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Essential Inclusive Education-Related Outcomes for Alberta Preservice Teachers

This article examines the knowledge, skills, and attributes (KSAs) that Alberta preservice teachers need to develop over the course of their teacher preparation programs in order to work effectively in inclusive classrooms. Inclusive classrooms are those where all students regardless of diversity learn in the same contexts. These KSAs are presented as program outcomes and are identified in relation to their prominence in the literature on inclusion and their alignment with Alberta education policy and teacher interim certification requirements. They were then reviewed by a focus group of representatives from teacher preparation institutions in Alberta and Canada. The author suggests that teacher preparation institutions in Alberta must ensure that these outcomes are addressed at multiple points throughout their teacher preparation programs.

Cet article étudie les connaissances, les habiletés et les compétences (CHC) que les stagiaires en Alberta doivent développer au cours de leurs programmes de formation à l'enseignement pour travailler de façon efficace dans des salles de classes inclusives. Les salles de classe inclusives sont celles où tous les élèves apprennent dans les mêmes contextes, peu importe leurs différences. L'auteur présente ces connaissances, habiletés et compétences comme résultats du programme et les identifie par rapport à leur dominance dans la littérature sur l'inclusion et à la mesure dans laquelle elles reflètent la politique en matière d'éducation et les exigences de l'attestation provisoire d'enseignement en Alberta. Les CHC ont ensuite été revues par un groupe de consultation constitué d'experts représentant des instituts pédagogiques en Alberta et au Canada. L'auteur propose que les instituts pédagogiques en Alberta veillent à ce que leurs programmes de préparation des enseignants abordent ces résultats à plusieurs différents moments au cours de leurs programmes.

Introduction

Inclusive education, predicated on notions of social justice and supported as effective in research, has become an increasingly popular means of supporting learning. To include means that all children, regardless of the presence of significant diversity (such as disability), are welcomed by their neighborhood schools and attend regular classrooms. Their learning is supported through adaptation of programs and provision of resources as appropriate (Andrews & Lupart, 2000; Loreman, 1999).

Inclusive education, however, is not without its challenges. Teachers have frequently outlined difficulties they experience in implementing this approach, with many of these difficulties being ascribed to resource provision, school and district culture, administrative support, and general preparedness and training (Loreman & Deppeler, 2002). One area that is consistently outlined as being of concern relates to initial teacher preparation. Studies have shown that educators believe that more could be done in preservice teacher preparation pro-

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grams to prepare teacher candidates for the demands of the inclusive classroom (Ramsey, 2000; Vinson, 2002; Watson & Hatton, 2002). Although the validity of this argument has come under question (Pearce, 2008), there is no doubt that teacher preparation programs need to include content about inclusion for preservice teachers. In the Alberta context, however, what this content specifically should be remains a somewhat open question.

Two key Alberta government documents offer some guidance as to the nature of inclusive content to be addressed in teacher preparation programs; the *Teacher Quality Standards Applicable to the Provision of Basic Education Ministerial Order #016/97* (TQS, Alberta Minister of Education, 1997) and the *Standards for Special Education* (Alberta Education, 2004). The TQS lists the knowledge, skills, and attributes (KSAs) that graduates of education programs are required to demonstrate consistently in order to attain interim teacher certification in Alberta. The 17 KSAs cover a wide range of fundamentals (such as the ability to assess, instruct, teach the curriculum, use technology, etc.) that competent teachers must possess. Specific to inclusive education, the TQS specifies that teachers demonstrate a consistent understanding that

All students can learn, albeit at different rates and in different ways. They know how (including when and how to engage others) to identify students' different learning styles and ways students learn. They understand the need to respond to differences by creating multiple paths to learning for individuals and groups of students, including students with special learning needs. (Alberta Minister of Education, 1997, p. 2)

Other types of KSAs relevant to inclusion can also be found embedded in other requirements of the TQS for interim certification. They include the ability to engage in meaningful assessment; understanding how contextual variables affect learning; varying teaching plans to accommodate individuals and groups; ensuring an effective learning environment; respecting the dignity of all students; using multiple instructional strategies and technologies; collaborating with professionals, parents, and the community; and engaging in lifelong learning.

The government policy document *Standards for Special Education* (Alberta Education, 2004) broadly outlines expectations for Alberta school districts, schools, and teachers to attain in inclusive and special education. This document specifies inclusion as the first placement option to be considered for students with exceptionalities and outlines four key areas that educators in Alberta must address: access (physical, social, and curricular); appropriateness (providing a relevant educational program, working with parents and others); accountability (assessment and reporting requirements); and appeals (the process through which appeals regarding placement and programming may be heard). Implicit in each of these four areas is a skill set that teachers must have acquired. For example, they must have the ability to work with parents and others to devise, implement, and evaluate an individual program for students who attract special education funding. This document, however, was developed to provide general big-picture direction to educators in Alberta. For this reason, the policy contains limited discussion of specific areas of KSAs that teachers should attain to be successful.

Although the documents described above are useful and provide some guidance, they do not outline the more specific learner outcomes for preservice teachers that are important not only to attaining the various KSAs set out in the TQS, but also to being successful in an inclusive classroom. The remainder of this article highlights what those specific outcomes might be based on a systematic review of key literature on inclusive education, an examination of how outcomes resulting from that review align with the TQS and the Standards for Special Education, and a final examination of the outcomes by a focus group of experts from four Canadian universities in inclusive and special education, preservice teacher education, and the TQS.

Method

Data were gathered from three sources through a three-step linear process in order to ascertain (a) what are viewed as *essential skills* for teachers to have in order to be successful in inclusive classrooms; and (b) to what extent these skills are relevant in the Alberta context. These three sources served to allow triangulation of the data, where data are checked against other data from other sources or contexts in order to cross-validate the findings. This method, outlined by Lincoln and Guba (1985) and generally reserved for the analysis of interview, observational, and other data, is here applied to extant literature, policy, and expert group responses to the findings.

