Student teachers’ attitudes towards the inclusion of children with special educational needs in the ordinary school

Elias Avramidis*, Phil Bayliss, Robert Burden

St Luke’s School of Education, Research Support Unit, University of Exeter, Exeter EX1 2LU, UK

Received 10 February 1999; received in revised form 21 June 1999; accepted 12 August 1999

Abstract

Given that research has suggested that the successful implementation of any inclusive policy is largely dependent on educators being positive about it, a survey was undertaken into the attitudes of student teachers toward the inclusion of children with special needs in the ordinary school. The sample was comprised of 135 students who were completing their teacher training courses at a university School of Education. The analysis revealed that the respondents held positive attitudes toward the general concept of inclusion but their perceived competence dropped significantly according to the severity of children’s needs as identified by the UK ‘Code of Practice for the Identification and Assessment of Special Educational Needs’. Moreover, children with emotional and behavioural difficulties were seen as potentially causing more concern and stress than those with other types of special needs. Finally, the survey raised issues about the breadth and quality of initial teacher training in the UK. Nevertheless, the recommendations provided at the end of this paper regarding teacher training are applicable beyond the UK context.

Keywords: Integration; Inclusion; Teachers’ attitudes; Teacher education

1. Introduction

Internationally, the concept of “special educational need” is being revised. The “psycho-medical” paradigm or the “individual gaze” (Fulcher, 1989) which understands special needs as intelligible entirely in terms of the characteristics of the “disabled” individual has been replaced by the “interactive” or “organisational” paradigm (Clark, Dyson, Millward & Skidmore, 1995) which, while acknowledging differences between individual children, does not view these differences alone as adequately accounting for the educational failure of children. Central to this change in the way that we view special educational needs (SEN), and deal with children deemed to experience SEN, has been the recognition that it is the circumstances in which individuals are placed that determine whether or not their individual characteristics are a cause of difficulty. Consequently, the recent past has seen a strong movement away from placement in segregated settings for children with SEN towards greater integration in regular classes. Over the last two decades, several countries have led in the effort to implement policies which foster integration of special needs children and “integration” has become a key topic in special education. However,
more recently, the debate has focussed upon inclusion, a concept which differs significantly from integration.

Integration refers to “fitting” the child to existing provision (with necessary support and individualised modifications to curriculum, teaching processes, etc.). Inclusion refers to restructuring educational provision to promote “belonging” (Kunc, 1992), i.e. all pupils in a school see themselves as belonging to a community, including those with significant disabilities. As such, inclusion embraces the concept of diversity as a natural state of being human — or in educational terms, of being a learner (Bayliss, 1997). Furthermore, “integration” can be seen as representing a kind of continuum along which a child with SEN will be offered a place according to his/her needs and circumstances. Therefore, the desirability of a full placement of any particular child is dependent on the feasibility of such a placement or in other words on whether the child can be assimilated into the school environment (Thomas, 1997). On the other hand, “inclusion” presupposes a significant restructuring of mainstream schooling so that every school can accommodate every child irrespective of disability (accommodation rather than assimilation). The term “inclusion” embodies a range of assumptions about the meaning and purpose of schools (Kliewer, 1998) and embraces a much deeper philosophical notion of what integration should mean. Consequently, there has been a widespread interest on the part of academics and researchers across the world who see inclusion as a radical alternative to the somewhat faltering approach which has been characteristic of integration (Ainscow & Sebba, 1996; Vitello & Mithaug, 1998). Nevertheless, integration has been the major focus of research, within which one of the main barriers to the implementation of integrating students with significant disabilities has been identified as “teachers’ attitudes”.

Professional attitudes may act to facilitate or constrain the implementation of policies which may be considered radical or controversial, for the success of innovative and challenging programmes must surely depend upon the co-operation and commitment of those most directly involved. In these circumstances it is perhaps not surprising that an area of special education which has received considerable research attention — especially in the USA and Australia — is that of the attitudes of teachers, administrators and resource personnel towards the placement of students with special needs in the regular classroom. Unfortunately, as Vaughan (1995) points out: “The absence of such studies in the UK is to be regretted” (p. 242).

