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Preservice Teachers' Confidence in Teaching Students with Disabilities:

Addressing the INTASC Principles

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Abstract

A survey was developed from the Interstate New Teacher Assessment and Support Consortium's (INTASC) ten principles that specify what all general and special education teachers should know and be able to do to teach students with disabilities. Two groups of students, those in a general education only and a dual elementary/special education program, were surveyed. Teacher candidates in the general education program scored significantly lower across all variables as compared to those who were completing the dual preparation program. These results, similar to studies of general education teachers, indicate general education preservice teachers need more training concerning students with disabilities.

Preservice Teachers' Confidence in Teaching Students with Disabilities:

Addressing the INTASC Principles

Public school classrooms are becoming more diverse with general education teachers responsible for meeting the educational needs of all of their students. This requires that they have the knowledge and skills to support students with diverse learning needs. However, many general educators

do not perceive themselves as prepared to provide a meaningful education to students with diverse needs (Cook, 2002; Semmel, Abernathy, Butera, and Lesar, 1991). Included in this diverse population are children who live in poverty, who come from culturally and linguistically diverse backgrounds, and who have disabilities. Of particular concern is the education of students with disabilities in the general education classroom. The responsibility of all teachers is to ensure that students with and without disabilities are accessing appropriate curriculum and benefiting from their educational experiences.

The Individuals with Disabilities Education Act (IDEA) originally passed as the Education of All Handicapped Children Act of 1975, regulates the identification of students with disabilities. At present, approximately 11% of all school-aged children are identified as having a disability under IDEA. Approximately 95% of students with disabilities are included in general classroom settings for at least part of the school day, and 32% of all students with disabilities receive education in general classroom environments for most of the school day (U.S. Department of Education, 2001).

The inclusive schools movement necessitates that general education teachers be prepared to meet the needs of students with disabilities. Legislative mandates, organizations, parents, and advocates for individuals with disabilities have embraced the philosophy of inclusive schooling, that is, including students with disabilities in the general education setting to the greatest extent appropriate. The IDEA requires that students in special education be provided with access to the general education curriculum. There is an explicit requirement to include students with disabilities in general education classes unless they are not benefiting from their education. We continue to see movement towards the inclusion of students with disabilities, such as the No Child Left Behind Act (NCLB) of 2001 that calls for allowing all students access to the general education curriculum with the goal of their demonstrating academic competence. Further, NCLB emphasizes the use of scientifically supported teaching methods (NCLB, 2001).

The IDEA has emphasized teachers' accountability for the progress of all students, including those with identified disabilities. The requirement that all students participate in statewide testing requires that students with disabilities be provided with classroom experiences that will support their academic performance (Bowe, 2005). While the number of students with disabilities in general education classrooms has increased (O'Shea, Stoddard, & O'Shea, 2000), only one third of general educators feel well prepared to teach students with disabilities (U.S. Department of Education, 2001).

The Interstate New Teacher Assessment and Support Consortium (INTASC) recently developed a set of licensing standards that specifies what all teachers, general and special education, should know and be able to do to effectively teach students with disabilities. INTASC's *Model Standards for Licensing General and Special Education Teachers of Students with Disabilities: A Resource for State Dialogue* (2001) outlines the knowledge, dispositions, and performances deemed essential for all teachers in meeting the needs of students with disabilities, regardless of the subject or grade level being taught. Drafted by a committee of teachers, teacher educators, and state agency officials, the "standards represent a common core of teaching knowledge and skills that will help all students to acquire an education appropriate for the 21st century" (p. i). The intent of INTASC was for members of the public and profession to use standards to "(a) critically examine what a beginning teacher must know and do to teach students with disabilities effectively; (b) thoughtfully consider how teacher policy should change to support the vision articulated by these standards, and (c) creatively explore how K-12 schools and teacher preparation programs can be restructured to advance this vision" (INTASC, 2001, p. i).

The philosophy guiding the INTASC standards, referred to as principles, is consistent with the IDEA. An underlying belief is that all students should have access to the general education curriculum. INTASC developed principles that are specific to the field of special education that are required of both general and special educators. The ten INTASC principles are:

- Principle #1: The teacher understands the central concepts, tools of inquiry, structures of the discipline(s) he or she teaches and can create

learning experiences that make these aspects of subject matter meaningful for students.

