter One: Definition of Problem

In contemporary living, there are so many forms of communication – mobile texting, electronic mail, social media like Facebook and Twitter, as well as the traditional telephone and even pen and paper, that it can become overwhelming. As educators, we embrace these forms of technology and incorporate them as much as possible in order to promote technology as a part of current competencies that students need in order to function in the 21st century. With all these forms of communication, it can become challenging manage what form of communication everyone is comfortable with and can use with ease. While one person may enjoy the technology based forms of communication, others prefer to utilize the traditional pen and paper. As in many places of work, the school setting requires communication as a key to a successful learning environment for any student. This is especially true when working with students who live with special needs. In the past, communication between general education and special education teachers, was not as important because students with special needs were isolated, and therefore, only special educators worked with these students. Now, however, students with special needs are mainstreamed or included more appropriately, so that collaboration and communication between general education teachers and special education teachers is more crucial (Ripley, 1997).

When serving students with special needs, there are many players involved. It is crucial for all members of the team serving a particular student to be able to positively and effectively communicate with one another. In the high school setting, there are more team members than in the elementary environment, where most classrooms are self-contained. Communication during the transition and adolescent years of a student can become a serious issue if not maintained consistently. When students with learning disabilities are mainstreamed or included in the
general education in the high school setting, they have a number of teachers, depending upon how many classes they are taking. The student may be placed in the general education setting for elective classes only, or the student may have a full schedule in the general education setting. It is in this scheduling setting which requires daily tracking of the individual student where communication between general education teachers and special education teachers can become a challenge.

The job of each special education teacher, who serves as the case manager, is to monitor the progress of all the students in all of their classes. Among other tasks, the professional task is to ensure that the students are progressing academically, working towards reaching individual goals as set out in their Individual Education Program, or IEP, and to ensure the services prescribed for the each student is being offered in the classroom to better serve the specific need of the student. To ensure that these specific services are being implemented effectively, the case manager must be in constant communication with all of the teachers in order to receive the proper feedback.

While feedback from the teachers can be very basic, such as answering a simple yes or no question, it can also be more extensive. The key issue here is how the feedback from the general education teachers to the special education teachers takes place. Some general education teachers are consistent in providing feedback in a timely manner, and others who are not. In an effort to maintain consistency, some special education teachers will distribute paper monitoring forms and request a return by a certain date, while others prefer to distribute monitoring forms via email to the general education teachers. The concern and challenge arises when no feedback is received, either in paper form or via email. The reasons for this are varied. Some teachers claim too much paperwork, or that paper is easily misplaced, and others simply forget to return the paper or do
not reply to the email. This failure to maintain a consistent form of communication is not only harmful for the student’s progress but becomes a legal issue of timely monitoring and service delivery over time, which makes the case manager’s job that much more difficult.

**Purpose of Project**

In an effort to solve the issue of the unsteady flow of feedback from the general education population to the special education population, the purpose of the project is to streamline the form of feedback and to improve the timeliness of responses of student’s progress. The project will also serve as an organizational tool for the case manager and the general education teachers to keep track of all students in their classes. The question then this researcher hoped to answer was: will the creation of a steady communication forum improve the steady flow of feedback from general education teachers to special education teachers regarding students with special needs in the general education setting?

**Preview Literature**

In reviewing current literature for the preparation of this project, there are four different areas that are reviewed: collaboration between general education and special education teachers, retention of special education teachers and the need for a better system, information management systems used in school districts, and the intranet solution.

It has been found that at the secondary level teaching can be an isolated activity where collaboration is very scarce. Teachers often lack the opportunity for information exchange, including discussions about students (Grünber & Armellino, 2004). The collaboration process in any school setting is an ongoing and serious commitment by all of the teachers as well as administrators who will be working together for the same purpose (Ripley, 1997). However,
limitations such as the physical layout of the school and personal time constrictions are some reasons why collaboration is limited and therefore other methods are needed to achieve this task. One possible solution to this issue is technology (Grünber & Armellino, 2004).

The profession of being an educator has become increasingly difficult in the past years, especially due to massive national budget cuts. Special educators, however, have a high rate of attrition for various reasons. Research has indicated that legal requirements related to the required paperwork and the lack of organizational support and organizational learning strategies are viewed as a burden to special education teachers and contribute to their attrition (Boe & Cook, 2006).

When students enter a school system, it is required of the school to keep track of the student and all of their personal information. This information is stored nowadays in an electronic format. Having a single system that stores the most up-to-date information on students is important and critical to monitor student progress (Duffey, 2004). In addition, access to real-time information on each child’s special needs and timeline requirements leads to improvement in the services they receive and in effect more effectively and efficiently use data to make informed decisions (Amprey, 2005).

A possible solution to the data management solution is a district-wide intranet. The intranet is a “mini” internet, which is internally developed and can be accessed by anyone connected to that organization’s intranet. Using an intranet in a school district can improve communication and collaboration between all teachers and essentially open the door for the communication process (Stroh, 1998).