Step One: Literature Review

Following a deep examination of the TQS and the Standards for Special Education, a thorough review of the literature was undertaken in order to establish what are the most prominent KSAs successful inclusive teachers must possess. The review was limited to peer-reviewed journal articles and books. In order to preserve currency and relevance, the search was generally delimited to works published in the last 10 years; however, judgment was employed, and a small number of exceptions to this 10-year rule were made where a particular work was felt to be particularly salient, important, and still highly relevant. In order to be retained in the final list of the most prominent preservice teacher areas of KSA for successful inclusive education, each outcome had to have been identified as being valuable in at least 10 sources. Obviously, for each learner outcome category more than 10 sources were apparent, but only those judged to be the most salient examples were retained, and sources stopped being noted or investigated further when it was felt that data saturation had occurred. Data saturation occurs when adequate evidence has been gathered to demonstrate the importance of a particular theme in the data (Miles & Huberman, 1994). In this instance, it was felt that more than 10 salient sources were not required to demonstrate that a theme was of importance, and so it was decided that data saturation would be reached at that point. Further, although many of the sources lent support to multiple outcomes, each source was used only once in the literature review so as to allow for the presentation of a greater range of supporting literature.

The articles and books were examined using a qualitative content-analysis approach commonly reserved for the analysis of interview data, but not necessarily limited to this: the constant comparative method (Glaser & Strauss, 1967; Lincoln & Guba, 1985). The emergent quality of this study was preserved by

first examining an article by MacPherson-Court, McDonald, and Sobsey (2003). This work was used as the basis for a rough mapping out of some of the areas in which to examine the literature. This need not be seen as deviating from the more naturalistic ideas of Lincoln and Guba, because this article can be viewed as the first point of analysis, with initial categories emerging from it for modification, confirmation, or rejection as the study proceeded to a wider body of literature. As suggested by Miles and Huberman (1994), data analysis began from the first point of data-collection and continued on an ongoing basis throughout the data collection process. The areas identified by MacPherson-Court et al. seemed like a good starting point because they not only investigated the needs of preservice teachers relative to inclusive education, but also conducted it in an Alberta teacher preparation institution, thus providing the analysis with a measure of contextual relevance. An examination of this document found high-priority preservice teacher needs in the broad areas of classroom and behavior management, skills for collaboration, and instructional planning. These broad areas formed the initial basis from which the literature was explored; however, as was always the intent and expectation, more themes emerged and the initial ideas were modified as the literature review progressed.

Step Two: Alignment with the TQS and Standards for Special Education

Following the literature review, each *essential* KSA identified through the literature review was compared with the TQS and Standards for Special Education to ensure alignment with Alberta requirements. Further, both government documents were examined in detail to ensure that no areas in these requirements had been missed in the literature review.

Step Three: Examination by a Focus Group of University Experts

Five prominent university experts in inclusive education and preservice teacher education in four universities in Alberta (3) and elsewhere in Canada (2), along with a former Alberta Education bureaucrat who worked closely with the TQS and was instrumental in its implementation, were invited to participate in a focus group. This focus group was e-mailed a draft of this article and asked to examine the learning outcomes that resulted from the first two stages of this study and to provide feedback. Specifically, they were asked: (a) to identify any prominent areas and specific skills that were important but not addressed; and (b) to identify any prominent areas or specific skills that in their opinion were included but did not belong in a set addressing initial teacher training outcomes. The article was reviewed individually by each member of the focus group. This process was seen as both confirmatory in nature and also as a means to identify any areas that might have been missed in the first two stages. All respondents provided feedback within three weeks.

Results

Peer-reviewed journal articles and books were examined following a literature search, with a total of 53 articles and 27 books or book chapters being retained as the most salient representative examples of support in the literature for the various outcomes identified. Elements of best practice for inclusive teaching were identified and noted. Recurrences of these practices in subsequent documents were noted as the review proceeded, with the final criterion for retention

of each learner outcome in the list being a minimum of 10 citations in diverse documents. Table 1 outlines the learner outcomes identified, along with the specific articles and texts in which they are most strongly supported.

Step two of the process required an investigation of the outcomes identified in the literature review and their alignment to the TQS and the Standards for Special Education. Table 2 outlines the specific sections of each document where this alignment is evident. No areas in either the TQS or the Standards for Special Education were not aligned with the outcomes identified in the literature review.

The results of the first two stages of this study were presented to the focus group of university experts for comment and discussion. No recommendations for the deletion of any identified outcomes were made. Where recommendations for the inclusion of other outcomes were made, these were considered, investigated for their evidence in literature and alignment with Alberta policy documents, and included in Tables 1 and 2. Overall, the response from the focus group with respect to the identified outcomes and the need for them was highly positive. One suggestion was made, however, to compare the results of the first two stages of this study with the work of Pugach (Ford, Pugach, & Otis-Wilborn, 2001) on essential skills for preservice educators and inclusion. Although Pugach's work focuses on the United States context, it was felt that this might be instructive in identifying new areas for investigation or at least confirming the essential outcomes outlined in this study. In order to facilitate this comparison, one of Pugach's most salient co-authored articles on this topic (Ford et al.), which outlines specific areas in which preservice teachers might be reasonably expected to gain expertise, was selected. Further sharing of this work at an international colloquium resulted in the suggestion that these outcomes be compared to the work of Salend (2008) who identified a number of principles underlying effective teacher education programs.

Table 3 shows that there is alignment between the outcomes identified in this study and the work of Ford et al. (2001) and Salend (2008). The confirmation of these outcomes by the expert focus group, along with the results of the subsequent comparison with additional literature in Table 3, demonstrates a high degree of cross-validation of the outcomes.

Discussion

Seven key areas are identified in the literature as being important to beginning teachers' success in an inclusive classroom, and these areas are aligned with the TQS along with the Standards for Special Education and confirmed as areas of importance by the expert focus group and a subsequent reexamination of key literature. These seven areas include an understanding of inclusion and respect for diversity; collaboration with stakeholders (this area is a combination of the collaboration with parents and students' outcomes, and the collaboration with colleagues' outcomes); fostering a positive social climate; instructing in ways conducive to inclusion; engaging in inclusive instructional planning; engaging in meaningful assessment; and engaging in lifelong learning. These key areas are broken down into component parts or subskills. It is posited that once these subskills are mastered by preservice teachers, they will be competent enough not only to be eligible for interim teacher certification in Alberta, but also

Table 1
Essential Skills, Knowledge, and Attributes for Inclusive Teachers Identified in the Literature Phrased as Learner Outcomes

