A COMPARATIVE STUDY
OF ELEMENTARY SCHOOL PRINCIPALS’
AND SPEECH LANGUAGE PATHOLOGISTS’
PERCEPTIONS OF INTEGRATED CLASSROOM-BASED
SPEECH LANGUAGE SERVICES

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Integrated classroom-based speech language pathology services have been found to be an effective, viable, legally defensible, and sometimes preferred service delivery model for students with communication impairments in the schools. Additionally, these services offered an important alternative to pullout only models, which have been repeatedly criticized in the research and literature in the field of speech language pathology. To date, integrated classroom-based services have not been widely utilized by speech language pathologists (SLPs) in Ohio’s public school system (Farnham, 2006).

Literature and research have suggested that administrative nonsupport and misperceptions restricted service delivery options for SLPs who worked in the school setting. This study used a web-based survey to investigate Ohio elementary principals’ and SLPs’ perceptions of integrated classroom-based speech language pathology services in the public school setting. Demographic information was collected and participants were asked to state their level of agreement on 17 perception statements using a 5-point Likert scale. The survey instrument used in this study was found to possess adequate content validity, internal reliability, and test-retest reliability. The impact of nonresponse bias was found to be low. Descriptive and inferential statistics were used to analyze the data, and three predictor variables (i.e., occupation, experiences, and contract type) were
found to contribute to the overall prediction of integrated classroom-based services. Additionally, principals and SLPs were found to hold some similarities and significant differences in their perceptions of this type of service delivery model. The limitations of the study and implications of these findings for principals and SLPs were discussed.
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CHAPTER I
INTRODUCTION

Principal’s Role in Special Education and Service Delivery

As the educational leader of a school, principals have been given many responsibilities by school districts, state agencies, and the federal government. One of the biggest responsibilities given to principals involved compliance with all the various state and federal laws (Cunningham & Cordeiro, 2006; Ohio Department of Education [ODE], 2007a). More specifically, school principals have been charged with ensuring that appropriate and legally defensible special education and related services were provided to students with disabilities and that each of these students’ potential was realized (Adelman & Taylor, 2006; Cunningham & Cordeiro, 2006).

In 2004, the Ohio Department of Education and Special Education Regional Resources Centers provided guidance and professional development to school principals throughout the state in order to improve instruction, develop a menu of service delivery options for interventions, and ensure that students with disabilities were given access to and made progress in the general education curriculum. Through this statewide training series, educational leaders learned practical strategies to ensure that regular and special educators were provided with adequate planning time to collaborate on classroom-based interventions. Principals were shown how to guide regular and special educators to create units of differentiated instruction and assessments for diverse learners at each grade-level and across content areas. Additionally, school leaders were encouraged to use co-
teaching in their buildings as a vehicle to provide instruction and interventions in the regular education classroom for students with disabilities.

Not only did the Ohio Department of Education and Special Education Regional Resources Centers encourage and train principals and educational teams to serve students with diverse learning needs in the regular education setting, but the Ohio General Assembly created an Educator Standards Board to develop standards for principals. This board created standards to ensure that all students in Ohio, to include every student with a disability, were able to graduate and be successfully employed (ODE, 2007a). Principals were not only expected to advocate for high-quality instruction and higher student achievement for gifted and regular education students, but they were also expected to meet the diverse learning needs of students with disabilities. The standards were also intended to help colleges and universities develop principal leadership programs that would give aspiring school leaders the necessary training and knowledge to incorporate high-quality instruction and higher student achievement in their buildings. Given the types of professional development that were provided to school leaders by the Ohio Department of Education and Special Education Regional Resources Centers as well as the educator standards that were created under the direction of the Ohio General Assembly, the state of Ohio made it clear to building principals that they were to advocate for high levels of learning for all students and ensure students with disabilities learned the general education curriculum through a variety of strategies (e.g., co-teaching, collaborative consultation, differentiated units, and assessments).
In addition to the expectations from the Ohio Department of Education and Ohio General Assembly, public educational agencies have been mandated federally by the Individuals with Disabilities Education Improvement Act (IDEA) to offer a continuum of alternative placements to students with disabilities in the student’s least restrictive environment to the maximum extent appropriate (2008). According to IDEA, this continuum was defined as special education instruction in the general education classroom, specialized classroom, specialized school, student’s home and hospitals, and other institutions. Under this same law, the student further possessed the right to be educated with his or her nondisabled peers to the maximum extent appropriate. These mandates included students who were identified as having speech or language impairments (Ritzman, Sanger, & Coufal, 2006). Given these mandates, the principal, in the role as the district representative, was given the responsibility to ensure that all students in the building were educated in the least restrictive environment and that all state and federal laws were followed by Individualized Education Program (IEP) teams and other school personnel.

At the state and federal level, school principals have been encouraged and mandated to ensure that the students with disabilities in their buildings received instruction in the least restrictive environment and made progress in the general education curriculum. In order to give principals the necessary skills and training to follow these laws, state and local agencies have provided training. The Ohio General Assembly ensured that universities and colleges were informed of these expectations, and created standards that all principals should follow. Through their role as the district
representative at IEP meetings, principals were further given the ultimate responsibility to ensure that students with disabilities, including students with speech or language impairments, made progress in the general education curriculum, learned next to their nondisabled peers to the maximum extent appropriate, and were educated by teachers through the use of a variety of supports and strategies.

*Speech Language Services in the Public School Setting*

Under IDEA (2008), a speech or language impairment was considered to be a communication disorder (e.g., speech sound, language, or voice impairment and stuttering) that adversely affected the student’s educational performance. The provision of speech language pathology services to students with communication impairments has had a long history in education. Dating as far back as 1900, American public school students received segregated services from teachers in an attempt to address speech and language impairments (Osgood, 2005). By 1948, one of the earliest national attempts was made to include students with speech or language impairments in the regular education setting and also provide these students with partial day or pull-out speech language services (Osgood). Through the creation of The Education for All Handicapped Children Act of 1975, certified speech language pathologists (SLPs) were hired by school districts, county boards of mental retardation and developmental disabilities, and educational service centers to work directly and indirectly (e.g., consultation, counseling, and guidance to teachers and parents) with students who had speech or language impairments (B. Ehren, 2000; Huefner, 2000).
School districts have been mandated by state and federal law to provide services in the least restrictive environment and encouraged by policies from national professional associations to take part in the inclusion movement, move away from pullout only segregated programs, and integrate speech language pathology services into the regular education setting (Beck & Dennis, 1997; Elksnin & Capilouto, 1994; McGinty & Justice, 2006; Zionts, 2005). As educational teams sought to determine the most appropriate service delivery model at IEP team meetings, research and literature have pointed in the direction of integrated classroom-based speech language pathology services as an effective and legally defensible service delivery model for many students who required services to address a speech or language impairment (American Speech-Language Hearing Association [ASHA], 2005a, 2005b, 2006b; Bellini, Peters, Benner, & Hopf, 2007; Ellis, Schlaudecker, & Regimbal 1995; McGinty & Justice, 2006; Throneburg, Calvert, Sturm, Paramboukas, & Paul, 2000; Wilcox, Kouri, & Caswell, 1991).

The incorporation of integrated classroom-based speech language pathology services into the public school setting had the potential to allow school districts to serve students with speech or language impairments anywhere along the continuum of alternative placements in the students’ least restrictive environment. Services were able to be provided in the general education classroom through co-teaching or collaborative consultation with the teacher and SLP. This type of service delivery model allowed students to learn and make progress in the general education curriculum so that they met the graduation requirements. After a student’s unique needs were considered, the SLP taught educationally relevant speech and language skills and strategies through some
combination of the following: Pullout therapy into a special therapy room, classroom-based services in the regular education setting, and/or collaborative consultation. The student’s speech or language impairment was targeted systematically and thoughtfully within the context of the general education curriculum through the use of research-based strategies, collaboration with the teaching staff, curricular modifications, and accommodations (Dodge, 2004; Prelock, 2000; Ritzman et al., 2006). This combination of service delivery options allowed school districts to address the speech or language impairment anywhere along the continuum of alternative placements in the least restrictive environment, align with the Regular Education Initiative and philosophy of inclusion, and positively impact upon the student’s academic and functional performance across educational settings (ASHA, 2005a, 2005b, 2006b; Bellini et al., 2007; Ellis et al., 1995; McGinty & Justice, 2006; Throneburg et al., 2000; Wilcox et al., 1991).

As an alternative to pullout only programs, integrated classroom-based speech language services utilized a continuum of service delivery options based on the student’s unique needs through some individualized combination of pullout therapy, collaborative consultation with the classroom teacher, co-teaching lessons, accommodations, and modifications. The student’s communication impairment was addressed within the context of the general education setting (B. Ehren, 2000). Integrated classroom-based services utilized educationally relevant listening comprehension, oral expression, reading and writing activities that positively impacted the student’s communication skills (Elksnin, 1997). By design, this type of service delivery model was educationally
relevant, impacted the general education curriculum, and promoted academic, social, emotional, and vocational growth (B. Ehren, 2000).

The goal of introducing alternative models of service delivery was not to eliminate pullout services; rather, the goal was restriction of the use of pullout services to appropriate cases and the provision of alternative approaches when they best serve students’ needs. (Sanger, Hux, & Griess, 1995, p. 80)

The idea of integrated classroom-based services was not new or unattainable. Nonetheless, SLPs have identified restrictions in the selection of integrated classroom-based services due administrative nonsupport (e.g., does not help the SLP with time related issues) and limited perceptions (Achilles, Yates, & Freese, 1991; Beck & Dennis, 1997; Blosser & Kratcoski, 1997; Cooper, 1991; Elksnin, 1997; Elksnin & Capilouto, 1994; Farber & Klein, 1999; Fujiki & Brinton, 1984; Giangreco, Dennis, Cloninger, Edelman, & Schattman, 1993; Larson, McKinley, & Boley, 1993; Magnotta; 1991; Miller, 1989; Moore-Brown, 1991; Schetz & Billingsley, 1992; Throneburg et al., 2000; Tollerfield, 2003). These restrictions have negatively impacted the amount of available options SLPs have in the creation and implementation of effective service delivery models for students with speech or language impairments (ASHA, 2006d; Legislative Office of Education Oversight, 1999). In light of the federal and Ohio state special education mandates and the focus on scientifically research-based practices, school districts continue to be called upon to reassess the appropriateness of pullout only services and investigate alternatives to this commonly used service delivery model.
Research Gap

Despite a longstanding flexibility in special education law, guidance for the Ohio Department of Education, state principals standards, research, and literature on service delivery options, Individualized Education Program (IEP) teams have nonetheless primarily recommended and utilized pullout speech language services (i.e., services in a separate therapy room) as the only service delivery option for students with speech language impairments due to high caseloads, tradition, and lack of resources (Ukrainetz, Ross, & Harm, 2009). In 2008, ASHA conducted a study of 2,556 SLPs on caseload characteristics. When the data were analyzed from these randomly selected SLPs, it was found that they provided an average of 22 hours per week of traditional pullout only speech language pathology services and only 5 hours per week on services that were integrated into the general education classroom (ASHA, 2008a). In a recent survey it was further found that Ohio was not that far from these national trends (Farnham, 2006). The data from this caseload survey were pulled from 83 Ohio school-based SLPs during the 2004-2005 school year. This study revealed that traditional pullout services, which were provided 70% of the time, were found to be the predominant service delivery option used in the Ohio schools when compared to direct classroom-based services.

One explanation for the incorporation of pullout only speech language services into a student’s IEP was attributed to the building-level administrator. “Although placement decisions for students with disabilities are made by each student’s IEP team, the behavior and perceptions of the principal strongly influence[d] placement decisions” (Praisner, 2003, p. 141). Principals were the most constant members of IEP teams, and
their attitudes about inclusion affected whether students were included or placed in segregated settings for special education (Praisner, 2003; Ritzman & Sanger, 2007). Despite the fact that principals often acted as the district representatives at most IEP meetings, SLPs felt that principals failed to help with IEP decisions and appropriate student placements (Schetz & Billingsley, 1992). In a survey of 2,556 SLPs across the country, administrative nonsupport and lack of understanding of the role of the SLP were listed as 2 of the top 10 challenges that SLPs faced when working the school setting (ASHA, 2008b). SLPs have reported that they have been historically restricted in the selection of other more appropriate service delivery models (e.g., integrated classroom-based services) due to this lack of administrative support, interest, and understanding of the role of a SLP (Achilles et al., 1991; ASHA, 1993; Beck & Dennis, 1997; Blood, Ridenour, Thomas, Qualls, & Hammer, 2002; Elksnin, 1997; Magnotta, 1991; Schetz & Billingsley, 1992).

Although research has shown that principals and teachers did not hold the same perceptions about inclusive services for students with disabilities, there had been no attempt made to determine whether these differences also existed between principals and SLPs (Bunch, 1992; Valeo, 2008). Valeo found that the discrepancies in perceptions about inclusion that were found between principals and teachers were “a cause for concern” and the current research on these differences had not shed much light on the matter (p. 15). Valeo recommended further research in the area of principals’ perceptions and inclusive services for students with disabilities. In spite of the fact that principals have been blamed by SLPs for the excessive use of pullout services in the schools,
principals’ perceptions about integrated classroom-based speech language services have not been explored. Further, no research has been conducted to investigate whether principals and SLPs differed in their perceptions of this type of inclusive service delivery model.

_Purpose of the Study_

The purpose of this survey study was to test the notion that principals and SLPs differed in their respective perceptions of integrated classroom-based speech language pathology services in the public school setting. Additionally, this study sought to identify predictor variables that were associated with perceptions of this type of service delivery model for students with speech or language impairments. Only a small amount of research has been conducted on SLPs’ perceptions of integrated classroom-based speech language pathology services, and no study has investigated the perceptions of principals. Although principals’ perceptions and attitudes have been blamed for the excessive use of pullout only programs in the public school setting, this belief by SLPs has not been substantiated by research.

_Research Questions_

This study investigated two research questions. First, in the Ohio public elementary school population, is a significant proportion of the variability in perceptions explained by the following predictor variables: Preservice and inservice training in integrated classroom-based speech or language services, occupation, employment status, school district typology, years employed in profession, school report card designation, prior experiences with integrated classroom-based speech or language services, and
employment contract type (e.g., employed directly by district, contracted privately)?

Second, what proportion of the variability is explained by each predictor variable?

The researcher used a correlational ex post facto design to answer the research questions. This non-experimental design was selected because there were no control groups or manipulation of independent variables.

_Predictor Variables Associated With Inclusive Practices_

To date, no study has been conducted to determine which predictor variables (i.e., independent variables) significantly predicted perceptions to integrated classroom-based speech language pathology services. Since these services fell under the category of inclusive special education practices, research was gathered in order to determine which variables were associated with inclusive practices and speech language services in general.

Preservice (i.e., training before employment) and in-service training (i.e., training after employment at a workshop, professional conference, or university) emerged as predictor variables associated with the use of inclusive special education services. Praisner (2003) found that the use of inclusion was related to the number of training hours in inclusive practices and special education credits, and the more training hours and college credits taken predicted a more positive attitude about inclusion. Despite the fact that the data revealed that principals were frequently trained in special education law, the characteristics of students with disabilities, and behavior management, they possessed very few field experiences with inclusion. Praisner recommended further research in this area in order to validate the data from the aforementioned study.
With regard to the third predictor variable, occupation, data have shown that teachers and principals possess statistically significant differences in their perceptions of the impact of inclusion on educational performance, organizational structure, and school culture (Villa, Thousand, Meyers, & Nevin, 1996). When teachers and principals were asked to rate building-level administrative supports for inclusion, principals rated themselves as more supportive than the regular education teachers did (Valeo, 2008). Wigle and Wilcox (1997) revealed that special educators were significantly more positive about the design of inclusion on a case-by-case basis than administrators were. Despite the fact that research had shown that principals held different perceptions than special educators and regular education teachers about various aspects of inclusion, no research has been conducted to investigate whether differences were present between principals and SLPs with regard to the provision of classroom-based speech language services.

Employment status was used as the fourth predictor variable. Nationally, 77% of the SLPs were found to be employed by school districts on a full-time basis, and the remaining SLPs were employed on a part-time basis for an average of 21 hours a week (ASHA, 2008b). Very little research was available on the differences between part- and full-time employees in the public school setting, and no research existed on perceptions of integrated classroom-based services as it related to employment status. Although the differences between these types of employment statuses have not been fully understood, research in other fields (e.g., retail, insurance) has shown that part-time employees did not identify with their organization psychologically, rate their work as important to their self-image, or feel part of their day-to-day activities at work (Clinebell & Clinebell,
A meta-analysis found that part-time employees were less involved in their work when compared to fulltime employees; a tendency that suggested these employees felt their work was less important and less integrated into the overall organization (Thorsteinson, 2003).

School district typology was used as the fifth predictor variable. When asked to identify the greatest challenges faced by school-based SLPs, ASHA (2008b) found SLPs from various locales (e.g., metropolitan/urban, suburban, rural) and geographic regions (e.g., New England, East North Central, South Atlantic, Pacific) differed in their perceptions. With regard to integrated classroom-based services, SLPs from different locales and geographic regions were found to agree that a lack of time for planning, collaborating, and meeting with teachers were major challenges (ASHA, 2008b). Wigle and Wilcox (1997) used survey research to study teachers’ and administrators’ attitudes toward the full inclusion for all students with disabilities in rural elementary, middle, and high school setting. The data revealed that rural administrators were “very cautious” about the full inclusion of all students with disabilities, which included students with mild to moderate disabilities. Wigle and Wilcox suggested that perceptions may have been influenced by the lack of “specialized support personnel” and “certified special educators” in rural school districts. No attempt was made to compare these data with administrators’ perceptions from other locales (e.g., urban, suburban). In another survey conducted by Villa et al. (1996), it was found that teacher and administrator perceptions of inclusion differed among states and Canadian provinces. To date, no study has been
conducted to investigate the relationship between principals’ and SLPs’ perceptions and locale as it related to integrated classroom-based speech language pathology services.

In a national workforce survey by ASHA, a statistically significant relationship was found between years of experience as a SLP and various identified challenges as a school-based SLP (e.g., lack of materials and assessments, lack of others’ understanding of the SLP role, lack of training; ASHA, 2008b). No studies have been conducted to determine whether a relationship existed between years of experience as a SLP or principal and perceptions about integrated classroom-based speech language pathology services. Therefore, years of experience in the profession was chosen as the sixth predictor variable.

Given the importance of adequate yearly progress (AYP), school report card designation was selected as the next predictor variable. The No Child Left Behind Act of 2001 mandated an increase in school, district, and state accountability as assessed through AYP. This meant specific goals must be met for student achievement on various assessments (e.g., Ohio Achievement Tests, Ohio Graduation Test; Silliman & Wilkinson, 2004). The use of AYP has been used to measure classroom-level academic outcomes for students with and without disabilities, and schools throughout the country have moved to more inclusive special education practices in an effort to ensure AYP. Despite this move, these practices have not been fully evaluated in order to determine whether academic achievement actually improved AYP results (Causton-Theoharis & Theoharis, 2008). At the time of this study, research did not exist on the relationship between schools that used integrated classroom-based speech language pathology
services and school report card designations (e.g., excellent with distinction, excellent, effective, continuous improvement).

A positive correlation was found between the principal’s positive experiences with inclusion and their preferences for inclusion for students with speech or language impairments (Praisner, 2003). Additionally, Villa et al. (1996) have suggested that teachers’ attitudes about inclusion may also change with experiences with this type of service delivery model. It was important to note that teachers’ perceptions have been found to differ from those of SLPs with regard to classroom-based services, and therefore, generalizations about teachers’ experiences and perceptions cannot be extended to SLPs (Beck & Dennis, 1997; Giangreco, Edelman, MacFarland, & Luiselli, 1997). Given the dearth of data in this area, experiences with integrated classroom-based services were used as the eighth predictor variable in this study.

Finally, school districts around the country were found to enter into contracts with other organizations 7% of the time and directly with the SLP 1% of the time in order to obtain speech language services (ASHA, 2008b). In Ohio, it was not uncommon to find Educational Service Centers, County Boards of Mental Retardation and Developmental Disabilities, and private practices who contracted SLPs to the public school districts (Burford et al., n.d.). Additionally, principals have been hired by school districts through contracts with Educational Service Centers throughout the state of Ohio. Given the fact that SLPs and principals have been outsourced in some of Ohio’s schools, and no research has been conducted to investigate their perceptions with regard to integrated
classroom-based speech language pathology services, contract type was selected as the ninth predictor variable.

Service Delivery Models

Service delivery: ASHA defined service delivery as a “dynamic concept that change[d] as the needs of the students change[d]” (1999, p. 273). As students made progress and moved through speech language services across time, the service delivery model should be reevaluated and modified to address the unique and changing needs of the student (T. C. Ehren, 2007). Therefore, it would inappropriate for IEP teams to determine services for students with speech or language impairments using a “one size fits all” approach (ASHA, 1999). School-based SLPs needed to be provided with the scheduling structure and administrative support to design and implement a continuum of services to effectively serve the students on their caseload. Moore-Brown (1991) felt that SLPs and principals needed to come together to change traditional service delivery models since this type of change would be difficult without the support of a building-level principal.

