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# Preparing teachers for inclusive classrooms

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ABSTRACT

Effective teaching skills consist of high levels of student engagement based on good classroom and time management skills; the ability to scaffold learning that is adapted to students' current levels of understanding; cognitively engaging students in higher-order thinking; and encouraging and supporting success. The research reported here suggests that in elementary classrooms, effective teaching skills are effective for all students, both with and without special education needs.

Drawing on a research programme extending over nearly two decades, we make the case that effective inclusionary practices, and therefore overall effective teaching, depend in part on the beliefs of teachers about the nature of disability, and about their roles and responsibilities in working with students with special education needs. Elementary classroom teachers who believe students with special needs are their responsibility tend to be more effective overall with all of their students.

We provide evidence to suggest that teachers' beliefs about disability and about their responsibilities for their students with disabilities and special educational needs may be part of a broader set of attitudes and beliefs about the nature of ability and about the nature of knowledge, knowing and how learning proceeds; that is, epistemological beliefs.

The implications for these findings are considerable for teacher training and development. Little is known about how skills for effective inclusion are developed, or about how changes in teachers' beliefs about disability, ability and their epistemological beliefs may be reflected in changes in their practices. The literature on these topics is examined and implications drawn for teacher preparation for inclusive classrooms.



There is a popular opinion among regular classroom and subject teachers that inclusion of students with special needs in their classes is a policy doomed to fail. The complaints about the policy include; students with special education needs detract from teachers' instructional time with students who are more likely to achieve, teaching students with special needs requires specialized teaching skills, and teachers are not trained to deliver the specialized instruction that students with special education needs require.

Despite these opinions evidence suggests the contrary. Booth, Ainscow, Black-Hawkins, Vaughan, and Shaw (2000) and Kalambouka, Farrell, Dyson, and Kaplan (2005) provide evidence that students with special education needs included in the general education classroom consistently benefit from such settings compared to students in segregated and withdrawal settings. In a study of 11,000 students in the United States, Blackorby, Wagner, Cameto, Davies, Levine, and Newman (2005) report that students with disabilities (special education needs) who spend more time in regular classrooms have higher scores on achievement tests, are absent less, and perform closer to grade level than their peers who are withdrawn for instruction. At the secondary level, Blackorby et al. (2005) corroborate the findings of Wagner, Newman, Cameto, and Levine (2003) that students with disabilities in inclusive settings perform closer to grade level on standards-based achievement tests than their more segregated peers. Overall, students with disabilities performed less well on achievement tests than those without disabilities. Some subgroups of students cluster at the low end of the achievement spectrum, such as those with learning and sensory disabilities, cognitive disabilities and autism. Even so, students with disabilities in inclusive settings outperformed their segregated peers with disabilities.

The performance of students without special education needs may even be slightly enhanced in classes where students with special education needs are included. Demeris, Childs, and Jordan (2007) concluded that the number of students with special needs included in Grade 3 classrooms has no negative influence on the

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provincial test achievement scores of the students without special education needs. Indeed the presence of students with special needs might be related to slightly improved scores of the rest of the class.

In the U.K., Dyson, Farrell, Polat, Hutcheson, and Gallannaugh (2004) found that schools that are effective in inclusion develop unique ways to adapt to their local communities. Dyson, Polat, and Farrell (2004) suggest that effective schools develop an "ecology of inclusion" (p. 14). Florian and Rouse (2001) note that, when schools have access to a variety of supports and teaching strategies, they can be effective both in inclusion and in sustaining high levels of student achievement.

With such evidence, why are teachers so reluctant to include students with special education needs in their general education classrooms? Could it be based in part on a misunderstanding of the roles of teachers in inclusive settings? The evidence in favour of inclusion challenges at least one of the opinions commonly held by teachers; that inclusion detracts from the time available to teachers to instruct their students without special education needs. In effective inclusive classrooms, teachers may generate more instructional time than those in less effective classrooms (Jordan & Stanovich, 2001; Jordan, Lindsay, & Stanovich, 1997). Teachers' fear that they may not have the specialized knowledge and skills to work with students with special education needs in regular (general education) classrooms may also be a cause of reluctance to accept inclusion. However, we have suggested that specialized skills for such students may not be crucial for effective inclusion. Teachers who are effective overall with all their students are also more likely to be skilled in inclusive practices (Stanovich & Jordan, 1999, 2000, 2002).