<i>Identified learner outcome</i>	<i>Subskills noted in literature</i>	<i>Evidence in literature</i>
<i>Knows how to ...</i>	<i>Knows how to ...</i>	
Work collaboratively with parents and students.	Run a parent conference. Seek parent and student input for IPPs. Establish regular home-school communication protocols. Involve parents in the classroom.	Cross, Traub, Hutter-Fishgahi, & Shelton (2004); Deiner (1999); Downing & Peckham-Hardin (2007); Fitzgerald (2006); Hunt & Marshall (2005); O'Connor (2008); Rainforth & England (1997); Smith et al (2009); Titone (2005); Turnbull & Turnbull (2001);
Work collaboratively with teacher assistants (TAs) and teacher/other professional colleagues.	Establish roles and responsibilities. Reflect TA activities in instructional plans and schedule TA time (use time effectively). Use TA as resource for whole class. Use TAs to reduce the need for pull-out tie for children with exceptionalities. Establish communication protocols with TA. Draw on expertise and assistance of others as required. Integrate ideas from other professionals (e.g., physiotherapists, OTs) into classroom life. Approach administrators with ideas, concerns, and requests. Team with others for planning, instruction, and assessment.	Deppeler, Loreman & Sharma (2005); Fox, Farrell, & Davis (2004); Friend & Bursack (1999); Giangreco & Broer (2005); Giangreco, Halvorsen, Doyle, & Broer (2004); Hunt, Doering, Hirose-Hatae, Maier, & Goetz (2002); Hunt, Soto, Maier, Müller, & Goetz (2001); Kennedy & Fisher (2001); Wolfe & Hall (2003); Worrell (2008).
Articulate and demonstrate essential understandings and positive attitudes regarding inclusion and diversity.	Articulate an understanding of the benefits of and principles behind inclusion, along with demonstrating a positive attitude toward it. Articulate knowledge about the basic elements of the Alberta Standards for Special Education (2004). Articulate an understanding of the value of diversity. Accept and welcome heterogeneity in the classroom and demonstrate a commitment to providing quality education for all children. Articulate an understanding that it is the role of the teacher and school to adapt to meet the needs of all students rather than students adapting to meet the needs of the classroom or school.	Avramidis, Bayliss, & Burden (2000); Avramidis & Norwich (2002); Bender, Vail, & Scott (1995); Brophy & Good (1991); Burke & Sutherland (2004); Forlin (2001); Harvey & Green (1984); Loreman (1999); Loreman, Forlin, & Sharma (2007); Murphy 1995).

Table 1 (continued)

<p>Engage in inclusive instructional planning.</p>	<p>Modify and/or adapt long-term plans to account for diversity in each subject area taught. Modify and/or adapt individual lesson plans to account for diversity in each subject area taught. Construct lessons so as to account for variations in learning pace and style. Plan lessons that allow for universal access. Plans for multiple presentation formats, multiple approaches to assessment etc. should be evident. Lead the process of IPP development and involve all stakeholder groups.</p>	<p>Clayton, Burdige, Denham, Kleinert, & Kearns (2006); Darling-Hammond & Baratz-Snowden (2005); Jimenez, Graf, & Rose (2007); Jordan (2007); Jung (2007); Lee-Tarver (2006); Loreman, Deppeler & Harvey (2005); Fock, Gregg, Ellis, & Gable (2008); Test et al. (2004); Voltz (2003).</p>
<p>Competently construct all elements of an IPP with stakeholders including:</p> <ul style="list-style-type: none"> • A vision statement • A summary of assessment results • General long-terms goals • Measurable behavioural objectives • Achievement indicators • Inclusive strategies and materials • Allowance for reviewing and monitoring <p>Integrate IPP objectives seamlessly into regular classroom lesson plans.</p>	<p>Employ constructivist strategies such as peer tutoring and small group learning. Ensure that instructional techniques allow for universal access to what is being taught. Instruction should be presented using multiple formats (visual, auditory etc.). Ensure that children with exceptionalities are involved in classroom activities, albeit with modified objectives (possibly from the IPP) as necessary. Differentiate instruction by providing multiple paths to content, process, and product. Use technology appropriately to enhance learning. Partner with colleagues for instruction as appropriate. Break learning tasks down into smaller components as necessary. Adapt teaching resources as required, ensuring that the adaptation still results in meaningful learning. Identify and gather additional resources to support individual needs in the classroom on an as-needed basis. Use special resources to support the learning of the entire class.</p>	<p>Andrews & Lupart (2000); Broderick, Mehta-Parekh, & Reid (2005); Casimir & Alchin (2002); Hutchinson (2007); Janney & Snell (2006); Mastropieri & Scruggs (2000); O'Connors & Jenkins (1996); Ryba, Curzon, & Selby (2002); Soukup, Wehmeyer, Bashinski, & Bovaird (2007); Winzer (2008)</p>
<p>Instruct in ways conducive to inclusion.</p>	<p>Employ constructivist strategies such as peer tutoring and small group learning. Ensure that instructional techniques allow for universal access to what is being taught. Instruction should be presented using multiple formats (visual, auditory etc.). Ensure that children with exceptionalities are involved in classroom activities, albeit with modified objectives (possibly from the IPP) as necessary. Differentiate instruction by providing multiple paths to content, process, and product. Use technology appropriately to enhance learning. Partner with colleagues for instruction as appropriate. Break learning tasks down into smaller components as necessary. Adapt teaching resources as required, ensuring that the adaptation still results in meaningful learning. Identify and gather additional resources to support individual needs in the classroom on an as-needed basis. Use special resources to support the learning of the entire class.</p>	<p>Andrews & Lupart (2000); Broderick, Mehta-Parekh, & Reid (2005); Casimir & Alchin (2002); Hutchinson (2007); Janney & Snell (2006); Mastropieri & Scruggs (2000); O'Connors & Jenkins (1996); Ryba, Curzon, & Selby (2002); Soukup, Wehmeyer, Bashinski, & Bovaird (2007); Winzer (2008)</p>

Table 1 (continued)