Speech language pathology services: In Ohio’s public schools, “speech language pathology services” included the “provision of speech and language service for the habilitation or prevention of communication impairments” and “counseling and guidance of parents, children and teachers regarding speech and language impairments” (ODE, 2008, p. 36). Under these standards, preschool and school-age SLP service providers had the ability to offer direct or indirect speech language services to students in various instructional groupings that included large-group, small-group, individual instruction,
and/or parent training and consultation based on the student’s individual needs. A review of the Operating Standards for Ohio Educational Agencies serving Children with Disabilities showed SLPs in the public schools clearly had the authority to offer a continuum of services in the least restrictive environment that included one or any combination of the following: Pullout therapy, collaborative consultation and classroom-based services (ODE).

**Pullout services**: Pullout services were those traditional speech language pathology services that occurred when the SLP worked in isolation to provide small-group or individual therapy in a setting that was apart from the regular education classroom (e.g., therapy room, hallway; Norris, 1989; Sunderland, 2004). Pullout services were recommended when new skills were taught; or the student needed privacy, repetitive practice, a quiet setting, intensive instruction beyond what could be achieved in a classroom setting (ASHA, 1993, 2005a). There were occasions however where the goals of pullout services did not necessarily coincide with the content standards established by the state (Norris, 1989). These services occurred separately from the student’s regular education curriculum and nondisabled peers, were oftentimes stigmatized by nondisabled peers, and became disconnected from other nonacademic school activities (e.g., lunch, recess, transitions; Sunderland, 2004). Pullout only service delivery models, like the ones used in the Ohio public schools, have been historically criticized by researchers and experts in the field since the 1970s due to a limited generalizability of targeted skills into the classroom or other functional settings (ASHA, 2005a; Gresham, Sugai, & Horner, 2001).
The biggest criticism of this type of service delivery was that newly taught skills did not necessarily carry over to other settings (ASHA, 2005a; Elksnin & Capilouto, 1994; Gresham et al., 2001; Miller, 1989). First, pullout services were not often relevant to the student’s academic or social needs, and social situations could not be replicated in this setting (Anderson & Nelson, 1988; Sunderland, 2004). Next, students who were removed from the regular education setting lost portions of classroom instruction and activities, and were later held responsible for learning the missed subject matter. “Being pulled out from core curriculum classes often has a negative effect on self-esteem because students feel singled out as being different or less intelligent, and this can cause them to be targeted for labeling by peers as “special education” or “remedial” students” (Putnam, 1998, p. 8). Nonetheless, pullout speech language pathology services still had a place in the schools when it appropriately addressed the student’s unique needs.

*Integrated classroom-based speech language pathology services:* These direct and indirect services aligned with the inclusion philosophy and were provided in the student’s natural setting (e.g., classroom, cafeteria, playground, home) to improve communication skills across academic and functional areas (Cooper, 1991; Elksnin & Capilouto, 1994; McGinty & Justice, 2006). Depending on the student’s needs, the SLP provided educationally relevant speech or language services from some combination of the following of options: Pullout therapy, SLP led classroom-based services, co-taught classroom-based services, and collaborative consultation (ASHA 2005a). The student’s communication impairment was targeted systematically and thoughtfully within the context of the general education curriculum through the use of research-based strategies,
collaboration, modifications, and accommodations (B. Ehren, 2000). This type of service was educationally relevant and designed to positively impact the student’s progress in the classroom and nonacademic settings in order to promote academic, social, emotional, and vocational progress (B. Ehren). “The goal of introducing alternative models of service delivery was not to eliminate pullout services; rather, the goal was restriction of the use of pullout services to appropriate cases and the provision of alternative approaches when they best serve students’ needs” (Sanger et al., 1995, p. 80).

**Inclusion:** The term inclusion described the placement of students with disabilities in their neighborhood schools in the general education setting so that instruction could occur alongside their nondisabled peers (Osgood, 2005). Further, as the student was educated in the general education setting, special education, related services, supplementary aids and services, program modifications and supports for school personnel were also provided to ensure that the student was making meaningful adequate progress on their IEP and general education curriculum (B. Ehren, 2000; Huefner, 2000). The idea of inclusion was brought to school reform in order to improve the delivery of special education and related services to students with disabilities (Praisner, 2003). The thoughtful and systematic approach to providing integrated speech language pathology services in the general education setting aligned with the philosophy of inclusion born out of special education law and the Regular Education Initiative (Huefner, 2000; Osgood, 2005). The word inclusion did not exist in special education law, but the law did speak to the provision of special education and related services in the “least restrictive
environment” (IDEA, 2008). Although inclusion was not mandated, IDEA showed a preference for inclusive services “to the maximum extent appropriate” (Huefner, 2000).

*Classroom-based services:* According to Miller (1989), classroom-based services could be divided further into five types. In the first type, the SLP taught a self-contained class for communicatively impaired students. The use of intensive one-to-one assistance in the classroom was considered the second type of classroom-based services. Here, the SLP remained in close proximity with the student and modified ongoing classroom instruction while the teacher conducts the lesson. The third type of classroom-based services involved both the SLP and teacher teaching parts of the curriculum to students during a class period. This type of service was sometimes called co-teaching (B. Ehren, 2000; Russell & Kaderavek, 1993). Miller’s fourth type of classroom-based services was called consultation. Here a group of individuals worked collaboratively to solve problems related to the students’ academic and functional skills. Collaborative consultation, as it also has been known, was a process that allowed a team of educators with diverse expertise and backgrounds to create solutions to problems that the student faced (Idol, Paolucci-Whitcomb, & Nevin, 1994). It was the medium that supported interactions between teachers and SLPs in order to address the student’s speech and language weaknesses (Merritt & Culatta, 1998). The last type of service described by Miller was staff, curriculum, and program development. The SLP worked collaboratively with teams of educators, community members, families, and administration to advocate for and improve the education of students with speech language impairments. This could take the form of disability specific in-services or curriculum analysis (B. Ehren, 2000). SLPs
worked to create programs (e.g., May Better Speech and Hearing Month, Stuttering Awareness Month) to increase the knowledge base of educators and community members (Miller, 1989).

Limitations

Wiersma (2000) listed several limitations that were germane to this study. First, the survey questionnaire utilized perception statements (i.e., five point Likert Scale) that did not allow for extended responses. Second, there was the possibility of a high nonresponse rate since the surveys were emailed. Principals and SLPs have been reported to be very busy and may not have the time to complete the survey (Ukrainetz et al., 2009). The generalizations from this study were limited to elementary principals and SLPs who were employed in Ohio public school districts.

Delimitations

The study was delimited to elementary school principals and SLPs who worked in Ohio’s public school system. An elementary school was considered a building that educated students in kindergarten through sixth grade. The participants were sampled from seven of the nine school district typologies described by the Ohio Department of Education (2007) in Table 1.

It is important to note that the first typology (i.e., Category 0), Kelly’s Island Local School District (LSD), North Bass Island LSD, Middle Bass Island LSD, Put-in-Bay Island LSD, and College Corner LSD, was not selected due to the districts’ small size and isolated geographic setting. Additionally, services in the College Corner LSD were found to be provided by the Union County School District in Indiana and
Table 1

*Typologies of Ohio School Districts*

<table>
<thead>
<tr>
<th>Category</th>
<th>Typology</th>
<th>Number of Districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Island district or College Corner</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>Rural/Agricultural with high poverty and low median income</td>
<td>97</td>
</tr>
<tr>
<td>2</td>
<td>Rural/Agricultural with small student population, low poverty, and low to moderate median income</td>
<td>161</td>
</tr>
<tr>
<td>3</td>
<td>Rural/Small town with moderate to high median income</td>
<td>81</td>
</tr>
<tr>
<td>4</td>
<td>Urban with low median income and high poverty</td>
<td>102</td>
</tr>
<tr>
<td>5</td>
<td>Major urban with very high poverty</td>
<td>15</td>
</tr>
<tr>
<td>6</td>
<td>Urban/Suburban with high median income</td>
<td>107</td>
</tr>
<tr>
<td>7</td>
<td>Urban/Suburban with very high median income and very low poverty</td>
<td>46</td>
</tr>
<tr>
<td>8</td>
<td>Joint vocational school districts</td>
<td>4</td>
</tr>
</tbody>
</table>

*Note:* Modified from the “Typology of Ohio School Districts” from the Ohio Department of Education Website.
reimbursed by the Ohio Department of Education. Joint Vocational School Districts (i.e., Category 8) were not selected since speech language pathology services were not consistently provided in these settings.

Due to the time constraints of the study, it was not possible create a survey that investigated perceptions of students who receive integrated classroom-based services as part of a regular education intervention plan. Therefore, the study was further delimited to perceptions of integrated classroom-based speech language pathology services for special education students who received speech language pathology services as found on their IEPs.

Significance of the Study

Despite the fact that integrated classroom-based speech language services aligned with legal mandates and best practices in the fields of special education and speech language pathology, barriers to the successful implementation of these services have existed (Achilles et al., 1991; Beck & Dennis, 1997; Cooper, 1991; B. Ehren, 2000; Giangreco et al., 1993; Larson et al., 1993; Magnotta, 1991; Norris, 1989; Russell & Kaderavek, 1993; Tollerfield, 2003). Two such barriers, administrative nonsupport and misperceptions, have been suggested to contribute to the limited use of this type of service and consequently restrict the student’s access to the general education classroom, curriculum, and non-disabled peers. Principals played an important role in the systemic change process that was necessary to ensure appropriate service delivery for students who required speech language services (Achilles et al., 1991; Beck & Dennis, 1997; Cooper, 1991; Ferguson, 1991; Larson et al., 1993; Miller, 1989; Moore-Brown, 1991; Schetz &
Billingsley, 1992; Throneburg et al., 2000). It was important to understand the perceptions of principals since they played such a critical role in supporting the educational change process, creating school policy, influencing teachers’ attitudes about students with speech language impairments, ensuring that students were educated in the least restrictive environment, and impacting the delivery of speech language services in schools (Lass et al., 1994; Praisner, 2003). Additionally, Blood et al. (2002) recommended that principals should understand the perceptions of SLPs with regard to administrative support in order to dispel any myths or inaccuracies. In Blood et al.’s study, the SLPs’ low satisfaction with principals and their support of speech language services emerged as one of the areas of significance. These researchers felt that after the SLPs’ perceptions were understood, the building principal could better prepare SLPs to work in schools where supervisory support was perceived negatively (Blood et al.).

To date, no research has been conducted to study principals’ perceptions of integrated classroom-based services. Furthermore, no study has yet determined whether these perceptions differed from speech language pathologists’ perceptions.
CHAPTER II
REVIEW OF LITERATURE

Introduction

National figures from the fall of 2002 showed that 6,606,702 students with disabilities were served in the public schools and 1,428,568 (21.6%) of those students received services for speech or language impairments (U.S. Department of Education, 2004). These figures did not account for a population of other students who have speech or language problems secondary to various other conditions and disorders (i.e., autism, specific learning disabilities, cognitive impairments, deafness; ASHA, 2006a). In records released by the Ohio Department of Education for the 2007-2008 school year, 26,698 students were identified at the elementary school level with a speech or language impairment (ODE, 2007c). Additionally, a speech or language impairment was found to be the second most common disability category found in elementary schools for special education eligibility next to a specific learning disability (ODE, 2007c). It was clear from the data from the Ohio Department of Education that students with speech or language impairments were receiving special education and related services at very high rates throughout the state of Ohio, and principals were supervising those teachers and SLPs who worked with speech or language impaired students.

To date, pullout and segregated service delivery models continue to be used in the public school setting, and the effective provision of special education and related services has emerged as one of the biggest challenges that school districts faced in the 21st century
Although the fields of educational administration and speech language pathology have embraced the inclusion movement and committed to following state and federal special education law, pullout services remain the norm across the county for students with speech or language impairments (ASHA 2008a; Beck & Dennis, 1997; Farnham, 2006; Praisner, 2003; Villa et al., 1996). A review of the literature has not produced any clear reason for this occurrence.

**Determining Appropriate Service Delivery Models**

Districts were required to make available to students with disabilities a continuum of alternative special education placements, which ranged from the regular education classroom to hospitals and institutions (IDEA, 2008). Federal and Ohio state law required that students with disabilities receive an IEP and be educated with their nondisabled peers to the maximum extent appropriate (IDEA, 2008). This least restrictive environment mandate placed a particular emphasis on the provision of special education and related services in the regular education classroom and other nonacademic settings (e.g., playground, cafeteria, physical education, home). The No Child Left Behind Act (2001) and IDEA (2008) further required that students with disabilities participate and make progress in the general education curricula.

In order to determine how speech language pathology services will be delivered for a student, an IEP team was convened. After a student’s present levels of academic and functional performance were obtained, the administrator, parent, regular education teacher, and SLP needed to determine goals, objectives, special education and related service, accommodations, modifications, and the least restrictive environment where the
services will be delivered (ASHA, 2006d; IDEA, 2008; Ritzman et al., 2006). Direct and indirect speech language pathology services would be designed to be educationally relevant in order to ensure progress in the regular education curricula despite the impaired speech or language skills (B. Ehren, 2000; IDEA, 2008; Ritzman et al., 2006).

Those districts that solely provided a “one size fits all” approach to determining IEP speech language pathology services (e.g., provided pullout speech language services to every student with a speech or language impairment as a district policy) failed to align with the aforementioned mandates of IDEA 2008. Alarmingly, in a statewide survey of Ohio school therapists, the “one size fits all” approach was happening in Ohio’s schools as a result of larger caseloads and numerous vacancies, and it caused some school districts and educational service centers to inappropriately change service delivery options for students with speech or language impairments (Legislative Office of Educational Oversight, 1999).

**Research on the Effectiveness of Integrated Classroom-Based Services**

McGinty and Justice (2006) conducted a systematic and comprehensive review of research related to classroom-based speech language pathology services, and they found the field of speech language pathology suffered from a lack of available studies. These researchers found that the majority of studies were conducted in the early to mid 1990s, and only two experimental studies were conducted in the past nine years. Despite this dearth of available and current research, integrated classroom-based speech language pathology services have been shown to hold promise for the improvement of communication outcomes for students with speech or language impairments or
weaknesses (Ellis et al., 1995; McGinty & Justice, 2006; Throneburg et al., 2000; Wilcox et al., 1991).

Wilcox et al. (1991) compared the vocabulary learning in young preschoolers using a pullout model versus classroom-based group instruction. Their data showed that the students with less mature cognitive abilities benefited more from classroom-based services. These researchers also found that the children demonstrated an increased carryover of target words at home than those students served in the pullout model.

Classroom-based speech language services of another type have been found to be evidence-based in classes that traditionally only targeted gross motor development. In a study conducted by Ellis et al. (1995), a SLP collaboratively consulted with kindergarten classroom and physical education teachers to develop specially-designed language lessons in order to teach basic directional (e.g., between) and ordinal (e.g., first) concepts during gym class. They compared the performance of the students in the experimental group with students in a control group who did not receive this type of intervention. At the close of the study, the researchers found statistically significant improvements in basic concept learning in the treatment group when compared to students in the control group. Ellis et al. concluded that large group instruction in basic concepts coupled with collaborative consultation was an effective service delivery option for young children. The researchers further stated that “extending language goals into the classroom curriculum will enable students to learn language in a meaningful environment” (p. 72).

Throneburg et al. (2000) investigated three different service delivery models in an elementary school in order to determine the impact on language outcomes. The students
in grades kindergarten through third grade were provided curricular vocabulary instruction in weekly 40-minute sessions over the course of a three month period of time. The first group received collaborative co-teaching with the teacher and SLP with some minimal pullout sessions. The students who were assigned to the second condition were given classroom-based vocabulary instruction only from the SLP. In the last group, a traditional pullout model was used in a small group therapy room with the SLP. The researchers found that the collaborative co-teaching model was the most effective for teaching curriculum relevant vocabulary words when a research-developed assessment was used. The results were considered “congruent with the theoretical advantages of the collaborative model reported in the literature and support the use of integrated service delivery models for intervention in the school setting” (p. 10).

One of the primary goals of speech language services has always been to ensure the effective carryover and generalization of newly learned communication skills across educational, extracurricular, and nonacademic environments so that the student can become an effective communicator and make progress in the regular education curricula (B. Ehren, 2000; Sunderland, 2004). Research has shown that students with disabilities do not always carry over or generalize newly learned skills when services are provided in an environment different from where the skills would normally be used (Anderson & Nelson, 1988; ASHA, 2003, 2005a, 2006c; Bellini et al., 2007; Leonard, 1981; McGinty & Justice, 2006; Rogers-Warren & Warren, 1984; Schlosser & Lee, 2000; Wilcox et al., 1991). Speech language services in a therapy room cannot effectively replicate the interactions and activities commonly found in the classroom, which may in turn
adversely affect the carryover and generalization of newly learned skills (ASHA, 2005a; Sunderland, 2004). These services became “decontextualized,” which in turn resulted in a struggle for the students to make connections between what went on in the therapy room and what needed to occur throughout the rest of the school day (ASHA, 2005a; Miller, 1989). These aforementioned studies showed that pullout therapy was not the only effective service delivery option available to SLPs. The literature provided a host of examples of integrated classroom-based services that have been implemented successfully in schools across the nation (Achilles et al., 1991; Blosser & Kratcoski, 1997; Christensen & Luckett, 1990; Dodge & Mallard, 1992; Farber, Denenberg, Klyman, & Lachman, 1992; Farber & Klein, 1999; Larson et al., 1993; Magnotta, 1991; Miller, 1989; Montgomery, 1992; Norris, 1989; Prelock, Miller, & Reed, 1995; Ritzman et al., 2006; Russell & Kaderavek, 1993).

Schools have long been considered large, ordered, and complex systems that were comprised of many subsystems (e.g., grade level teams, intervention assistance teams, classrooms, state departments of education), which were all designed around the education of students (Stollar, Poth, Curtis, & Cohen, 2006). Principals and SLPs who have successfully made the move away from pull-out only service delivery models have followed the systemic change process (Falk-Ross, 2002; McCartney, 1999). The successful shift to more inclusive speech language pathology services was not a single event by a single individual that occurred in isolation. Instead, it occurred thoughtfully over a period of time through collaboration and problem-solving with all stakeholders (e.g., teachers, SLP, administration, parents; Falk-Ross, 2002; McCartney, 1999).
**Administrative Support**

In order for inclusion to be successful in the public school setting, principals must be responsible for the creation and sustainability of such a service delivery model (Praisner, 2003). Praisner felt that principals’ support for inclusive practices was determined by their attitudes and values. Administrative support has taken on many forms through the implementation process, and SLPs must solicit this support from the inception of their collaborative initiative (Rea, 2005). Building-level principals have played a particularly important role in this educational change process because they have set the school policies, influenced teacher attitudes about students with communication impairments, and ultimately affected the provision of inclusive speech language services (Hunt, Soto, Maier, Müller, & Goetz, 2002; Lass et al., 1994; Myers, 2007; Praisner, 2003; Silliman, Ford, Beasman, & Evans, 1999).

Damm, Beirne-Smith and Latham (2001) felt that principals possessed a limited understanding of the principles and philosophy of classroom-based special education and related services based on the data from their research into principal and teacher perceptions of inclusion. In a survey of 408 elementary school principals in Pennsylvania, Praisner (2003) further found that only 18.6% of the principals surveyed had any field-based training in inclusion during their university preparation programs, and only 48.5% were trained to support teachers on matters related to inclusion. Praisner’s study found that the more training a principal received the more positive their attitudes were toward inclusion. Principals need to support special educators and related service providers to
develop and implement classroom-based services for students with disabilities, and in order to do so, they need to have ample training (Praisner, 2003).

In response to the large amount of students with speech or language impairments in the public school setting and identified limitations in administrator preparation programs, text books and preservice coursework on school leadership have attempted to provide an overview to aspiring principals on the disorder, support for inclusive service delivery models, best practices, and legal requirements (Bartlett, Weisenstein, & Etscheidt, 2002; Valeo, 2008; Zionts, 2005). Literature and trainings have also emerged to educate school-based SLPs on classroom-based service deliveries, legal requirements and best practices (Falk-Ross, 2002; Putnam, 1998; Ripley, Barrett, & Fleming, 2001). In-service series have also been provided by the Ohio Department of Education in an effort to train school leaders on effective classroom-based practices for students with disabilities. Despite these efforts, classroom-based services have not been widely utilized across the county, and very little had been done to support changing service delivery options for students with disabilities (ASHA, 2008a; Keenan, 2005).

In an exploratory study by Schetz and Billingsley (1992), open ended interview questions were used to investigate 20 school-based SLP’s perceptions of administrative support and nonsupport as it related to the entire speech language program in their respective schools. No attempt was made in this study to specifically investigate the SLPs’ perceptions of administrative support or nonsupport of integrated classroom-based speech language pathology services. In analyzing the data, the researchers found that SLPs needed administrator support to allow for adequate professional development (i.e.,
provide in-services, facilitate department sharing and collaboration), assistance with time management and development and maintenance of quality therapeutic programs for students (i.e., facilitate collaboration, assistance with student scheduling). SLPs felt that administrators were not aware or knowledgeable about the field of speech language pathology, did not recognize speech language programs as part of the overall school program, did not communicate the role of the SLP to others, or did not encourage new ideas or programs (Schetz & Billingsley, 1992).

There has been a perception by administrators, parents, and school staff that integrated classroom-based speech language pathology services were less effective and intensive when compared to traditional pullout speech language pathology services (Cooper, 1991; McWilliam, Young, & Harville, 1996; Roberts, Prizant, & McWilliam, 1995; Sunderland, 2004). Administrators were found to think of these services as a “lesser intervention model” (Cooper, 1991). Sanger et al. (1995) also found that teachers did not have positive perceptions about the adequacy of classroom-based and consultative services.