2. Studies of teachers’ attitudes toward integration

Research undertaken in Australia about professional attitudes toward integration education has provided a range of information in this area. Studies undertaken between 1985 and 1989 covered the attitudes of headteachers (Center, Ward, Parmenter & Nash, 1985), teachers (Center & Ward, 1987), psychologists (Center & Ward, 1989) and pre-school administrators (Bochner & Pieterse, 1989) and demonstrated that professional groups vary considerably in their perceptions of which types of children are most likely to be successfully integrated. (Summary data from these studies were presented by Ward, Center & Bochner, 1994). These studies suggested that attitudes towards integration were strongly influenced by the nature of the disabilities and/or educational problems being presented and, to a lesser extent, by the professional background of the respondents. The most enthusiastic group were those responsible for pre-school provision and the most cautious group were the classroom teachers, with heads, resource teachers and psychologists in between. The researchers concluded that there was no evidence of a consensus in favour of a total inclusion or “zero reject” approach to special educational provision.

Other attitude studies have indicated that general educators have not developed an empathetic understanding of disabling conditions (Horne & Ricciardo, 1988), nor do they appear to be ready to accept students with special needs (Barton, 1992). This can be explained by the fact that integration has often been effected in an “ad hoc” manner, without systematic modifications to a school’s organisation, due regard to the teacher’s instructional expertise or any guarantee of continuing resource provision (see the example of Italy where
integration was radical in the 1980s). Center and Ward’s (1987) study with regular teachers indicated that their attitudes to integration reflected lack of confidence both in their own instructional skills and in the quality of support personnel available to them. They were positive about integrating only those children whose disabling characteristics were not likely to require extra instructional or management skills on the part of the teacher. Thomas (1985) in a comparative study in Devon, England and Arizona, USA, found that the balance of opinion was against the integration of children with intellectual difficulties (the moderate learning difficulties group) in England and the educable mentally retarded (EMR) in the USA. Also, in this study attitudes were more positive to integration when there was confidence in selecting appropriate teaching methods and when there was a traditional policy of locational integration.

Another UK study on teachers’ attitudes carried out by Clough and Lindsay (1991) revealed that although the respondents appeared more supportive towards integration, they varied in their views regarding the most difficult need to meet. In particular, teachers identified children with learning difficulties and, to a greater extent, children with emotional and behavioural difficulties (EBD) as the most difficult categories. Finally, Scruggs and Mastropieri (1996) in their meta-analysis which included 28 survey reports conducted from at least 1958 through 1995, reported that two-thirds of the teachers surveyed (10,560 in total) agreed with the general concept of integration. A smaller majority were willing to implement integration practices in their own classes, but responses appeared to vary according to disabling conditions. Moreover, only one-third or less of teachers believed they had sufficient time, skills, training and resources necessary for integration.

The above studies indicated that teachers are often not prepared to meet the needs of students with significant disabilities and that the severity of the disabling condition presented to them determines their attitudes towards integration. This is especially insightful in view of the work of Schumm and Vaughn who, in a number of studies, examined how teachers (elementary through high school) plan and make adaptations for students with learning difficulties. The results revealed that teachers were not likely to develop individualised lesson plans (Schumm & Vaughn, 1991, Schumm & Vaughn, 1992). In particular, teachers at the elementary level were more likely to plan individual assignments, alternative materials, and individualised assessments than were secondary teachers (Schumm & Vaughn, 1991; Vaughn & Schumm, 1994) and collaborated more with special education teachers than did secondary teachers. (see Schumm, Vaughn, Haager, McDowell, Rothlein & Saumell, 1995, where summary data of the mentioned studies can be found).