<p>Engage in lifelong learning.</p>	<p>Engage in activities consistent with reflective teaching, including the use of reflective journals and classroom visits. Seek out professional development activities as required. Access and engage with current literature in education. Elicit support from disability specific groups and societies as needed.</p>	<p>Buyse, Sparkman, & Wesley, (2003); Korthagen & Wubbles (1995); Lloyd (2002); Kruse (1997); LaBoskey (1993); Leitch & Day (2000); MacNaughton, Hughes, & Smith (2007); Parsons & Brown (2002); Pearce (2008); Spilkova (2001).</p>
<p>Foster a positive social climate.</p>	<p>Teach social skills in context. Demonstrate explicitly that all students are welcome, valued, and important. Foster friendships between students. Manage challenging behavior effectively while respecting the dignity of the child. Develop and maintain classroom routines that promote learning.</p>	<p>Baglieri & Knopf (2004); Bauer et al. (2001); Bishop, Jubala, Stainback & Stainback (1996); Cummings, Pepler, Mishna, & Craig (2006); Freeman et al (2006); Jones & Jones (2004); Martin, Jorgensen, & Klier, (1998); Miller & Pedro (2006); Peterson & Hittie (2003); Soodak (2003).</p>
<p>Engage in meaningful assessment</p>	<p>Use a variety of assessment techniques aimed at assessment for learning. Be able to quantify learning in order to meet reporting requirements. Understand common psychological and other formal assessments. Adapt and modify assessment tools (tests etc.) as required. Implement alternative assessment techniques as required. Communicate assessment results to students and parents.</p>	<p>Dykeman (2006); Edgemon, Jablonski, & Lloyd (2006); Losardo & Notari-Syverson (2001); Spinelli (2002); Stanford & Reeves (2005); Stiggins (2008); Taylor (2000); Villa, Thousand, Nevin & Liston (2005); Winter (2006); Wodrich (1997).</p>

Table 2
Alignment of the Learning Outcomes with the TQS and Standards for Special Education.

<i>Identified learner outcome</i>	<i>Subskills noted in literature</i>	<i>Alignment with TQS</i>	<i>Alignment with Standards for Special Education</i>
<p><i>Knows how to ...</i></p> <p>Work collaboratively with parents and students.</p>	<p><i>Knows how to ...</i></p> <p>Run a parent conference. Seek parent and student input for IPPs. Establish regular home/school communication protocols. Involve parents in the classroom.</p>	<p><i>Teachers understand ...</i></p> <p>1. The importance of engaging parents, purposefully and meaningfully, in all aspects of teaching and learning. They know how to develop and implement strategies that create and enhance partnerships among teachers, parents, and students.</p>	<p><i>Appropriateness. 8. School boards must:</i></p> <p>a. ensure that parents have the opportunity for participation in decisions that affect students' education;</p> <p>b. ensure that parents have information needed to make informed decisions;</p> <p>c. invite meaningful involvement of parents in planning, problem-solving, and decision-making relating to students' special education programming.</p>
<p>Work collaboratively with teacher assistants (TAs) and teacher/other professional colleagues.</p>	<p>Establish roles and responsibilities. Reflect TA activities in instructional plans and schedule TA time (use time effectively). Use TA as resource for whole class. Use TAs to reduce the need for pull-out tie for children with exceptionalities. Establish communication protocols with TA. Draw on expertise and assistance of others as required. Integrate ideas from other professionals (e.g., physiotherapists, OTs) into classroom life. Approach administrators with ideas, concerns, and requests. Team with others for planning, instruction, and assessment.</p>	<p>n. The importance of contributing, independently and collegially, to the quality of their school. They know the strategies whereby they can, independently and collegially, enhance and maintain the quality of their schools to the benefit of students, parents, community, and colleagues.</p>	<p><i>Appropriateness. 11. School boards must</i></p> <p>e. ensure that the school has a process and learning team to provide consultation, planning, and problem-solving relating to programming for students with special education needs;</p> <p>g. ensure that teacher assistants work under the direction of a certificated teacher to realize students' goals as outlined in their IPPs.</p>

Table 2 (continued)

<p>Articulate and demonstrate essential understandings and positive attitudes regarding inclusion and diversity.</p>	<p>Articulate an understanding of the benefits of and principles behind inclusion, along with demonstrating a positive attitude toward it. Articulate knowledge about the basic elements of the Alberta Standards for Special Education (2004). Articulate an understanding of the value of diversity.</p>	<p>e. All students can learn, albeit at different rates and in different ways. They know how (including when and how to engage others) to identify students' different learning styles and ways students learn. They understand the need to respond to differences by creating multiple paths to learning for individuals and groups of students, including students with special learning needs.</p>	<p><i>Appropriateness.</i> School boards must: a. ensure that educating students with special education needs in inclusive settings in neighborhood or local schools shall be the first placement option considered by school boards, in consultation with parents, school staff, and when appropriate, the student.</p>
<p>Accept and welcome heterogeneity in the classroom, and demonstrate a commitment to providing high quality education for all children. Articulate an understanding that it is the role of the teacher and school to adapt to meet the needs of all students, rather than students adapting to meet the needs of the classroom or school.</p>	<p>h. The importance of respecting students' human dignity. They know how to establish, with diverse students, professional relationships that are characterized by mutual respect, trust, and harmony.</p>	<p>p. The importance of guiding their actions with a personal, overall vision of the purpose of teaching. They are able to communicate their vision, including how it has changed as a result of new knowledge, understanding, and experience.</p>	<p><i>Appropriateness.</i> 11. School boards must: a. ensure that IPPs are developed, implemented, monitored, and evaluated for all students identified as having special education needs; f. ensure that teachers:</p>
<p>Engage in inclusive instructional planning.</p>	<p>Modify and/or adapt long-term plans to account for diversity in each subject area taught. Modify and/or adapt individual lesson plans to account for diversity in each subject area taught.</p>	<p>f. The purposes of short-, medium-, and long-term-range planning. They know how to translate curriculum and desired outcomes into reasoned, meaningful, and incrementally progressive learning opportunities for students. They also understand the need to vary their plans to accommodate individuals and groups of students.</p>	<p><i>Appropriateness.</i> 11. School boards must: a. ensure that IPPs are developed, implemented, monitored, and evaluated for all students identified as having special education needs; f. ensure that teachers:</p>

Table 2 (continued)