Despite alternative models of service delivery that permit speech-language pathologists to provide services within as well as outside of the regular or special education classes, educational professionals continue to express uncertainty about sufficiency of speech-language pathologists’ time with students with communication difficulties. (p. 82)

In an attempt to dismiss these perceptions, Roberts et al. (1995) found that there were no significant differences in the number of student initiations and responses between
integrated classroom-based and pullout services. Additionally, students in the study did not differ in the number of communicative turns taken, type of turns, or use of language functions. The researchers concluded “that when other children are present and the treatment is occurring in a naturalistic setting of the classroom, the opportunity to be an active and responsive partner did not appear to differ” (p. 92). In knowing that in-class sessions provided the same amount of opportunities to practice treatment targets, these findings served as important data for SLPs and administrators as they attempted to dispel misperceptions about integrated classroom-based services and strived to serve students in the least restrictive environment. Encouragingly, Farber et al. (1992) found that the building principals needed training in the benefits of integrated classroom-based services, and after training, the administrators realized that their students would be receiving more intensive services when compared to the traditional pullout model.

Cooper (1991) wrote about her experiences implementing a collaborative consultative service delivery model in a public school setting. In the beginning stages of implementation, the building administrator felt that the speech language caseload could be increased because an integrated classroom-based service delivery model was used in lieu of a traditional pullout model. This was based on the notion that the SLP would have more time since students would not be seen directly in the therapy room. To the administrator, it appeared as though the SLP had more time. Cooper addressed the misperception by having the administrator shadow her as integrated classroom-based services were provided in various academic and non-academic (e.g., cafeteria,
lunchroom) settings. This strategy was found to be effective in dispelling this misperception.

Because school districts have increased the SLPs’ workload duties due to changes in state and federal law, SLPs have encountered difficulty finding time to complete compliance paperwork (e.g., Medicaid billing, IEPs, progress notes; ASHA, 2002). This increase in workload has limited their access to the regular education classroom and subsequently prevented them from utilizing integrated classroom-based services (Achilles et al, 1991; ASHA, 2002; Fujiki & Brinton, 1984). SLPs have been expected to complete large amounts of paperwork, attend excessive or “non-relevant” meetings, and hold parent conferences in addition to educating students (ASHA, 2008b; Fujiki & Brinton, 1984; Schetz & Billingsley, 1992). Beck and Dennis (1997) felt that SLPs and teachers needed adequate and appropriate planning time in order to successfully implement classroom-based services. When adequate planning time was not built into educators’ schedules, time constraints prevented the SLPs from completing paperwork and collaborating with teachers to design, implement, and sustain integrated classroom-based services (Roller, Rodriquez, Warner, & Lindahl, 1992; Throneburg et al., 2000).

The next support structure that administrators have inconsistently provided was ongoing and ample time for collaboration and classroom-based services (Larson et al., 1993; Schetz & Billingsley, 1992; York et al., 1992). Merritt and Culatta (1998) reported that administrative support for collaboration had increased considerably over the past 25 years. Despite this support, the lack of sufficient collaboration time was found to be the primary factor that prevented SLPs and teacher from successfully implementing
classroom-based services (Beck & Dennis, 1997). “Speech-language pathologists, teachers, and administrators must work together to make provisions for the necessary planning time in the schedules of involved professionals” (p. 150). Some administrators have encouraged SLPs and teachers to schedule classroom-based programs first before fitting in pullout sessions (Achilles et al., 1991). Particularly in the initial phases of designing classroom-based services, administrators allowed collaboration time and classroom lessons to be regularly scheduled. For students with intensive communication needs, weekly collaboration meetings were also provided in order to design effective classroom-based services. Achilles et al. felt strongly that SLPs should not only be part of collaboration meetings with teachers, but they should also be made part of the regular education team so that they could collaborate and participate in grade-level or departmental meetings in order to learn about the general education curriculum and materials.

Schetz and Billingsley (1992) found that SLPs were frustrated that principals did not provide assistance with uncooperative teachers when it came to the scheduling of services. Administrators can support the use of integrated classroom-based services by providing classroom teachers and SLPs with appropriate scheduling or “clustering” students on the caseload in an area of the building (e.g., pod, floor, house) or classroom for some period of the day (B. Ehren, 2000; Elksnin, 1997; Keenan, 2005). Two scheduling structures have been described in the literature that could be used to allow SLPs and teachers the opportunity to adequately plan together and conduct classroom-based lessons (Annett, 2004; York, Rainforth, & Wiemann, 1988). First, block
scheduling ensured SLPs had longer periods of time to work with students in the classroom (York et al., 1988). The 3:1 Service Delivery Model, the second flexible scheduling option, utilized three consecutive weeks of direct (e.g., pullout, classroom-based) followed by one week of indirect service delivery (e.g., consultation, observations with recommendations) a month (Annett, 2004). The creators of the 3:1 Model believed it provided more flexible opportunities for comprehensive services for students with speech language impairments.

Because the change process took so long, SLPs experienced resistance to change from administrators as students were moved from traditional pullout only models to integrated classroom-based services (Ferguson, 1991). Larson et al. (1993) believed that administrators needed to be convinced of the importance of service delivery models that moved away from traditional pullout therapy. Administrators needed to understand that the successful implementation of these services will not occur immediately, since the process might take three to five years to fully implement (Ferguson, 1991; Moore-Brown, 1991). With this resistance to change in mind, the administrator and the SLP needed to create an action plan that supported long-term planning in an effort to overcome the obstacles of implementation (Ferguson, 1991; Larson et al., 1993). Additionally, without administrative support, teachers and SLPs struggled to find the time to develop the action plan that was so critical to long-term planning (Beck & Dennis, 1997; Ferguson, 1991; Larson et al., 1993).

A shift away from traditional pullout services also required administrators to allow SLPs access to financial resources, professional development, and curriculum
relevant therapy and assessment materials that could support the provision of integrated classroom-based services (Ferguson, 1991; Schetz & Billingsley, 1992; Throneburg et al., 2000). Given the complexity and number of students who required speech or language pathology services, SLPs have criticized administrators for failing to support the hiring of new SLPs. Principals have been thought to place SLPs as a low priority in the schools, and have failed to adjust their caseload size or hire additional SLPs in a manner similar to other adjustment given to classroom teachers (Schetz & Billingsley, 1992). Administrators needed to allow and financially support opportunities for SLPs to attend high-quality professional development that addressed classroom-based services and the general education curriculum (Beck & Dennis, 1997; Giangreco et al., 1993; Miller, 1989; Schetz & Billingsley, 1992). Joint in-services with SLPs and teachers have been recommended (Achilles et al., 1991; Beck & Dennis, 1997). Trainings have occurred after school and participants received stipends or compensatory time based on their attendance (Achilles et al., 1991). Magnotta (1991) felt that the traditional training that some speech language pathologists received posed a significant obstacle to successfully integrate services in the classroom environment. In order to overcome this barrier in pre-service training, SLPs needed to be allowed and encouraged to review literature and attend in-services on classroom-based service delivery options and the general education curriculum (Magnotta, 1991). Administrators have further facilitated the successful creation and maintenance of classroom-based services through on-site visits, small group and individual problem-solving activities, and joint special education and regular education in-services (Moore-Brown, 1991). For those SLPs who were reluctant to
relinquish their role as experts and expose themselves to the classroom, administrators provided professional development opportunities detailing legal mandates, research, and successful integrated classroom-based models (Creaghead, 1992).

In order for the SLP to provide integrated classroom-based services, the principal needed to provide adequate facilities and space in the building (Miller, 1989; Roller et al., 1992; Schetz & Billingsley, 1992). The Ohio Department of Education mandated that Ohio preschool and school-aged service providers, to include the SLP, receive access to an office or space that is suitable to provide intervention to students with disabilities (ODE, 2008). Data from structured interviews with 20 master’s level SLPs revealed principals were perceived as nonsupportive when it came to providing adequate facilities for speech language services (Schetz & Billingsley, 1992). When special education teachers and SLP team taught, as part of integrated classroom-based services, the principals must be persuaded to provide adequate space to collaborate and teach (Miller, 1989).

In light of these barriers, SLPs have needed administrative support in order to initiate a change toward more appropriate services delivery options (Moore-Brown, 1991). This support was found to be paramount for access to the general education setting, effective time management, and the achievement of successfully implemented integrated classroom-based services in the least restrictive environment (Achilles et al., 1991, Beck & Dennis, 1997; Elksnin & Capilouto, 1994; Miller, 1989; Roller et al., 1992; Schetz & Billingsley, 1992). Integrated classroom-based services would not be funded and would remain “expendable services” in the absence of administrative support
(Elksnin, 1997; Larson et al., 1993). A common conclusion was drawn through the literature review: SLPs believed that building-level administrative support could be secured after the principal observed the SLP provide services, discussed integrated services with the special education director, obtained on-going memos about successful services, or received professional development on the role of the SLP, collaboration, and integrated classroom-based speech language services (Achilles et al., 1991; Dodge & Mallard, 1992; Moore-Brown, 1991; Prelock et al., 1995; Rea, 2005; Ritzman & Sanger, 2007).

Blood et al. (2002) found lower levels of satisfaction among SLPs with the level of supervision from their primary supervisors. These researchers felt administrators should determine how the SLPs’ perceptions were formed and address these perceptions at school. In considering these data, it cannot be understated that the support of the administration is paramount in this process and misperceptions should be dispelled (Anderson & Nelson, 1988; Beck & Dennis, 1997; Moore-Brown, 1991, Schetz & Billingsley, 1992). Administrators are educational leaders “who can think thoroughly and quickly about complex issues, collaborate with diverse groups, show good judgment, stay on the cutting-edge of school improvement and lead needed school reforms” (Cunningham & Cordeiro, 2006, p. 4). Administrators should help SLPs recognize that the effective implementation of classroom-based services may not occur for three to five years and long-term planning is required in order to overcome obstacles (Ferguson, 1991). It is clear that this responsibility to shift from pullout to more classroom-based services was shared by the SLP, teacher, and administrator but the extent of this
responsibility was not known. As the educational leader, administrators not only lead and support the change effort but also work to remove the barriers to effective implementation.

Perceptions of Integrated Classroom-Based Services

Since principals played such an important role in the educational change process, creation of school policies, and exertion of influence on teacher attitudes, their perceptions were regarded as important to the progress of students with speech or language impairments in their schools (Lass et al., 1994). Ritzman and Sanger (2007) concluded that SLPs should be aware of principals’ opinions or views as they provided services and planned for school programs and collaborations. Research into the principals’ perceptions was further argued to be valuable should there be “any need to try to change their attitudes for the benefit of the students whom [SLPs] serve” (Lass et al., 1994, p. 91). Despite the recognized importance of these perceptions, only a small amount of literature has suggested that limited administrative perceptions or misperceptions of integrated classroom-based speech language pathology services had the potential to act as a barrier (Cooper, 1991; Lass et al., 1994; Magnotta, 1991). In order to change principals’ attitudes, SLPs must first understand what exactly principals think about this type of service delivery.

Although, no study has been conducted to specifically investigate principals’ perceptions of integrated classroom-based speech language pathology services, one quantitative study had been conducted on school administrators’ perceptions of inclusion for students with various disabilities, which included students with speech or language
impairments. Praisner (2003) conducted a mailed study of 408 elementary school principals in Pennsylvania, and surveyed them about their perceptions of inclusion for students with different types of disabilities. This study further investigated relationships between attitudes about inclusion and principals’ personal characteristics (e.g., gender, years employed, education, training (e.g., number of special education credits, inservice hours in inclusion), prior experiences (e.g., special education teaching experience), building characteristics (e.g., number of students with IEPs, class sizes, programs in building), and placement decisions for different disability categories. Their attitudes were measured through the use of a five point Likert scale (i.e., strongly agree, agree, neutral, disagree, and strongly disagree).

The Praisner (2003) study found that 21.1% of the principals held solidly positive attitudes whereas 76.6% were uncertain about inclusion. Praisner felt that some of this uncertainty about the use of inclusion was due to the wording of the statements on the survey. When the wording involved mandated inclusion, the principals were more uncertain. When the wording involved the idea of voluntary inclusion, the principals’ attitudes were more positive. Principals did not seem to be in agreement about mandatory participation in inclusion at their schools. This study found a moderate correlation between principals’ attitudes about inclusion and their use of lesser restrictive environments for students with disabilities. The principals’ perceptions about inclusion were also found to strongly influence IEP teams’ decisions about special education placement and services.
Two quantitative studies have been conducted to directly investigate perceptions of integrated classroom-based speech language pathology services (Beck & Dennis, 1997; Elksnin & Capilouto, 1994). Unfortunately, neither study included principals in the sample. In a small study conducted by Beck and Dennis (1997), 54 teachers and 21 SLPs responded to a survey about their perceptions of speech language pathology services that were integrated into the classroom. This study asked SLPs to respond to statements about their perceptions of integrated classroom-based services using a five point Likert Scale across three categories: intervention, classroom management, and data collection and planning time. The respondents were asked to rank six forms of classroom-based services according to their frequency of use and appropriateness. Finally, open-ended questions were included that asked about the advantages and disadvantages of these services.

First, when Beck and Dennis (1997) analyzed the data, it was found that at least 75% of the SLPs and teachers held similar views that pertained to interventions. More specifically, both professionals agreed that students with speech or language impairments learned from their nondisabled peers, had their turn-taking skills enhanced, and generalized new skills. There was further agreement that the SLP was able to enhance the communication skills of the nondisabled peers and the integrated classroom-based services allowed for opportunities for reinforcement of skills. SLPs and teachers did not agree that competition could be used in the classroom to increase communication opportunities. Second, in the area of classroom management, 38% of SLPs and 43% of teachers demonstrated agreement on “behavior management is nonproblematic,” while they showed disagreement on items related to the attention of the students with or without
the speech or language impairment being easily maintained during classroom-based services. Last, differences in perceptions between the two professions were identified on items related to data collection and planning (i.e., “IEP goals are easily targeted” and “data collection is facilitated”). The data analysis showed that 75% of SLPs and 69% of teachers agreed that finding time to consult was problematic.

When the open-ended questions were analyzed, the responses showed both professions agreed that the speech or language impaired students benefited from remaining in the “natural” setting (i.e., regular education classroom) where curriculum relevant goals could be targeted without the students missing classroom instruction (Beck & Dennis, 1997). Additionally, SLPs and teachers both felt integrated classroom-based services had the potential to improve social interactions with peers and provide disabled students with peer models during social interactions. The data from the Beck and Dennis study showed that SLPs perceived that speech or language impaired students generally improved and carried over newly learned communication skills. From the SLP perspective, integrated services also were believed to enhance communication with the classroom teachers. The teachers found that speech and language goals were easier to understand and address when an integrated classroom-based model was used. The teachers and SLPs felt that adequate planning time was important to the success of classroom-based services yet finding that time was problematic. When listing disadvantages, SLPs and teachers did not feel that speech and language goals were always able to be targeted using this type of service delivery. Additionally, 33% of SLPs
perceived teachers as nonsupportive or disinterested in classroom-based services for students with speech or language impairments (Beck & Dennis, 1997).

This study demonstrated that SLPs and teachers held some similar perceptions of integrated classroom-based services. The data also revealed two areas of concern. First, teachers were not perceived to be supportive or interested in this type of service delivery. In order to address this concern, Beck and Dennis (1997) recommended that “speech-language pathologists, teachers, and administrators must work together to make provisions for the necessary planning time in the schedules of involved professions” (p. 150). Second, the researchers were alarmed to learn that less than half of the teachers and SLPs felt they possessed adequate training in this type of services delivery. They suggested that teachers and SLPs receive joint in-service training in classroom-based services.

In their closing statement, Beck and Dennis (1997) cautioned against a widespread generalization of their findings since the sample size was small and included SLPs from a narrow geographic area. Only 21 SLPs participated in the study. Although this study suggested that teachers were perceived as nonsupportive of integrated classroom-based services, no attempt was made to include the perceptions of elementary school principals.

The second structured study of perceptions of integrated classroom-based speech language pathology services was conducted using a survey of 31 SLPs. The survey was completed at a staff meeting and resulted in a 100% return rate. First, the respondents were asked to identify whether they used integrated classroom-based services in their
school (i.e., an adopter of the model). It was found that 18 SLPs had adopted this service delivery model whereas 13 did not. Second, they were asked to list three skills that a teacher and SLP possessed that contributed to the provision of integrated service delivery. Teachers were identified as most likely to contribute their knowledge of the curriculum, and the SLPs were most likely to contribute their knowledge of language development. Third, the SLPs were asked to indicate which types of co-teaching choices they used the most at their respective schools and which models were the most useful. The one teach-one drift model was found to be used most often by 83.3% of the adopters, and team teaching emerged as the most useful. Fourth, the SLPs also provided data on how likely they would provide integrated classroom-based speech language pathology services in the areas of language, articulation, voice disorders, and stuttering. The data revealed that students with language and articulation disorders were most likely to receive integrated classroom-based services. Fifth, data were collected on which age groups the SLP would be most apt to serve students using an integrated service delivery model. Students in preschool and elementary school emerged as the most common age groups. Sixth, a list of nine factors was presented to the survey respondents, and the SLPs were asked whether they “agreed,” “disagreed,” or were “unsure” whether those factors promoted an effective integrated service delivery model. The survey respondents strongly agreed that SLPs and classroom teachers “needed knowledge and skills that were valued, time to plan, and administrative support” (Elksnin & Capilouto, 1994, p. 262). Seventh, the SLPs were asked to provide a list of the advantages and disadvantages of this type of service delivery model. When the responses were analyzed, the “elimination” of pullout
services and improvement in generalization of speech or language skills were found to be a major advantage according to both adopter and nonadopters of this service delivery model. Finding time to plan and the difficult nature of targeting the IEP goals in the classroom were found to be the most common disadvantages. Lastly, the SLPs were asked which professional development approach they most preferred to receive to learn more about integrated classroom-based services (e.g., journals, conferences, college coursework). Both groups of SLPs preferred to attend in-services (43.8%) or conferences (35.5%) to obtain more training in integrated classroom-based speech language pathology services.

Elksnin and Capilouto (1994) also cautioned against a wide spread generalization of their findings since the sample size was so small. Their data showed that SLPs needed support from their administrators to schedule services, allocate funding and resources, and co-plan with teachers during the school day. In their concluding remarks, Elksnin and Capilouto stressed the need to use their data to address those barriers that might prevent the implementation of integrated service delivery models for students with speech or language impairments. They also recommended that SLPs, teachers, and administrators work together to dispel the misperception that integrated services were less individualized than pullout models.

Just as Lass et al. (1994) and Ritzman and Sanger (2007) argued that SLPs should understand principals’ perceptions or views, Blood et al. (2002) recommended that administrators should attempt to understand SLPs’ perceptions of supervisory support. Blood et al. analyzed data from 1,207 surveys that were completed by SLPs around the
country in order to understand the various predictors of SLP job satisfaction. Low satisfaction with supervisors emerged as one of the areas of significance in the study. These researchers argued that after the SLPs’ perceptions were understood by principals, the administrator could better prepare SLPs to work in the schools where supervisory support was perceived as less supportive (Blood et al.).

To date, only two small studies have been conducted to specifically investigate SLPs’ perceptions of integrated classroom-based services and one study on administrative support (Beck & Dennis, 1997; Elksnin & Capilouto, 1994; Schetz & Billingsley, 1992). Two of these studies did not use random selection to obtain their survey participants, and the data came from small sample sizes. Additionally, these studies were conducted anywhere from 12 to 17 years ago. In order for principals to understand the perceptions of SLPs as recommended by Blood et al. (2002) and generalize the information to their elementary school, current research needed to be conducted with a large enough sample that was obtained through random selection (Creswell, 2003).
CHAPTER III
METHODOLOGY

Design of Study

The purpose of this study was to obtain data about elementary principals’ and SLPs’ perceptions of integrated classroom-based speech language pathology services in the public school setting. This study used a correlational ex post facto design to study this topic. This design was selected because there were no control groups or manipulation of independent variables, and the survey measured preexisting conditions. Survey research was selected in order to make generalizations from the sample to the population so that inferences could be drawn about the principals’ and SLPs’ perceptions of integrated classroom-based speech language pathology services (Babbie, 1990). The design allowed for inferences to be made from the data from the statewide sample, so that these inferences may then reflect elements of a larger population (Babbie; Fowler, 2002). The use of an online survey further allowed a large number of individuals from the population to be studied across a large area (i.e., throughout the state of Ohio) in an inexpensive and rapid manner (Creswell, 2003; Martella, Nelson, & Marchand-Martella, 1999).

Based on inconsistent findings in the literature review and a paucity of research, nine predictor variables were investigated in this study: Preservice training in integrated classroom-based speech or language services, inservice training after employment in the public school setting, occupation, employment status, school district typology, years employed in the profession, school report card designation, prior experiences with
integrated classroom-based speech or language services, and employment contract type (e.g., employed directly by district, contracted privately).

Data Sources

A cross-sectional online survey was used as the preferred method of data collection for this study, and data were collected from one point in time (Wiersma, 2000). It was developed by combining statements and questions from two surveys that were used in previous studies on integrated classroom-based speech language services by Beck and Dennis (1997) and Elksnin and Capilouto (1994). All four researchers provided permission to use parts of their survey instrument in this study.

The first portion of the questionnaire asked for the following information: Prior training in integrated classroom-based speech or language services before employment in the public school setting, training after employment in the public school setting, occupation, employment status, school district, county, school building, years employed in profession, prior experiences with integrated classroom-based speech or language pathology services, and employment contract type (e.g., employed directly by district, contracted privately).