3. Student teachers’ attitudes studies toward integration

Another important area which has attracted attention from a number of researchers is the attitudes of graduate student teachers toward integration. Early studies (Curtis, 1985; Leyser & Abrams, 1986) suggested that prospective teachers may not be adequately prepared for managing integrated classrooms. Another study by Winzer (1984) reported that student teachers hold positive attitudes only towards a limited form of integration. Similarly, Wilczenski’s study (1991) indicated that in general, education students favour the idea of integration and are willing to teach in regular classes those students whose handicaps do not inhibit their own learning or the learning of others. Longitudinal data within this study indicated that there was a trend toward reporting more favourable attitudes toward integration during professional preparation prior to student teaching. Following student teaching, however, there was a significant decline in the favourability of attitudes toward integration. More recently, a study by Ward and Le Dean (1996) revealed that prospective teachers hold differing attitudes about school placements based upon the nature of the students’ disabilities. The above studies indicated that prospective teachers, although positive towards the general philosophy of inclusive education, do not share a “total inclusion” approach to SEN provision. In this sense, this evidence reflects a level of caution similar to that
shown by regular teachers and other educationalists in previous studies.

4. Teachers’ attitudes towards inclusion studies

More recently, studies of teachers’ attitudes towards inclusion have been reported. Early American studies on “full inclusion” (Coates, 1989; Semmel, Abernathy, Butera & Lesar, 1991) reported results in favour of the current special education system (pull-out programmes) rather than inclusion. Another study by Vaughn, Schumm, Jallad, Slusher and Saumell (1996) examined mainstream and special teachers’ perceptions of inclusion through the use of focus group interviews. The majority of these teachers — who were not currently participating in inclusive programmes — had strong, negative feelings about inclusion and felt that decision makers were out of touch with classroom realities. The teachers identified several factors that would affect the success of inclusion, including class size, inadequate resources, the extent to which all students would benefit from inclusion and lack of adequate teacher preparation.

However, in studies where teachers had active experience of inclusion, contradictory findings were reported; a study by Villa, Thousand, Meyers and Nevin (1996) yielded results which favoured the inclusion of children with SEN in the ordinary school. The researchers noted that teacher commitment often emerges at the end of the implementation cycle, after the teachers have gained mastery of the professional expertise needed to implement inclusive programmes. Similar findings were reported by LeRoy and Simpson (1996) who studied the impact of inclusion over a three-year period in the state of Michigan. Their study showed that as teachers’ experience with children with SEN increased, their confidence to teach these children also increased.

5. Teacher characteristics and attitudes towards inclusion

A great deal of research regarding teacher characteristics has sought to determine the relationship between those characteristics and attitudes toward children with special needs. Researchers have explored a host of specific teacher variables, such as gender, age, grade level, years of teaching experience, contact with disabled persons and personality factors which might impact upon teacher acceptance of the inclusion principle. What is evident in any review of relevant literature (see Jamieson, 1984; Hannah, 1988) is that the evidence is inconsistent and none of the mentioned variables alone is a strong predictor of educator attitudes. However, a factor which has attracted considerable attention is the knowledge about children with SEN gained through formal studies during pre- and in-service training. This was considered an important factor in improving teachers’ attitudes towards the implementation of an inclusive policy. Without a coherent plan for teacher-training in the educational needs of children with SEN, attempts to include these children in the mainstream would be difficult.