<p>Construct lessons so as to account for variations in learning pace and style. Plan lessons that allow for universal access. Plans for multiple presentation formats, multiple approaches to assessment, etc. should be evident. Lead the process of IPP development and involve all stakeholder groups. Competently construct all elements of an IPP with stakeholders including:</p> <ul style="list-style-type: none"> > A vision statement > A summary of assessment results > General long-terms goals > Measurable behavioral objectives > Achievement indicators > Inclusive strategies and materials > Allowance for reviewing and monitoring. <p>Integrate IPP objectives seamlessly into regular classroom lesson plans.</p>	<ul style="list-style-type: none"> > involve parents and, when appropriate, students and other professionals in the development, implementation, monitoring, and evaluation of students' IPPs. > document in the IPP for formal review of students' progress at regularly scheduled reporting periods. > throughout the year, provide feedback during informal reviews to parents and when appropriate students. > make changes to the IPP as required.
<p>Instruct in ways conducive to inclusion.</p>	<p>i. There are many approaches to teaching and learning. They know a broad range of instructional strategies appropriate to their area of specialization and the subject discipline they teach, and know which strategies are appropriate to help diverse students achieve variable outcomes.</p>
<p>Employ constructivist strategies such as peer tutoring and small-group learning. Ensure that instructional techniques allow for universal access to what is being taught. Instruction should be presented using multiple formats (visual, auditory, etc.).</p>	<p><i>Appropriateness.</i> 7. School boards must b. ensure that teachers know and apply the knowledge, skills, and attributes to accommodate individual differences for students with special education needs.</p>

Table 2 (continued)

<p>Ensure that children with exceptionalities are involved in classroom activities, albeit with modified objectives (possibly from the IPP) as necessary. Differentiate instruction by providing multiple paths to content, process, and product.</p>	<p>j. the functions of traditional and electronic teaching/learning technologies. They know how to use and how to engage students in using these technologies to present and deliver content, communicate effectively with others, find and secure information, research, word-process, manage information, and keep records.</p>	<p>Access: Students with special education needs are entitled to have access in a school year to an education program in accordance with the School Act. Students with special education needs receive adapted or modified programming that enables and improves learning.</p>
<p>Use technology appropriately to enhance learning. Partner with colleagues for instruction as appropriate. Break learning tasks down into smaller components as necessary. Adapt teaching resources as required, ensuring that the adaptation still results in meaningful learning. Identify and gather additional resources to support individual needs in the classroom on an as-needed basis. Use special resources to support the learning of the entire class.</p>	<p>m. Student learning is enhanced through the use of home and community resources. They know how to identify resources relevant to teaching and learning objectives and how to incorporate these resources into their teaching and students' learning.</p>	
<p>Engage in lifelong learning</p>	<p>o. The importance of career-long learning. They know how to assess their own teaching and how to work with others responsible for supervising and evaluating teachers. They know how to use the findings of assessments, supervision and evaluations to select, develop, and implement their own professional development activities</p>	<p>Appropriateness. 11. School boards must: c. provide teachers of students with special education needs with relevant resources and access to related professional development opportunities. 7. School boards must: c. support teachers' ability to monitor the effectiveness of their practices and adjust practices as necessary.</p>

Table 2 (continued)

<p>Foster a positive social climate</p>	<p>Teach social skills in context. Demonstrate explicitly that all students are welcome, valued, and important. Foster friendships between students. Manage challenging behavior effectively while respecting the dignity of the child. Develop and maintain classroom routines that promote learning.</p>	<p>g. Students' needs for physical, social, cultural, and psychological security. They know how to engage students in creating effective classroom routines. They know how and when to apply a variety of management strategies that are in keeping with the situation, and that provide for minimal disruptions to students' learning.</p>	<p><i>Appropriateness</i>. 7. School boards must: a. ensure that teacher practice is in keeping with the Teaching Quality Standards.</p>
<p>Engage in meaningful assessment</p>	<p>Use a variety of assessment techniques aimed at assessment for learning. Be able to quantify learning in order to meet reporting requirements. Understand common psychological and other formal assessments. Adapt and modify assessment tools (tests etc.) as required. Implement alternative assessment techniques as required. Communicate assessment results to students and parents.</p>	<p>k. The purposes of student assessment. They know how to assess the range of learning objectives by selecting and developing a variety of classroom and large-scale assessment techniques and instruments. They know how to analyze the results of classroom and large-scale assessment instruments, including provincial assessment instruments, and how to use the results for the ultimate benefit of students.</p>	<p><i>Accountability</i> 14. School boards must: a. use planning, assessing, monitoring, and reporting to improve the quality of education provided to students with special education needs. 15. School boards must: a. ensure that special provisions for testing, including school-based and provincial tests, are available to students with special education needs throughout the course of the year, as required.</p>

Table 3
Alignment of Outcomes Identified in Stages One and Two with Ford et al. (2001) and Salend (2008)

<i>Identified outcome from this study</i>	<i>Alignment with Ford et al. (2001)</i>	<i>Alignment with Salend (2008)</i>
Understanding of inclusion and respect for diversity.	Be committed to teaching the full range of learners with disabilities. Have an understanding of disability that demystifies it and goes beyond the label to appreciate more fully "what's going on with a learner?" Demonstrates an awareness of the political, social, and historical context of special education, particularly as it relates to the ... schools/districts in which they work.	Embracing diversity
Collaboration with stakeholders. Fostering a positive social climate.	Be prepared to work in an inclusive classroom and a collaborative teaching structure. Be committed to teaching the full range of learners with disabilities. Be reasonably prepared to anticipate high-priority needs and effectively teach and make routine accommodations for students with IEPs. (Subskill: Supporting students socially and behaviorally).	Building community and collaboration. Building community and collaboration.
Instructing in ways conducive to inclusive education.	Be reasonably prepared to anticipate high-priority needs and effectively teach and make routine accommodations for students with IEPs.	Differentiating assessment and instruction. Being responsive to individual student strengths and challenges.
Engaging in inclusive instructional planning.	Be reasonably prepared to anticipate high-priority needs and effectively teach and make routine accommodations for students with IEPs.	Differentiating assessment and instruction. Being responsive to individual student strengths and challenges.
Engaging in meaningful assessment.	Be reasonably prepared to anticipate high-priority needs and effectively teach and make routine accommodations for students with IEPs.	Differentiating assessment and instruction.
Engaging in lifelong learning.	Be committed to teaching the full range of learners with disabilities. "Expertise in addressing highly individualized needs ... would be gained as they experienced children with these needs" (p. 279).	Fostering self-reflection.

successful beginning teachers in inclusive classrooms. It is important that one recognizes that these skills and subskills pertain to the beginning rather than the more experienced teacher. Graduates from teacher preparation programs are expected to have developed the KSAs required to enable them to be successful in classrooms, but this does not imply that their skill set is in any way complete. What has been identified in this study should be viewed as foundations from which new teachers can experience success and build on into the future.

