Abstract

Inclusive education is an approach to mixing special education and general education students in classroom settings to promote diversity, lifelong learning and create a more equitable society. An overview of practices in inclusive education can inform stakeholders of the status of inclusive education, describe the contextual factors which affect program implementation, and make recommendations of practical start-up or improvement steps for inclusive education programs.

A qualitative approach and phenomenological strategy helps to focus on the ecological aspects influencing the implementation of inclusive education in mainstream general education schools on Long Island, New York, USA. Ecological Systems Theory (EST) (Bronfenbrenner, 1979) was used as the theoretical framework for the study. Observation and semi-structured interviews were conducted with 10 participants from two schools to gather data. The investigation revealed that the implementation of inclusive education is influenced by facilitators across the entire ecological system of the schools.

Introduction

In recent years, inclusion of students with special learning needs in general education classrooms has been accepted policy among U.S. general and special educators, disability activists, and parents of children with disabilities. The assurance of all civil rights to individuals regardless of their disabilities is also a focus in policy debates and applied practice. The concept of inclusive education as a holistic reform strategy calls for a single system of education that serves all the children (Mitchell 2005; UNESCO IBE 2008).

Issues concerning ‘human rights’, ‘equal opportunities’ and ‘social justice’ are linked to the idea of inclusive education (Armstrong and Barton 2000, p.1). National and international research generate a deeper understanding of inclusive education where every learner, irrespective of disability, can participate and maximize their potential (Booth 2001; New Jersey Coalition for Inclusive Education 2010).

In the United States, many research studies have been conducted to explore the current practices of inclusive education. Through the passage of a wide range of legislation including Education for All Handicapped Children Act (EAHCA) of 1975, Americans with Disabilities Act (ADA) of 1990, No Child Left Behind (NCLB) of 2001, and most recently, Every Student Succeeds Act (ESSA) of 2015, public policy at the federal level aimed to provide a free and appropriate public education to all students regardless of their disability status. More importantly, research studies conducted in the US reveal some political, epistemological, and institutional factors that have facilitated a more child-centered public education (McLeskey, Rosenberg, and Westling 2009; Kauffman and Hallahan 2005).

On the other hand, research points out that in the name of “education reform,” public schools have been transformed into kindergarten-12 pressure cookers. Too many children are required to read before they are able to and have difficulty mastering overly-challenging math skills at far too young an age. This narrowed, accelerated, one-size-fits-all curricula model, reinforced by stressful high-stakes testing, has meant that proven pillars of successful education have been pushed aside. Social and emotional learning, discovery through play, physical activity, academic learning through inquiry have been reduced to allow for more teaching and drills related to state-tested subjects (Kiser 2007).

In this context, inclusion of students with disabilities into general education classrooms has faced many challenges in its implementation among which teacher relationships, proper training for co-teaching, student grouping, and assessments are the major barriers. Ainscow, Dyson, Goldrick and West (2012) argue challenges must be confronted and pose the question “What needs to be done to move policy and practice forward?” (p. 150). To know what must be done, current systems and practices need to be better understood, through the undertaking of quality, in-depth research into inclusive education (Ainscow and Miles 2011).
The *ecology of inclusive education* delivers a framework with which to examine how inclusive education occurs in the school setting. With increased understanding, the current policy and practice can move forward and “make the physical, social, cultural and educational arrangement of schooling better for all” (Slee, 2011 p. 13). The purpose of this investigation is to explore the cultures of two schools, to examine how inclusion occurs and uncover the barriers and facilitators to the implementation of inclusive education.

**Inclusive education and Bronfenbrenner’s ecological framework**

Bronfenbrenner’s (1979) conceptualization of the “ecology of human development” provides a useful theoretical framework for conducting the research work on the implementation of inclusion. He proposes that human development is influenced by factors operating at different “systems levels” within a broad, ecological structure. These different levels exert reciprocal influences on one another. For a child with special needs in an inclusive education setting, the four systems describe the interwoven networks of transactions that create an individual’s ecology.