The second portion of the questionnaire, which was pulled from two surveys utilized in previous research studies (Appendix A), was based on a five point Likert-type scale (e.g., strongly agree to strongly disagree).

Content Validity

Prior to the start of the study, a field test of the survey was conducted. Content experts were used to assist in the development of the final draft and determine the content
validity of the instrument (Lynn, 1986). Content validity has been deemed an important factor to consider when creating an instrument because it provided the researcher with information regarding how well the instrument adequately measured the intended domain (i.e., perceptions; Grant & Davis, 1997). Following Lynn’s (1986) recommendation, three content experts were selected (i.e., two principals and one SLP) to participate in two phases. The content experts from different school district typologies were chosen since they shared knowledge and expertise in the provision or supervision of integrated classroom-based speech language pathology services in the public school setting. In order to reduce biases, those participants in the field test were excluded from the final sample since they had already seen and been given the questionnaire (Nardi, 2006).

A systematic process was used to elicit the content expert’s participation and judgments (Grant & Davis, 1997). The content experts were verbally told to expect a cover letter, reviewer instructions, definition of terms, and a content review questionnaire in order to participate in content validation process (Grant & Davis). First, a cover letter (Appendix B) asked for participation, stated the purpose of content validation, and explained the Likert scale. The letter also included information on assessing representativeness, construct dimensions, and item clarity (Grant & Davis). Grant and Davis offered definitions for these terms. For example, the question had representativeness when it reflected, sampled, and measured the construct of integrated classroom-based speech language pathology services. A survey instrument was considered to possess comprehensiveness when it addressed all the relevant construct
dimensions of integrated classroom-based services. Lastly, clarity was achieved when the instrument was clearly written so as to be understood by the reader.

Once the content experts had reviewed the questionnaire (Appendix C) and responded to the questions, two analyses were conducted (Grant & Davis, 1997). First, interrater agreement for the questionnaire was calculated using data from the scales for the representativeness and clarity items. Interrater agreement was found to be .88, which was above the acceptable level of .70 (Davis, 1992). Second, the content validity index was calculated to determine if the expert rated the questionnaire as representative. The content validity index for the instrument was found to be at an acceptable level of .85. Grant and Davis felt the content validity index should be at least .80 or higher. When the content experts were asked to rate the comprehensiveness of each item on the questionnaire, three items were recommended to be removed from the final draft (Lynn, 1986). These items were removed on the final draft of the online survey, which resulted in 17 perception statements.

Population and Sample

In the Ohio public school system, there were 614 public school districts, which were grouped together into nine typologies by the Ohio Department of Education. For this study, only seven of the nine school district typologies were selected. This was decided because one district typology included an Ohio school district that served its students in Indiana, and the second typology did not employ elementary principals and SLPs. Given this delimitation, the remaining 609 public school districts were used to derive the sample for this study. Since it was impractical to compile a list of all the
principals and SLPs in the overall population, stratified random sampling was used (Hinkle, Wiersma, & Jurs, 1994). Representative school districts were randomly selected from each of the seven Ohio school district typologies (i.e., subpopulations referred to as strata). Districts were placed on a list, and then every 11th district was selected (Creswell, 2003).

Stevens (1999) provided a method for determining an appropriate sample size for this study when at least eight predictor variables were used. Stevens recommended that there needed to be an estimate of $p^2$, population squared multiple correlation. Because no other study had provided an estimate, Stevens recommended using a $p^2 = .50$. When the probability for this study was placed at .90, the sample size needed to include a minimum return rate of 248 individuals (Stevens, 1999). Since survey research had shown response rates as low as 20-30%, a sample size of 1,022 was determined, and the surveys were distributed in hopes of obtaining an adequate sample size (Nardi, 2006). The random sampling of school districts continued until 73 principals and 73 SLPs were identified within each typology. Table 2 represented the number of school districts that were randomly selected within each typology.

It is important to note that the use of simple random sampling allowed for a more precise representation of the sample, and thereby reduced the amount of sampling error (Weisberg, Krosnick, & Bowen, 1989). The principals’ and SLPs’ names and email addresses were obtained from a published list provided by the Ohio Department of Education (ODE), the school’s website, a membership directory maintained by the ASHA, or by contacting the school district directly. The sample included individuals who
Table 2

*Number of School Districts Selected to Participate in the Study*

<table>
<thead>
<tr>
<th>Typology/Category</th>
<th>Total Number of Districts</th>
<th>Number of Districts Surveyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Rural/Agricultural</td>
<td>97</td>
<td>63</td>
</tr>
<tr>
<td>2-Rural/Agricultural</td>
<td>161</td>
<td>73</td>
</tr>
<tr>
<td>3-Rural/Small</td>
<td>81</td>
<td>59</td>
</tr>
<tr>
<td>4-Urban</td>
<td>102</td>
<td>37</td>
</tr>
<tr>
<td>5-Major Urban</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>6-Urban/Suburban</td>
<td>107</td>
<td>35</td>
</tr>
<tr>
<td>7-Urban/Suburban</td>
<td>46</td>
<td>24</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>609</strong></td>
<td><strong>304</strong></td>
</tr>
</tbody>
</table>

were either employed directly by the public school district or contracted from county educational service centers, private agencies, or independent contractors.

*Administration Procedures*

After the field testing and the final revisions had been made, the survey questionnaire was emailed to each participant using the Survey Monkey program. Programmers from the Bureau of Research and Training Services at Kent State University formatted the online survey onto the Survey Monkey Program and distributed it via the researcher’s Kent State University email account. A computer-based survey was
chosen because of the increase in response rates that could be predicted with this method (Nardi, 2006).

The administration of the online survey followed a four-step process that was originally developed by Salant and Dillman (1994) for use with mailed surveys. First, an “advanced-notice letter” with a consent form was emailed to all participants on January 5, 2009 (Appendix D). Second, the link to the on-line survey was emailed out one week later on January 12, 2009, to each member in the sample (Appendix E). The email explained the study, asked potential survey respondents to participant and consent to the study, and then directed them to click a hyperlink to go to the website that contained the computer-based questionnaire. The survey took 5–10 minutes to complete, and it was self-administered (i.e., the participants were emailed the questionnaire to fill out on their own) since it would have been too difficult to read the questionnaire over the phone (Appendix A; Nardi, 2006). Third, each nonrespondent received a follow-up email on January 20, 2009, which asked again for his or her participation in the study (Appendix F). Last, for those remaining members of the study that had not completed the survey, a reminder email was sent out on January 26, 2009 (Appendix G; Creswell, 2003). The administration phase of the study ended four weeks after the start of the study on February 2, 2009.

**Data Analysis**

A five-step process was followed in order to analyze the survey data (Creswell, 2003). First, the data were analyzed to reflect the frequency distributions and percentages of participants who returned and did not return the survey. Second, response bias was
determined using a wave analysis that was developed by Leslie (1972). A wave analysis was conducted in order to determine if selected responses on returned surveys changed from the first week of the study to the final week of the study. Third, descriptive analyses of the percentage of responses, means and standard deviations were conducted for the dependent variables (i.e., perceptions of integrated classroom-based services) and the following independent variables: Training in integrated classroom-based speech or language services, occupation, employment status, school district typology, years employed in profession, school report card designation, prior experiences with integrated classroom-based speech or language services, and employment contract type (e.g., employed directly by district, contracted privately). Fourth, a Cronbach alpha statistic was run in order to determine the internal consistency of the scales. Lastly, inferential statistics were run and analyzed in order to answer the research questions through the use of the SPSS for Windows Program (14.0 Updates).

The inferential statistics were conducted to test two null hypotheses. First, in the Ohio public school population, there will be no relationship among a set of predictor variables (i.e., occupation, employment status, number of years employed, preservice training, inservice training, school district typology, report card designation, employment contract type, and experiences with this service delivery model) and perceptions of integrated classroom-based speech language pathology services. Second, in the population, the proportion of the variability explained by each predictor variable (i.e., occupation, employment status, number of years employed, preservice training, inservice
training, school district typology, report card designation, employment contract type, and experiences with this service delivery model) will be zero.

Summary

The purpose of this study was to obtain information about elementary principals’ and SLPs’ perceptions of integrated classroom-based speech language pathology services in the public school setting. Representative school districts were randomly selected from each of the seven Ohio school district typologies (i.e., subpopulations referred to as strata), and 1,022 possible survey respondents were randomly selected. A correlational ex post facto design was used, and an online survey was created by combining two surveys from previous studies. The survey was designed to collect data on each respondent’s perceptions and demographic information (predictor variables): Preservice training in integrated classroom-based speech or language services, training after employment in the public school setting, occupation, employment status, school district typology, years employed in the profession, school report card designation, prior experiences with integrated classroom-based speech or language services, and employment contract type (e.g., employed directly by district, contracted privately). The content validity of the online survey was established by content experts, and it was found to have an acceptable level of .85. This survey was administered using a four-step process. Each respondent was emailed a letter of introduction and the survey. Two follow-up emails were sent out as well to remind nonrespondents about the study. The administration phase of the survey started on January 5, 2009, and ended February 2, 2009.
CHAPTER IV

SURVEY RESULTS

Introduction

This study used multiple regression analyses to predict elementary school principals’ and SLPs’ perceptions of integrated classroom-based speech language pathology services using the following predictor variables: Preservice and inservice training in integrated classroom-based speech or language services, occupation, employment status, school district typology, years employed in profession, school report card designation, prior experiences with integrated classroom-based speech or language services, and employment contract type (e.g., employed directly by district, contracted privately). It was the intent of this study to use the data to answer two research questions: First, in the Ohio public elementary school population was a significant proportion of the variability in perceptions explained by the predictor variables? Second, what proportion of the variability was explained by each predictor variable?

Sample

At the start of this study, 1,022 surveys were sent out via email. From this amount, 14 surveys (0.01%) were not able to be delivered to the intended respondent due to spam blocking software, a change in jobs, an invalid email address, or for unknown reasons. Since the survey was voluntary, 42 (0.04%) individuals opted out of the survey altogether. Several individuals contacted the researcher and indicated that they were unable to fully complete the survey because they were too busy to fully complete it,
uncomfortable listing their school of employment, no longer employed in an elementary school setting, or not a fully licensed SLP. Given these and other unknown reasons, 32 respondents (0.03%) did not fully complete the survey, and their data were not included in this study.

In order to determine the overall response rate, the total number of surveys originally emailed was then subtracted from the total of undeliverable surveys. Given this adjustment, there were 1,008 emails in total that reached their intended survey respondent. At the end of the administration phase, 299 individuals fully responded to the survey, which resulted in a 30% return rate. From this total, 17% were principals (n = 89) and 41% were SLPs (n = 210). The minimum sample size, which needed to be at least 248 individuals, was achieved, and therefore the sample size was considered to be adequate for this study (Stevens, 1999).

Response Bias

Low response rates (i.e., those below 70%) and nonresponse error have the potential to affect what was true in the population and what was measured in this study (Umbach, 2005). Prior to the start of the study, an attempt was made to increase response rates and reduce the impact of nonresponse bias through five strategies. First, the survey participants were contacted multiple times (i.e., one introductory email and three follow-up emails) during the administration phase of the study to request participation (Umbach). Second, incentives were used to increase the response rate (Porter, 2004). More specifically, the principals and SLPs who were randomly selected to participate in this study were told that they would receive a copy of the conclusions from this study
upon its completion. Next, participants were told that participation was voluntary and confidential (Porter, 2004; Umbach, 2005). Fourth, prospective respondents were told about the importance of the study to the field speech language pathology and educational administration (Umbach). Finally, the survey was brief and only took 5 to 10 minutes to complete (Umbach).

A wave analysis was conducted in order to estimate the response bias between early and late responders to the survey (Lahaut et al., 2003; Leslie, 1972). Late responders to the survey who required multiple reminders to participate were thought to resemble nonresponders since they required more reminders to participate, and an analysis between these two groups of responders would provide information about whether early responders differed from hypothetical nonrespondents (Groves & Peytcheva, 2008; Lahaut et al., 2003). Two emailing periods were used in this wave analysis. The first wave (wave 1) consisted of the early responders (n = 205) who completed the survey during the first week of the administration phase between January 12, 2009, and January 20, 2009. The second wave (wave 2) comprised of the late responders who required two or more notices to complete the survey. Wave 2 consisted of the last survey participants (n = 72) who completed the survey between January 23, 2009, and February 2, 2009. Table 3 represented the differences in the frequency of responses between the early responders (wave 1) and the late responders (wave 2).

When a chi-square Test of Homogeneity ($\chi^2$) was used and the value of $p < 0.05$ was considered to be statistically significant, the results showed that there were no significant differences in the response distributions of early and late responders regarding
Table 3

*Comparison of Early Responders and Late Responders*

<table>
<thead>
<tr>
<th>Overall Perceptions</th>
<th>Wave 1 (n = 165)</th>
<th>Wave 2 (n = 72)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>Disagree</td>
<td>4%</td>
<td>1%</td>
</tr>
<tr>
<td>Neutral</td>
<td>22%</td>
<td>32%</td>
</tr>
<tr>
<td>Agree</td>
<td>59%</td>
<td>50%</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>13%</td>
<td>17%</td>
</tr>
</tbody>
</table>

their overall perceptions of integrated classroom-based services, $X^2 (4, N = 237) = 4.61$, $p = .33$. Therefore, the responses by early responders were similar to those by late responders. Since a significant difference was not found, the impact of nonresponse bias was assumed to be low.

*Internal Reliability*

After the survey was administered to the respondents, internal reliability was investigated in order to determine how consistent the responses were (Nardi, 2006). Because each of the items on the survey measured perceptions of integrated classroom-based speech language pathology services, individuals would be expected to respond consistently throughout the survey (Martella et al., 1999). A Cronbach’s coefficient alpha was selected to measure the internal consistency of the survey since the statements that pertained to perceptions were not scored dichotomously (Creswell, 2003, Nardi, 2006).
The results showed that the survey possessed adequate internal reliability (Cronbach $\alpha = .71$). Cronbach coefficient alpha scores above .70 were considered to be at a “respectable” level and therefore thought to possess lower measurement error influence (Martella et al., 1999).

**Test-Retest Reliability**

The reliability of the survey was measured through test-retest procedures. A survey was considered to be reliable when the responses on the first administration were consistent with the responses on a second administration at a later point in time (Creswell, 2003). The administration phase of the test-retest study consisted of a six-step process (Martella et al., 1999). First, 227 principals and SLPs were chosen from each of the seven school district typologies throughout Ohio. Their email addresses were obtained from their respective school district website or a published email list from the Ohio Department of Education. Second, these possible respondents were emailed a letter that stated the purpose of the test-retest study and requested their participation (Appendix H). Each participant signed a consent form (Appendix I). From this sample, 4% ($n = 10$) of the principals and 7% ($n = 17$) of the SLPs agreed to participate in both administrations of the test and retest survey. Third, the participants were mailed a hardcopy of the survey (Appendix J) and a preaddressed envelope to their primary place of employment. They were asked to self-administer the survey and return it immediately in the enclosed envelope. Fourth, they were mailed and readministered the same survey (i.e., retest survey) three weeks after the initial survey was received by the investigator. A three week time delay was selected because participants would not be as likely to
remember their responses between administrations, and their perceptions would not have changed over such a short period of time (Martella et al.). At the end of the test-retest portion of the study, a total of 25 test and retest surveys were returned (i.e., 93% return rate). Fifth, a raw score was derived for the test and retest surveys for each respondent. Values (e.g., strongly disagree = 1, disagree = 2, neutral 3, agree = 2, and strongly agree = 1) were assigned to each possible response to the 17 perception statements, and the raw score was obtained by adding up those values. Finally, the responses from the first and second administration were used, and the survey’s test-retest reliability was determined through a calculation of the Pearson r correlational coefficient (Martella et al.). Since the reliability coefficients were higher than the .80 cut-off, the test-retest reliability of this survey was found to be strong, $r(23) = .83, p < .05$ (Creswell, 2003).

Demographic Data

The survey consisted of 10 demographic questions. The demographic data for the predictor variables were analyzed and presented in the form of frequencies and percentages of occurrence. Additionally, relationships were assessed between occupation and the remaining nine predictor variables using bivariate frequency distributions (i.e., cross-tabulation). Statistical significance of these relationships was tested using a chi-squared Test of Homogeneity ($X^2$; Alreck & Settle, 1995; Weisberg et al., 1989). A value of $p < 0.05$ was considered to be statistically significant (Alreck & Settle, 1995; Weisberg et al., 1989). The data that were presented in the form of percentages were rounded to the nearest whole number.
Occupation. Respondents were first asked to provide their occupation (i.e., principal or SLP). At the end of the administration phase, 299 individuals responded to the survey, and 30% were principals ($n = 89$) and 70% were SLPs ($n = 210$).

Employment status. Each participant was asked to provide their employment status in their respective school district. Respondents were asked to select among the following employment options: Fulltime in only one building, part-time in only one building, fulltime in two or more buildings, or part-time in two or more buildings. Of all the principals and SLPs who participated in the survey, the data showed that 42% ($n = 125$) were employed fulltime in one building, 48% ($n = 142$) were employed fulltime in two or more buildings, 5% ($n = 16$) were employed part-time in one building, and 16% ($n = 16$) were employed part-time in two or more buildings.

The data were analyzed further by breaking down the information by occupation. Cross tabulation was used to determine whether there was a relationship between occupation type and employment status. The bivariate frequency distribution that resulted from the cross tabulation was reflected in Table 4.

In order to determine if there were sufficient differences between occupations and different employment statuses, a chi-squared Test of Homogeneity was conducted, and significant differences in the response distributions were observed, $X^2 (3, N = 299) = 129.28, p = .000$. Despite the fact that the majority of the principals (94%) were employed fulltime in one building, only 20% of the SLPs held the same employment status. The majority of the SLPs, approximately 65%, were employed fulltime in two or more buildings.
Table 4

*Percentage of Occurrence for Occupation by Employment Status*

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Fulltime in one building</th>
<th>Part-time in one building</th>
<th>Fulltime in two buildings</th>
<th>Part-time in two buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLP</td>
<td>20%</td>
<td>8%</td>
<td>65%</td>
<td>8%</td>
</tr>
<tr>
<td>Principal</td>
<td>94%</td>
<td>0</td>
<td>6%</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>42%</td>
<td>5%</td>
<td>48%</td>
<td>5%</td>
</tr>
<tr>
<td>(N)</td>
<td>125</td>
<td>16</td>
<td>142</td>
<td>16</td>
</tr>
</tbody>
</table>

*Years employed in the public schools.* Next, each principal and SLP indicated how many years they had been employed in the public school setting. The frequencies and percentages for the years of employment are reflected in Table 5.

The years of experience were analyzed further in order to determine the breakdown by occupation. Cross tabulation was used to determine whether there was a relationship between occupation type and years of experience. The results of this bivariate frequency distribution are illustrated in Table 6.

In order to determine if there were sufficient differences that existed between occupations and the employment statuses, a chi-squared Test of Homogeneity was conducted. Significant differences in the response distributions were observed, \(X^2 (6, N = 299) = 18.90, p = .002\). The majority of the public school SLPs and principals were found to possess between 6 and 10 years of work experience. When the data were analyzed
Table 5

_Frequency and Percentage of Occurrence for Years of Employment_

<table>
<thead>
<tr>
<th>Years of Employment</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 Years</td>
<td>63</td>
<td>21%</td>
</tr>
<tr>
<td>6-10 Years</td>
<td>92</td>
<td>31%</td>
</tr>
<tr>
<td>11-15 Years</td>
<td>43</td>
<td>14%</td>
</tr>
<tr>
<td>16-20 Years</td>
<td>26</td>
<td>9%</td>
</tr>
<tr>
<td>21-25 Years</td>
<td>32</td>
<td>11%</td>
</tr>
<tr>
<td>26-30 Years</td>
<td>30</td>
<td>10%</td>
</tr>
<tr>
<td>More than 31 Years</td>
<td>13</td>
<td>4%</td>
</tr>
</tbody>
</table>

Further, the principals were overwhelmingly more likely to possess 10 or less years of experience (71%) when compared with the SLPs (44%).

**Preservice training in integrated classroom-based services.** The survey respondents were next asked to indicate whether they had received preservice training in integrated classroom-based speech language pathology services. Preservice training was considered to be training at the college level that occurred prior to employment in the public school setting. As can be seen in Table 7, the data revealed that only 19% (n = 56) of the sample had received prior training at the college level in this type of services. When the sample was broken down further by occupation, 25% of the SLPs and 5% of the principals had received training at the college level prior to public school
Table 6

Percentage of Occurrence for Years Experience by Occupation

<table>
<thead>
<tr>
<th>Years Experience</th>
<th>SLP Respondents</th>
<th>Principal Respondents</th>
<th>Total Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 years</td>
<td>16%</td>
<td>33%</td>
<td>21%</td>
</tr>
<tr>
<td>6-10 years</td>
<td>28%</td>
<td>38%</td>
<td>31%</td>
</tr>
<tr>
<td>11-15 years</td>
<td>16%</td>
<td>11%</td>
<td>14%</td>
</tr>
<tr>
<td>16-20 years</td>
<td>10%</td>
<td>7%</td>
<td>9%</td>
</tr>
<tr>
<td>21-25 years</td>
<td>13%</td>
<td>5%</td>
<td>11%</td>
</tr>
<tr>
<td>26-30 years</td>
<td>12%</td>
<td>5%</td>
<td>10%</td>
</tr>
<tr>
<td>31 years +</td>
<td>5%</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>(N)</td>
<td>210</td>
<td>89</td>
<td>299</td>
</tr>
</tbody>
</table>

employment. A chi-squared Test of Homogeneity was conducted, and there were significant differences in the observed response distributions between occupations and preservice training opportunities, $X^2 (1, N = 299) = 16.81, p = .000.$

*Inservice training in integrated classroom-based services.* Not only were the respondents asked to provide information about their preservice training experiences, but they were also asked to provide inservice training information. Table 8 showed that 62% ($n = 184$) of the respondents had received inservice training in this type of service delivery model after they were already employed in the public school setting. Again, the sample was split by occupation and revealed that 77% of the SLPs and 25% of the
principals had received training at a conference, workshop, seminar, or college course after the individual had been employed in the public schools. These differences between occupation and inservice training were found to be statistically significant when a chi-squared Test of Homogeneity was used, $X^2 (1, N = 299) = 72.34, p = .000$. 