It is not enough, however, simply to examine these learner outcomes and assume that they are being addressed in a teacher preparation program even where a course specific to inclusive education exists. Indeed, it is probably good practice for each of the learner outcomes to be addressed multiple times and in multiple contexts in a teacher preparation program. These learner outcomes are doubtless best used methodically for evaluation and can form the basis of a program review of how the relevant areas in the TQS are being addressed. Loreman (2008) has suggested that in such circumstances a matrix might be used that lists down one axis the learner outcomes and on the other axis individual courses being taught in a program. The extent to which each learner outcome is being addressed in the various courses and the mode of assessment used to ascertain attainment of the outcome can be listed in the matrix. Table 4 provides an example of how this might look using a sample of a learner outcome with three subskills and some invented course names.

Although this study was conducted with a view to producing a set of outcomes relevant to the Alberta context, the end result is a set of outcomes that might well be useful nationally and internationally. Those interested in using the outcomes in other regions would doubtless need to check to see if they

Table 4
A Sample Matrix for Ascertaining Where Learner Objectives are Being Addressed in a Teacher Preparation Program

	<i>EDUCXXX:</i> <i>Ed Psych</i>	<i>EDUCVVV:</i> <i>Planning</i>	<i>EDUCWWW:</i> <i>Science meth.</i>
<i>Outcome: Work collaboratively with parents</i>			
Subskill 1: Run parent conference	Rating: 2 Class role-play activity	Rating: 0	Rating: 3 Parent-teacher conference assignment
Subskill 2: Seek parent input for IPPs	Rating: 3 Assignment on IPP writing	Rating: 0	Rating: 0
Subskill 3: Involve parents in the classroom	Rating: 0	Rating: 3 Assignment on collaborative planning	Rating: 2 Exam question on parents as a resource

Note. Rating 0 = Not addressed; Rating 1 = Mildly addressed; Rating 2 = Moderately addressed; Rating 3 = Significant emphasis.

align with local government standards and modify them accordingly; however, the results of this study provide a basic framework from which to start this process.

Conclusion

In this article, I use a three-step approach to examine and identify the KSAs that Alberta preservice teachers need to develop over the course of their teacher preparation programs in order to attain interim teacher certification and work effectively as beginning teachers in inclusive classrooms following graduation. The knowledge, skills, and aptitudes are presented as learner outcomes, each of which is accompanied by a set of subskills that should be mastered by preservice teachers. A means is described for teacher preparation institutions in Alberta to ensure that these outcomes are addressed at multiple points throughout their programs through the use of a matrix.

References

- Alberta Education. (2004). *The standards for special education*. Edmonton, AB: Author.
- Alberta Minister of Education. (1997). *Teaching quality standard applicable to the provision of basic education in Alberta* (Ministerial order #016/97). Edmonton, AB: Government of Alberta.
- Andrews, J., & Lupart, J.L. (2000). *The inclusive classroom: Educating exceptional children* (2nd ed.). Toronto, ON: Nelson Thomson Learning.
- Avramidis, E., Bayliss, P., & Burden, R. (2000). A survey into mainstream teachers' attitudes towards the inclusion of children with special educational needs in the ordinary school in one local education authority. *Educational Psychology, 20*(2), 191-211.
- Avramidis, E., & Norwich, B. (2002). Teachers' attitudes towards integration/inclusion: A review of the literature. *European Journal of Special Needs Education, 17*(2), 129-147.
- Baglieri, S., & Knopf, J. (2004). Normalizing difference in inclusive teaching. *Journal of Learning Disabilities, 37*(6), 525-529.
- Bauer, A.M., Moore-Hill, K., Haap, J., Hennegan, R., Brainard, N., & Reeder, R. (2001). Enhancing the development of prosocial behavior and classroom management. In A.M. Bauer & G.M. Brown (Eds.), *Adolescents and inclusion: Transforming secondary schools* (pp. 109-138). Baltimore, MD: Brookes.
- Bender, W.N., Vail, C.O., & Scott, K. (1995). Teachers' attitudes toward increased mainstreaming: Implementing effective instruction for students with learning disabilities. *Journal of Learning Disabilities, 28*(2), 87-94, 120.
- Brophy, J., & Good, T.L. (1991). *Looking in classroom* (5th ed.). New York: Harper Collins.
- Bishop, K.D., Jubala, K.A., Stainback, W., & Stainback, S. (1996). Facilitating friendships. In S. Stainback & W. Stainback (Eds.), *Inclusion: A guide for educators* (pp. 155-170). Baltimore, MD: Brookes.
- Burke, K., & Sutherland, C. (2004). Attitudes toward inclusion: Knowledge vs. experience. *Education, 125*(2), 163-172.
- Broderick, A., Mehta-Parekh, H., & Reid, D. (2005). Differentiating instruction for disabled students in inclusive classrooms. *Theory Into Practice, 44*(3), 194-202.
- Buysse, V., Sparkman, K., & Wesley, P. (2003). Communities of practice: Connecting what we know with what we do. *Exceptional Children, 69*(3), 263-263.
- Casimir, G., & Alchin, G. (2002). Enhancing technology through assistive technology. In P. Foreman (Ed.), *Integration and inclusion in action* (2nd ed., pp. 360-388). Sydney, Australia: Harcourt.
- Clayton, J., Burdge, M., Denham, A., Kleinert, H., & Kearns, J. (2006). A four-step process for accessing the general curriculum for students with significant cognitive disabilities. *Teaching Exceptional Children, 38*(5), 20-27
- Cross, A., Traub, E., Hutter-Pishgahi, L., & Shelton, G. (2004). Elements of successful inclusion for children with significant disabilities. *Topics in Early Childhood Special Education, 24*(3), 169-183.
- Cummings, J.G., Pepler, D.J., Mishna, F., & Craig, W.M. (2006). Bullying and victimization among students with exceptionalities. *Exceptionality Education Canada, 16*(2-3), 193-222.
- Darling-Hammond, L., & Baratz-Snowden, J. (Eds.). (2005). *A good teacher in every classroom*. San Francisco, CA: Jossey-Bass.