The first systems level, called the “microsystem,” describes the factors within a child’s immediate environment. Any transaction between the child at the center and any one other person is a microsystem transaction (Bronfenbrenner 1979; Duerden and Witt 2010). The importance of the child’s actions, reactions, and interactions with others in the microsystem would be determined by others’ beliefs and practices; this is useful in understanding a disabled child’s development. Thus, interactions in well-running microsystems are considered to be the provision of high quality, friendly, and diverse learning environments for all (Opertti and Brady, 2011).

The mesosystem encompasses “the interrelations of two or more settings in which the developing person actively participates (such as, for a child, the relations between home, school, and neighbourhood peer groups)” (Bronfenbrenner 1979, p. 25). For example, family members’ beliefs about inclusion and the family’s relationship with school personnel affects the inclusion process. Similarly, how children with disabilities relate to typical peers in the classroom setting may affect relationships outside class (e.g., invitations to birthday parties). Inclusive pedagogies, practices, and tools imply, among other things, a move away from overloading students with dictating theoretical and academic knowledge towards a focus on active student participation and learning (Opertti and Brady, 2011).

Moving outward, the exosystem consists of settings “that do not involve the developing person as an active participant, but in which events occur that affect, or are affected by, what is happening in the setting containing the developing person” (Bronfenbrenner, 1979, p. 25). The service delivery agency (the school) responsible for an inclusion program provides an example of an exosystem setting.

The macrosystem envelops the micro-, meso-, and exosystems. Bronfenbrenner defined the macrosystem as “consistencies in the form and content of lower-order systems . . . that exist at the level of the subculture or the culture as a whole, along with any belief system or ideology underlying such consistencies” (1979, p.26). All settings at each level operate within a cultural context. The culture of special education, for example, values inclusion as a practice and has been influenced by the movement toward “normalization” (Wolfensberger 1972), by advocacy organizations (DEC, 1993; TASH, 1988), and by federal law. Many families and professionals now endorse the inclusion of children with disabilities in typical classroom or learning settings and for everyday community activities.

**Methodology**

The purpose of this research was to explore ecological aspects that influenced the implementation of inclusive education in two mainstream schools on Long Island, NY, USA. To explore the phenomena of inclusive education in this context, a qualitative research approach was adopted. “Qualitative research methods enable the researcher “to grasp the meanings of actions, the uniqueness of events, and the individuality of persons” (Walker and Evers 1999:43). Data gathering in this investigation was conducted by means of semi-structured interviews and field observations to ensure that data collected from all the interviewees had a relationship to the actual school and classroom settings (Leedy and Ormrod, 2010).

Face validity applied to the interview open-ended questions that related to experiences participants encountered in their involvement with inclusive education (Struwig and Stead 2001). This method was supplemented by the observation of the classes and school environment to examine how barriers to learning were managed in the participating schools. A checklist was used to verify this information and, where necessary, additional notes were made for integration with data obtained from the interviews. Observations, according to Hartas (2010), also helped to increase the credibility and reliability (trustworthiness) of the study since it was possible to see how educators dealt with learners experiencing barriers to learning. Purposeful sampling was employed to elicit the most information rich sources in the field of research (Leedy and Ormrod 2010:147). Interviews were conducted with a total of 12 participants including two school principals, and 10 school teachers from selected mainstream primary schools.

The interview schedule comprised eight open-ended questions that probed teachers’ understanding of current practices, the extent to which these practices encouraged and facilitated inclusion in their respective schools, their experiences with what currently worked well and the challenges they faced in the implementation of inclusive education. All interviews were conducted on a one-to-one basis at a pre-agreed time and were digitally recorded and transcribed. Using a content analysis approach, interview data were analysed thematically. The study adhered to standard
protocols for the ethical conduct of research and received approval before commencing.