The importance of training in the formation of positive attitudes toward inclusion was supported by the findings of Beh-Pajooh (1992) and Shimman (1990) based on teachers in colleges. Both studied the attitudes of college teachers in the United Kingdom towards students with SEN and their inclusion into ordinary college courses. Their findings showed that college teachers who had been trained to teach students with learning difficulties expressed more favourable attitudes and emotional reactions to students with SEN and their inclusion than did those who had no such training. Several other studies tend to reinforce the view that special education qualifications acquired from pre- or in-service courses were associated with less resistance to inclusive practices (Center & Ward, 1987; Clough & Lindsay, 1991). Dickens-Smith (1995), for example, studied the attitudes of both regular and special educators toward inclusion. Her respondents were given an attitude survey before and after staff development. Both groups of respondents revealed more favourable attitudes toward inclusion after their in-service training than they did before, with regular education teachers showing the strongest positive attitude change. Dickens-Smith concluded that staff development is the key to the success of inclusion.
More recently, Canadian research identified another factor that influences not only teachers’ reported attitudes toward inclusion but their actual teaching styles and adaptations in heterogeneous classrooms; that is their views about their responsibilities in dealing with the needs of students who are exceptional or at risk. Jordan, Lindsay and Stanovich (1997) found that teachers holding a “pathognomonic” perspective, in which the teacher assumes that a disability is inherent in the individual student, differed in their teaching instruction from those closer to an “interventionist” perspective, in which the teacher attributes student problems to an interaction between student and environment. More specifically, their study showed that teachers with the most pathognomonic perspectives demonstrated the least effective interaction patterns, whereas those with interventionist perspectives engaged in many more academic interactions and persisted more in constructing student understanding.

This finding was further reinforced by another study by Stanovich and Jordan (1998) which attempted to predict the performance of teacher behaviours associated with effective teaching in heterogeneous classrooms. This investigation was more sophisticated than previous ones because it was not only based on self-reports and interviews but also on observation of actual teaching behaviours. The results revealed that the strongest predictor of effective teaching behaviour was the subjective school norm as operationalised by the principal’s attitudes and beliefs about heterogeneous classrooms and his or her pathognomonic-interventionist orientation. Moreover, teachers’ responses on the pathognomonic-interventionist interview scale were also found to be important predictors of effective teaching behaviour.

The above studies have provided evidence that the school’s ethos and the teachers’ beliefs have a considerable impact on teachers’ attitudes toward inclusion which in turn are translated into practice. It can be said that teachers who accept responsibility for teaching a wide diversity of students (recognising thus the contribution their teaching has on the students’ progress) and feel confident in their instructional and management skills can successfully implement inclusive programmes.

6. The study

On the assumption that teachers’ attitudes can have a significant influence upon the success of educational policies and in the light of the absence of such studies in the UK context, we decided to turn our attention to this research domain/area. The present study is therefore concerned with investigating student teachers’ attitudes towards inclusion and it is the first of a series of studies with educationalists which are planned to be carried out in the UK. It is worth saying at the outset that the participants of this study were highly likely to have had limited experience of implemented inclusive programmes. Therefore, it was to be expected that their judgements were likely to have been either excessively cautious or radical. Also, given that there are differences between primary and secondary contexts, it is important to stress that the subjects of this study were secondary student teachers. While primary ethos is holistic/inclusive, the secondary school tends to be subject based and organisation focused and this is likely to have an effect on the student teachers’ perceptions. It is to the presentation of the aims of this study that we now turn.

7. Research questions of the study

Our study investigated student teachers’ attitudes towards the general concept of inclusion of children with special needs in the ordinary school,
their emotional reactions when they have to cater for an exceptional child and, finally, the influence of personal and institutional variables in the formation of their attitudes. More specifically, our study looked at the extent to which students in the School of Education possess attitudes which support inclusion — rather than integration — and asked whether significant differences in attitude exist by examining the relationship of attitudes and independent variables such as sex, age, grade level taught, type of school, and class size.

Moreover, our study investigated how student teachers feel when required to deal with a special needs child in their classroom (e.g. anxious–relaxed, worried–self-assured, negative–positive); whether they perceive themselves as possessing the necessary skills for meeting special educational needs; finally, what they consider needs to be done/changed in the ordinary school in order for it to become more conducive to the needs of all children.