Table 7

*Percentage of Occurrence for Preservice Training at the College Level*

<table>
<thead>
<tr>
<th>Preservice Training</th>
<th>SLP Respondents</th>
<th>Principal Respondents</th>
<th>Total Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>25%</td>
<td>5%</td>
<td>19%</td>
</tr>
<tr>
<td>No</td>
<td>75%</td>
<td>95%</td>
<td>81%</td>
</tr>
<tr>
<td>(N)</td>
<td>210</td>
<td>89</td>
<td>299</td>
</tr>
</tbody>
</table>

Table 8

*Inservice Training After Employment in the Schools and Occupation*

<table>
<thead>
<tr>
<th>Inservice Training</th>
<th>SLP Respondents</th>
<th>Principal Respondents</th>
<th>Total Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>77%</td>
<td>25%</td>
<td>62%</td>
</tr>
<tr>
<td>No</td>
<td>23%</td>
<td>75%</td>
<td>38%</td>
</tr>
<tr>
<td>(N)</td>
<td>210</td>
<td>89</td>
<td>299</td>
</tr>
</tbody>
</table>
School district typology. In order to determine the respondents’ school district typology each participant was then asked to provide their county, school district, and one school building of employment. The investigator used this information to obtain the corresponding school district typology on the Ohio Department of Education website (2007b). The frequencies and percentage of occurrence for school district typology are reflected in Table 9.

Table 9

Percentage of Occurrence for School District Typology and Occupation

<table>
<thead>
<tr>
<th>School District Typology</th>
<th>SLP Respondents</th>
<th>Principal Respondents</th>
<th>Total Respondents</th>
<th>Total Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Rural/Agricultural</td>
<td>13%</td>
<td>14%</td>
<td>13%</td>
<td>40</td>
</tr>
<tr>
<td>2-Rural/Agricultural</td>
<td>14%</td>
<td>17%</td>
<td>15%</td>
<td>44</td>
</tr>
<tr>
<td>3-Rural/Small</td>
<td>11%</td>
<td>10%</td>
<td>11%</td>
<td>33</td>
</tr>
<tr>
<td>4-Urban</td>
<td>14%</td>
<td>19%</td>
<td>16%</td>
<td>47</td>
</tr>
<tr>
<td>5-Major urban</td>
<td>14%</td>
<td>8%</td>
<td>12%</td>
<td>36</td>
</tr>
<tr>
<td>6-Urban/Suburban</td>
<td>16%</td>
<td>15%</td>
<td>15%</td>
<td>46</td>
</tr>
<tr>
<td>7-Urban/Suburban</td>
<td>18%</td>
<td>18%</td>
<td>18%</td>
<td>53</td>
</tr>
</tbody>
</table>

No differences between occupation and school district typology were found when a chi-squared Test of Homogeneity was used, $X^2 (6, N = 299) = .22, p = .770$. The SLP and principal response frequencies were evenly distributed across the seven school
district typologies and indicated that each occupation was equally represented in the sample.

*Report card designation.* After each respondent’s school district typology was determined, the report card designation (e.g., excellent with distinction, excellent, effective) was found. Using the data on the county, district, and building of employment, each respondent was assigned their corresponding report card designation. The building of employment report card designation was listed by the Ohio Department of Education for the 2007-2008 school year. Data from the 2008-2009 school year were not yet available at the time of the study. The frequency and percentage of report card designation are presented in Table 10.

Table 10

*Percentage of Occurrence for Building Report Card Designation and Occupation*

<table>
<thead>
<tr>
<th>Report Card Designation Frequency</th>
<th>SLP Respondents</th>
<th>Principal Respondents</th>
<th>Total Respondents</th>
<th>Total Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent with Distinction</td>
<td>9%</td>
<td>8%</td>
<td>8%</td>
<td>25</td>
</tr>
<tr>
<td>Excellent</td>
<td>33%</td>
<td>29%</td>
<td>32%</td>
<td>95</td>
</tr>
<tr>
<td>Effective</td>
<td>38%</td>
<td>45%</td>
<td>40%</td>
<td>119</td>
</tr>
<tr>
<td>Continuous Improvement</td>
<td>17%</td>
<td>16%</td>
<td>17%</td>
<td>50</td>
</tr>
<tr>
<td>Academic Watch</td>
<td>3%</td>
<td>2%</td>
<td>3%</td>
<td>8</td>
</tr>
<tr>
<td>Academic Emergency</td>
<td>1%</td>
<td>0%</td>
<td>1%</td>
<td>2</td>
</tr>
</tbody>
</table>
No statistically significant differences were observed between occupation and building report card designation when a chi-squared Test of Homogeneity was used, $X^2 (5, N = 299) = .001, p = .828$. The SLP and principal response frequencies were evenly distributed across the six school report card designations and indicated that each occupation was equally represented in the sample.

Employment contract type. The principals and SLPs were asked about their contract type (e.g., directly employed by their school district, private practice). The data revealed 83% ($n = 249$) were employed directly by the school district, 15% ($n = 45$) were contracted through a county Educational Service Center or Board of Mental Retardation and Developmental Disabilities, and 2% ($n = 5$) were contracted through some nonpublic school organization (e.g., private practice, hospital, contracting agency).

Cross tabulation was used to determine whether there was a relationship between occupation type and employment contract type. The bivariate frequency distribution that resulted from the cross tabulation was reflected in Table 11. It showed a statistically significant difference between occupation and employment contract type when a chi-squared Test of Homogeneity was used, $X^2 (2, N = 299) = 17.94, p = .000$. These results showed that the majority of principals were employed directly by their school district and none were employed through contracts with county educational service centers or county boards of mental retardation and developmental disabilities. Although SLPs were predominantly employed directly by a school district, almost a quarter were employed through some sort of contract with another state or private agency (e.g., county educational service centers, county boards of mental retardation, private practice).
Table 11

*Occupation by Employment Contract Type*

<table>
<thead>
<tr>
<th>Years Experience</th>
<th>Employed directly through district</th>
<th>Contracted through service centers or county boards</th>
<th>Contracted through private practice or other</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLP</td>
<td>77%</td>
<td>21%</td>
<td>2%</td>
</tr>
<tr>
<td>Principal</td>
<td>99%</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>Total</td>
<td>83%</td>
<td>15%</td>
<td>2%</td>
</tr>
<tr>
<td>(N)</td>
<td>249</td>
<td>45</td>
<td>5</td>
</tr>
</tbody>
</table>

*Experience with integrated classroom-based services.* Finally, respondents were surveyed about their experiences with integrated classroom-based speech language pathology services. The analysis of the data revealed that 58% (n = 173) had a good experience, 3% (n = 9) had a bad experience, and 39% (n = 117) had no experience with this model. Cross-tabulation was used to assess the relationship between occupation and experiences with integrated classroom-based speech language pathology services. The results are presented in Table 12.

A chi-squared Test of Homogeneity was further used in order to determine if there was a significant relationship between these two variables. Statistically significant differences were found between occupation and experiences with this type of service delivery model, $X^2 (2, N = 299) = 25.50, p = .000$. More specifically, the data revealed that 67% of the SLPs and only 37% of the principals had a good experience with this type
Table 12

*Occupation by Experiences With Integrated Classroom-Based Speech Language Services*

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Had a good experience</th>
<th>Had a bad experience</th>
<th>Had no experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLP</td>
<td>67%</td>
<td>4%</td>
<td>30%</td>
</tr>
<tr>
<td>Principal</td>
<td>37%</td>
<td>1%</td>
<td>62%</td>
</tr>
<tr>
<td>Total</td>
<td>58%</td>
<td>3%</td>
<td>39%</td>
</tr>
</tbody>
</table>

*(N) 173 9 117*

of service delivery model. The majority principals had no experiences with it at all (62%).

*Perceptions of Integrated Classroom-Based Services*

After each demographic question was answered, the survey participants were asked to respond to 17 perception statements by using in a five point Likert scale. These 17 perception statements represented the dependent variables in this study. Responses on the Likert scale ranged from 5 = *Strongly Disagree* to 1 = *Strongly Agree*. Data on perceptions were reported in terms of frequencies and percentages. On this portion of the survey, four items related to teacher and SLP relationships (Statements 1, 2, 4, and 8), three items related to administrative support (Statements 3, 5, and 7), and two items related to time for consultation and planning (Statements 6 and 9). Two items asked for perceptions about the implementation of IEP goals (Statements 10 and 11), and five items pertained to the benefits classroom-based service delivery (Statements 12, 13, 14, 15, and
Finally, one statement (Statement 17) was included about the overall effectiveness of integrated classroom-based speech language services.

The response frequencies for the perceptions statements 1-17 are reflected in Table 13. The frequencies are broken down into three categories of responses: Combined principal and SLP, principal only, and SLP only.

When considering whether there were sufficient differences observed between occupations with regard to overall perceptions of integrated classroom-based speech language pathology services (Statement 17), no significant differences in the response distributions were found using a chi-squared Test of Homogeneity, $X^2 (4, N = 299) = 1.27, p = .640$. There did not appear to be any statistically significant difference found between principals’ and SLPs’ perceptions of the overall effectiveness of this type of service delivery.

Although perceptions about the overall effectiveness did not differ, when perceptions were broken down further by statements, statistically significant differences were found between the occupations and perceptions on 10 statements. More specifically, principals and SLPs were found to differ in their respective perceptions about the need for SLPs and teachers to have complimentary teaching styles (Statement 4), $X^2 (4, N = 299) = 8.61, p = .028$. More than half of the SLPs (58%) showed some level of agreement (i.e., agree or strongly agree) with this statement whereas only 39% of the principals agreed. The SLPs were more likely to agree with this statement when compared with the principals.
Table 13

*Perception Statements on Integrated Classroom-Based Services (ICBS)*

<table>
<thead>
<tr>
<th>Perception Statements</th>
<th>Occupation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In order for ICBS to be effective, the SLP and classroom teacher need a professional and/or social relationship prior to collaborating.</td>
<td>Combined</td>
<td>1</td>
<td>10</td>
<td>14</td>
<td>45</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Principal</td>
<td>1</td>
<td>8</td>
<td>11</td>
<td>56</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>SLP</td>
<td>1</td>
<td>11</td>
<td>16</td>
<td>40</td>
<td>31</td>
</tr>
<tr>
<td>2. In order for ICBS to be effective, the SLP and the classroom teacher need to share a philosophy on learning.</td>
<td>Combined</td>
<td>0</td>
<td>5</td>
<td>13</td>
<td>63</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Principal</td>
<td>0</td>
<td>7</td>
<td>19</td>
<td>57</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>SLP</td>
<td>0</td>
<td>4</td>
<td>11</td>
<td>65</td>
<td>20</td>
</tr>
<tr>
<td>3. In order for ICBS to be effective, the SLP and classroom teacher need to receive administrative support with regard to scheduling.</td>
<td>Combined</td>
<td>0</td>
<td>3</td>
<td>8</td>
<td>35</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>Principal</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>43</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>SLP</td>
<td>0</td>
<td>4</td>
<td>8</td>
<td>32</td>
<td>56</td>
</tr>
<tr>
<td>4. In order for ICBS to be effective, the SLP and classroom teacher need to share complimentary teaching styles.</td>
<td>Combined</td>
<td>0</td>
<td>14</td>
<td>33</td>
<td>47</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Principal</td>
<td>0</td>
<td>20</td>
<td>42</td>
<td>37</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SLP</td>
<td>1</td>
<td>12</td>
<td>30</td>
<td>51</td>
<td>8</td>
</tr>
<tr>
<td>5. In order for ICBS to be effective, the SLP and classroom teacher need to receive administrative support with regard to the allocation of school resources (e.g., money for therapy materials, supplies, technology, and/or training).</td>
<td>Combined</td>
<td>0</td>
<td>8</td>
<td>18</td>
<td>52</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Principal</td>
<td>0</td>
<td>3</td>
<td>12</td>
<td>67</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>SLP</td>
<td>0</td>
<td>10</td>
<td>20</td>
<td>46</td>
<td>25</td>
</tr>
</tbody>
</table>

*(table continues)*
Table 13 (continued)

*Perception Statements on Integrated Classroom-Based Services (ICBS)*

<table>
<thead>
<tr>
<th>Perception Statements</th>
<th>Occupation</th>
<th>% Responding</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>6. In order for ICBS to be effective, the SLP and classroom teacher need to have time to plan together.</td>
<td>Combined 0 1 5 32 61</td>
<td>Principal 0 3 9 53 35</td>
</tr>
<tr>
<td>7. In order for ICBS to be effective, students need to be carefully grouped so that all or most caseloads at a given grade level are in the same classroom.</td>
<td>Combined 2 15 26 40 17</td>
<td>Principal 3 19 32 43 3</td>
</tr>
<tr>
<td>8. In order for ICBS to be effective, both the SLP and teacher need to have their skills and knowledge valued by each other.</td>
<td>Combined 0 0 3 47 50</td>
<td>Principal 0 1 7 60 10</td>
</tr>
<tr>
<td>9. Finding time to consult with team members is not a problem.</td>
<td>Combined 31 46 13 10 0</td>
<td>Principal 15 42 19 25 0</td>
</tr>
<tr>
<td>10. IEP goals for language are easily targeted using ICBS.</td>
<td>Combined 0 8 28 55 9</td>
<td>Principal 0 0 30 60 10</td>
</tr>
</tbody>
</table>

*(table continues)*
Table 13 (continued)

*Perception Statements on Integrated Classroom-Based Services (ICBS)*

<table>
<thead>
<tr>
<th>Perception Statements</th>
<th>Occupation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. IEP goals for speech are easily targeted using ICBS.</td>
<td>Combined</td>
<td>6</td>
<td>26</td>
<td>34</td>
<td>29</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Principal</td>
<td>0</td>
<td>10</td>
<td>37</td>
<td>47</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>SLP</td>
<td>9</td>
<td>32</td>
<td>32</td>
<td>21</td>
<td>5</td>
</tr>
<tr>
<td>12. When ICBS are used, communication targets are carried over into the classroom.</td>
<td>Combined</td>
<td>1</td>
<td>4</td>
<td>17</td>
<td>59</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Principal</td>
<td>0</td>
<td>1</td>
<td>20</td>
<td>58</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>SLP</td>
<td>1</td>
<td>5</td>
<td>15</td>
<td>59</td>
<td>21</td>
</tr>
<tr>
<td>13. ICBS allow students with communication weaknesses to significantly learn from their peer models.</td>
<td>Combined</td>
<td>0</td>
<td>4</td>
<td>15</td>
<td>63</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Principal</td>
<td>0</td>
<td>0</td>
<td>19</td>
<td>62</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>SLP</td>
<td>1</td>
<td>5</td>
<td>13</td>
<td>64</td>
<td>18</td>
</tr>
<tr>
<td>14. ICBS allow for opportunities to appropriately reinforce target behaviors (e.g., skills, strategies) in the classroom.</td>
<td>Combined</td>
<td>1</td>
<td>1</td>
<td>11</td>
<td>62</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Principal</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>69</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>SLP</td>
<td>1</td>
<td>1</td>
<td>11</td>
<td>59</td>
<td>29</td>
</tr>
<tr>
<td>15. The behavior management of the students with communication weaknesses is not a problem in the classroom.</td>
<td>Combined</td>
<td>2</td>
<td>24</td>
<td>44</td>
<td>29</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Principal</td>
<td>1</td>
<td>15</td>
<td>38</td>
<td>40</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>SLP</td>
<td>2</td>
<td>28</td>
<td>46</td>
<td>24</td>
<td>1</td>
</tr>
</tbody>
</table>

*(table continues)*
Table 13 (continued)

*Perception Statements on Integrated Classroom-Based Services (ICBS)*

<table>
<thead>
<tr>
<th>Perception Statements</th>
<th>Occupation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. Data collection is facilitated using ICBS.</td>
<td>Combined</td>
<td>2</td>
<td>14</td>
<td>39</td>
<td>40</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Principal</td>
<td>0</td>
<td>1</td>
<td>34</td>
<td>55</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>SLP</td>
<td>2</td>
<td>19</td>
<td>41</td>
<td>34</td>
<td>4</td>
</tr>
<tr>
<td>17. ICBS is an effective service delivery model for students with communication impairments.</td>
<td>Combined</td>
<td>0</td>
<td>3</td>
<td>26</td>
<td>58</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Principal</td>
<td>0</td>
<td>1</td>
<td>26</td>
<td>60</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>SLP</td>
<td>1</td>
<td>4</td>
<td>27</td>
<td>57</td>
<td>12</td>
</tr>
</tbody>
</table>

These professions did not agree on their perceptions of administrative support for the allocation of school resources (Statement 5), \(X^2(3, N = 299) = 1.29, p = .006\). It was found that 70% of the SLPs either agreed or strongly agreed with this statement. The majority of principals (84%) showed some degree of agreement with this statement. Only 3% of the principals and 9% of the SLPs disagreed with this statement. No respondent was found to strongly disagree in their perceptions of administrative support of the allocation of school resources.

The professions demonstrated a statistically significant difference in their perceptions of Statement 6. Almost 80% of the SLPs strongly agreed that the SLP and
classroom teacher needed time to plan together in order for integrated classroom-based services to be effective, $X^2 (3, N = 299) = 33.61, p = .000$. Conversely, only 35% of the principals held the same perception. No professional strongly disagreed with this statement.

Differences were found between their perceptions about student groupings (Statement 7). When asked whether students should be carefully grouped so that all or most of the caseload at a given grade level were in the same classroom, statistically significant differences were found, $X^2 (4, N = 299) = 12.21, p = .001$. Although cross tabulation showed that 39% of the SLPs and 43% of the principals agreed with this statement, approximately 23% of the SLPs and only 3% of the principals strongly agreed that students on the SLP’s caseload should be placed in the same classroom at a given grade level. The majority of SLPs (61%) agreed or strongly agreed when compared to principals (46%).

The data showed that principals and SLPs differed significantly in their perceptions about the need for SLPs and teachers to value each other’s skills and knowledge, $X^2 (3, N = 299) = 19.54, p = .000$. Over half of the SLPs (57%) strongly agreed with this statement whereas 33% of the principals shared the same perception. The majority of principals (60%) agreed with this statement. Only one principal disagreed and no respondent strongly disagreed. Despite the differences that were observed through the chi-squared Test of Homogeneity, the respondents overwhelmingly held some degree of agreement with Statement 8 (97%).
The professionals differed significantly in their perceptions about finding time to consult with team members, $X^2 (4, N = 299) = 38.53, p = .000$. A quarter of the principals (25%) agreed that finding time to consult with team members was not a problem whereas only 4% of the SLPs shared the same view. The vast majority of SLPs (86%) either disagreed or strongly disagreed with this statement. From the principal respondents, 56% disagreed or strongly disagreed with Statement 9.

When asked about the ease with which language goals from the IEP were targeted using integrated classroom-based services, significant differences were observed, $X^2 (4, N = 299) = 4.90, p = .021$. None of the principals showed any degree of disagreement with this statement. Approximately 12% of the SLPs showed either disagreement or strong disagreement with Statement 10.

These professionals also differed when asked about the ease with which speech IEP goals could be targeted through this service delivery model, $X^2 (4, N = 299) = 28.57, p = .000$. Almost half of the principals (47%) agreed that speech IEP goals could be easily targeted in the classroom, a view that was only shared by 21% of the SLPs. The SLPs held almost an opposite view with regard to Statement 11. More specifically, 41% of the SLPs and only 10% of the principals expressed some level of disagreement.

Differences in the response distribution were observed in perceptions about the behavior management of the students with communication weaknesses (Statement 13). A chi-squared Test of Homogeneity found statistically significant differences, $X^2 (4, N = 299) = 16.43, p = .000$. Cross tabulation showed that almost half of the principals (46%) and only a quarter of SLPs (24%) either agreed or strongly agreed that the behavior
management of the students with communication weaknesses was not a problem in the classroom.

Lastly, significant differences in the response distribution were found when principals and SLPs were asked about data collection being facilitated by integrated classroom-based services (16), $X^2 (4, N = 299) = 26.63, p = .000$. The SLPs disagreed or strongly disagreed more often (21%) when compared to the principals (1%). Principals (65%) were instead more likely to agree or strongly agree that data collection was facilitated through the use of integrated classroom-based speech language pathology services than the SLPs (38%).

**Descriptive Statistics**

Descriptive statistical analyses in the form of mean and standard deviation were run on all the data from each perception statement and reported in Table 14.

**Inferential Statistics**

Prior to running the multiple regression analysis, several inferential statistical assumptions were assessed.