Bronfenbrenner's Ecological Systems Theory (EST) was adopted as a useful theoretical framework to investigate inclusion. This theory enabled the exploration of various internal and external factors which interacted and influenced inclusion. EST is considered useful in a naturalistic case study research on inclusive education in that this phenomenon is in relation to real-life contexts (Llewellyn and Hogan, 2000). This is in line with the EST framework that perceives interactions and relationships as 'two-directional' (Bronfenbrenner 1979) and reciprocal, which means that successful interactions depend on interactive partners who deliver and receive services.

The objective of the methodology adopted was to find multiple perspectives in line with EST that focus on the role of subjectivity within collected data and thus the need to consider the perspectives of different people (Bronfenbrenner 1979). EST indicates that different members of a system (in this case, two principals and ten teachers) can influence developmental outcomes. The teachers' perspective was important as it indicated the good connection in the sub-systems as well as the challenges they faced. From an EST perspective parents' views should be included, as they play a major part in providing interactions, thus shaping the degree to which they experience social inclusion or exclusion. In this study, the researchers did not have access to parents.

Finally, conducting observations was compatible with EST to explore the inclusive education phenomenon in relation to the system in which it is embedded. Hence the observations focused on classroom routines and school environments in periods during which students were free to mix and interact with their peers in a natural way.

Findings

From the collective analysis of observations and semi-structured interviews, major themes emerged in relation to inclusive education practices in these two schools at microsystem, mesosystem and macrosystem levels. These interviews and observations revealed an ecological narrative in the implementation of inclusive education practices.

Inclusive Education at the Microsystem Level

Findings at this microsystem level revealed physical learning spaces, resources, classroom practices and interactions that both supported and at times discouraged the students with special education needs in an inclusive education setting.

All the teacher and principal responses confirmed that flexibility in teaching techniques to accommodate different learning styles of students provided equitable developmental opportunities for all learners. Field observation indicated that teachers created a balance between the use of individualized educational plans through teaching materials specially designed for students with special education needs, and through active participation in group work. Some teachers attempted to include all children in all activities by designing classes in such a way that students with special education needs could present their strengths and talents.

In both schools, teachers used alternative modes of assessment. The principals and teachers highlighted the importance of multiple and overlapping collaborations between students with special needs and two or three adults in the classroom who provided timely support for children with special needs. Both schools had enabling structures where the lead teacher assumed the responsibility for the whole group activities and individual instruction. When children worked independently or in small groups, adults circulated in the room to provide individual support.

Observations of the staff indicated resources and services promoted active participation in learning by all students. Students with special needs and teachers who are expected to instruct them require specialized materials, resources, equipment, knowledge, and personal support that specifically address individualized learning. School resources run the gamut from special equipment, technology, materials, teaching manuals, special curricula, wheelchairs, prosthetics, ramps and accessible toilets. Support can also take the form of peer support for students, computer-assisted technology, and paraprofessional support to integrate services. In addition, teachers' flexible use of methodologies in the classrooms helped learners through diverse presentation and manipulation of materials and lesson designs for best individual learning opportunities.

Both school buildings had structural modifications to accommodate the needs of students with limited mobility. All the participants were aware of the importance of those modifications resulting in students' easy access to everything. A principal commented:

Just imagine if learners with mobility problems have to climb steep flights of stairs without any help to get to the first-floor classrooms … This would put a physical and emotional strain on these students, and it would affect their ability to learn (P1).

Both schools had self-contained classrooms for students with severe disabilities. These students had different physical spaces which reduced their opportunities with peer interaction. When probed about this segregation, a teacher responded:

Severely handicapped students might do better in some more protected or appropriate setting (at least sometimes). They are segregated into special classrooms because they can receive more help than overworked teachers in typical classrooms can provide (T5).
IE at mesosystem level

The findings at the mesosystemic level indicated the nature of different collaborations and cooperation to promote the student learning. Field notes revealed multiple levels of collaborations among staff members.

An analysis of the interview data revealed that classroom teachers and principals recognized the value of collaboration and identified a range of benefits from these collaborations such as better and creative approaches to teaching students, discussing the curriculum, and regular communication about student progress at different levels.