Preview Methodology
The completed project is a communication forum for feedback on student’s with IEPs and database that will be used in a high school setting. Teachers will use this forum to submit feedback on students to the special education teachers. The purpose of the system is to have a streamline forum of communication where teachers can provide feedback to a student’s case manager in regards to their academic progress in a class, which is then used for the IEP purpose. Creation and development of this system involves the use of open source resources. After completion of system, teachers at the school site are then trained in using the system.

**Significance of Project**

There can sometimes be a gap in communication between the special education teachers and general education teachers when communicating about a specific student. When special education teachers are seeking specific information on a student they have in common, there can occasionally by a lack of constant and timely communication. For example, when a student’s IEP is due, the case manager is responsible for asking all of the student’s teachers for feedback on the progress of the student. It is important to know how the student is progressing academically in the class, if the student has met or has made any progress on a specific goal (if applicable), if there are any issues or concerns, or if there have been any significant changes in the student’s behavior as a result of the disability that the rest of the team should be aware of. All of this information is critical to have when writing, or revising, the IEP and important to share with the rest of the team members. If there is an issue with a student, it is important to know so that the case manager can take proper action. The significance of the project is that it will be a streamline form for teachers to provide feedback in a timely manner that would be used by all of the general education and special education teachers. This form of communication is to replace both email and paper monitoring forms. It would also serve as a database to store all the feedback provided
by teachers, and as an organizational tool to keep track of all students with IEPs in the
classroom. For legal reasons, having all of the communication stored in one place can be helpful
as it is important to have as much documentation as possible.

**Summary of Chapter**

The success of students with special needs in any school setting is largely based on the
support they receive from every member of their team. In order for all teachers to work together
for the benefit of the student, communication and collaboration is crucial. The goal of this
researcher is to simplify and increase the feedback from general education teachers to the case
manager and therefore be able to carefully and closely monitor the progress of all students with
special needs. Chapter two looks at previous academic literature that has been written on
collaboration between general education and special education teachers, the retention of special
education teachers, information management systems currently used in school systems, and a
possible solution involving the intranet.

**Definitions**

IEP – Individualized Education Program: a written statement for each child with a disability that
is developed, reviewed, and revised in a meeting in accordance with IDEA 2004.
Chapter Two: Literature Review

The purpose of this literature is to examine previous findings on collaboration between general and special education teachers, the importance and uses of information management systems, retention of special education teachers and need for a better system, and how the intranet is used when developing communication systems in school districts.

Collaboration between general education and special education teachers

As presented in the introduction, communication is the key to any successful collaboration process. When working with students with special needs, collaboration and communication between all involved parties is crucial. In the high school setting, the two major parties that are in constant communication are the general education and special education teacher, who also serves as the case manager. Students with special needs who are in the high school settings can have as many as six different teachers, and so to ensure the success of the student, collaboration and communication is a crucial component. According to Coombs-Ricardson and Rivers (1998), collaboration is described as a “process that enables individuals with a common purpose to work together in a supportive, reciprocal and rewarding relationship” (p.4). The collaboration process in any school setting is an ongoing and serious commitment by all of the teachers as well as administrators who will be working together for the same purpose (Ripley, 1997).

It is simply the nature of education that teachers are meant to work with each other in a supportive and reciprocate manner, mainly for the benefit of the students we serve. Another way of viewing it is that it is attending to the work of others and engaging in intellectual reciprocity, as well as providing timely feedback to colleagues. However, it has been found, especially at the secondary school level that teaching can sometimes be an isolated activity and teachers lack the
The number of students with disabilities that participate on a daily basis in the general education setting has dramatically increased in the past few decades. It is estimated that this population spends about 80% or more of their school day within the general education setting (Damore & Murray, 2009). It is because of this specific reason why the importance of communication and collaboration between all teachers is so important. Students with specific needs are no longer the concern of a small group of educators and parents, they are gradually becoming the responsibility if every educator (White, 2004).

In order for teachers to work collaboratively with each other for the benefit of students with special needs, there is a great need for trust and understanding between all parties. When there are similar commitment and organizational goals between teachers, Tschanneen-Moran (2001) suggests that faculty members are more likely to collaborate with one another in an atmosphere of trust (pg. 324). When the trust is there and general education and special educators team together, the learning for students is powerful – for both students and faculty members. Collaboration is extremely important to make it work, but you need to build the structures to support this collaboration process (White, 2004). In a recent study, it was found that the majority of the teacher participants believed that the role of the teacher was to work together as a team, especially for the benefit of students (Kritijos & Birnbaum, 2003).