8. Methodology

One of the major theoretical issues in the study of attitudes is how attitudes are to be defined. One difference of opinion is between theorists who define them simply as evaluation, that is, as emotion for or against the attitude object (in our case the object is an inclusive policy), and those who view attitudes as comprising three components (see Stahlberg & Frey, 1996). This latter view is based on the idea that an attitude is a combination of three conceptually distinguishable reactions to a certain object (Eagly & Chaiken, 1993; Rosenberg & Hovland, 1960). These reactions are specified as affective, cognitive and conative/behavioral components. For the purposes of our study we adopted the three-component model of attitudes (Eagly & Chaiken, 1993; Triandis, Adamopoulos & Brinberg, 1984). According to this model attitudes are viewed as being complex and multidimensional and when we measure attitudes we measure, in fact, aspects or attributes of the attitudes in which we are interested.

Many researchers in the field of teachers’ attitudes toward integration have used Likert-type inventories in attempting to ascertain the extent to which respondents agree or disagree with the general concept of integration as related to a range of disabling conditions. Here, much of the previous research has thus far been primarily represented by acceptance–rejection issues (addressing only the cognitive component of attitude by measuring beliefs) reflecting the traditional categories of disability. However, the use of labels or categories of disability such as “physically disabled”, “Down’s syndrome”, “autistic”, raises the issue that the readers in a population may have multiple interpretations for the same label. Multiple interpretations of labels occurs when teachers attribute different characteristics to a label based on their experience which could be positive or negative and be largely unpredictable across a population of teachers.

9. Developing a new instrument for measuring teachers’ attitudes toward inclusion

The preference for developing a new instrument stemmed from dissatisfaction with existing instruments. The format of our questionnaire was different in the sense that it addressed all the three components, thereby reflecting the multidimensional nature of attitude. Also, we avoided using the traditional categorisation of disabilities and our emphasis was on the participants’ attitudes towards the general concept of inclusion. The instrument consisted of reported personal and situational variables and:

- A Likert scale measuring beliefs relative to inclusion (cognitive component), consisting of 12 items taken from the Opinions Relative to Mainstreaming (ORM) scale (Larrivee, 1982; Antonak & Larrivee, 1995) which were adapted for an English context (e.g. words like “handicapped” and “mainstreaming” were replaced by “students with special needs” and “inclusion” accordingly). These items form two factors of the original ORM which were initially reported as general philosophy of inclusion and academic and social growth of the included child. Five of these items required reverse coding. For example, the scale...
included statements like: *Inclusion offers mixed group interaction which will foster understanding and acceptance of differences;* *Isolation in a special class has a negative effect on the social and emotional development of a student with special needs;* *The challenge of being in an ordinary classroom will promote the academic growth of the child with special need, etc.*

- A semantic differential scale consisting of bipolar adjectives (Osgood, Suci & Tannenbaum, 1957) measuring the respondents’ emotional reactions when required to deal with newly included SEN children (affective component). The scale consisted of 7 items and included adjectives like anxious–relaxed, worried–self-assured, negative–positive, etc. Where previous literature has shown variable responses to different kind of children (physically disabled, Down’s syndrome, EBD), we decided to introduce a differential response to category subsumed under two broad categories: (a) those with severe or multiple and profound learning difficulties; and (b) those with emotional and behavioural difficulties, severe enough to cause concern to the teacher.

- A Likert scale (8 items) measuring intentions (conative component). The scale included items like: *I will accept responsibility for teaching children with severe learning difficulties within a whole school policy;* *I will change my teaching processes to accommodate children with severe learning difficulties;* *I will engage in developing skills for managing the behaviour of children with severe learning difficulties.*

In the above Likert scales the respondents were asked to indicate the extent of their agreement with each statement by selecting among the following response choices: Strongly Disagree (1), Disagree (2), Undecided (3), Agree (4) and Strongly Agree (5).

In the semantic differential scale the respondents had to circle the number closer to the adjective which best described their feelings on a scale from 1 to 7. The items were totalled to generate a composite score for each component; a higher score indicated positive attitude.