A teacher commented:

I think that sometime while I teach a student with special needs, I get struck and wonder what happened. Then our psychologist intervenes, and we work together to sort this out (T3).

School observations, and principals’ and teachers’ responses pointed out organizational features that supported teaming among staff. The schools have a fixed room for the team of personnel including psychologist, nurse, speech therapists, special education teachers, and general education teachers where they sit together and talk about the educational planning of the students with special needs. The interview responses indicated that the meetings times were scheduled informally and many teachers actively allocated time for collaborations.

Participants of one school identified some challenges such as some parents did not take active interest in the education of their children with special education needs, and they relied upon the school for the progress of their children. A principal commented:

Some parents are disengaged and hard to reach...I think that here in the US there are some cultural and language barriers which prevent parents from creating a partnership with schools. Some parents also lack the skills necessary that enable them to advocate for their child’s needs (T1).

The school principals believed that parental involvement was very crucial for the learning of students with special needs in an inclusive education setting. Thus, school principals attempted to arrange activities to involve parents in all aspects of a child’s learning.

IE at the exosystem level

The findings at the exosystemic level indicated that the school administration structures, school rituals, school policy, and school procedures have enabling or disabling effects on the growth of students with special needs in that system.

Both school staff members made efforts to support students with special education needs by arranging events for all students. For example, a teacher reported, ‘We organize kids’ visits to parks, museums, and also arrange fun activities such as let’s have fun in the snow break”. The school provided musical instruments and has offered students with special education needs opportunities to display their skills in choir festivals. By participating in the school choir and the orchestra, students with disabilities increased their participation in school life.

Teachers and principals were questioned about the ways these events were carried out and amount of help they received from different support groups. The response of one school indicated that they needed more parental support which they did not always receive. However, the principal of the other school used different approaches to design events and activities that ensured students with disabilities were also included. For instance, the school and teachers of this school involved families in after-school activities. The principal described the positive impact of these activities on the development of students with special needs. These parents worked in close collaboration with school teachers. This program was designed to augment the family support provided by classroom staff members within center-based preschool programs. The principal elaborated that this program had strengthened family-community relationships. The parents already working in the program provided information and supported other families who were receiving early intervention services in the same community. The parents of children with disabilities acted as a liaison between families and professional staff, the agency, and the broader community. Teachers reported that families who participated in this after school activity program benefited in multiple ways such as getting information about different disabilities, resources, placement options, legal rights, transition, and self-help skills training. A teacher commented:

I think these programs develop parenting skills. Parents are provided support and information, which in turn has helped them to provide better service and advocate for their children (T7).

However, teachers reported that it was difficult to have all the parents of children with disabilities in such programs.

IE at Macro level

School observation along with teachers’ and principals’ interviews revealed some factors that existed outside the physical environment of the school that influenced the inner systems within the framework and, consequently, the learner at its center.

At this macrosystem level the schools’ mission statements, field notes and interviews indicated beliefs, values and subtle norms that promoted an accepting, tolerant and positive environment for all students. The field notes reflected the culture of both schools which indicated a willingness to struggle to sustain inclusive practices. The dignity of students with special needs was respected.
The students with the disabilities pursued the same learning outcomes as the students without disabilities. In order to respect privacy, staff discussed students' personal history, medical needs and other sensitive issues out of the earshot of the students. Students with disabilities worked on the same level content standards as typical peers.

The findings indicated that principals and teachers made sure that students with disabilities should not be discriminated against, rejected, labelled, and stereotyped by their peers as a result of them being different. In both schools, principals displayed leadership qualities by their behavior and example. Field notes illuminated the leadership behavior of the school principal:

She warmly welcomed the school kids as they stepped out of the bus. She showed empathy especially towards the students with special education needs. A student with the special need (emotional and behavior disorder) was looking a little dejected and she hugged him. This made a flicker of smile on the child’s face. Another child with down syndrome came running towards her. He appeared to have already developed intimacy towards her. The principals’ rapport with the students with special needs was remarkably felt. (Field notes)