The reasons why constrains in collaboration between teachers can vary. According to Grünber and Armellino (2004), some are logistical in nature such as the physical layout and distribution or teachers, or others are of a cultural nature such as professional norms that hinder the collaboration process (pg, 598). According to a recent study, another continuing challenge is to create additional time during the day for general education and special education teachers to
meet and plan for continuous informational and instructional adaptations for students, as well as monitoring student progress (Involvement of general education teachers, 1998). It is because of this particular reason why technology has become such an important and crucial role in bridging this gap. Electronic mail, or e-mail, as it is more commonly known, is one of the most widespread computer-mediated forms of communication technologies (Gründer & Armellino, 2004). The internet has become an enormous part of our everyday life that it is only logical that it also become part of our daily work lives. As stated by Suntisukwongchote (2006), many teachers have realized that the internet is a possible powerful tool to support collaboration (pg. 23). In previous years and decades, the process for collaboration consisted mainly of letters and the telephone. Nowadays, electronic collaboration and communication can connect teachers, even all over the world via the internet. With the power of the internet, teachers are now able to exchange information, share ideas, and collaborate regarding students from wherever internet access is available (Suntisukwongchote, 2006).

In addition to collaborating for the purpose of everyday progress monitoring of students with special needs, there are also legal requirements that require general education and special education teachers to be in constant communication with each other. According to the Individuals with Disabilities Act of 2004, it specifically requires the participation of at least one general education teacher in the IEP process. This means that the involvement of the general education teacher goes beyond simply attending the IEP meeting and ongoing collaboration between the case manager and the general education teacher is essential (Involvement of general education teachers, 1998).

Retention of special education teachers and the need for a better system
It is a well-known fact that the profession of being a teacher is no easy task, especially in the past five years with the massive budget cuts throughout nation. While there are many teachers that continue with their profession, even in tough times, there are others that simply do not, or cannot. This is especially true of special education teachers. While the reasons for leaving the special education field can vary from individual to individual, some of the reasons why special education field can be working conditions, class loads, job stress, paperwork, lack of empowerment, and lack of support, including collegial and administrative (Thornton, Peltier, & Medina, 2007).

Research has indicated that legal requirements related to the required paperwork and the lack of organizational support and organizational learning strategies are viewed as a burden to special education teachers and contribute to their attrition (Boe & Cook, 2006). There is also the matter of time. There are many special educators that have reported that they do not have enough time in the day to complete the required paperwork and other administrative duties that interfere with their teaching. The overwhelming feeling that teachers feel can also be attributed to the state assessment requirements and the pressure of not having enough time to teach everything they would like to teach (Nancy & Calabrese, 2009). Schools that do not offer any sort of relief and lessen the stress for special education teachers may contribute to their dissatisfaction and eventual departure of the profession (Carlson, Chen, Schrool & Klein, 2003).

According to Nance and Calabrese (2009), “current and former tenured special education teachers perceived that the time it takes to complete all required administrative tasks takes time away from services they can provide to students” (pg. 437). It is for this reason and the reasons listed above that a new system is needed to help special education teachers not only collaborate with one another, but to lessen the required administrative paperwork burden. One possible
solution can be found in technology and the newer systems available to teachers. If the use of technology can lessen the burden for special education teachers, then it is possible that the rate of attrition for special educators can diminish.

**Information management systems used in school districts**

The rate of attrition among special education teachers is relatively higher than their general education colleagues for a variety of reasons (Nance & Calabrese, 2009). According to Amprey (2005), teacher turnover is high because of excessive amount of paperwork and the limited amount of time, overburden with federal and state rules and regulations that govern special education, and many mandates that are required are underfunded (pg. 30). There are hundreds of dollars that are wasted unnecessarily per special education student every year because of out-of-date and ineffective management systems. The solution to this problem lies in technology (Amprey, 2005). A recent study found that the Winston-Salem/Forsyth County schools in North Carolina are currently using a system from a company called 4GL School Solutions, which is designed for K-12 school districts. This program automatically collects and stores student information in a web-based system, rather than a paper-based system. This program can access real-time information on each child’s special needs and timeline requirements to improve the services they receive and in effect more effectively and efficiently use data to make informed decisions (Amprey, 2005).

Research surrounding high-performing schools show that there are four important uses of technology in schools:

1. A student information system to store and manage data connected to students. 2. An instructional management system to assist teachers with record keeping, such as
attendance and gradebooks, as well as manage resources for instruction. 3. A student assessment program with test creation and reporting capabilities. 4. A data management and data analysis tool to help teachers and administrators use data coming from disparate assessments (Duffy, 2004, pg. 1).

However, a survey conducted within independent K-12 private schools revealed that there was no single method for managing data. Many of the schools are running at least two separate databases, with some running as many as 15. This becomes challenging for individuals who use the data, and for those who maintain and update the information (Yares, 2010).

Having a system (preferably a single system) that can store the most up-to-date information on students is critically important in understanding and monitoring student progress (Duffey, 2004). Not only is it important to use this system to monitor student progress, it can also be used to hold all parties in a school accountable for all students. Legislation written in No Child Left Behind Act (NCLB) (2001) has formalized statewide accountability programs to measure the progress of all students and schools through the collection and analysis of data. The need for an effective data management system has also been born out of these mandates. Numerous states have followed by requiring schools to implement a formal data management system (Arnel, Greiner & Massey, 2006).