- Also, another Likert-type inventory (18 items, again from 1 to 5) was included measuring teachers’ perceptions of the skills they possessed. The scale consisted of items like: *I feel confident in diagnosing/assessing specific needs; I feel confident in collaborating with colleagues to provide coherent teaching programmes for students with SEN; I feel confident in implementing Individual Educational Plans.* It is worth saying here that the skills included in the scale are not specifically for teaching children with SEN; rather we consider them as absolutely necessary for teaching a diverse group of learners and meeting a wide range of needs.

- Additionally the instrument included 5 items assessing the respondents’ confidence in meeting the IEP requirements of children with SEN at different stages of the statementing process. The items were phrased in the following way: *I feel confident in preparing the IEP requirements of children with special educational needs at stage 1 (similarly at stages 2–5).* The respondents were asked to indicate the degree of confidence with each statement by selecting among the following response choices: Not confident at all (1), I have misgivings (2), Neutral (3), I feel secure in my teaching (4) and Very confident (5).

- Finally, the last two sections were called “Incentives” and “Action planning” and contained three open-ended items.

The guiding principle in the construction of this new instrument was derived from Knoster’s framework (1991) of change in complex systems; if we want to change our educational system then we need vision, skills, incentives, resources, and action planning. (see LeRoy & Simpson, 1996).3

---

3In the UK, the “Code of Practice for the Identification and Assessment of Special Educational Needs” (DfEE, 1994) introduced a 5 “stage” formal assessment process which ranges from stage 1, a child with mild SEN whose needs can be met wholly by teachers in the regular classroom without any further assistance, to a stage 5 “statemented” child, where the severity of need requires formal (legal) recognition by the Education Authorities who guarantee extra resources external to the school to meet the child’s needs. The stages of the Code of Practice therefore represent a measure of “severity of need”. Stages 2-5 of the Code require the teacher to prepare an Individual Educational Plan (IEP) which has formal status of implementation and review.

4In order to acquaint the reader with the demands and wordings of the scales, some examples have been provided. The whole instrument is available from the authors on request.
10. Procedures

Prior to the implementation of this study a pilot testing of the instrument was conducted and some questions were rephrased according to the recommendations of the participants. Also the instrument was handed to two experts to establish content validity. The survey was carried out in a University School of Education and involved 111 students studying for a Post Graduate Certificate in Education (PGCE) (75% return rate) and 24 fourth year undergraduates studying for a B.A. in Education (135 in total). The undergraduate group was an opportunistic sample and was brought into the study for comparison reasons. The instrument was distributed to the students towards the conclusion of their courses and was administered during supervised lecture times. Completion typically required 20 min. The Cronbach alpha reliability coefficients for this investigation were: $\alpha = 0.80$ for the scale addressing the cognitive component, $\alpha = 0.85$ for the first affective scale and $\alpha = 0.90$ for the second, $\alpha = 0.81$ for the conative component and, finally, $\alpha = 0.90$ for the scale measuring the participants’ perceptions about the skills they possessed. Some of the characteristics of the sample are presented in Table 1.

11. Findings of the study

11.1. Descriptive statistics

11.1.1. The participants appeared to be positive towards the overall concept of inclusion

Since it was the first time that the instrument had been used, it was not possible to compare the scores of the participants in the attitudes scales with previous studies in order to evaluate whether they were high or low. However, considering the range of the scales (from 1 to 5 in the scale measuring the cognitive component, from 1 to 7 in the scale measuring the affective component and from 1 to 5 in the scale measuring the conative), it could be argued that the mean scores of the participants demonstrated positive attitudes towards the general concept of inclusion (see Table 2).

| Table 1 |
| Course of study, gender and age of the participants |
| Course of study | Frequency | Percent |
| History education | 20 | 14.8 |
| Maths | 16 | 11.9 |
| Science | 44 | 32.6 |
| Arts | 7 | 5.2 |
| English | 24 | 17.8 |
| Undergraduate education | 24 | 17.8 |

| Gender |
| Male | 70 | 51.9 |
| Female | 65 | 48.1 |

| Age |
| 18–22 | 34 | 25.2 |
| 23–30 | 73 | 54.1 |
| 31–45 | 24 | 17.8 |
| 45+ | 4 | 3.0 |