Principals explained that implementation of inclusive education became challenging as schools operated in tightly controlled education systems with high levels of accountability and expectations for continued improvement. Both principals exhibited their understanding and acknowledgement of diversity and differences. Both principals demonstrated their priorities to hire competent and skilled professionals for students with disabilities in an inclusive setting. Principals and teachers attempted to create a culture of inclusion and acceptance in the school through displaying posters and charts on soft boards and walls about the themes of tolerance, appreciation of diversity and difference, and anti-bullying and care for others. In both schools, student recital of the national pledge without invoking any religion makes the environment of the school more inclusive and flexible.

Discussion

The purpose of this research work was to investigate inclusion and explore various factors that interacted and influenced inclusion in these two mainstream schools using Bronfenbrenner’s EST theoretical framework. In recognition of the time-bound nature of the study and small sample size, the findings are not representative of inclusive education practices in the schools throughout the United States. However, the findings of this study illuminate some key issues of inclusive education practices that have implications for school and classroom practice.

First, the findings of this study indicated that interaction among the subsystems uncovered some barriers and facilitators to the implementation of inclusive education. Teachers and principals felt that facilitators had the potential to inform school practice and improve educational outcomes for children with special education needs. Second, respondents identified specific barriers to implementation of inclusive education such as a lack of parental support and variation in perceptions for the appropriate placement of students with special needs in a segregated setting.

It is widely accepted that factors in a child’s microsystem such as school teachers, classroom practices, family involvement and support are important for the success of inclusive programs (e.g., Palmer, Fuller, Arora, and Nelson 2001; Salend 2006). The findings of this investigation indicated that these two mainstream schools were generally very accommodating and user-friendly microsystems for learners with special needs. The efficiency of these microsystems was enhanced by structural modification among the participating schools to accommodate the needs of learners with limited mobility.

In addition, teachers employed a variety of teaching techniques to accommodate diverse learning styles of learners and provided equal development opportunities for all learners and used alternative modes of assessment. The literature indicates that for pupils with special education needs, teacher collaboration can maximize access to a wider range of instructional options and improved academic outcomes (Hang and Rabren 2009). Within the microsystems of these schools the child with disabilities was viewed as a developing individual who needs to have conducive environments to grow. However, the current study identified that in one school the micro system had a segregated setting for children with severe disabilities. In that school, students with severe disabilities were not mainstreamed even for non-academic activities such as playing games, taking lunch, listening to music, dancing and other physical activities. The lead teachers explained that children were segregated into special settings because they could receive more help than overworked teachers in typical classrooms could provide. It was noted that students with severe special education needs in a self-contained setting in that school did not participate in other activities with their peers without disability. The microsystem has some invisible assumptive barriers for the growth of those students in that system. For instance, a special education teacher said "the children in self-contained classrooms are kept separate in all the activities because they create a mess for themselves as well as for others.”

The findings of this study indicated that providing services to students with severe disabilities with their non-disabled peers in the general education classrooms emerged as a challenge. Though federal policy in the US has reinforced the inclusive practices and many schools have taken concrete steps to implement those practices for the positive growth of students, the segregation of students with severe needs for more individualized and confined instruction continues to be an accepted choice in spite of its reported disadvantages (Falvey, 2004; Agran, Cavin, Wehmeyer and Palmer 2006).
Researchers confirm that if the nature and severity of the student's disability prevent him/her from achieving these learning goals in a regular classroom setting, the student would be placed in a more restrictive environment, such as a special school or a homebound or a hospital program (Turnbull, Turnbull, Shank, Smith, & Leal, 2002). On the other hand, the research also recommends that students with special education needs should not belong to any other separate, specialized environment based on the characteristics of their disability (Halvorsen and Neary 2009).

Differences of perceptions on the placement of students with severe special education needs could be the result of many factors such as school policy, general attitudes towards disability and overall societal or community environment. More broadly, the findings of this study indicate that while national and international policy for inclusive education has been given a strong voice, still a more critical review of dimensions of inclusive practice, particularly the professional presumptions on which it is based is needed (O'Connor, Hansson, and Keating 2012).