- Principle #2: The teacher understands how children learn and develop and can provide learning opportunities that support the intellectual, social, and personal development of each learner.
- Principle #3: The teacher understands how students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse learners.
- Principle #4: The teacher understands and uses a variety of instructional strategies to encourage students' development of critical thinking, problem solving and performance skills.
- Principle #5: The teacher uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.
- Principle #6: The teacher uses knowledge of affective, verbal, nonverbal, and media communication technologies to foster active inquiry, collaboration, and supportive interaction in the classroom.
- Principle #7: The teacher plans instruction based on knowledge of subject matter, students, the community and curriculum goals.
- Principle #8: The teacher understands and uses formal and informal assessment strategies to evaluate and ensure continuous intellectual, social and physical development of the learner.
- Principle #9: The teacher is a reflective practitioner who continually evaluates the effects of his or her choices and actions on others (students, parents, and other professionals in the learning community) and who actively seeks out opportunities to grow professionally.
- Principle #10: The teacher fosters relationships with school colleagues, families, and agencies in the larger community to support students learning and well-being (INTASC, 2001).

Specific competencies were identified for each of the ten principles; four to six competencies were identified for each of the ten principles. To date, there is no instrument that has been used to assess general education teachers' perspectives on their competence to meet the needs of students with disabilities based on INTASC principles. Understanding teachers' self-assessment of their knowledge and skills related to education, and specifically to providing support for students with disabilities is important for our understanding of what areas may need to be addressed through teacher preparation programs or through other professional development opportunities. The ten principles that all teachers, general

and special education, need to know are of particular importance as these align with and support inclusive practices.

Although there have not been any studies that have specifically examined teachers' attitudes on their ability to effectively address these standards, a number of studies have examined general educators' attitude toward and competence in teaching students with disabilities. Research indicates that general education teachers question their knowledge and skills when teaching students with disabilities and often feel that making adaptations are not feasible, and do not see the merit of individual accommodations (Schumm & Vaughn, 1991). Teachers in general education classes have tended to use generalized "blanket" approaches when providing instruction to their class (Baker & Zigmond, 1990; McIntosh, Vaughn, Schumm, Haager, & Lee, 1993). Further, teachers with less positive attitudes toward inclusion have reported using fewer and less substantive accommodations and modifications for their students with exceptional learning needs than teachers who have a more positive view of inclusion (Bender, Vail, & Scott, 1995). It is difficult to determine which precedes the other: negative attitudes toward inclusion or lack of confidence in implementing individualized adaptations to support learning. Promoting teachers' receptivity to including and teaching students with disabilities may be enhanced if practical supports are provided.

Kamens, Loprete, and Slostad (2003) found that general education teachers reported the need for more education and information. Specifically, teachers wanted information about children with disabilities in the areas of classification, characteristics and how to provide appropriate adaptations and accommodations. Kamens et al. recommended "preservice general education programs should include more knowledge and skills about special education" (p.24). Foundational information (e.g., legal requirements, characteristics) is important; however, it is not adequate for effectively supporting students with exceptional learning needs. If teachers are to have the knowledge and skills to work with all students, then they need to develop a repertoire, including behavioral and instructional strategies,

which will enable them to effectively meet the needs of students who are struggling in school due to a disability.

Special educators and general educators need to be provided with the tools to support students with disabilities if the goals of inclusion are to be realized. Although efforts have been made to provide general educators with some background in their pre-service preparation programs, there is evidence that simply requiring a course or two in special education or minimally modifying existing course content does not adequately prepare educators to address the needs of students with disabilities (Stayton & McCollum, 2002). Institutions of higher education have the responsibility for preparing individuals at the pre-service level to meet the demands of the field. Course and fieldwork should provide information and experiences that will enable pre-service teachers to have the competence and confidence to effectively address the academic, behavioral, and social challenges of students with disabilities.

Programs that address both typical development and the specific needs of students with disabilities have provided teacher candidates with the background to address the diverse needs of children and their families (Lamontagne, et al., 2002). Integrating content across programs may be more beneficial to supporting pre-service teachers who inevitably will be faced with working with diverse student populations. An example of how a program can be structured to address the learning needs of both students with and without disabilities is dual preparation, an approach that emphasizes the integration of content and field experiences across both general and special education. Dual preparation programs that provide content, pedagogy, and field experiences across general and special education may be a more viable option enabling teacher candidates to meet the challenges of the increasing diversity of our student populations. One of the main advantages of dual preparation is that educators acquire the background and knowledge to work with students with and without disabilities.