The Intranet Solution

Another possible, but most likely less known, solution to the data management system problem is a district-wide intranet. As school districts grow to include multiple sites and an increasingly diverse student population, there is even more of a reason to establish strong communication links within the sites (Stroh, 1998). On its most basic level, an intranet consists
of a web server dedicated to allocating information at all the workstations connected to the web server via the district network. The server program usually resides on an apportioned computer (which is also known as the web server), and is capable of serving information to all connected platforms (Nansen, 2000).

Experts describe an intranet as a “private”, “mini” or “internal” internet. It is an internally developed and self-managed resource that those within the organization that it is house can access it electronically. It takes the best features of the World Wide Web, such as connectivity, and alters it to the need of the organization. Anyone with a computer and the appropriate software can access the information placed within the intranet, instead of tracking down the paper trail (Stroh, 1998). Schools that have already implemented an intranet have seen the value of sharing resources and the ease of communication between teachers and administration.

Some of the benefits of using an intranet include the low cost to maintain the system. Not only do they reduce costs, they also increase efficiency and productivity within its users. If an individual is familiar with the internet and browsing, they should not have issues with using the intranet since it is web-based. Any computer or web-based platform can use and benefit from using the intranet. Finally, much of the software required to set up an intranet is either freeware (no cost), or shareware (try before you buy) and is less expensive than commercial software (Williams, 2009).

Using an intranet in a school district can help and improve the communication and collaboration between all teachers, but especially for general education and special education teachers. It can be used to exchange ideas and collaborate regarding students with specific needs. As stated by Stroh (1998), it leaves the “doors open for communication process” (pg. 5). By
“opening the doors of communication”, the collective intelligence of the organization is increased and everyone is then a contributing member of the group. It becomes a better way to better meet the diverse needs of schools changing student populations (Stroh, 1998).

**Connections to the Literature**

The purpose of this project is to develop a superior system or method of communication and collaboration between the general education and special education teachers. As noted in the literature, the key to student success is the constant communication and collaboration between all team members. The field of technology is constantly growing and changing within school systems. In addition, it has brought many advantages, including new ways of communicating (Kilgore, 2010). By using a stable, easy to use, and effective information management system, preferably through an intranet school system, teachers are then able to better serve and address the needs of students with disabilities.

**Summary of Chapter**

It has been found through the previous academic literature that constant collaboration between teachers is nothing but beneficial to the academic progress of all students. It is also an ongoing commitment of all teachers that are working towards the same purpose (Ripley, 1997). Lack of communication between teachers can happen for a variety of reasons; some may be time constraints, or simply the physical layout of the school. A solution to this issue lies in technology (Grünber & Armellino, 2004).

Legal requirement related to paperwork and a lack of organizational tools has led to the high rate of attrition of special educators (Boe & Cook, 2006). Having a single database that stores the most up-to-date information on students is an important tool schools can have to
monitor student progress, and possible reduce the rate of attrition of special educators (Duffey, 2004). In addition, access to real time information leads to more effectively and efficiently using data to make informed decisions regarding students (Ampry, 2005). A possible solution that school districts can use to resolve the issue of communication is an intranet. This “mini internet can be accessed by anyone within the organization and therefore open the door for the communication and collaboration process (Stroh, 1998).

In the following chapter, this researcher discusses the methods used to design and create the Special Education Log/Database. Chapter three also discourses the participants, setting, instruments, procedures, and evaluation of the project.
Chapter Three: Methodology

Communication between general education teachers and special education teachers is such an important and vital piece to ensure success for special education students. It is especially crucial to ensure that general education teachers communicate and give feedback to special education teachers, or case managers, before an IEP meeting. The following chapter is a description of the methodology of the project the researcher has designed. The chapter will cover the following, the design, the participants, the setting, instruments used, the procedures, and evaluation for the project.

Design

As a way of streamlining the method teachers provide feedback to the case managers, a communication system has been developed. The purpose of this communication system is to facilitate the method feedback is given to special education teachers. This main purpose of the system to provide feedback on special needs students in the general education classes. The dialogue between the special education teachers and the general education teachers is for the sole purpose of discussing the needs, progress, and/or the accomplishments of students that have an Individual Education Program (IEP). The communication system also serves as a database where all of the communication between the teachers is stored for record keeping.

Participants

The Special Education Log/Database is a tool that is to be used by both special education teachers and general education teachers in a high school setting. Since students with an IEP in the high school level can have anywhere from one to six different teachers as well as a special education case manager, communication between all parties can become difficult. The
participants for this project were all of the teachers, both special education teachers and general education teachers that have a student in their classroom with a student an IEP.

