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Kimberly Rombach Ph.D.  
rombachk@cortland.edu

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Clarifying Research Synthesis on Inclusion:  
Using the Inclusion Definition Instrument (IDI)

Kimberly Rombach

State University of New York College at Cortland

Abstract

Synthesizing research on inclusive education is essential to developing a wide-scoped view of knowledge that has been gathered from previous studies. There are key components central to the practice of inclusive education that need to be revealed to fully understand the context of inclusive classrooms. This article distinguishes the need for contextually defining inclusion and introduces the Inclusion Definition Instrument (IDI) that can assist researchers to better identify specific characteristics of the context of their studies on inclusion.

Clarifying Research Synthesis on Inclusion:  
Using the Inclusion Definition Instrument (IDI)

Oftentimes scholars synthesize findings from small and large-scale studies to formulate reviews of previous research. Such a synthesis often involves compiling, comparing and contrasting findings so researchers can create a coherent, comprehensive representation of previous studies. When measures are taken to synthesize research findings for this purpose, it is essential that the topics of each study are well identified and understood so connections can be made between studies with similar topics. Care must be taken not to connect research of dissimilar topics because such syntheses may lead to misrepresentations and misunderstandings of findings. Moreover, if key variables inherent to those

studied are vaguely discussed and defined when findings are compiled, reviews of research may fall short on their promise.

Conducting, reviewing and synthesizing research on inclusive education practices is not new. Syntheses of studies on "including/mainstreaming" students with disabilities in general education classrooms have included studies published as far back as 1958 (Scruggs & Mastropieri, 1996; Salend & Duhaney, 1999). Indeed, the scholarly community interested in research findings on inclusive education has nearly fifty years of studies on the many different aspects of inclusion.

The term inclusion has often been misunderstood both in its definition and practice. Crockett and Kauffman (1998) reported on the complexities of studying inclusive education; multiple definitions and interpretations of inclusion "pose a challenge for those wishing to study it more systematically because practices described as inclusive differ markedly from setting to setting" (p. 74). Furthermore, the definition of inclusion has varied from placing students with high-incidence disabilities in general education classrooms throughout part of the day with little or no support from the special educator to placing students with low-incidence disabilities in a general education classroom throughout the entire school day (Guetzloe, 1999). Certainly, there has been no shared definition or practice of inclusion in the larger educational community.

When educational studies are planned, conducted and published, they are often linked to prior research and with each linking, researchers often intend to widen and deepen the understanding of educational phenomena. "Each research study provides a small piece to a much larger puzzle and should, in some way or another, fit into a larger scheme" (Suter, 1998, pg. 71). The linking of research findings is often intended to provide a description of ways that new knowledge gains are related to previous findings. Inherent in each study's design is a conceptual framework that provides the reader a context to situate findings (Suter, 1998). If a study's conceptual framework does not define the fundamental components that are central to topics being investigated, misinterpretations may be made

regarding the studies' goals and subsequent findings. A plethora of researchers have unquestionably made important contributions to the field of inclusive education by presenting research findings in meaningful and useful ways for both scholars and practitioners (Scruggs & Mastropieri, 1996, Salend & Duhaney, 1999). Yet, without a consistent method to contextually define inclusion, researchers may be inadvertently synthesizing data on inclusion that may have been gathered in settings and from participants that were dissimilar to each other. Research practices such as this may unknowingly lead to misinterpretations of data. Certainly, if such linking and synthesizing research on inclusion has been made, it has not been meant to intentionally deceive the readers. Rather, we as researchers often connect studies as a methodological necessity when establishing a conceptual framework for research. However, since the term inclusion has often been associated with countless different definitions (Guetzloe, 1999; Kauffman, 1999), it is critical that we as researchers begin to utilize a consistent method to contextually define inclusion when establishing the contextual framework of studies. To date, there is no tool currently being used to disclose variables inherent to the concept of inclusion. Not surprisingly then, much research has pointed to the conflicting and "mixed" findings that studies have revealed regarding inclusive education practices (Ferguson & Ferguson, 1998; Scruggs & Mastropieri, 1996; Soodak, 1998; Salend & Duhaney, 1999). Why have findings from studies on inclusion throughout the past fifty years yielded such conflicting and "mixed" results? The answer to such an essential question may be found in recognizing how practitioners and researchers have utilized wide and varied definitions of inclusion. There are key components of inclusive education that must be revealed when discussing and linking findings of published studies. Without describing the key components of inclusive settings, findings may inadvertently lead to misinterpretations of studies.