At the University of Hawai'i, dual certification requires teacher candidates to take coursework and fieldwork from two departments, Special Education and the Institute for Teacher Education. Data

obtained for a dual preparation cohort revealed that students had positive experiences and had benefited from the exposure to different theories and methodologies (Jenkins, Pateman, & Black, 2002). Jenkins, et al. presented specific examples of how the program was structured, specifically on the integration of course requirements across general and special education. Meaningful integration of general and special education competencies and delivering programs in a way that is consistent with the goals of inclusion enables children with disabilities to access the general education curriculum and more importantly increases the likelihood that they will be successful in school. Although NCLB and the Hawaii Teacher Performance and Licensing Standards (HTPLS) indicate that teachers need to possess competencies that enable them to support all children, the specific target areas of knowledge and skills are not documented. An important issue is whether dual preparation with integrated delivery of course competencies better meets pre-service teachers' need for acquiring the knowledge and skills needed to teach students with disabilities.

Purpose

The purpose of this study was to compare the self reported competencies of teacher candidates regarding their confidence to teach students with disabilities. A survey was distributed to two groups of teacher candidates, students enrolled in a dual special and general education program (DP) and students enrolled in a general education preparation program (GE) at the University of Hawai'i at Manoa. A primary objective was to determine how teacher candidates felt about their ability to effectively address legal educational requirements as well as how they felt about their ability to teach students with disabilities. Our hypothesis was that students who had been prepared through the dual certification program would report a higher level of confidence to address special education competencies required of all teachers.

Method

Participants

During Spring 2003 and Fall 2003, eighty-one students in their final semester of a teacher-training program were identified. Two groups of students were targeted, those in an elementary education certification program (GE) (n = 43) and those in a dual elementary and special education program (DP) (n = 38). The DP group completed a total of 30 credits in special education courses while the GP group was required to take only 3 credit hours (one course) in special education. All participants had completed the coursework for their program, were in their final weeks of student teaching, and were a few weeks away from graduation. Demographic data did not reveal large differences between the two groups. See Table 1 for a summary of demographic data.

Table 1. Demographics for Both Groups of Students, GE and DP.

	General Education Program	Dual Preparation Program
Total Number Participating	n = 43	n = 38
Gender (M/F)	M=4; F=35; NR=4	M=3; F=35
Ethnicity	CH=0; J=18; K=0; A=2; PI=1; H=0; AA=0; C=6; H=0; ME=9; O=3; NR=4	CH=3; J=15; K=1; A=1; PI=2; H=0; AA=0; C=4; H=0; M=6; O=6; NR=0
Degrees	None reported	BS =1; BA=5
Major	None reported	Liberal Arts=5; Architecture=1;
GPA	3.50	3.59 (F'01); 3.54 (Sp.'02)

Chinese (CH), Japanese (J), Korean (K), Asian other (A), Pacific Islander (PI), Native Hawaiian (H), African American (AA), Caucasian (C), Hispanic American (H), Multiethnic (M), Other (O), Not reported (NR)

Instrumentation

The first author developed a survey based on the INTASC Standards. Survey items were developed using the 48 competencies across the ten principles. The competencies were re-worded to make a statement beginning with "I can, I understand, I know" etc. The wording of the items was shortened from the complete competency statement; however, the content of the item was

maintained. For example one survey item stated, "I can participate in the design and implementation of individual behavioral plans, and can use constructive behavior management strategies and positive behavioral support strategies." We evaluated the internal consistency across items within each of the ten principles. Alpha coefficients for each of the principles indicated that there was an acceptable level of consistency (range .68-.88).

Procedures

Students enrolled in elementary education (B.Ed.) programs at the University of Hawaii at Manoa comprised the sample. The two programs were a general education only (GE) and a dual preparation program for general and special education (DP). Participation in this study was voluntary. Consent was obtained from the students who participated in this survey. All students were enrolled in student teaching as well student teaching seminar during their last semester of their program. Surveys were distributed to two cohorts in each of the groups, GE and DP, by either the first author or another faculty member during the student teaching seminar or individually during in-person meetings. Students were assured information would be kept anonymous as no personal identifiers were included on the surveys other than in which program the student was enrolled. Students were informed that non-participation would not affect their academic standing in any way. The surveys took approximately 20 minutes to complete. Students returned the completed survey to the faculty member who had distributed them. Of the 46 students in the elementary program, forty-three responded for a 94% return rate. Of the fifty-two students in the dual licensure program, 38 responded for a 73% return rate. This reflected an overall return rate of 83%.

Data Analysis

We aggregated items for each of the ten principles and data were gathered and analyzed. Internal consistency of items for each of the 10 principles was determined. Descriptive statistics (e.g.,

means and standard deviations) for each of the two groups were generated and differences between groups were examined (e.g., p-values, effect sizes).

Results

We ran several descriptive statistics and analyzed data by differences between the two groups of students on each of the ten principles using SPSS Base 9.0 system for Windows. Results indicated that students graduating from the DP program reported that they had greater confidence in their ability to teach students with disabilities as compared to their counterparts in the elementary program. DP students felt significantly stronger in their ability to teach across all ten principles.