The reason behind this project is simply continuity and simplicity for all teachers when providing feedback on students with an IEP. In previous years, teachers were asked to use more of a traditional method to communicate with each other by using a paper monitoring form. While this was a very general form that all teachers were given, the issue would arise when teachers would not fill them in because they would get lost in the shuffle of teacher paperwork. These monitoring sheets were given mainly to the general education teachers to ask for feedback for an upcoming IEP meeting, or to simply check up on a particular student weeks before a grading period. In previous years, an attempt was made to resolve the issue by using the same color for these monitoring sheets so they would stand out and prevent being lost in the shuffle, and return them to the case manager as soon as possible. While a small percentage of the general education teachers complied with the special education teachers’ requests, many did not. As a result, the case manager did not have information on the academic progress of that student for that particular course and could not share with the IEP team. This lack of information could have possibly affected the placement of the student and their overall success.

A few case managers found it less complicated to simply email the general education teachers and ask them for feedback on a particular student instead of sending out paper monitoring forms. While this worked for many teachers for it is less time consuming to give feedback by typing it out, there was still an issue of getting all teachers to respond and respond in a timely manner. In addition to not getting feedback in a timely manner, there was also the problem that the specific questions that were asked were not answered.
Setting

The setting for the use of this project took place at San Pasqual High school, a comprehensive high school in the Escondido Union High School District. San Pasqual High School is located in the northern inland section of San Diego County. The population of San Pasqual High School is approximately 2,600 students. San Pasqual is one of three comprehensive high schools in the Escondido Union High School District. The district serves over 8,000 students in the three comprehensive high schools and one alternative high school. The majority of the population at San Pasqual has identified themselves as being either Caucasian (43%) or Hispanic (47%).

San Pasqual High School is the second largest high school in the district, but is also the newest in the district as it was built in 1973. The school has 87 permanent classrooms, a gym, multipurpose room, library, seven computer labs, music practice rooms, a stage workshop and a fully-equipped cafeteria to serve the 2,500 students in attendance. Because of the high numbers in population, there tends to be overcrowding in some of the general education classes in various subjects, some as high as 40 students per classroom.

The school has recently been categorized as being a Title I school because the school did not meet the Adequate Yearly Progress (AYP) overall for two years in a row. Even though San Pasqual did not make the AYP, it has been ranked seventh statewide in the Academic Performance Index (API) in the past year, where similar schools have been ranked fifth. The school does have an 82% of all students completing high school requirements.

The location of the school was chosen because of its convenience to the researcher in that it is the workplace of the researcher. This school was also chosen because of the special education
population which was 250 students. The majority of the special education students have been placed in general education classes while the rest of the students were placed in basic classes or life skill classes for the physically handicapped students.

**Instruments**

The most important and most critical instrument for the use of this project is a computer. The development of the communication system was created by using a mixture of My SQL database, Apache Webserver, PHP script language, HTML, and Java. My SQL database was used because it is an open source and free software. It is a widely used system that is available for a variety of operating system that is also reliable, speedy, and easy to use (Saha). Apache Webserver is a freely-available server where all the files are stored. The other three tools, PHP script language, HTML, and Java are all used for coding and to create the user interface.

**Procedures**

The process of creating and implementing the Special Education Log/Database took the researcher several steps. To begin, previous written literature was reviewed to evaluate what existing communication systems were currently being used in other school systems, especially between general education and special education teachers. As a result of this research, it was found that there was not a consistent or uniform system that was being used.

In order to create the system, first, the researcher had to do a great deal of brainstorming to determine what they system was going to look like and how it was going to be developed. The first part of the brainstorming process consisted of listing all of the important features the system needed to have in order to be useful, easily accessible, and unique for all users. It was found by
the researcher that the most efficient and cost saving method to create this system was by using open source software. The system was then developed using open source software that had the capability of being a communication forum for all teachers, an organizational tool for to keep track of students in their courses that have IEPs, and finally a database where all communication between teachers is stored and can then be used for documentation purposes.

The second step in the process was to speak to the school’s administration to allow the system to be put into place. Once authorization was granted, teachers were given a brief training on the purpose of the system and how it is used. Teachers were then asked to use the system for a period of time and then asked for comments on ways to improve the system. Finally, changes were made based on the teacher’s suggestions.

**Project Evaluation**

In order for the overall success of the project to be evaluated, the researcher reflected on the needs of both teachers and case managers. To assure the project became an effective communication forum, the researcher continued to modify the system to accommodate the needs of the teachers and case managers. Changes were made to make the system easily accessible, convenient, and most of all useful for all users.

**Summary of Chapter**

The Special Education Log/Database has been described from an idea to creation, execution, and reflection. The overall goal of the system was to create a streamline communication forum where general education can view critical information, about students with special needs that are enrolled in their classes, such as the student’s IEP notification, and then communicate with their case managers regarding the progress in their course. The case
managers can then use this information to monitor the progress of the students, for the IEP purposes. Case managers can then store the communication between teachers on the database or print out the information and present it to the student’s parents, especially at the student’s meeting.