- Deiner, P.L. (1999). *Resources for educating children with diverse abilities: Birth through eight* (3rd ed.). New York: Harcourt Brace.
- Deppeler, J., Loreman, T., & Sharma, U. (2005). Reconceptualising specialist support services in inclusive classrooms. *Australasian Journal of Special Education*, 29(2), 117-127.
- Downing, J., & Peckham-Hardin, K. (2007). Inclusive education: What makes it a good education for students with moderate to severe disabilities? *Research and Practice for Persons with Severe Disabilities*, 32(1), 16-30.
- Dykeman, B. (2006). Alternative strategies in assessing special education needs. *Education*, 127(2), 265-273.
- Edgemon, E., Jablonski, B., & Lloyd, J. (2006). Large-scale assessments: A teacher's guide to making decisions about accommodations. *Teaching Exceptional Children*, 38(3), 6-11.
- Fitzgerald, M. (2006). "I send my best Matthew to school every day": Music educators collaborating with parents. *Music Educators Journal*, 92(4), 40-45.
- Ford, A., Pugach, M.C., & Otis-Wilborn, A. (2001). Preparing general educators to work with students who have disabilities: What's reasonable at the pre-service level? *Learning Disability Quarterly*, 24(4), 275-286.
- Forlin, C. (2001). Inclusion: Identifying potential stressors for regular class teachers. *Educational Research*, 43(3), 235-245.
- Fox, S., Farrell, P., & Davis, P. (2004). Factors associated with the effective inclusion of primary-aged pupils with Down's syndrome. *British Journal of Special Education*, 31(4), 184-190.
- Freeman, R., Eber, L., Anderson, C., Irvin, L., Horner, R., Bounds, M., et al. (2006). Building inclusive school cultures using school-wide Positive Behavior Support: Effective individual support systems for students with significant disabilities. *Research and Practice for Persons with Severe Disabilities (RPSD)*, 31(1), 4-17.
- Friend, M., & Bursuck, W.D. (1999). *Including students with special needs* (2nd ed.). Boston, MA: Allyn & Bacon.
- Giangreco, M., & Broer, S. (2005). Questionable utilization of paraprofessionals in inclusive schools: Are we addressing symptoms or causes? *Focus on Autism and Other Developmental Disabilities*, 20(1), 10-26.
- Giangreco, M., Halvorsen, A., Doyle, M., & Broer, S. (2004). Alternatives to overreliance on paraprofessionals in inclusive schools. *Journal of Special Education Leadership*, 17(2), 82-90.
- Glaser, B.G., & Strauss, A.L. (1967). *The discovery of grounded theory*. Chicago, IL: Aldine.
- Harvey, D.H., & Green, K. (1984). Attitudes of New Zealand teachers, teachers in training and non teachers toward mainstreaming. *New Zealand Journal of Educational Studies*, 19, 34-44.
- Hunt, P., Doering, K., Hirose-Hatae, A., Maier, J., & Goetz, L. (2001). Across-program collaboration to support students with and without disabilities in a general education classroom. *Journal of the Association for Persons with Severe Handicaps*, 26(4), 240-256.
- Hunt, N., & Marshall, K. (2005). *Exceptional children and youth* (4th ed.). Boston, MA: Houghton Mifflin.
- Hunt, P., Soto, G., Maier, J., Müller, E., & Goetz, L. (2002). Collaborative teaming to support students with augmentative and alternative communication needs in general education classrooms. *AAC: Augmentative and Alternative Communication*, 18(1), 20-35.
- Hutchinson, N.L. (2007). *Inclusion of exceptional learners in Canadian schools: A practical handbook for teachers*. Toronto, ON: Pearson Prentice-Hall.
- Janney, R., & Snell, M. (2006). Modifying schoolwork in inclusive classrooms. *Theory Into Practice*, 45(3), 215-223.
- Jimenez, T., Graf, V., & Rose, E. (2007). Gaining access to general education: The promise of Universal Design for learning. *Issues in Teacher Education*, 16(2), 41-54.
- Jones, V., & Jones, L. (2004). *Comprehensive classroom management: Creating communities of support and solving problems*. New York: Pearson/ Allyn & Bacon.
- Jordan, A. (2007). *Introduction to inclusive education*. Toronto, ON: John Wiley & Sons.
- Jung, L. (2007). Writing SMART objectives and strategies that fit the ROUTINE. *Teaching Exceptional Children*, 39(4), 54-58.
- Kennedy, C.H., & Fisher, D. (2001). Building and using collaborative school teams. In C.H. Kennedy & D. Fisher (Eds.), *Inclusive middle schools* (pp. 27-42). Baltimore, MD: Brookes.
- Korthagen, F.A.J., & Wubbels, T. (1995). Characteristics of reflective practitioners: Towards an operationalization of the concept of reflection. *Teachers and Teaching: Theory and Practice*, 1(1), 51-72.
- Kruse, S.D. (1997). Reflective activity in practice: Vignettes of teachers' deliberative work. *Journal of Research and Development in Education*, 31(1), 46-60.