All 10 principles had a p value $\leq .002$ indicating a significant difference between the two groups. Effect sizes were large (range .071- 1.30). See Table 2 for values for each of the 10 principles.

Discussion

Survey data administered to groups of teacher candidates in two different B.Ed. programs at the University of Hawaii revealed that there were group differences in reported levels of confidence to teach students with disabilities. Teacher candidates who were in a general education program scored significantly lower across all variables as compared to those who were completing the dual preparation (e.g., general and special education) program. Notably, Principle #1: *Concepts*, reflected the smallest effect size, indicating the least difference between the two groups. Although effect sizes were notably large for all of the areas, two areas were notably large

Table 2. Comparison of and Descriptive Statistics for the GE and DP Cohorts

Principle	M1	SD1	M2	SD2	t	Df	P-value significance	Effect size
1	4.40	.50	4.77	.55	-3.15	77	.002	0.07
2	4.31	.61	4.94	.53	-4.96	78	.000	1.11
3	4.77	.72	5.35	.60	-3.88	78	.000	0.87

4	4.50	.47	5.10	.57	-5.11	76	.000	1.16
5	4.27	.67	4.98	.67	-4.69	77	.000	1.06
6	4.31	.67	4.98	.72	-4.30	78	.000	0.96
7	4.33	.67	4.90	.67	-3.74	78	.000	1.02
8	4.36	.57	4.98	.65	-4.56	78	.000	1.02
9	4.04	.70	4.93	.67	-5.71	76	.000	1.30
10	4.50	.60	5.14	.57	-4.86	76	.000	1.10

1 Concepts; 2 Learning; 3 Diversity; 4 Strategy; 5 Motivation; 6 Technology; 7 Planning; 8 Assessment; 9 Reflection; 10 Relationships; M1 Mean for GE; SD1 Standard Deviation GE; M2 Mean for DP; SD2 Standard Deviation DP; t t-test; df Degrees of Freedom; p-value significance 1-tailed test; effect size "size" of difference between the 2 groups.

with effect sizes in excess of 1: (a) Principle #4: *Knowledge and Use of Instructional Strategies*, and (b) #9: *Reflective Teaching Practices*. The following discussion will address the area of least difference, Principle #1 and the areas of most difference, Principle #4 and Principle #9. The first principle reflected the least amount of difference between groups. Principle #1, "The teacher understands the central concepts, tools of inquiry, structures of the discipline(s) he or she teaches and can create learning experiences that make these aspects of subject matter meaningful for students," (INTASC, 2001, p. 10) included items on primary concepts in subject matter, implications of disability legislation and special education policies and procedures, and participation in the general curriculum for students with disabilities. The finding is congruous with the content of the one special education course required of the GE group. Students in the general education only group are required to take one special education foundations course, which focuses on disability legislation, policies and procedures, and general strategies for modifying the general education curriculum across subject areas to accommodate students with disabilities.

Two principles reflected the largest difference between groups: Principle #4: *knowledge and use of instructional strategies*, and Principle #9: *reflective teaching practices*. Teaching competence in these

areas is critical to effective teaching. Research has shown that there are a number of strategies and instructional approaches effective not only for students with disabilities but also for other students who are at risk for school failure. The ability of a teacher to acquire knowledge in a variety of research-based instructional strategies, choose appropriately, implement, reflect on results, and adjust accordingly is paramount to effective teaching.

Principle #4, “The teacher understands and uses a variety of instructional strategies to encourage students’ development of critical thinking, problem-solving, and performance skills,” (INTASC, 2001, p. 20) included items on teachers’ confidence about their knowledge and use of instructional strategies to promote students’ independence. A study by deBettencourt (1999) found that general education teachers frequently did not use several instructional strategies; including those that research suggests facilitate the learning of students with mild disabilities, such as advance organizers and metacognitive strategies. Further, they found a positive correlation between the use of instructional strategies and the number of special education courses taken by general educators. Suggestions were that general education teachers need more attitude and awareness training concerning students with disabilities, and they must be educated in the use of research based strategies (deBettencourt). Use of these strategies will increase the likelihood that students with disabilities will succeed in general education classes. Recommendations from deBettencourt’s study included the need for all education majors to have coursework that specifically addresses the needs of students with disabilities. Educators would then be more likely to provide accommodations and implement instructional strategies to address the needs of diverse student populations. This study found similar results. Students in the DP group took more coursework in special education than the GE group and reported higher levels of confidence in their knowledge and use of instructional strategies.