**Multicollinearity.** The presence of multicollinearity needed to be determined. If multicollinearity was present, there would be a high intercorrelation among the predictor variables, and the regression coefficients would become too unstable to estimate (Stevens, 1999; Weisberg et al., 1989). High intercorrelations were generally considered to be about .70 or higher in the social sciences (Weisberg et al.). If there was a high correlation between the predictor variables, the problem of multicollinearity was present (Stevens, 1999).
Table 14

*Descriptive Data for Perceptions of Integrated Classroom-Based Services*

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional/Social Relationship</td>
<td>3.9</td>
<td>.98</td>
<td>299</td>
</tr>
<tr>
<td>Shared Philosophy</td>
<td>4.0</td>
<td>.72</td>
<td>299</td>
</tr>
<tr>
<td>Scheduling Support</td>
<td>4.4</td>
<td>.76</td>
<td>299</td>
</tr>
<tr>
<td>Complimentary Teaching Style</td>
<td>3.4</td>
<td>.82</td>
<td>299</td>
</tr>
<tr>
<td>Support for Allocation of Resources</td>
<td>3.9</td>
<td>.83</td>
<td>299</td>
</tr>
<tr>
<td>Time to Plan Together</td>
<td>4.5</td>
<td>.66</td>
<td>299</td>
</tr>
<tr>
<td>Grouped in Same Classroom</td>
<td>3.6</td>
<td>1.01</td>
<td>299</td>
</tr>
<tr>
<td>Skills and Knowledge Valued</td>
<td>4.5</td>
<td>.57</td>
<td>299</td>
</tr>
<tr>
<td>Finding Time to Consult</td>
<td>2.0</td>
<td>.94</td>
<td>299</td>
</tr>
<tr>
<td>Language Goals Targeted</td>
<td>3.7</td>
<td>.77</td>
<td>299</td>
</tr>
<tr>
<td>Speech Sound Errors Targeted</td>
<td>3.0</td>
<td>1.03</td>
<td>299</td>
</tr>
<tr>
<td>Carried Over into the Classroom</td>
<td>3.9</td>
<td>.76</td>
<td>299</td>
</tr>
<tr>
<td>Learn from Peer Models</td>
<td>4.0</td>
<td>.71</td>
<td>299</td>
</tr>
<tr>
<td>Reinforce Target Behaviors</td>
<td>4.1</td>
<td>.68</td>
<td>299</td>
</tr>
<tr>
<td>Behavior Management</td>
<td>3.0</td>
<td>.83</td>
<td>299</td>
</tr>
<tr>
<td>Data Collection Facilitated</td>
<td>3.3</td>
<td>.85</td>
<td>299</td>
</tr>
<tr>
<td>Effective Service Delivery Model</td>
<td>3.8</td>
<td>.71</td>
<td>299</td>
</tr>
</tbody>
</table>
A Pearson’s $r$ correlation was run, and the correlation matrix showed a high correlation between occupation and current employment status ($r = -.659, p < .01$). As can be seen in Table 15, the correlation between these two predictor variables was large enough to suggest a problem with multicollinearity, and therefore the independent variable current employment status was dropped from the multiple regression model (Stevens, 1999).

Table 15

*Pearson r Correlation Between the Predictor Variables*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupation (1)</td>
<td>1</td>
<td>-.252**</td>
<td>.238**</td>
<td>.493**</td>
<td>-.245**</td>
<td>.293**</td>
<td>-.002</td>
<td>-.027</td>
<td>-.659**</td>
</tr>
<tr>
<td>Years Experience (2)</td>
<td>1</td>
<td>.278*</td>
<td>-.302**</td>
<td>.119</td>
<td>-.185**</td>
<td>.032</td>
<td>-.154**</td>
<td>.124</td>
<td></td>
</tr>
<tr>
<td>Preservice (3)</td>
<td>1</td>
<td>.186**</td>
<td>-.114</td>
<td>.191**</td>
<td>.030</td>
<td>-.048</td>
<td>-.196**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inservice (4)</td>
<td>1</td>
<td>-.051</td>
<td>.466**</td>
<td>-.021</td>
<td>-.046</td>
<td>-.283</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contract Type (5)</td>
<td>1</td>
<td>.051</td>
<td>-.078</td>
<td>-.230**</td>
<td>.233**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experience (6)</td>
<td>1</td>
<td>.069</td>
<td>-.161**</td>
<td>-.209**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Report Card (7)</td>
<td>1</td>
<td>-.301**</td>
<td>.057</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Typology (8)</td>
<td>1</td>
<td>-.089</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment Status (9)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Correlation was significant at the 0.01 level (two tailed). N = 299*
After the predictor variable, current employment status, was dropped, the tolerance method was used \((1 - R^2)\) to determine if multicollinearity was still present. The results of this analysis showed that no tolerance estimate was 0.10 or less (Yang & Miller, 2008). As can be seen in Table 16, the results of the tolerance estimate confirmed that after current employment status was dropped, multicollinearity was no longer present.

Table 16

*Tolerance Estimate for Multicollinearity of Predictor Variables*

<table>
<thead>
<tr>
<th>Predictor Variables</th>
<th>Tolerance Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupation</td>
<td>0.664</td>
</tr>
<tr>
<td>Years Employed</td>
<td>0.720</td>
</tr>
<tr>
<td>Preservice Training</td>
<td>0.770</td>
</tr>
<tr>
<td>Training after Employment</td>
<td>0.611</td>
</tr>
<tr>
<td>Employment Status</td>
<td>0.837</td>
</tr>
<tr>
<td>Prior Experiences</td>
<td>0.731</td>
</tr>
<tr>
<td>Report Card Designation</td>
<td>0.880</td>
</tr>
<tr>
<td>School District Typology</td>
<td>0.801</td>
</tr>
</tbody>
</table>

*Missing Data*

First, the presence of missing data was considered. The online survey required participants to respond to each item and resulted in 32 respondents (0.03%) who did not
fully complete the survey. In order to address the issue of missing data, their partial data was not included in this study. Since the missing data (i.e., 32 incomplete surveys) were removed prior to the multiple regression analysis, the issue of missing data was not a factor in this study (Weisberg et al., 1989).

**Normality, Linearity, and Homoscedasticity**

The assumption of normality was investigated in order to determine if the dependent variable, perceptions of integrated classroom-based services, was normally distributed (Stevens, 1999). A Kolmogorov-Smirnov Z Test was conducted, and it indicated that the assumption of normality was tenable, \( K-S_z (299) = 1.24, p = .092 \). Homoscedasticity, the random dispersion of error terms (residual) around the regression line, was determined through visual inspection of the scatter plot in Figure 1 (Argyrous, 2005). It was considered present when the error terms (residuals) were arranged fairly consistently around the regression line for the dependent variable (Argyrous). The assumption of linearity examined the linear relationship between the independent variables and the dependent variables. The relationship between the independent and dependent variables should be linear (Weisberg et al., 1989). Upon visual inspection of the scatter plot represented in Figure 1, the assumptions of linearity and homoscedasticity were considered tenable as well (Argyrous). The error terms (residuals) were scattered randomly around the regression line, and the relationship between the variables was linear.
Due to the sensitive nature of multiple regression analysis, an outlier data point may have the potential to significantly impact the results (Stevens, 1999). The presence of outliers needed to be considered through an examination of the standard residuals for the dependent variable (Stevens). The standard residuals were used in order to determine if there were a normal distribution, a mean of 0, and a standard deviation of 1 (Stevens). Table 17 showed that the standard residual ($r_i = 3.28$) for the dependent variable, perceptions of integrated classroom-based services, was not greater than about 3, and
Table 17

*Standard Residual Statistics for Perceptions of Integrated Classroom-Based Services*

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicted Value</td>
<td>59.550</td>
<td>66.740</td>
<td>62.98</td>
<td>1.306</td>
<td>299</td>
</tr>
<tr>
<td>Residual</td>
<td>-24.660</td>
<td>18.290</td>
<td>0.00</td>
<td>5.500</td>
<td>299</td>
</tr>
<tr>
<td>Standard Predicted Value</td>
<td>-2.623</td>
<td>2.881</td>
<td>0.00</td>
<td>1.000</td>
<td>299</td>
</tr>
<tr>
<td>Standard Residual</td>
<td>-4.424</td>
<td>3.280</td>
<td>0.00</td>
<td>1.000</td>
<td>299</td>
</tr>
</tbody>
</table>

therefore the presence of outlier data points was not a factor in this multiple regression analysis (Stevens). “Any standardized residual greater than about 3 in absolute value is unusual and should be carefully examined” (Stevens, p. 281). Additionally, the mean was 0 and the standard deviation was 1.

*Multiple Regression Analysis*

After the survey data were found to meet the assumptions and current employment status was removed from the regression model, the analysis was conducted to answer the research questions. A raw score was derived for the surveys for each respondent. Values (e.g., *strongly disagree* = 1, *disagree* = 2, *neutral* = 3, *agree* = 2, and *strongly agree* = 1) were assigned to each possible response to the 17 perception statements, and the raw score was obtained by adding up those values for each survey respondent. The dependent variable used in the multiple regression analysis was this raw
score, which represented each respondent’s overall perceptions of integrated classroom-based speech language pathology services.

Multiple regression analysis was used to test the first null hypothesis. First, in the Ohio public school population, there will be no relationship among a set of predictor variables (i.e., occupation, employment status, number of years employed, preservice training, inservice training, school district typology, report card designation, employment contract type, and experiences with this service delivery model) and perceptions of integrated classroom-based speech language pathology services. A Pearson’s $r$ correlational coefficient was used to test the second null hypothesis: In the population, the proportion of the variability explained by each predictor variable (i.e., occupation, employment status, number of years employed, preservice training, inservice training, school district typology, report card designation, employment contract type, and experiences with this service delivery model) will be zero. A value of $p < 0.05$ was considered to be statistically significant (Alreck & Settle, 1995; Weisberg et al., 1989).

When a set of independent variables (i.e., the eight predictor variables) were entered simultaneously into the multiple regression model using the Enter Method, it was found that these variables significantly predicted survey participants’ perceptions of integrated classroom-based services, $R^2 = 0.053$, $F(8, 290) = 2.047$, $p = .041$. Given the results of the study, it was possible to say with 95% confidence that there was a small but significant linear relationship between the independent and dependent variables. There was less than a 5% ($\alpha = .05$) chance of making a Type I error in this study. Therefore, the null hypothesis for research question one was rejected, and the results seen in this
study did not happen by chance. The results of the multiple regression testing suggested that if the same population were sampled again in the future, the same relationship between the independent and dependent variables would be replicated. Additionally, it was revealed that 5.3% of the variability in responses to perception statements was explained by the remaining eight predictor variables (i.e., occupations, number of years employed, preservice training, inservice training, school district typology, report card designation, employment contract type, and experiences with this service delivery model). The null hypothesis for research question two was also rejected.

The information found in Table 18 showed the unique contribution of each independent variable in predicting the responses to perception statements on integrated classroom-based speech language pathology services.

As can be seen in Table 18, occupation, experiences with integrated classroom-based services, and contract type emerged as the independent variables that made significant contributions to the prediction of responses to statements on perceptions of integrated classroom-based speech language pathology services. The remaining five independent variables did not significantly contribute to the prediction of overall perceptions.

Summary

This study used multiple regression analyses to predict elementary school principals’ and SLPs’ perceptions of integrated classroom-based speech language pathology services using eight predictor variables (i.e., occupations, number of years employed, preservice training, inservice training, school district typology, report card
Table 18

Data on Predictor Variables and Perceptions of Integrated Classroom-Based Services

<table>
<thead>
<tr>
<th>Predictor Variable</th>
<th>$\Delta R^2$</th>
<th>$F$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupation</td>
<td>0.024</td>
<td>7.376**</td>
</tr>
<tr>
<td>Report Card Designation</td>
<td>0.002</td>
<td>0.813</td>
</tr>
<tr>
<td>School District Typology</td>
<td>0.000</td>
<td>0.014</td>
</tr>
<tr>
<td>Years Employed</td>
<td>0.001</td>
<td>0.407</td>
</tr>
<tr>
<td>Preservice Training</td>
<td>0.001</td>
<td>0.302</td>
</tr>
<tr>
<td>Inservice Training</td>
<td>0.001</td>
<td>0.181</td>
</tr>
<tr>
<td>Contract Type</td>
<td>0.014</td>
<td>4.322**</td>
</tr>
<tr>
<td>Experiences</td>
<td>0.016</td>
<td>4.937**</td>
</tr>
</tbody>
</table>

** $p < .05$

designation, employment contract type, and experiences with this service delivery model). At the end of the administration phase of the study, 299 individuals fully responded to the survey, which resulted in an adequate sample size.

A chi-square Test of Homogeneity ($X^2$) was used and there were no significant differences in the response distributions of early and late responders regarding their overall perceptions of integrated classroom-based services. Since a significant difference was not found, the impact of nonresponse bias was assumed to be low. A Cronbach’s coefficient alpha was used to measure the internal consistency of the survey, and the
results showed that the survey possessed adequate internal reliability. The survey’s test-retest reliability was determined through a calculation of the Pearson’s $r$ correlational coefficient and was found to be strong.

A chi-squared Test of Homogeneity was used and found statistically significant differences in the response distributions on 10 of the perception statements when they were compared between principals and SLPs. Prior to running the multiple regression analysis, several inferential statistical assumptions were assessed and found to be met (e.g., missing data, multicollinearity, outliers, normality, linearity, and homoscedasticity). The multiple regression analysis was used to test the first null hypothesis. First, in the Ohio public school population, there will be no relationship among a set of predictor variables (i.e., occupation, employment status, number of years employed, preservice training, inservice training, school district typology, report card designation, employment contract type, and experiences with this service delivery model) and perceptions of integrated classroom-based speech language pathology services. A Pearson’s $r$ correlational coefficient was used to test the second null hypothesis: In the population, the proportion of the variability explained by each predictor variable (i.e., occupation, employment status, number of years employed, preservice training, inservice training, school district typology, report card designation, employment contract type, and experiences with this service delivery model) will be zero. The analysis found that the set of independent variables (i.e., the eight predictor variables) significantly predicted survey participants’ perceptions of integrated classroom-based services, which resulted in the rejection of the null hypothesis for research question one. Additionally, a small
percentage of the variability of responses was explained by eight predictor variables. Of those eight predictor variables, only occupation, experiences with integrated classroom-based services, and contract type made significant contributions to the prediction of responses to statements on perceptions of integrated classroom-based speech language pathology services. The null hypothesis for research question two was also rejected.
CHAPTER V

FINDINGS

This study used a correlational ex post facto design and investigated Ohio principals’ and SLPs’ perceptions of integrated classroom-based speech language pathology services in the public school setting. All of the respondents were employed in an elementary school. Data were collected through the use of an online survey that was emailed to each participant during the winter of 2009. Demographic information was collected, and participants were asked to state their level of agreement on 17 perception statements through the use of a five point Likert scale.

At the end of the administration phase of the study, 299 respondents fully participated, which resulted in an adequate sample size. The survey instrument was found to possess adequate content validity, internal reliability, and test-retest reliability. The impact of nonresponse bias was found to be low. Descriptive and inferential statistics were used to analyze the data. Three predictor variables were found to contribute significantly to the overall prediction of integrated classroom-based services. Additionally, principals and SLPs were found to differ significantly in their perceptions of this type of service delivery model when the perception statements were analyzed. In this chapter, the findings of this study were discussed and considered within the context of the literature. The implications, limitations, and recommendation for future research were also presented.
Predictors of Perceptions

Until now, no study has been conducted to investigate which independent variables predicted perceptions of integrated classroom-based speech language pathology services. The multiple regression analysis was used to test the first null hypothesis: In the Ohio public school population, there will be no relationship among a set of predictor variables (i.e., occupation, employment status, number of years employed, preservice training, inservice training, school district typology, report card designation, and experiences with this service delivery model) and perceptions of integrated classroom-based speech language pathology services. The value of $p < 0.05$ was considered to be statistically significant in this study. After the data were analyzed, it was found that the predictor variables significantly predicted the principals’ and SLPs’ perceptions of integrated classroom-based services, $F (8, 290) = 2.047, p = .041$. The results showed there was a small but significant linear relationship between the independent variables and perceptions of integrated classroom-based services.

The second null hypothesis was tested: In the population, the proportion of the variability explained by each predictor variable (i.e., occupation, employment status, number of years employed, preservice training, inservice training, school district typology, report card designation, employment contract type, and experiences with this service delivery model) will be zero. When the eight independent variables were analyzed using a Pearson’s $r$ correlational coefficient, it was found that 5.3% ($R^2 = 0.53$) of the variability in responses was explained by the predictor variables (i.e., occupations, number of years employed, preservice training, inservice training, school district
typology, report card designation, employment contract type, and experiences with this service delivery model). This small amount of variability was explained by the linear combination of the eight predictor variables. When the data were analyzed further, the respondents’ occupation, experiences with integrated classroom-based services, and contract type emerged as the three independent variables that made largest contribution to the prediction of responses to statements on perceptions of integrated classroom-based speech language pathology services. The respondents’ years of experience, training, school district typology, and school report card designation did not significantly contribute to the prediction of overall perceptions.

Previous research has shown that positive experiences with classroom-based special education and related services have been associated with preferences for the use of inclusion (Beck & Dennis, 1997; Giangreco et al., 1997; Praisner, 2003; Villa et al., 1996). The results from the current study have further shown that experiences with integrated classroom-based speech language pathology services, one form of inclusion, predicted perceptions of this type of service delivery model for elementary school principals and SLPs who were employed in the Ohio public school system. The findings from this study added to a growing body of research that showed that an individual’s experience with classroom-based services had the potential to affect preferences for and perceptions of inclusive practices for students with disabilities.

The respondent’s contract type emerged as the second predictor variable that contributed significantly to the prediction of perceptions. Throughout the state of Ohio, public school districts hired SLPs and principals directly or through contracts with
educational service centers, county boards of mental retardation and developmental disabilities, private practices, hospitals, or other private agencies. The data from this study showed that the respondent’s contract type significantly predicted perceptions of integrated classroom-based services. This was the first study where the respondent’s contract type and perceptions were investigated.

Lastly, the respondents’ occupation made a significant contribution to the prediction of perceptions in this study. The literature review had shown that principals’ perceptions of inclusion were found to differ significantly from those of regular and special education teachers (Valeo, 2008; Villa et al., 1996; Wigle & Wilcox, 1997). The results of the current study suggested that a respondents’ occupation also had the potential to contribute to perceptions of integrated classroom-based speech language pathology services, a finding that was consistent with previous research. Principals and SLPs did not hold the same perceptions of integrated classroom-based speech language pathology services in every case.

*Similarities Between Principals’ and SLPs’ Perceptions*

Principals’ and SLPs’ responses to perception statements were analyzed through the use of a chi-squared Test of Homogeneity in order to determine if statistically significant differences existed. Significant differences in the response distributions were observed on 10 out of the 17 perception statements. The implication of each finding was presented below, and the data were considered within the context of the literature. In order to make an accurate comparison between the results of the current study and data from previous research, the response frequencies were collapsed. More specifically,
agreed and strongly agreed were dichotomized into agreed and disagreed and strongly disagreed were dichotomized into disagreed. Although the collapsing of the data for the sake of comparison resulted in information loss, the previous research on perceptions only looked at the degree to which respondents agreed or disagreed to perception statements (Beck & Dennis, 1997; Elksnin & Capilouto, 1994).

The majority of the principals (80%) and SLPs (71%) in the study showed some level of agreement in their perceptions about the need for SLPs and teachers to have a social or professional relationship prior to collaborating. This research finding was consistent with the results from previous survey research that was conducted by Elksnin and Capilouto (1994). These researchers found that approximately 67% of their SLP respondents agreed that a social or professional relationship was necessary prior to collaborating. When the results of the current study and the study conducted by Elksnin and Capilouto were compared, it appeared as though this perception has remained stable with school-based SLPs over the past 15 years. Additionally, the current data found that principals and SLPs shared a very strong agreement about the need for SLPs and teachers to have a professional or social relationship prior to collaborating.

When the response distributions of principals and SLPs were analyzed, the survey respondents were consistent in their belief about the need for the teacher and SLP to share a philosophy on learning. The present study showed that the majority of principals (74%) and SLPs (85%) expressed some level of agreement with this statement. These findings closely mirrored the data from the Elksnin and Capilouto (1994) study where 80% of SLPs who were surveyed agreed with the same statement. This study has shown
that perceptions of SLPs have remained consistent over time, and a large percentage of principals and SLPs agreed that teachers and SLPs needed to share a philosophy of learning in order for integrated classroom-based services to be effective.

The majority of principals (91%) and SLPs (88%) agreed that in order for integrated classroom-based services to be effective, administrative support with scheduling was necessary. This strong belief was consistent with the data from the study by Elksnin and Capilouto (1994). In this study, SLPs overwhelmingly agreed (90%) that administrative support with scheduling was necessary. Perceptions about administrative support and scheduling have seemed to change very little over time. In 1992, open-ended interviews with 20 school-based SLPs were conducted, and data suggested that respondents wanted administrative support with scheduling speech and language services (Schetz & Billingsley, 1992). The data from present study showed that principals agreed with SLPs and their long standing perception regarding the importance of administrative support with scheduling.