**Chapter Four Preview**

The Special Education Log/Database is accessible via screen shots reproduced in Chapter Four. The three main roles, administrator, case manager, and teacher can be seen in detail throughout the chapter. The function of the communication log and database can also be seen in detail in Chapter Four.
Chapter Four: Project Overview

The Special Education Log/Database was created and inspired by a need for a consistent and streamline form of receiving feedback from general education to special education teachers in the high school setting. Communication between the two groups of teachers is largely intended to monitor the academic progress of students with special needs, which is legally mandated by a student’s IEP (Individualized Education Plan). Although there are other current forms of receiving feedback, such as paper monitoring forms or via email, the concern and challenge arises when no feedback is received by either means. The lack of a consistent form of receiving feedback means special education teachers are not able to properly monitor the progress of the student, including the progress on their IEP goals. The question then this researcher hoped to answer was: will the creation of a steady communication forum improve the steady flow of feedback from general education teachers to special education teachers regarding students with special needs in the general education setting?

The creation of the Special Education Log/Database is intended to serve as the steady communication forum that all teachers at a specific site would use to provide feedback to a student’s case manager, particularly the students in the general education setting, and mainly for IEP purposes. The following section describes the project features and their respective functions in detail.

The Special Education Log/Database

The Special Education Log/Database is a web-based program that is located in the school’s intranet. Having the program located in the school’s intranet, allows any device connected to the school’s network with a browser application to access the database. Users
would be required to enter the database through a specific uniform resource locator (URL) to have access to the database.

There are three different types of users that have access to the database, administrator, case managers, and teachers. The role of the administrator is to manage the system, including viewing, adding, editing, and deleting the courses, teachers, and students. Each case manager is able to view and manage the students on their caseload. Teachers are able to see the students enrolled in their classes who have IEP and able to give feedback to the student’s case manager. The following table describes the functions and capabilities of each role.

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<th>Teacher</th>
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Table 1
When teachers are ready to give feedback to a case manager on a particular student, they would log on to the main page that can be accessed through the site’s URL. Each teacher is assigned their unique username and password to log on to the system.
Sensitive and personal student information is accessible within the site, and so each teacher has the option, and is highly recommended to change their password after logging in the first time. Users are able to change their password by entering their old password, followed by their new one.

As previously mentioned, there are three roles that each individual is assigned to, administrator, case manager, or teacher. The role of administrator is to manage the information within the system, such as courses, teachers, and students. It is typical for the administrator to be the program specialist, since they have access to all student records and is the district representative. Figure 3 is the main screen for the administrator.
Under the personal information box, each user can see what their role is, administrator, case manager or teacher.

The administrator has the role of managing all of the teachers and courses that are added to the system. For simplicity and control management, the role of the administrator is the only one with the capability to do this function. Figures 4 and 5 demonstrate where the administrator can go to add, edit and delete each teacher and course.
Figure 4

Figure 5
When users are identified as case managers, their caseload list will appear to the right of their personal information, as seen in Figure 6. Since all case managers are also teachers, there is a list of all the students in each of the courses they teach. Each case manager will find that every student in their courses all have IEPs, since they are special education teachers.

As seen in Figure 7, the main difference between teachers and case managers is that the teachers will not have the caseload list, since they are not special education teachers. What they will find is a list of all the students who have an IEP in each of the courses they teach. They now have a quick list and easy access to each student’s information and a direct link to provide feedback to the student’s case manager.
When teachers are ready to provide feedback on a particular student, they will click on the icon next to the student’s name and another screen will pop up, as seen in Figure 8. The teachers will then type in their comments in the provided field and submit when they have completed. It is important to note that teachers do not have the capability to retrieve any comments they have submitted, and the note is also stamped with the date and time of when it was submitted. This will then be automatically delivered to the student’s case manager and stored within the system’s database. In this same screen, the teacher is also able to view the student’s Teacher IEP Notification, which is a summary of the student’s IEP. This summary
includes the student’s diagnosed disability, their annual goals, and the services provided to them in the IEP.

Figure 8
Feedback that is submitted by each teacher can then be instantly seen by the student’s case manager, as seen in Figure 9. The last comment that the teacher has submitted will be displayed on the page, and the icon that is farthest to the right is where previous comments from the teachers can be accessed.

Figure 9
Creating reports for all courses, all teachers, and all students can be accessed by all users. Having the capability of creating reports is useful for case managers to determine what could be the best placement for a particular student on their caseload. It is also an informational tool for all to use. This can be seen in Figures 10 and 11.

Figure 10
One of the advantages of using open source software is that it has the capability of making changes, corrections, and additions without interrupting the use and function. As opposed to other software, such as Microsoft Office, this program does not need to be repeatedly installed when updates and changes are made. Although the Special Education Log/Database is fully functional, there are currently many functions that can still be added to improve the use and functionality of the system. These will be discussed in detail in Chapter Five.
Chapter Five: Conclusions

One of the greatest challenges this researcher has faced in recent years is the inconsistency of feedback from colleagues in regards to special education students. This lack of consistency has led to countless hours and occasionally futile attempts at contacting teachers to provide a timely response. Teachers have stated that the methods previous used, i.e. paper monitoring forms, are too timely to complete and easy to lose. The creation of the Special Education Log/Database allows for a consistent and paperless form to collaborate and communicate amongst education colleagues for the benefit of students with special needs.