My argument is not against linking and synthesizing findings to better understand the practice of inclusion; rather, it is that we must begin to use a reliable instrument to specifically construct a contextual definition for the term inclusion when reporting research findings. Furthermore, when linking

and synthesizing research on inclusion, the contextual definitions of inclusion of each study must be carefully considered and fully understood when such connections are established. Utilizing a consistent tool to do so may assist researchers and readers in understanding studies on inclusion and their subsequent findings.

I address this concern by making known the key components that previous research has identified as essential to understanding inclusive education practices and introducing a new tool to identify these components. The new instrument, called the Inclusion Definition Instrument (IDI), provides researchers with a tool to identify and define the complex components of inclusion as variables that are specific to the participants and settings of their research.

#### The Complex Variables of Inclusion

There are many variables that are commonly found in the heterogeneously diverse classrooms of today (Sapon-Shevin, 2001) and research has identified numerous variables that are central to inclusive education practices. Being aware of each of these variables and the impact that they can potentially have on inclusive educational practices can help to better understand the necessity of including descriptions of each variable when contextually defining inclusion.

#### *Classroom Demographics*

Undoubtedly, those central to inclusion and inclusive education practices are the students educated in such programs. Classroom demographics vary widely when observing different inclusive classrooms and there are many student attributes that need to be revealed when conducting and reporting inclusive education research. Students of inclusive classrooms can vary in ability; students with high and low-incidence learning disabilities as well as students with high and low-incidence physical disabilities can all be taught in inclusive settings. In addition, students with emotional imbalances can also be taught in inclusive settings. When reporting findings on studies, it is imperative that the classroom demographics be revealed to better understand the teaching and learning contexts of those

studied (Smith & Smith, 2000). In an attempt to link findings, researchers may try to associate two or more studies that have included data from many teachers of inclusion that in all actuality might have been teaching in classrooms that were very demographically diverse from each other. Identifying the attributes of the students being taught in inclusive classrooms is essential to begin to fully understand inclusive research settings and findings. Some researchers have suggested that it is essential to disaggregate the phrase 'students with disabilities' by revealing types of disabilities in research studies (Fuchs & Fuchs, 1994; Kauffman, 1993; Soodak, 1998). Responding to this call, the IDI provides a tool to disaggregate student characteristics when reporting studies' findings. Readers of inclusive educational research will benefit from this disclosure because research contexts can be better understood when the students being taught in inclusive practices area well described. Additionally, class size and the number of students with disabilities in relation to class size must be considered when discussing inclusive education research (Smith & Smith, 2000). Such information can provide valuable information when establishing a contextual definition of inclusion.

#### *Teacher Attributes*

Existing research suggests that there are distinct attributes of teachers of inclusive classrooms that may impact their perceptions, attitudes and beliefs regarding inclusion (Villa, Thousand, Myers, and Nevin, 1996). For example, both general and special educators often play different yet complimentary roles in educating students in inclusive classrooms. It is essential that the attribute variables of all teachers be understood in the inclusive settings studied. Prior research on general educators of inclusion has suggested that many general educators believe that they are lacking necessary information to teach in inclusive classrooms and such a lack in information may impact their attitudes toward inclusion (D'Alonzo, Giordano & VanLeeuwan, 1997). Therefore, when identifying general education teachers who may be involved with studies on inclusion, it is essential that their prior knowledge including formal and/or informal education or training on inclusion be revealed (Downing, Eichinger &

Williams, 1997). Furthermore, special educators who are associated with general educators when teaching in inclusive classrooms need to be better understood. Special educators' prior knowledge about inclusion and their role in inclusive practices need to be revealed as well. Historically, special educators have worked separate from general educators and were often educated to work in separate classrooms to teach students with disabilities (Downing, Eichinger & Williams, 1997). "In response to the pressures of inclusion... special educators are moving out of their classrooms and resource rooms to become inclusion facilitators, inclusion teachers, support specialists, and teacher consultants" (Ferguson & Ralph, 1996, p. 49). Research has indicated that special education teachers often collaborate with general educators when teaching in inclusive classrooms (Hewitt, 1999). Such teaching arrangements need to be more fully understood when reporting on inclusive education research. With these varied and changing roles of the special educator, it is essential that studies reveal how and in what ways the special educator is involved in inclusive classrooms.