When principals and SLPs were asked to what degree they agreed with the following: Communication targets were easily carried over into the classroom when integrated classroom-based services were used, 78% of the principals and 80% of the SLPs demonstrated agreement on the survey. The data from Beck and Dennis (1997) study showed that 90% of the SLPs agreed that the carryover of new skills was enhanced when this type of services delivery was used. The data on perceptions of carryover and integrated classroom-based services from the current study seemed to be consistent with results from the Beck and Dennis survey. The consistent agreement on this issue might be
due in part to a variety of studies over the past two decades that have found classroom-based services promoted a generalization of newly learned skills (Anderson & Nelson, 1988; ASHA, 2003, 2005a, 2006c; Bellini et al., 2007; Leonard, 1981; McGinty & Justice, 2006; Rogers-Warren & Warren, 1984; Schlosser & Lee, 2000; Wilcox et al., 1991).

Principals and SLPs were asked to respond to the following: Integrated classroom-based services allowed for opportunities to appropriately reinforce target behaviors (e.g., skills, strategies) in the classroom. The data from the present study revealed that 87% of the principals and 88% of the SLPs either agreed or strongly agreed with this statement. More individuals agreed with this statement than was found in previous research. Beck and Dennis (1997) found that 70% of the SLPs were in agreement with this statement. Although the current study found higher levels of agreement, both studies showed that the majority of respondents tended to agree with this statement.

When asked if integrated classroom-based services allowed students with communication weaknesses to significantly learn from their peer models, 81% of the principals and 82% of the SLPs indicated they agreed. These findings were almost exactly matched by a study that was conducted 12 years earlier (Beck & Dennis, 1997). In their survey of SLPs, 80% agreed or strongly agreed that students learned from their nondisabled peers when integrated classroom-based services were used. Dating as far back as 1985, research on peer assisted learning had been shown to possess positive
results for students with communication impairments, and this body of literature may have affected these results (Rohrbeck, Ginsburg-Block, Fantuzzo, & Miller, 2003).

Principals and SLPs held similar perceptions about the overall effectiveness of integrated classroom-based speech language pathology services for students with communication impairments. Of the individuals that were surveyed, 74% of the principals and 69% of the SLPs agreed that integrated classroom-based services were an effective service delivery model. Despite the consistency found between SLPs and principals, the data from this current study were not consistent with a belief that was expressed in a case study by Cooper (1991). Cooper stated that one building administrator described integrated classroom-based services as a “lesser intervention model.” Given the results of this study, principals in the public school setting in Ohio do not appear to differ from SLPs in their perception of the overall effectiveness of type of service delivery model. The data did not produce evidence that this type of service delivery model was thought of as a lesser service delivery model as was suggested in the Cooper case study.

Differences Between Principals’ and SLPs’ Perceptions

The chi-squared Test of Homogeneity showed that principals and SLPs were found to significantly differ when their responses were analyzed, which aligned with some of the findings from previous research (Beck & Dennis, 1997; Elksnin & Capilouto, 1994; Schetz & Billingsley, 1992). More specifically, the professions demonstrated a statistically significant difference in their responses when asked if the SLP and classroom teacher needed time to plan together in order for integrated classroom-based services to
be effective. A large portion of the SLPs (80%) strongly agreed with this statement, which was in stark contrast to the principal respondents (35%) who held the same perception. When these results were compared to data from Elksnin and Capilouto (1994), SLPs have maintained over the years a strong agreement with this statement. In their study, a vast majority of SLPs (96%) felt that administrative support for planning was necessary.

Principals and SLPs were found to differ in their respective perceptions about the need for SLPs and teachers to have complimentary teaching styles. More than half of the SLPs (58%) showed some level of agreement (i.e., agree or strongly agree) with this statement whereas only 39% of the principals agreed. In the study conducted by Elksnin and Capilouto (1994), 82% of the SLPs who adopted and 69% of the SLPs who did not adopt this type of service delivery model were found to agree. The data from the Elksnin and Capilouto study were not consistent with the current findings. The SLPs in this current study tended to show some more agreement with this statement when compared with the principals, but not to the same degree as was found almost 15 years ago.

The professionals surveyed in this study did not agree with regard to their perceptions of administrative support for the allocation of school resources. It was found that 70% of the SLPs either agreed or strongly agreed with this statement. The majority of principals (84%) agreed that administrative support was necessary for the allocation of school resources (e.g., therapy materials, supplies, technology, and training). The findings from the current study were not consistent with the results found by Elksnin and
Capilouto (1994). In their study, almost 90% of the SLPs surveyed agreed that administrative support was necessary for the allocation of school resources.

When asked whether students should be carefully grouped so that all or most of the caseload at a given grade level were in the same classroom, statistically significant differences were found between principals and SLPs. The data showed that 62% of the SLPs and 46% of the principals agreed with this statement. Elksnin and Capilouto (1994) found more agreement among SLPs (80%) in their study. Despite a call by B. Ehren in 2000 for SLPs to consider advocating for this practice (i.e., putting communication impaired students into the same classroom at their given grade level), SLPs in Ohio have shown less agreement with this practice than was found 15 years ago.

The data showed that principals and SLPs differed significantly when asked about the need for SLPs and teachers to value each other’s skills and knowledge. Over half of the SLPs (57%) strongly agreed with this statement whereas only 33% of the principals shared the same perception. The majority of principals (60%) agreed with this statement. Despite the differences that were observed through the chi-squared Test of Homogeneity, the respondents overwhelmingly held some degree of agreement with Statement 8 (97%). This finding was almost identical to what was found by Elksnin and Capilouto (1994). In their study, 100% of the SLPs surveyed agreed with this statement. It appeared as though SLPs’ perceptions have changed little over time, and there still was a strong belief that SLPs and teachers should value each other’s skills and knowledge.

The professionals differed significantly in their perceptions of Statement 9 (i.e., finding time to consult with team members is not a problem). Of the principals who
responded to the survey, 56% either disagreed or strongly disagreed. In contrast to the principals, a majority of SLPs (86%) expressed some degree of disagreement with this statement. These results for the SLPs were found to be consistent with the study by Beck and Dennis (1997). In their study, 75% of the SLPs disagreed. The data from both studies suggested that a majority of SLPs did not feel that finding time to consult was easy.

When asked about the ease with which language goals from the IEP were targeted using integrated classroom-based services, significant differences were observed between principals and SLPs. The data showed that 61% of the SLPs and 70% of the principals either agreed or strongly agreed with this statement. No principal expressed any disagreement with this statement whereas 12% of the SLPs disagreed. These professionals were also found to differ when they were asked about the ease with which speech IEP goals could be targeted through this service delivery model. Approximately half of the principals (47%) agreed that speech IEP goals could be easily targeted in the classroom, a view that was only shared by 21% of the SLPs. In research by Beck and Dennis (1997), they asked SLPs to respond to the following statement in their study: IEP goals are easily targeted. Although they did not make a distinction between language and speech goals, they found that 34% showed some level of agreement. The findings from Beck and Dennis were not consistent with the results from this present study.

Previous research found little consistency in the response distributions of SLPs with regard to perceptions about the behavior management of students with communication impairments in the classroom. Beck and Dennis (1997) found no pattern in the responses by SLPs in their research (i.e., 43% expressed agreement and 38%
expressed disagreement with this statement). The current study also revealed that the SLPs’ and principals’ perceptions were not consistently distributed. More specifically, 24% of the SLPs agreed and 29% of them disagreed with this statement that behavior management was not a problem in the classroom. A surprising amount of SLPs (46%) and principals (38%) remained neutral. The observed inconsistency in responses that have been observed across two studies could not be accounted for since there has not been a study that was conducted to investigate the behavior management of students with speech or language impairments during integrated classroom-based services.

Lastly, significant differences in the response distributions were found when principals and SLPs were asked about data collection being facilitated by integrated classroom-based services. Whereas 41% of the SLPs and 34% of the principals in this current study remained neutral, a large majority of the principals (65%) demonstrated some level of agreement when asked to respond to this statement. Only 38% of the SLPs showed agreement when asked if data collection was facilitated using this service delivery model. The key finding from the Beck and Dennis (1997) showed that the SLPs in the study tended to respond in a neutral fashion when asked a similar statement (i.e., data collection is facilitated). Perceptions about data collection and integrated classroom-based services did not seem to change over time.

Implications

Integrated classroom-based services have been found to align with legal mandates and be effective and practical for students with communication impairments. Principals have played a vital role in supporting the implementation and sustainability of these
services through their role as instructional leaders (Moore-Brown, 1991). The data gathered as part of this study have the potential to be used by principals and SLPs to understand similarities and differences in perceptions about integrated classroom-based services that have existed between the two professions. The data could further be used to design strategies to address any significant disparity that was found between the perceptions (Blood et al., 2002).

It was encouraging to find that the results of the chi-squared Test of Homogeneity showed that SLPs and principals hold very similar perceptions about some aspects of integrated classroom-based services. Most notably, both occupations held similar perceptions about the overall effectiveness of this type of service delivery model, administrative support for scheduling of services, the benefit of integrated classroom-based services (i.e., communication targets are carried over into the classroom, students with communication weaknesses learn significantly from their peers, classroom services allow for opportunities to appropriately reinforce target behaviors), and requirements for successful collaboration (i.e., the teacher and SLP need a professional or social relationship prior to collaborating, they need a shared philosophy on learning).

Administrative Support and Time Management

The literature in the field of speech language pathology has suggested for some time that principals differed in their perceptions of integrated classroom-based services (Cooper, 1991; Lass et al., 1994; Magnotta, 1991). Additionally, SLPs have identified principals as nonsupportive when it came to classroom-based services (Achilles et al., 1991; Beck & Dennis, 1997; Blesser & Kratcoski, 1997; Cooper, 1991; Elksnin, 1997;
Elksnin & Capilouto, 1994; Farber & Klein, 1999; Fujiki & Brinton, 1984; Giangreco et al., 1993; Larson et al., 1993; Magnotta; 1991; Miller, 1989; Moore-Brown, 1991; Schetz & Billingsley, 1992; Throneburg et al., 2000; Tollerfield, 2003). The findings of this study showed that as a whole, principals and SLPs did not differ that drastically on perceptions of administrative support for integrated classroom-based services. When there were some differences found in response frequencies on items related to administrative support and responses were dichotomized (i.e., strongly agree and agree became agree and strongly disagree and disagree became disagree), the perceptions held by both occupations were not as disparate as the literature review suggested.

In some school districts throughout Ohio, neighborhood schools have been eliminated, and districts have created grade level buildings that may contain 7 to 10 classrooms at one grade level. A SLP would have great difficulty providing classroom-based services to the students in the caseload in each of these classrooms due to limited planning time, the need for multiple meetings with different teachers, and scheduling constraints. B. Ehren (2000) recommended that SLPs solicit the support of their building principals so that their caseload was distributed across fewer classrooms for the sake of time management. The results of this study showed that almost a quarter (23%) of the SLP respondents strongly agreed that in order for integrated classroom-based services to be effective, students on their caseload should be grouped in the same classrooms at each grade level. Only 3% of the principals shared the same strong level of agreement. Although the results of this study did not suggest principals held a strong agreement with this practice, all might not be lost for SLPs who wish to employ this strategy in their
buildings. When the data were analyzed further, 43% of the principals agreed and 31% were neutral about this time management strategy. This level of agreement may suggest that principals were willing to employ this strategy on behalf of the SLP, which could save a considerable amount of therapy time, collaboration, lesson preparation, and materials creation. Given the fact that 31% of the principals were neutral about this strategy, SLPs might take the opportunity to further discuss the benefits and in turn sway their administrator to consider the benefit of it. The data did not seem to indicate that principals were nonsupportive on this issue and this time management strategy had no place in their buildings. For principals, the data also illustrated a willingness on the part of SLPs to try this strategy. In those buildings where there had been some SLP resistance to classroom-based services due to limited time, the principal may suggest that students at a given grade level be grouped in some of the same classrooms. This simple change in classroom assignments may persuade the SLP to consider providing services in a lesser restrictive setting.

When survey respondents were asked if teachers and SLPs needed time to plan together, in order for integrated classroom-based services to be effective, 72% of the SLPs and 35% of the principals strongly agreed with this statement. At first glance, although these differences were found to be statistically significant, principals did not express much disagreement with this statement. Instead, the principals encouragingly responded overall with some level of agreement 88% of the time (i.e., percentage that combined agreement and strong agreement). Although the literature had suggested that principals did not support SLP and teacher collaboration in practice, the results of this
study showed that principals were at the very least in agreement that time for planning was necessary for an effective speech language program that was integrated into the classroom. It did not seem as though SLPs needed to spend time convincing principals about the importance of planning time, rather SLPs and principals should work together to find practical scheduling strategies that would allow adequate planning time to exist during the work day. Both occupations expressed very high levels of agreement on this item, and this agreement could be used as a starting point for discussions about planning and collaboration time.

Survey respondents were asked if they felt finding time to consult was not a problem. The response frequencies showed that principals and SLPs differed significantly on this matter. Even when the responses were dichotomized into two categories (i.e., agree and disagree), principals were found to disagree 56% of the time and SLPs 86% of the time. A quarter of the principals (25%) and 4% of the SLPs agreed that finding time to consult was not a problem in their schools. These data suggest that principals needed to have open and frank discussions with SLPs and teachers about their schedules and consultation time. Cooper (1991) suggested that principals observed collaboration and consultation meetings and classroom-based lessons in order to better understand time constraints and scheduling difficulties. Flexible scheduling models (e.g., 3 to 1 Model) might be needed in order to allow the teachers and SLPs time to consult and collaborate on lessons (Annett, 2004).
In schools where inclusive special education and related services were used, equal partnerships between the regular education and special teachers were regarded as important to the success of these programs (Villa et al., 1996). When educators collaborated, team taught, problem-solved, and had positive teaching experiences together, regular and special education teachers felt competent and were able to work together as “coequal partners” who shared the responsibility of educating students with disabilities in the general education classroom (Villa et al., p. 40). In this current study, the principals’ and SLPs’ perceptions differed somewhat on issues related to teacher and SLP interactions (i.e., need to have complimentary teaching styles, need to value of each other’s skills and knowledge). Villa et al. stressed to administrators and teachers about the importance of collaborative partnerships between the regular education teacher and special educators. These equal partnerships were the vehicle needed to support and sustain quality inclusive practices. In order to foster these collaborative partnerships and create positive interactions, preservice programs and continuing education activities for administrators and teachers needed too “emphasize theory, practice, and experience in team problem-solving and teaching” (Villa et al., p. 43). Praisner (2003) argued that principal leadership programs at the university level were not adequately addressing inclusion and regular education strategies for students with disabilities in their coursework. More specifically, Praisner recommended that universities should provide more instruction to aspiring principal leaders on fostering teacher collaboration, team building, and supporting and training teachers on inclusion. The more instruction
principals receive at the university level prior to employment as educational leaders, the more positive their attitudes and perceptions will be toward inclusion (Praisner, 2003).

Ease of Service Delivery in the Classroom

Principals and SLPs did not hold similar beliefs about data collection and the ease with which language and speech IEP goals were easily targeted in the classroom. Additionally, differences were found when respondents from the two professions were asked to comment about the behavior management of speech or language impaired students during classroom-based services. When the response frequencies for each of the statements were analyzed further, it was realized that a large percentage of the respondents expressed relatively high levels of neutrality on each of these four areas (i.e., ranging from 27% to 45%). Given these neutral responses, school districts should consider providing professional development to principals and SLPs on strategies that would allow speech and language IEP goals to be targeted in the regular education classroom. Professional development could also be provided on data collection and behavior management strategies. Praisner (2003) felt that principals should especially learn strategies and processes to support inclusion in their buildings. Principals could also enter into contracts with Educational Service Centers for speech language supervision. These supervisors could professionally develop struggling or uncertain SLPS at inservices or through onsite modeling of strategies and data collection.

This study has the potential to inform school-based SLPs on principals’ perceptions as well as gaps in their principals’ knowledge base. The data showed that 96% of the principals had no preservice training, 75% had no inservice training, and 62%
had no experiences at all with integrated classroom-based services. These gaps in
to guide SLP leaders as they plan professional development opportunities
for principals (Ritzman & Sanger, 2007).

Universities could also use the data from this study to guide educational
administration and speech language pathology programs and design college coursework,
find field experiences where this model was used, and provide high-quality in-service
opportunities for SLPs and principals that focus on integrated classroom-based speech
language pathology services (Elksnin & Capilouto, 1994). More specifically, principal
programs could provide instruction on the advantages and disadvantages of various
service delivery models (e.g., pullout, classroom-based, collaborative consultation) and
flexible scheduling models (e.g., 3 to 1 Service Delivery Model). Speech Language
Pathology programs could teach their graduates ways to advocate for appropriate service
delivery models, and more planning times. Additionally, SLP graduate students could
learn various problem-solving approaches that could be employed in the face of barriers
(e.g., limitations in scheduling, personality conflicts). Praisner (2003) recommended that
professional development be provided to principals on attitudes and attitude development
since their attitudes had such a strong impact on the use of inclusion.

Experiences with integrated classroom-based services emerged as a significant
predictor of perceptions for principals and SLPs. School-based SLPs could create
opportunities for their principal to observe an effective integrated classroom lesson or
activity so that the principal could experience first hand the benefits of this type of
service delivery model (Cooper, 1991; Rea, 2005). Success stories could be shared, and
updates of progress could be given to the building principal (Rea, 2005). Principals who would like this type of service delivery model to be used in their school might consider creating a partnership between their SLP with less experience and a SLP with more experience. The more experienced SLP could guide the novice through co-teaching activities in the classroom or collaborative meetings with teachers. Other principals might consider sending their building SLP to another site to observe integrated classroom-based services in practice.

Given the correlation found between perceptions and the use of inclusion in previous research, school districts were encouraged to include attitudes into their performance evaluations of principals (Praisner, 2003). School districts would need to know if negative attitudes were present in a principal, and then act to change these beliefs in order to ensure that appropriate inclusive services were created and sustained. The results of this current study also seemed to buttress this recommendation. School districts could include perceptions about integrated classroom-based services into their performance evaluations of principals and SLPs in order to understand their perceptions. Whenever negative perceptions were found or restrictive pullout only programs were utilized, this information could be used to professionally develop the individual.

Not only should school districts consider their principals’ and SLPs’ perceptions of integrated classroom-based services as part of their performance evaluation, they should also ask prospective applicants about their preferences (Praisner, 2003). If a school district wished to create and maintain inclusive services for students with
disabilities, candidates for district vacancies should hold positive perceptions from the beginning of their employment.

Limitations of the Study

First, many of the participants worked in the same school district and building, and there was the possibility that the participants talked about the survey prior to completing it. Their responses might have been influenced by these discussions. External validity could be threatened by this interaction effect. Additionally, some of these potential SLP participants might not have felt comfortable participating in the study if they found out their administrator was also in the sample. Spam blocking software and participants’ comfort level with the web-based survey may have restricted the sample, and misrepresented the data. Several SLPs indicated they were not able to access the survey due to the limitations of this software at their school site.

The use of a closed question format did not allow the participants to expand upon their responses, and no attempt was made to follow up with survey respondents in order to gain more information on their perceptions. Some SLPs and principals may have had mixed experiences with this type of service delivery model, and the closed nature of the Likert scale did not allow the individual to account for these experiences (e.g., participants had to select between a good experience or bad experience with the type of service delivery model but not both).

The researcher may have been known to some of the principals and SLPs in the survey despite the use of random selection. The researcher had provided professional development all throughout Ohio and attended staff and supervisory meetings in some of
the districts. It was possible that their perceptions may have been affected by this familiarity with the researcher or a willingness to please.

These findings should not be generalized across grade levels and regions other than the ones used in this study. The data were only collected from principals and SLPs who were employed in the public school setting in Ohio. Lastly, since all principals and SLPs were not employed to work under the same conditions (e.g., socioeconomic level, geographic area, percentages of minorities), it would be wrong to assume that each district had the same district policies, finances, and number of staff when considering these results.

**Recommendations for Future Research**

Given the small significance level and percentage of variability found, the study should be replicated. During the replication of this study, the test-retest portion of the study should be conducted on the same sample in order to better ascertain the coefficient of stability. For practicality reasons, a paper-pencil version of the present survey was used and participants were not selected through randomization.

Interviews could be attempted with survey respondents in order to gain more information on how these perceptions developed. The Likert scales did not allow participants to expand upon their responses or clarify information. More information about similarities and differences and predictors of perceptions could be understood during these face-to-face interviews.

Since only 5.3% of the variability in responses was explained by the eight predictor variables, an attempt should be made to investigate what other variables might
better predict perceptions (e.g., current use of the model, types of bad experiences, number of students on the caseload, number of rooms in the building, categories of students served on caseload). In a survey of 31 SLPs regarding integrated classroom-based services, data revealed that adopters of this service delivery model held different perceptions than nonadopters (Elksnin & Capilouto, 1994). No study has yet been conducted to investigate whether principals differed in their perceptions based on the use of integrated classroom-based services in their buildings. Future research could investigate whether the current use or nonuse of integrated classroom-based speech language pathology services was a possible variable that could predict perceptions.

Contract type should be investigated further in order to validate these findings. No other study to date has revealed it as a predictor variable or found a correlation between it and perceptions of integrated classroom-based speech language pathology services. The impact of contract type has not been fully explored or understood in the research.