Lessons Learned

The intent of the system is to streamline the collaboration and communication methods between general education and special education teachers in regards to students with special needs in the classroom. Having a central location where that takes place is supposed to be the appeal of the system, however, the researcher has discovered that not all teachers are willing to adapt to a new system. While many have adapted and embraced to the technological ease of the communication log and organizational system, many find it cumbersome to have to use yet another program to manage students.

Prior to the creation of this project, this researcher had no knowledge as to the basic functions of a database. Familiarity of how a database works was limited to being a user and being able to navigate around similar systems. The creation of the database has now given this researcher basic knowledge of the technical aspects of creating a database. Basic relational data is the model that is used for creating any database. This describes the association of tables, or data, using a primary key. Primary keys are identifiers that enable the connection and commands
of the different groups of information. These primary keys are the student identification numbers, the teacher usernames, courses, and departments. When one key is used, it is then able to recall the information that is sought out, such as the students schedule and list of teachers.

**Project Implementation Plan**

The first step towards implementing the Special Education Log/Database is to consult with the school’s principal and present the project to him. The problem of inconsistent feedback from general education teachers to the case manager is and has been an ongoing issue for some time now, something the principal is aware of. Obtaining the approval of the principal would be necessary because in order for the Special Education Log/Database to be a successful tool, all teachers would be required to use it, and therefore there may be a need for training. The system or webpage is fairly easy to use, but may require a short training to simply become familiar with the purpose and the uses of it.

Once approval is granted, the next step would be to consult with the school’s Information Technology (IT) specialist to allocate a single computer on campus that could be used as the project’s host server. The server could be any computer that meets minimal requirements such a microprocessor of 2.8 gigahertz (GHz), 2.0 gigabyte (GB) of memory (RAM), and 10 GB of free hard disk space, which is compatible with the computers that are already in place at the school site. Installation of the system is a process that would take approximately 15 minutes to install and set up and it includes copying the database and the webpage files to the computer. Once this is installed into the server, it is now accessible through any device connected to the campus network that has a web browser that has the use of cookies enabled.
Following the installation of the system, it is now available to be fully implemented throughout the school for all teachers to use. Since the system considers the existence of three different roles, special education administrator, case manager, and teacher, the largest percentage of users will be the general education teachers who will provide feedback on students with IEPs. All teachers on campus are familiar with technology for there are many aspects of the job description, such as attendance and grade reporting that are required to be completed via the internet. However, as mentioned before, minimum training for teachers would be needed at this point so that all are familiar with the use and navigation of the webpage. This can be done on a large scale at an after school facility meeting where all teachers can see how the webpage works and where simple questions can be answered. Living in a world full of technology, and the simple use and navigation of the system, the majority of teachers should have no problems working and navigating the webpage. However, there are always individuals that are going to need extra help and guidance. For those individuals, a particular training can be then held at another day, possible after school, or at the two party’s earliest convenience.

The next step in the implementation process would be to fully teach each case manager how to access the webpage, manage the students on their caseload, and view reports. This is a process that can be done in one afternoon at a department meeting when all members of the department are present. Just as the training for all general teachers is quick and easy, training the case managers to use the system is the same. The main difference in training the case managers and the general education teachers is the features that allow the case manager to add or modify information on a student that is on their caseload, such as their class schedule or their upcoming IEP date. As previously mentioned, this training is a very simple process that should take a
maximum of one hour; however, if an individual case manager continues to need more assistance or guidance, it can be arranged on an individual basis.

The final step in the implementation process would be in having the full support of the school administration, including the principal and assistant principals, to encourage all teachers to use the system and provide feedback of students when needed. In order for the system to be successfully used and implemented for the benefit of students, it needs to be constantly used by all teachers. School administrators can do this by sending out a school wide email encouraging teachers to use the system and emphasize the ease of the system and reduced paperwork teachers will have deal with when using the system.

**Educational Implications**

Part of the legal requirements of the IEP is to monitor the progress of the student in regards to the goals that are developed at every annual meeting. In order to meet this requirement, feedback is needed from the student’s teachers and kept for record keeping and documentation. The feedback received from the students’ teachers can be used to meet this documentation and record keeping requirement.

Case managers have the capability of printing out reports that contain the written feedback of the teachers, which will also include the date and time that the teacher submits the feedback to the case manager. This can then be presented to the team at the annual meeting and then submitted to the students IEP file for record keeping. The benefit of the system is that it keeps a digital copy of the feedback in case the paper is every lost or misplaced.