Prior research has also indicated that there are considerable differences in the amount of time that special educators work alongside general educators in inclusive classrooms ((Downing, Eichinger & Williams, 1997). To better understand the complex nature of inclusion, it is critical that researchers reveal the time allotment that the special educator(s) use when teaching in inclusive classrooms.

#### *Support Staff Attributes*

Support staff of inclusive education classrooms can include speech and language therapists, occupational therapists, physical therapists, school psychologists, teaching assistants, teaching aides, and other paraprofessional who work alongside the general and special educators to assist in providing instruction and support for students with disabilities in inclusive classrooms. Prior research has indicated that "support from a team of professionals" is a critical support to teaching in inclusive classrooms (Werts, Wolery, Snyder & Caldwell, 1996). Therefore, it is important that research studies on inclusion identify all support staff that is part of a program being used to teach students in inclusive classrooms.

Explaining the role of the support staff and the percentage of the school day that the support staff works with the general and special education teachers to teach students in inclusive classrooms is an important component needed to fully understand inclusive education settings (Smith & Smith, 2000). Furthermore, disclosing the support staff's prior educational background on inclusion is also a variable that needs to be revealed in a research study on inclusion.

### *Service Delivery Model*

When combining the above information to describe the various components of inclusion in published research studies, the descriptions of such components can be viewed as variables and can be used to create a contextual definition of inclusion. This contextual definition of inclusion can be utilized to describe a particular service delivery model and could be used to more precisely depict the context of studies on inclusion. Consequently, explaining the service delivery model of inclusion can then be utilized to set up a contextual definition of inclusion in research studies.

Prior research has pointed to various teachers' perspectives of different types of inclusive service delivery models (Odom, et al., 1999); findings have suggested that perceptions, beliefs and attitudes toward inclusion are in part, informed by the particular service delivery models utilized by teachers implementing inclusive practices (Downing, Eichinger & Williams, 1997). Identifying and describing service delivery models by identifying the above components inherent to inclusive education practices may help to better understand studies on inclusion and the potential impact that they can have on future inclusive education practices.

### Why the Inclusion Definition Instrument (IDI)?

There have been few attempts to develop an instrument for methodologically describing a contextual definition of inclusion when conducting and reporting research. Much research on inclusion has well documented the multiple definitions and connotations of inclusion currently being used and assumed by researchers and practitioners (Kauffman, 1999; York & Tundidor, 1995). Yet, large and

small-scale studies continue to be linked together to systematically connect findings to situate research within a wider perspective. While this undertaking has undoubtedly led us toward developing a wide-scope view of inclusion, without carefully understanding and revealing the variables of each study, it is possible that the linked studies included variables that differed greatly but were not represented as such. Subsequently, such linking's may have led to misinterpretations of the synthesized data because different studies may have revealed findings from two different inclusive education contexts. With such undetected omission of variables, linked and compiled research data may offer wide-scope findings that misinterpret the situations studied. Perhaps most importantly, teachers' and students' experiences central to inclusive education practices may have been little understood because the variables inherent to their own settings may have been either omitted or minimally identified. No comprehensive instrument has been created to identify a contextual definition of inclusion in the same way as the Inclusion Definition Instrument; the IDI can provide researchers and readers of studies on inclusion a method of identifying the variables of inclusion so studies can be understood, linked, and synthesized to better comprehend the complex nature of inclusive education practices.

#### *Description of the IDI*

The Inclusion Definition Instrument consists of the three main components of inclusion previously described. They are the classroom demographics component, teacher attributes component and support staff attributes component. These three components contain variables that must be identified and described to establish a contextual definition of inclusion. The IDI is represented in Table 1.