Several of the responses on the survey produced high levels of neutrality (e.g., Statements 10, 11, 15, and 16). It was possible this neutrality was due to a poorly written statement. When the study was replicated, these statements should be reworded in order to determine if the wording impacted the response frequencies.
1. What is your occupation?  □ Principal    □ Speech Language Pathologist

2. In which county are you employed? ____________________________________________

3. In which school district do you work? _______________________________________

4. Please indicate the proper name of the school building or buildings where you work: 
   ______________________________________

5. What is your employment status?
   □ I am employed full-time in this district to work in only one building.
   □ I am employed part-time in this district to work in only one building.
   □ I am employed full-time in this district to work in two or more buildings.
   □ I am employed part-time in this district to work in two or more buildings.

6. How many years have you been employed as a principal or speech language pathologist in the public school setting?
   □ 0-5 years    □ 16-20 years    □ More than 31 years
   □ 6-10 years    □ 21-25 years
   □ 11-15 years    □ 26-30 years

7. Before you were employed in the schools, did you ever receive training on integrated classroom-based speech language services at the college level? □ Yes □ No

8. After you were employed in the schools, did you ever receive training at a conference, inservice, workshop, seminar, or college course on integrated classroom-based speech language services? □ Yes □ No

9. Which one of the following applies to you?
   □ Employed directly by the school district
   □ Contracted through an Educational Service Center or MR/DD
   □ Contracted through a private practice or other (e.g., hospital, clinic, self-employed)

10. Do you have any experience with integrated classroom-based speech language services?
    □ Yes, and it was a good experience.
    □ Yes, and it was a bad experience.
    □ No experience with this model.
Please indicate to what degree you agree or disagree with the following statements. Please circle one answer for each of the following statements:

1 = Strongly disagree   2 = Disagree  3 = Neutral  4 = Agree  5 = Strongly Agree

1. In order for Integrated Classroom-based Services (ICBS) to be effective, the speech language pathologist (SLP) and classroom teacher need a professional and/or social relationship prior to collaborating.
   1 = Strongly disagree   2 = Disagree  3 = Neutral  4 = Agree  5 = Strongly Agree

2. In order for ICBS to be effective, the SLP and the classroom teacher need to share a philosophy on learning.
   1 = Strongly disagree   2 = Disagree  3 = Neutral  4 = Agree  5 = Strongly Agree

3. In order for ICBS to be effective, the SLP and classroom teacher need to receive administrative support with regard to scheduling.
   1 = Strongly disagree   2 = Disagree  3 = Neutral  4 = Agree  5 = Strongly Agree

4. In order for ICBS to be effective, the SLP and classroom teacher need to share complimentary teaching styles.
   1 = Strongly disagree   2 = Disagree  3 = Neutral  4 = Agree  5 = Strongly Agree

5. In order for ICBS to be effective, the SLP and classroom teacher need to receive administrative support with regard to the allocation of school resources (e.g., money for materials, supplies, technology, and/or training).
   1 = Strongly disagree   2 = Disagree  3 = Neutral  4 = Agree  5 = Strongly Agree

6. In order for ICBS to be effective, the SLP and classroom teacher need to have time to plan together.
   1 = Strongly disagree   2 = Disagree  3 = Neutral  4 = Agree  5 = Strongly Agree

7. In order for ICBS to be effective, students need to be carefully grouped so that all or most caseloads at a given grade level are in the same classroom.
   1 = Strongly disagree   2 = Disagree  3 = Neutral  4 = Agree  5 = Strongly Agree
8. In order for ICBS to be effective, both the SLP and teacher need to have their skills and knowledge valued by each other.

1 = Strongly disagree  2 = Disagree  3 = Neutral  4 = Agree  5 = Strongly Agree

9. Finding time to consult with team members is not a problem.

1 = Strongly disagree  2 = Disagree  3 = Neutral  4 = Agree  5 = Strongly Agree

10. IEP goals for language are easily targeted using ICBS.

1 = Strongly disagree  2 = Disagree  3 = Neutral  4 = Agree  5 = Strongly Agree

11. IEP goals for speech sound errors are easily targeted using ICBS.

1 = Strongly disagree  2 = Disagree  3 = Neutral  4 = Agree  5 = Strongly Agree

12. When ICBS are used, communication targets are carried over into the classroom.

1 = Strongly disagree  2 = Disagree  3 = Neutral  4 = Agree  5 = Strongly Agree

13. ICBS allows students with communication weaknesses to significantly learn from their peer models.

1 = Strongly disagree  2 = Disagree  3 = Neutral  4 = Agree  5 = Strongly Agree

14. ICBS allow for opportunities to appropriately reinforce target behaviors (e.g., skills, strategies) in the classroom.

1 = Strongly disagree  2 = Disagree  3 = Neutral  4 = Agree  5 = Strongly Agree

15. The behavior management of the students with communication weaknesses is not a problem in the classroom.

1 = Strongly disagree  2 = Disagree  3 = Neutral  4 = Agree  5 = Strongly Agree

16. Data collection is facilitated using ICBS.

1 = Strongly disagree  2 = Disagree  3 = Neutral  4 = Agree  5 = Strongly Agree
17. ICBS is an effective service delivery model for students with communication impairments.

1 = Strongly disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

Thank you for participating in this study of school principals and school pathologists. Your input is very important to us, and we appreciate your feedback.
APPENDIX B

CONTENT EXPERT LETTER
I am trying to develop a survey to measure principals’ and speech language pathologists’ perceptions of integrated classroom-based speech language services. As school districts move to provide special education and related services in a least restrictive environment, the need for reliable and valid measures of staff members’ perceptions holds great importance. Too many times, negative perceptions present as a barrier to appropriate service delivery for students with communication impairments. School districts need to understand if and why these barriers are present, and provide support and professional development when needed to dispel myths and misperceptions.

You have been asked to serve as a content expert because of your knowledge of and expertise with integrated classroom-based services for students with communication impairments (ICBS). You have been a leader in your field, and you have continually advocated for students with disabilities. Your participation in this survey review process is an invaluable first step in supporting future research efforts in the area of speech language services in the schools.

The survey that is being developed consists of statements that are related to the objective and subjective areas of integrated classroom-based services. Principals and speech language pathologists will be asked to respond to these statements using a five point Likert scale (e.g., 1 for strongly agree to 5 strongly disagree). Demographic information will also be provided by the participants in the study.

On the attached form, you will be asked to judge each statement in three ways. First, you will indicate how well each statement adequately represents the concept of integrated classroom-based services. You will also be asked to comment on the clarity of each statement and offer any revisions or comments. Lastly, you will be asked to determine whether or not each statement should be retained or omitted from the final survey.

Thank you in advance for your time and expertise.

Sincerely,

Charles H. Carlin
Kent State University Doctoral Candidate
APPENDIX C

CONTENT VALIDITY REVIEW QUESTIONNAIRE
Please read each statement and then rate the representativeness, clarity, and comprehensiveness of the statement.

<table>
<thead>
<tr>
<th>Statements</th>
<th>Representativeness</th>
<th>Clarity of Statement</th>
<th>Comprehensiveness of Statement</th>
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</table>
| 1. In order for Integrated Classroom-based Services (ICBS) to be effective, the SLP and classroom teacher need a professional and/or social relationship prior to collaborating. | 1. Statement is not representative of ICBS  
2. Statement needs major revisions to be representative of ICBS  
3. Statement needs minor revisions to be representative of ICBS  
4. Statement is representative of ICBS | 1. Statement is not clear  
2. Statement needs major revisions to be clear  
3. Statement needs minor revisions to be clear  
4. Statement is clear | 1. Statement should be omitted  
2. Statement should be retained |
| 2. In order for ICBS to be effective, the SLP and the classroom teacher need to share a philosophy on learning | Comments: 1 2 3 4 | Comments: 1 2 3 4 | Comments: 1 2 |
| 3. In order for ICBS to be effective, the SLP and classroom teacher need to receive administrative support with regard to scheduling. | Comments: 1 2 3 4 | Comments: 1 2 3 4 | Comments: 1 2 |
| 4. In order for ICBS to be effective, the SLP and classroom teacher need to share complimentary teaching styles. | Comments: 1 2 3 4 | Comments: 1 2 3 4 | Comments: 1 2 |
5. In order for ICBS to be effective, the SLP and classroom teacher need to receive administrative support with regard to the allocation of school resources.  

6. In order for ICBS to be effective, the SLP and classroom teacher need to have time to plan together.  

7. In order for ICBS to be effective, students need to be carefully grouped so that all or most caseloads at a given grade level are in the same classroom.  

8. In order for ICBS to be effective, both the SLP’s and teacher need to have their skills and knowledge valued by each other.  

9. In order for ICBS to be effective, a SLP’s caseload should not be increased.  

10. The presence of the SLP in the classroom enhances the communication behaviors of the regular education students.  

11. Consultation time with the team members is not problematic.  

12. IEP goals for language are easily targeted using ICBS.
13. IEP goals for speech sound errors are easily targeted using ICBS

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14. When ICBS are used, communication targets are carried over into the classroom.

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15. ICBS allows students with communication weaknesses to significantly learn from their peer models.

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16. ICBS allow for opportunities to appropriately reinforce target behaviors in the classroom.

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17. The behavior management of the students with communication weaknesses is not problematic in the classroom.

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18. ICBS allows for the enhancement of turn-taking skills for students with communication weaknesses in the classroom.

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19. Data collection is facilitated using ICBS

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20. ICBS is an effective service delivery model for students with communication impairments

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Other Comments:
When you are finished with your review of the questionnaire, please mail it back to Chuck Carlin (Address removed for privacy reasons) using the enclosed envelope. Thank you again for your assistance and expertise.
APPENDIX D

ADVANCED-NOTICE LETTER FOR SURVEY
Re: A COMPARATIVE STUDY OF ELEMENTARY SCHOOL PRINCIPALS’ AND SPEECH LANGUAGE PATHOLOGISTS’ PERCEPTIONS OF INTEGRATED CLASSROOM-BASED SPEECH LANGUAGE SERVICES

Dear Principal or Speech Language Pathologist,

My name is Chuck Carlin, and I am the Speech Language/Special Education Supervisor from the Summit County Educational Service Center in the Akron, Ohio area. I am also a doctoral candidate at Kent State University in the Educational Administration K-12 program. I would like to do research on elementary school principals’ and speech language pathologists’ perceptions of integrated classroom-based speech language services. This type of service supports students with communication weaknesses within the context of the general education curriculum through the use of direct and indirect (e.g., collaborative consultation, adapting the curriculum, programming augmentative communication devices) services.

Integrated classroom-based speech language services are being provided throughout the state of Ohio, and I want to do this study in order to better understand how it is perceived by school personnel. I would like you to take part in this project. If you decide to do this, you will be asked to complete an online survey that will take about 5-10 minutes to complete. All information collected in this study will remain confidential, and I will be the only person with access to your name and records. A study number will be used to identify all the documents. There are no perceived risks or benefits to you associated with this study. The information that will be gained will be used to inform the field of educational administration and speech language pathology, and after I am finished, I will email you the conclusions. Taking part in this study is voluntary.

You will receive a follow-up email from me (ccarlin@kent.edu) with a link to an Internet-based survey to complete.

If you want to know more about this research project, please call me at (telephone number removed for privacy reasons). My advisor’s name is Dr. Anita Varrati, and she can be reached at 330-672-0630. This project has been approved by Kent State University. If you have questions about Kent State University's rules for research, please call Dr. John West, Vice President of Research, Division of Research and Graduate Studies (Tel. 330.672.2704).

Thank you in advance for your time and expertise.

Sincerely,

Chuck Carlin
Speech Language/Special Education Supervisor
Kent State University Doctoral Candidate
APPENDIX E

PARTICIPANT CONSENT FORM
The purpose of this study is to examine the relationship between school principals' and speech language pathologists' perceptions of integrated classroom-based speech language services. Data collection methods have been selected for their potential to accurately assess these perceptions with the following survey. Data analysis will be conducted upon completion of this study.

Please read the following statements carefully before signing this consent form.

1. This study has been approved by the Kent State University Institutional Review Board.

2. The study will be conducted during the academic year of 2008-09.

3. The study will take about 5 to 10 minutes to complete.

4. There are no foreseeable risks of discomfort associated with this study.

5. The results of this study may be published, however, the identity of participants will not be revealed. For the sake of confidentiality, submitted work will be anonymous. Participant names will not be known. Access to all data will be restricted to researchers participating in the study unless you grant prior approval.

6. Any questions you have concerning this study may be referred to Charles Carlin at ccarlin@kent.edu) before or after you consent to participate.

7. You may refuse to have your project data included in this study at any time without penalty. Any information that develops during the course of the study that might influence your willingness to provide data for this study will be provided to you by the investigators.

I have read the above information. The nature, demands, risks, and benefits of the project have been explained to me. I knowingly assume the risks involved, and understand that I may withdraw my consent and discontinue my participation at any time without penalty or loss of benefit to myself. In clicking the acceptance hyperlink, I am not waiving any legal claims, rights, or remedies. (HYPERLINK)
APPENDIX F

FIRST FOLLOW-UP REMINDER EMAIL
This is just a friendly request for you to complete a survey on Integrated Classroom-based Speech Language Services. I am conducting this study to examine the relationship between school principals' and speech pathologists' perceptions of integrated classroom-based speech language services. Your participation in this study would be greatly appreciated.

If you are interested in participating in this dissertation study, please follow the link to the study [Survey Monkey Hyperlink]. This link is uniquely tied to this study and your email address. Please do not forward this email.

On January 26th, I will send you the final request to participate in my study. The study will end on February 2, 2009.

Thank you so much in advance for your time and assistance.
This is just another friendly request for you to complete a survey on Integrated Classroom-based Speech Language Services. I am conducting this study to examine the relationship between school principals' and speech pathologists' perceptions of integrated classroom-based speech language services. Your participation in this study would be greatly appreciated.

If you are interested in participating in this dissertation study, please follow the link to the study [Survey Monkey Link]. This link is uniquely tied to this study and your email address. Please do not forward this email.

The study will end on February 2, 2009. Thank you so much in advance for your time and assistance.
Dear Principal or Speech Language Pathologist:

My name is Chuck Carlin, and I am the Speech Language/Special Education Supervisor from the Summit County Educational Service Center in the Akron, Ohio area. I am also a doctoral candidate at Kent State University in the Educational Administration K-12 program. I would like to do research on elementary school principals’ and speech language pathologists’ perceptions of integrated classroom-based speech language services. This type of inclusion service supports students with communication weaknesses within the context of the general education curriculum through the use of direct and indirect (e.g., collaborative consultation, adapting the curriculum, programming augmentative communication devices) services.

Integrated classroom-based speech language services are being provided throughout the state of Ohio, and I want to do this study in order to better understand how it is perceived by school personnel. I would like you to take part in this project. If you decide to do this, you will be asked to complete the test-retest portion of this brief survey, which will take a total of 5-10 minutes to finish. The survey will be mailed to you in a week to complete. Then, three weeks later, you will be mailed the same survey to complete again. The data from these two surveys will allow me to determine the test-retest reliability.

All information collected in this study will remain confidential, and I will be the only person with access to your name and records. There are no perceived risks or benefits to you associated with this study. The information that will be gained will be used to inform the field of educational administration and speech language pathology, and after I am finished, I will email you the conclusions. Taking part in this study is voluntary.

If you would be willing to participate in this study, please reply to this email to grant your consent. If you want to know more about this research project, please call me at (telephone number removed for privacy reasons). My advisor’s name is Dr. Anita Varrati, and she can be reached at 330-672-0630. This project has been approved by Kent State University. If you have questions about Kent State University's rules for research, please call Dr. John West, Vice President of Research, Division of Research and Graduate Studies (Tel. 330.672.2704).

Thank you in advance for your time and expertise.

Sincerely,

Chuck Carlin
Speech Language/Special Education Supervisor
Kent State University Doctoral Candidate
APPENDIX I

TEST-RETEST PARTICIPATION CONSENT FORM
Survey: A COMPARATIVE STUDY OF ELEMENTARY SCHOOL PRINCIPALS’ AND SPEECH LANGUAGE PATHOLOGISTS’ PERCEPTIONS OF INTEGRATED CLASSROOM-BASED SPEECH LANGUAGE SERVICES

The purpose of the study is to examine the relationship between school principals’ and speech pathologists’ perceptions of integrated classroom-based speech language services. The data from this portion of the study will be used to assess the test-retest reliability of this survey. Data analysis will be conducted upon completion of this phase of the study.

Please read the following statements carefully before signing this consent form.

1. This study has been approved by the Kent State University Institutional Review Board.
2. The study will be conducted during the academic year of 2008-09.
3. The test-retest portion of this study will take about 5 to 10 minutes to complete. The second survey will be mailed to you with an enclosed self-addressed stamped envelope in three weeks.
4. There are no foreseeable risks of discomfort associated with this study.
5. The results of this study may be published, however, the identity of participants will not be revealed. For the sake of confidentiality, submitted work will be anonymous. Participant names will not be known. Access to all data will be restricted to researchers participating in the study unless you grant consent prior approval.
6. Any questions you have concerning this study may be referred to Chuck Carlin at (telephone number removed for privacy reasons) or ccarlin@kent.edu before or after you consent to participate.
7. You may refuse to have your project data included in this study at any time without penalty.
8. **Thank you in advance for your time and expertise. Please use the self-addressed stamped envelope to return this survey packet as soon as you have completed it. Thank you again.**

_I have read the above information. The nature, demands, risks, and benefits of the project have been explained to me. I knowingly assume the risks involved, and understand that I may withdraw my consent and discontinue my participation at any time without penalty or loss of benefit to myself. In signing for my consent, I am not waiving any legal claims, rights, or remedies._

Signature: ________________________________ Date: ___________________
1. What is your occupation?  □ Principal  □ Speech Language Pathologist

2. In which county are you employed? ______________________________________

3. In which school district do you work? ___________________________________

4. Please indicate the proper name of the school building or buildings where you work:
______________________________________________________________________

5. What is your employment status?

□ I am employed full-time in this district to work in only one building.
□ I am employed part-time in this district to work in only one building.
□ I am employed full-time in this district to work in two or more buildings.
□ I am employed part-time in this district to work in two or more buildings.

6. How many years have you been employed as a principal or speech language pathologist in the public school setting?

□ 0-5 years  □ 16-20 years  □ More than 31 years
□ 6-10 years  □ 21-25 years
□ 11-15 years  □ 26-30 years

7. Before you were employed in the schools, did you ever receive training on integrated classroom-based speech language services at the college level? □ Yes  □ No

8. After you were employed in the schools, did you ever receive training at a conference, in-service, workshop, seminar, or college course on integrated classroom-based speech language services? □ Yes  □ No

9. Which one of the following applies to you?

□ Employed directly by the school district
□ Contracted through an Educational Service Center or MR/DD
□ Contracted through a private practice or other (e.g., hospital, clinic, self-employed)

10. Do you have any experience with integrated classroom-based speech language services?

□ Yes, and it was a good experience.
□ Yes, and it was a bad experience.
□ No experience with this model.
Please indicate to what degree you agree or disagree with the following statements. Please circle one answer for each of the following statements:

1 = Strongly disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

11. In order for Integrated Classroom-based Services (ICBS) to be effective, the speech language pathologist (SLP) and classroom teacher need a professional and/or social relationship prior to collaborating.

1 = Strongly disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

12. In order for ICBS to be effective, the SLP and the classroom teacher need to share a philosophy on learning.

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13. In order for ICBS to be effective, the SLP and classroom teacher need to receive administrative support with regard to scheduling.

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14. In order for ICBS to be effective, the SLP and classroom teacher need to share complimentary teaching styles.

1 = Strongly disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

15. In order for ICBS to be effective, the SLP and classroom teacher need to receive administrative support with regard to the allocation of school resources (e.g., money for materials, supplies, technology, and/or training).

1 = Strongly disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

16. In order for ICBS to be effective, the SLP and classroom teacher need to have time to plan together.

1= Strongly disagree   2 = Disagree   3= Neutral   4= Agree   5= Strongly Agree

17. In order for ICBS to be effective, students need to be carefully grouped so that all or most caseloads at a given grade level are in the same classroom.

1 = Strongly disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree
18. In order for ICBS to be effective, both the SLP’s and teacher need to have their skills and knowledge valued by each other.

   1 = Strongly disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

19. Finding time to consult with team members is not a problem.

   1 = Strongly disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

20. IEP goals for language are easily targeted using ICBS.

   1 = Strongly disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

21. IEP goals for speech sound errors are easily targeted using ICBS.

   1 = Strongly disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

22. When ICBS are used, communication targets are carried over into the classroom.

   1 = Strongly disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

23. ICBS allows students with communication weaknesses to significantly learn from their peer models.

   1 = Strongly disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

24. ICBS allow for opportunities to appropriately reinforce target behaviors (e.g., skills, strategies) in the classroom.

   1 = Strongly disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

25. The behavior management of the students with communication weaknesses is not a problem in the classroom.

   1 = Strongly disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

26. Data collection is facilitated using ICBS.

   1 = Strongly disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree

27. ICBS is an effective service delivery model for students with communication impairments.

   1 = Strongly disagree   2 = Disagree   3 = Neutral   4 = Agree   5 = Strongly Agree
Thank you for participating in this study of school principals and school pathologists. Your input is very important to us, and we appreciate your feedback.
REFERENCES


Ehren, T. C. (2007, October). *Promising practices to prevent pitfalls in RTI*. Presentation at the meeting of the Ohio School Speech Pathology Educational Audiology Coalition, Akron, OH.


Tollerfield, I. (2003). The process of collaboration within a special school setting: An exploration of the ways which skills and knowledge are shared and barriers are overcome when a teacher and speech and language therapist collaborate. *Child Language Teaching and Therapy, 67*-84.