Principle #9, “The teacher is a reflective practitioner who continually evaluates the effects of his/her choices and actions on others (students, parents, and other professionals in the learning

community) and who actively seeks out opportunities to grow professionally,” (INTASC, 2001, p. 35) included items on teachers’ confidence about their use of reflection in supporting and promoting the achievement of students with disabilities. Reflective teaching is very important in the teaching profession. Warham (1993) summarized literature on reflective teaching as a model for determining professional competence for teachers. Effective teaching requires an individual to be reflective and willing to make adjustments to their practices. Teachers need to be cognizant of their personal strengths and weaknesses and respond to the characteristics and learning needs of their students to achieve desired instructional outcomes. Findings of this study indicate a need for students in the GE group to acquire knowledge about research-based practices for students with disabilities, implement those strategies, and reflect on how and if they were adequately addressing student needs. Importantly, teachers need to be able to adjust and modify their approaches as needed.

Although there are limitations in self-reported data obtained through survey techniques, the literature has suggested that an individual’s perception of their preparedness to teach students with disabilities as well as their confidence may affect efficacy (Eggen & Kauchak, 2006). Other considerations when interpreting these data include the need to critically examine the validity and reliability of the instrument used. Although examination of the internal consistencies of the composites for each of the principles revealed adequate to strong alpha coefficients, reflecting positively on the instrument, items were grouped by principle and this may have influenced the participants’ responses. Future administration of this survey would be improved by randomly mixing survey items. This would ensure that participants’ responses were not influenced by how items were grouped. This study surveyed two specific groups of teacher candidates; therefore, generalization and interpretation of results are limited. Although data need to be interpreted with caution, they do reveal significant differences between the two groups.

Information revealed through research on the effect of teacher preparation programs on teacher attitudes, perceptions, and efficacy can inform teacher preparation programs. Future research may include gathering additional qualitative data to determine if comparison groups are similar or different in terms of aspects such as, previous experiences in (a) the field of education, (b) special education, and (c) supporting individuals with disabilities. With increased attention towards unifying general and special education programs in higher education, it will be important to determine if pre-service teachers are demonstrating personnel standards that reflect competencies to address the learning needs of both students with and without disabilities (Stayton & McCollum, 2002).

In addition to examining a broader participant pool, different types of data, such as descriptive data, may reveal information on other variables that may be contributing to individuals' confidence and perceptions about special education. Triangulation of multiple sources of data may support these initial self-reported data on teacher candidates' perceived levels of competence. For example, grades for coursework, performance on standardized tests for licensure, or measures of knowledge, such as ratings on products submitted as part of course requirements may provide supporting data on teacher candidates' *knowledge*. Gathering observational data of how teacher candidates perform in the field will reveal their *skill* or ability to meet the needs of students with diverse learning needs in the classroom. In order to obtain a more comprehensive picture of program efficacy and whether the specific indicators that we are targeting through our teacher preparation programs are being positively affected, we also recommend pre- and post-surveying of teacher candidates.

Future research needs to extend beyond individual programs. Data collected nationally will provide a more representative sample and inform institutions of higher education of how our teacher candidates are faring. Beyond teacher preparation efforts, gathering data from general education teachers in the field may reveal those specific areas of need that can be addressed through in-service. It will be important to gather information from teachers in the field in order for IHEs and administrators to

respond to the specific issues identified by teachers which will enable them to more fully support students with disabilities in general classroom environments. General education teachers who take special education courses report using different types of instructional strategies more frequently, and their use of strategies correlated with the number of courses taken (deBettencourt, 1999). The literature supports that high teacher efficacy, or a teacher's belief that they can have a positive effect on students, increases the likelihood of their being more flexible in meeting the needs of their students through their use of instructional strategies (Eggen & Kauchak, 2006). Additionally, it has been noted that teachers who feel more confident about their abilities may be (a) more likely to persevere with low achievers as well as (b) more effective in meeting these students' learning needs (Eggen & Kauchak).

In this 21st century, it is our priority not only to have teachers willing to include students with disabilities in their classrooms but also to have them confident and well-prepared to address the diverse learning needs of an every-changing student population (Chamberlain, 2005). It is not students with disabilities alone who will reap the benefits of teachers armed with knowledge and a wider repertoire of skills. Students who struggle or who have not been identified due to the constraints of the categories designated for special education services will also benefit (McWhirter, McWhirter, McWhirter, & McWhirter, 2004). We simply cannot be driven by the desire to have students with exceptional needs included in classroom environments in which teachers feel inadequately prepared. If our vision is to have all of our students have the opportunity to succeed, then we need to take steps toward ensuring that end.

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