The webpage also has the capability of uploading attachments, particularly Portable Document Format (PDF) files that can be viewed along with the student’s information. The PDF
that is uploaded is the Teacher IEP Notification page, which is a summary of the student’s IEP. This form states what the students’ disability is, what services they are entitled to, their supplementary aids and supports, and any possible health concerns. This form has been previously given to each student’s teachers in a paper format, but with the system’s capabilities, it can now be uploaded electronically. Having the capability of allowing all teachers to access this form electronically emphasizes the accountability of each teacher in providing the services and supports indicated in the student’s IEP.

**Limitations of Project**

The most significant limitation that is currently in place for this project is that it is currently limited to the use of one school year. It has been designed to hold information, including teachers, students and courses, to only be used throughout the course of one school year, and nothing further. While the system has the capability of adding multiple school years for future use, time constraints and limitations have prevented this feature to be added to the current system.

Another limitation to this project is that in order to maintain, revise, and update the system there needs to be a person on site who is knowledgeable and familiar with writing code. If an internal change needs to be made, it needs to be done through internally in the written code of the system, which is why a person familiar with this process needs to be on site. It is possible that the school’s IT technician be familiar and able to perform these changes, it is also possible that he or she is not.

**Project Suggestions**
As mentioned in the previous section, the project developed by the researcher is currently designed to only be used for one school year. The parameters of the design have only allowed case managers and general education teachers to view and filter the comments posted for students from the same school year. A recommendation for this project is to allow the users to use the system over multiple school years. Allowing the case managers to see the comments over the span of multiple school years serves two purposes. First, it keeps a record of the comments teachers have given on a specific student for IEP and legal purposes. It also allows the case manager the ability to view and monitor the overall progress of a student, either academically or behaviorally over the span of time the student is enrolled at the school site.

The school site where this system is being used is currently using another web based system, Synergy, to perform other required duties, such as attendance and grade keeping. Combining the functions of the two systems, the Special Education Log/Database and Synergy, would be an even more useful and streamline tool for all teachers to use because of the convenience of having everything in one place. Teachers would then only have to log on to one place and be able to provide the feedback needed for students with special needs, have all of the students information, take attendance, etc., all in one place.

As a complete organizational tool for case managers, one feature that could possibly be added for future use is graphics, such as tables or charts, that will help keep track of how many students IEP meetings have already taken place and how many more are still need to be complete. In addition to the graph depicting the number of IEPs completed, another organizational feature that could be added is an automatic email reminder that the system can send to each case manager reminding them when an IEP due date is approaching. These features
can be useful to keep case managers organized and to ensure that the IEP is compliant with the legal boundaries.

Finally, one of the most important recommended features to be added to this system to aid with the consistency of feedback from all teachers to the case managers is the automatic distribution of emails to the teachers who have not provided feedback directly to the system. The addition of this feature would greatly increase the consistency of timely feedback from all teachers and in turn assist case managers in properly monitoring the progress of their students in their classes and record keeping for IEP meetings.

All of the recommendations listed above have the capability of being added to the system. As previously mentioned, one of the benefits to this system is the ability to quickly add, remove, or modify any features without any major user disruptions. However, the recommended features were not added to the system due to time constraints and resource limitations.

**Summary and Conclusions**

Throughout the course of the project, the Special Education Log/Database materialized as a way for teachers to provide feedback to special education teachers in an accessible and functional manner. In Chapter One, the stage was set; there was an inconsistent manner that teachers were using to provide feedback on students in their respective classes with special needs. The inconsistent methods led to the research question, “will the creation of a steady communication forum improve the steady flow of feedback from general education teachers to special education teachers regarding students with special needs in the general education setting?” This question instigated the review of literature.
Previous available academic literature stated that constant collaboration between teachers is nothing but beneficial to the academic progress of all students (Ripley, 1997). Lack of communication between teachers can happen for a variety of reasons; some may be time constraints, or simply the physical layout of the school (Grünber & Armellino, 2004). In addition, legal requirement related to paperwork and a lack of organizational tools has led to the high rate of attrition of special educators (Boe & Cook, 2006). Having a single database that stores the most up-to-date information on students is an important tool schools can have to monitor student progress, and possible reduce the rate of attrition of special educators (Duffey, 2004). In addition, access to real time information leads to more effectively and efficiently using data to make informed decisions regarding students (Ampry, 2005). A possible solution that school districts can use to resolve the issue of communication is an intranet. This “mini internet can be accessed by anyone within the organization and therefore open the door for the communication and collaboration process (Stroh, 1998).

In order to address the research question, a communication database was created. This system allows teachers to view all students in their classes who have an IEP, who their case manager is, their Teacher IEP Notification, and most important, is able to submit their feedback, all in one place. This feedback forum was created using open source software because of the availability and the cost effectiveness.

This system was designed to replace all previous forms of feedback teachers were using, either paper monitoring forms or emails, so that all communication can be stored in one place. Case managers have the option of printing out a copy and placing it in the student’s file, or forever store it the database. With proper use of the Special Education Log/Database, feedback
given by teachers can help case managers properly monitor the academic progress of students with special needs and improve their overall academic success.
Resources Cited