No studies conducted since the late 1970s have shown an academic advantage for students with intellectual and developmental disabilities educated in separated settings (Falvey, 2004). Wehmeyer, (2006) identified the general education classroom as the optimal place where access to general education curriculum occurs. There are some cases where a self-contained setting will best serve the academic needs of a special education student. In these cases, while the academic subjects may be taught best in a self-contained setting, it is important to include the students in general education classes and settings, such as art, physical education, music, lunch, and recess. The aim of the self-contained setting, for some students, is to give them the opportunity to learn the most they can - and perhaps move into an inclusive setting - even if it is only for a subject or two until they can move in permanently. The presence of students with disabilities provides a catalyst for learning opportunities and experiences that might otherwise not be part of curriculum, especially related to social justice, prejudice, and equity issues (McGregor and Vogelsberg 1998).

The nature of the different collaborations and cooperation between relevant persons to promote the student learning at the microsystemic and mesosystemic level were identified as the most important factor to promote inclusive practices. Inclusive education required a high percentage of open learning, such as working with a weekly schedule for individual students, different learning stations, differentiated instruction and discussion groups (Kourkoutas and Raul Xavier 2010; Poon-McBrayer and Wong 2013; Singal 2006).

In these two schools, collaboration among school staff helped to create a positive environment for promoting inclusive education practices such as instructional planning and classroom routines, communication about instructional methods and diagnosis of different special needs with the involvement of different experts enabling an eclectic approach and multi-level interventions (cognitive, socio-emotional and behavioral). Collaboration among diverse staff proved to be the main factor fostering a positive inclusive practice in support of previous research conducted by Kourkoutas 2007; Rose and O'Neill 2009).

Given that inclusive practice depends also on the collaboration of different persons related to students with special education needs, the findings that parents are insufficiently engaged indicate barriers to more successful implementation of inclusive education in these two schools. The current study indicates how important it is to create parent partnerships with the schools. Engaging the families of both general and special education students should be a top priority for all schools. According to Digman and Soan (2008), children who are negatively influenced by their home environments struggle to meet academic demands and to manage their relationships with others. Parents of students with disabilities look for positive attitudes, good educational experiences, and acceptance of their child among educators (McGregor and Vogelsberg 1998). The schools should provide multiple opportunities for parents to understand features of inclusive programs. The provision of an opportunity for parents and family members to ask questions and share concerns about their needs and priorities in a supportive and non-judgmental environment goes a long way toward building a collaborative relationship with the family.

Conclusion

This study showed that two schools on Long Island handled their inclusion classes in different ways. In both schools, we conclude that our schools depended on collaborative practices and a positive climate to provide the best learning opportunities possible for the students with and without disabilities.

Every school should provide the teachers and other support staff an opportunity to collaborate regularly. During this time, they can plan their lessons together and devise student-centered lessons and activities. Each teacher should have an equal role in creating the lesson.

Administration should also provide time where the co-teachers, school psychologist, social workers, guidance counsellors, and administration can meet to discuss the individual and group needs of the students. Professional development should be provided to the schools to promote various forms of effective co-teaching methods.

When we focus on a child's growth over time; whether it is a child in an inclusive setting or not, school districts must become reacquainted with child development and how and when children learn from a developmental perspective. An inclusive setting is paramount to not only offer opportunities for social, emotional and intellectual growth, but teachers and practitioners must never forget to meet children "where they are" in their development.
Finally, it is crucial that parental involvement for all students be a priority of the school. The school administration can foster this by holding informational nights, game nights, encouraging parental involvement in the Parent Teacher Association (PTA), and providing parents with resources that they can use at home to address the needs of their children.

References


Khazima Tahir, Ed.D., conducts research in Pakistan, New Zealand and the United States.

Brian Doelger, Ed.D., is an elementary school Principal in Middle Country School District, New York.