In this paper, we make the case that effective inclusion is akin to effective teaching practices overall, and that enhancing inclusive practices will benefit all students. We support our case by drawing on research conducted in general education elementary classrooms during the past 16 years, in the Supporting Effective Teaching (SET) research programme. The research programme consists of a series of studies that examine the factors contributing to effective teaching in inclusive elementary regular (general education) classrooms.

Second, we examine teachers' beliefs about their roles and responsibilities in working with students with special education needs included in their classes. Drawing on our work with elementary classroom teachers, we demonstrate the link between teacher beliefs that they either have or do not have responsibilities for instructing students with special education needs in their classrooms and the overall quality of their teaching practices. Elementary classroom teachers who believe students with special needs are their responsibility tend to be more effective overall with all their students.

Third, we make the case that teacher beliefs about the nature of disability and their responsibilities for inclusion may be part of a broader set of assumptions, attitudes and beliefs about the nature of ability, and beliefs about knowledge, knowing and how learning proceeds; i.e., epistemological beliefs. We present evidence to show the relationship between teachers' beliefs about their roles with students with special education needs and their more broadly-held epistemological beliefs. If this is the case, then the relationship between inclusive practices and effective teaching may depend in part on a cluster of teachers' underlying epistemological beliefs about the nature of ability, of knowing and knowledge, the process of acquiring knowledge, and therefore about the relationship between teaching and learning.

If effective teachers subscribe to inclusion then it follows that it is important to prepare teachers for inclusive settings, not only for the benefit of students with special education needs but for all their students. In the final section, we examine what is known about the preparation of teachers for including students with special education needs in their classrooms. We ask what might be needed in order to increase the effectiveness of teaching practices through changing teachers' beliefs about their roles and responsibilities for the range of students in their classes, and changing their epistemological beliefs.

## 1. Effective inclusion is effective for all students

We have argued that effective teaching is effective intervention for all students (Jordan & Stanovich, 2000/2004). The basis for this assertion is a model of the characteristics of teachers in elementary schools that espouse a philosophy of inclusion. The model (Fig. 1) proposes that the school norm (the expectations of the principal and staff) about inclusion in the school, individual teachers' beliefs about their roles and responsibilities for including students with special education needs, and the teachers' sense of teaching efficacy predict teaching practices, which in turn predict student outcomes. Over the course of studies in the Supporting Effective Teaching (SET) project, we examined various aspects of this model. Earlier findings that examined each component of the 1994 model have been reported elsewhere (Jordan & Stanovich, 2003, 2004; Stanovich & Jordan, 1998a, Stanovich, Jordan, & Perot, 1998). Two of the components of the model, teacher beliefs and teaching practices, have recently been extended through a series of studies that are reported here (Fig. 2).

Our primary measure of teachers' practices is a third-party observation tool: the Classroom Observation Scale (COS; Jordan & Stanovich, 2004; McGhie-Richmond, Underwood, & Jordan, 2007; Stanovich, 1994; Stanovich & Jordan, 1998a). This observation takes place during a half day of core lessons (i.e., language arts, mathematics, science) in the regular classroom when students with special educational needs are present. The scale consists of four parts:

1. *Total COS score*. Trained observers rate teachers on 32 items based on Englert, Tarrant, and Mariage's (1992) checklist of effective teaching practices in inclusive classrooms. The items cover time management, classroom management and lesson presentation. While most items are derived from process-product research, there are items that address constructivist teaching, and scaffolding instruction.
2. *Predominant teaching style*. The observers rate the teachers' practices on a 7-point scale of the type of teacher–student instructional interaction during the seatwork part of a lesson. One or more students without exceptional learning needs are observed in order to rate the level of teacher–student interaction. Teachers are not aware of which students are being monitored. Non-academic interactions between the teacher and student such as managerial and disciplinary interactions are not coded. The lowest score on the scale is 'no observed interaction' with the students. Midpoints include 'teacher checks student work and moves on' and 'teacher transmits' instructions or questions. At the top rating, teachers engage students in dialogue that extends the students' thinking at high levels of cognitive engagement. This scale proves to be a short version of the student engagement variable, correlating with it ($r\,(34) = .61$, $p < .01$, Glenn, 2007).
3. *Interaction with a student with a disability*. Using the same 7-point scale as the scale of Predominant Teaching Style, observers rate the teachers' instructional interaction with one student who has been formally designated as having a disability. Again the teacher is not told which student is being