The classroom demographics component is used to describe the grade level, number of children being taught in the inclusive classroom and children with and without disabilities. When reporting the disabilities that students have, it is important to note the type of disabilities students have been identified with. In addition, this component of the IDI is intended to provide a way to identify what

percentage of the school day students with disabilities are taught alongside their peers without disabilities.

The teacher attributes component is used to describe the teachers who work in the inclusive classrooms. This component identifies the general and special educators' educational backgrounds, years teaching in and out of inclusive settings and previous training on inclusive education practices. Prior research has shown that it is important to understand the way that two teachers may be working together in inclusive classrooms (Hobbs & Westling, 2002). In addition, the teacher attributes component of the IDI identifies the time that has been allocated each week for general and special educators as well as additional support staff to collaboratively plan lessons, modify materials for students with disabilities and meet to discuss students' goals and progress.

The support staff attributes component is used to reveal how and in what context the support staff work with the general and special educators to instruct students with and without disabilities in inclusive classrooms. Prior research has indicated that it is important to recognize the supports and resources that are utilized to teach students in inclusive classrooms (Werts et al., 1996). Identifying these supports that are used during inclusive education practices will help to better understand the context of students' learning and teachers' instruction. The Inclusion Definition Instrument provides a way that such information is revealed and described.

#### *What should be done now?*

Research on inclusion is an ongoing systematic study of teachers, support staff, educational programs and students that are taught in such settings. Many past studies have offered findings, suggestions and implications based on gathered data. Such studies need to be revisited to attempt to identify the contextual definitions of inclusion that may have been established by previous researchers. Perhaps more importantly, we have an urgent need for a synthesis of research on the myriad aspects of inclusion that carefully links studies that offer similar contextual definitions of inclusion to find trends,

similarities and differences among findings. As such, it is important that prior linked and synthesized research studies on inclusion are revisited and revised to better portray the findings of studies with similar contextual definitions of inclusion. We as researchers need to begin to monitor and distinguish the ways that fellow researchers are establishing contextual definitions of inclusion and work to establish a standard for such disclosure in published studies. This work will assist in better understanding inclusion and the complex nature of the variables associated with inclusive education practices.

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Table 1

**The Inclusion Definition Instrument (IDI)**

<b>Classroom Demographic Attributes</b>	
Variables to disclose	Class attributes including: <ul style="list-style-type: none"> <li>ÿ Grade level(s) of students in inclusive classroom</li> <li>ÿ Number of students registered in inclusive classroom</li> </ul> Student attributes including: <ul style="list-style-type: none"> <li>ÿ Number of students without disabilities</li> <li>ÿ Number of students with disabilities</li> <li>ÿ Nature of disabilities (mild, moderate, severe)</li> <li>ÿ Percentage of time per day that students with disabilities are in inclusive setting</li> </ul>
<b>Teachers' Attributes</b>	
Variables to disclose	General educator(s) attributes including: <ul style="list-style-type: none"> <li>ÿ Years' experience teaching in general education classrooms</li> <li>ÿ Years' experience teaching in inclusive education classrooms</li> <li>ÿ Prior training in inclusive education</li> <li>ÿ Amount of time per week allocated for planning with other staff involved in inclusive classroom instruction</li> </ul> Special educator(s) attributes including: <ul style="list-style-type: none"> <li>ÿ Years' experience teaching in special education classrooms</li> <li>ÿ Years' experience teaching in inclusive education classrooms</li> <li>ÿ Prior training in inclusive education</li> <li>ÿ Percentage of school day working in inclusive setting</li> <li>ÿ Amount of time per week allocated for planning with other staff involved in inclusive classroom instruction</li> </ul>
<b>Support Staff Attributes</b>	
Variables to disclose	Support staff attributes including: <ul style="list-style-type: none"> <li>ÿ Specific support staff used to plan and facilitate student(s) instruction</li> <li>ÿ Years' experience working with staff of general education classrooms</li> <li>ÿ Years' experience working with staff of inclusive education classrooms</li> <li>ÿ Prior training in inclusive education</li> <li>ÿ Percentage of school day working in inclusive setting</li> <li>ÿ Amount of time per week allocated for planning with other staff involved in inclusive classroom instruction</li> </ul>