- La Boskey, V.K. (1993). Why reflection in teacher education. *Teacher Education Quarterly*, 20, 9-12.
- Lee-Tarver, A. (2006). Are Individualized Education Plans a good thing? A survey of teachers' perceptions of the utility of IEPs in regular education settings. *Journal of Instructional Psychology*, 33(4), 263-272.
- Leitch, R., & Day, C. (2000). Action research and reflective practice: Towards a holistic view. *Educational Action Research*, 8(1), 179-193.
- Lincoln, Y.S., & Guba, E.G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.
- Lloyd, C. (2002). Developing and changing practice in special educational needs through critically reflective action research: A case study. *European Journal of Special Needs Education*, 17(2), 109-127.
- Loerman, T. (1999). Integration: Coming from the outside. *Interaction*, 13(1), 21-23.
- Loerman, T. (2008). *A content-infused approach to pre-service teacher preparation for inclusive education*. Unpublished manuscript.
- Loerman, T., & Deppeler, J. (2002). Working towards full inclusion in education. *Access: The National Issues Journal for People with a Disability*, 3(6), 5-8.
- Loerman, T., Deppeler, J.M., & Harvey, D.H.P. (2005). *Inclusive education: A practical guide to supporting diversity in the classroom*. Sydney: Allen & Unwin.
- Loerman, T., Forlin, C., & Sharma, U. (2007). An international comparison of pre-service teacher attitudes towards inclusive education. *Disability Studies Quarterly*, 27(4).
- Losardo, A., & Notari-Syversen, A. (2001). *Alternative approaches to assessing young children*. Baltimore, MD: Brookes.
- Martin, J., Jorgensen, C.M., & Klien, J. (1998). The promise of friendship for students with disabilities. In C.M. Jorgensen (Ed.), *Restructuring high schools for all students: Taking inclusion to the next level* (pp. 145-182). Baltimore, MD: Brookes.
- Mastropieri, M.A., & Scruggs, T.E. (2000). *The inclusive classroom: Strategies for effective instruction*. Upper Saddle River, NJ: Merrill PrenticeHall.
- MacPherson-Court, L., McDonald, L., & Sobsey, D. (2003). Inclusive education survey: Meeting the educational needs of preservice teachers. *Developmental Disabilities Bulletin*, 31(1), 57-85.
- MacNaughton, G., Hughes, P., & Smith, K. (2007). Rethinking approaches to working with children who challenge: Action learning for emancipatory practice. *International Journal of Early Childhood*, 39(1), 39-57.
- Miles, M.B., & Huberman, A.M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA: Sage.
- Miller, R., & Pedro, J. (2006). Creating respectful classroom environments. *Early Childhood Education Journal*, 33(5), 293-299.
- Murphy, D.M. (1996). Implications of inclusion for general and special education. *Elementary School Journal*, 96, 469-493.
- O'Connor, U. (2008). Meeting in the middle? A study of parent-professional partnerships. *European Journal of Special Needs Education* 23(3), 253-268.
- O'Connors, R.E., & Jenkins, J.R. (1996). Cooperative learning as an inclusion strategy: A closer look. *Exceptionality*, 6, 26-51.
- Parsons, R.D., & Brown, K.S. (2002). *Teacher as reflective practitioner and action researcher*. Belmont, CA: Wadsworth.
- Pearce, M. (2008). The inclusive secondary school teacher. In C. Forlin & M-G.J. Lian (Eds.), *Reform, inclusion, and teacher education: Towards a new era of special education in the Asia-Pacific region* (pp. 142-152). Abingdon, UK: Routledge.
- Peterson, M., & Hittie, M. (2003). *Inclusive teaching: Creating effective schools for all learners*. Boston, MA: Allyn & Bacon.
- Rainforth, B., & England, J. (1997). Collaborations for inclusion. *Education and Treatment of Children*, 20(1), 85-104.
- Ramsey, G. (2000). *Quality matters. Revitalising teaching: Critical times, critical choices. Report of the review of teacher education, New South Wales*. Sydney: Department of Education and Training New South Wales.
- Rock, M., Gregg, M., Ellis, E., & Gable, R. (2008). REACH: A framework for differentiating classroom instruction. *Preventing School Failure*, 52(2), 31-47.
- Ryba, K., Curzon, J., & Selby, L. (2002). Learning partnerships through information and communication technology. In A. Ashman & J. Elkins (Eds.), *Educating children with diverse abilities* (pp. 502-528). French's Forest, Australia: Prentice Hall.
- Salend, S. (2008). *Creating inclusive classrooms: Effective and reflective practices* (6th ed.). Columbus, OH: Merrill Prentice Hall

- Smith, T.E.C., Polloway, E.A., Patton, J.R., Dowdy, C.A., McIntyre, L.J., & Francis, G.C. (2009). *Teaching students with special needs in inclusive settings* (3rd ed.). Toronto, ON: Pearson.
- Soodak, L. (2003). Classroom management in inclusive settings. *Theory Into Practice*, 42(4), 327-333
- Soukup, J., Wehmeyer, M., Bashinski, S., & Bovaird, J. (2007). Classroom variables and access to the general curriculum for students with disabilities. *Exceptional Children*, 74(1), 101-120.
- Spilková, V. (2001). Professional development of teachers and student teachers through reflection on practice. *European Journal of Teacher Education*, 24(1), 59-65.
- Spinelli, C.G. (2002). *Classroom assessment for students with special needs in inclusive settings*. Upper Saddle River, NJ: Merrill Prentice-Hall.
- Stanford, P., & Reeves, S. (2005). Assessment that drives instruction. *Teaching Exceptional Children*, 37(4), 18-22.
- Stiggins, R. (2008). *An introduction to student-involved assessment for learning*. Upper Saddle River, NJ: Pearson Merrill/Prentice-Hall.
- Taylor, R.L. (2000). *Assessment of exceptional students: Educational and psychological procedures* (5th ed.). Needham Heights, MA: Allyn & Bacon.
- Test, D., Mason, C., Hughes, C., Konrad, M., Neale, M., & Wood, W. (2004). Student involvement in Individualized Education Program meetings. *Exceptional Children*, 70(4), 391-412
- Titone, C. (2005). The philosophy of inclusion: Roadblocks and remedies for the teacher and the teacher educator. *Journal of Educational Thought*. Retrieved November 10, 2008, from Education Research Complete database.
- Turnbull, A., & Turnbull, R. (2001). *Families, professionals, and exceptionality: Collaborating for empowerment* (4th ed.). NJ: Merrill Prentice-Hall.
- Villa, R., Thousand, J., Nevin, A., & Liston, A. (2005). Successful inclusive practices in middle and secondary schools. *American Secondary Education*, 33(3), 33-50.
- Vinson, T. (2002). *Inquiry into the provision of public education in NSW*. Sydney: NSW Teachers' Federation and Federation of P&C Associations of NSW.
- Voltz, D. (2003). Personalized contextual instruction. *Preventing School Failure*, 47(3), 138.
- Watson, A., & Hatton, N. (2002). *Teachers in mid-career: Professional perceptions and preferences*. Report for the inquiry into the provision of public education in NSW. Sydney: NSW Teachers' Federation.
- Winter, E.C. (2006). Preparing new teachers for inclusive schools and classrooms. *Support for Learning*, 21(2), 85-91.
- Winzer, M. (2008). *Children with exceptionalities in Canadian classrooms* (8th ed.). Toronto, ON: Pearson Prentice-Hall.
- Wodrich, D.L. (1997). *Children's psychological testing: A guide for nonpsychologists* (3rd ed.). Baltimore, MD: Brookes.
- Wolfe, P., & Hall, T. (2003). Making inclusion a reality for students with severe disabilities. *Teaching Exceptional Children*, 35(4), 56-56.
- Worrell, J.L. (2008). How secondary schools can avoid the seven deadly school "sins" of inclusion. *American Secondary Education* 36(2), 43-56.