Total 135 100.0

| Table 2 |
| Mean scores of the participants in the scales measuring the cognitive, affective and conative component of attitude and the scale measuring their perceptions about the skills they possessed |
| N | M | S.D. |
| Cognitive | 128 | 3.51 | 0.47 |
| Affective | 130 | 4.63 | 1.0 |
| Conative | 127 | 4.09 | 0.50 |
| Skills | 96 | 3.40 | 0.56 |

11.2. Paired sample t-test

11.2.1. Pupils with emotional and behavioural difficulties (EBD) were seen as causing more concern and stress than other types of SEN

A paired sample t-test was conducted between the mean scores of the participants in the two affective scales. As previously mentioned, the first scale was designed to measure emotional reactions to the placement of a child with a severe learning difficulty (a child with Down’s syndrome, an autistic child, etc.) in a mainstream classroom, while the
second one examined emotional reactions to the placement of a child with emotional and behavioural difficulties in the mainstream classroom. The analysis revealed a significant difference between the mean scores of the participants in the two measures \((t = 6.12, p < 0.001, \text{mean of the first affective scale} = 4.62 \text{ and mean for the second} = 4.03)\), indicating that pupils with EBD would be causing more concern and stress to the student teachers than pupils with other types of special needs.

11.3. Multivariate analyses of variance

Six one-way MANOVAs were calculated to test for differences in the cognitive, affective and conative components of attitude between groups determined in terms of gender, age, course taken in the university, area of school where students engaged in school-based work (SBW), size of school, and size of classroom. The variable “age” comprised four groups (see Table 1). For the purpose of the statistical comparison the variable “course” (see Table 1) was recoded into three groups: (a) courses representing sciences (Maths and Science), \(N = 60\), (b) humanities courses (English, History and Arts), \(N = 51\) and (c) the undergraduate group, \(N = 24\). The variable “area” comprised four groups: (a) village, \(N = 16\) (b) small town, \(N = 73\) and (c) large town, \(N = 41\). The variable “school-size” provided two groups (median split): (a) schools with up to 999 pupils, \(N = 61\) and (b) schools from 1000 and more, \(N = 64\). Similarly, the variable “class-size” provided two groups (median split): (a) classes with up to 29 pupils, \(N = 72\) and (b) classes from 30 and more, \(N = 63\).

11.3.1. Female teachers held more positive attitudes than male

The analysis between groups of “gender” indicated a significant multivariate effect \(F(3, 115) = 3.03, p < 0.05\). Univariate test revealed that the multivariate difference was due to differences between males and females in the conative component of attitude \(F(1, 117) = 8.71, p < 0.05, \text{mean for males} = 3.96, \text{mean for females} = 4.22\).

11.3.2. Students undertaking science courses held significantly less positive attitudes towards inclusion than those undertaking humanities courses

The analysis between different groups of students in relation to the type of courses that they undertook in the university indicated a multivariate effect \(F(2, 230) = 3.16, p < 0.05\). The univariate test revealed that the multivariate difference was again due to differences in the conative component of attitude \(F(2, 116) = 9.87, p < 0.001\). A post-hoc test (Scheffe) was conducted in order to reveal which groups of respondents significantly differed. Significant differences were found \((p < 0.001)\) between group 1 (those undertaking science courses) and group 2 (those undertaking humanities courses) (see Table 3).

11.3.3. None of the remaining variables was found to be significantly related to the respondents’ attitudes

One-way MANOVAs for “age”, “area”, “school size” and “class size” did not reveal significant differences in the attitude components. It is worth saying here that it was not possible to examine the effect of variables such as “teaching experience” and “professional development” because of the homogeneity of the sample. For example, all the participants had the same teaching experience and thus it was not possible to form sub-groups and examine differences between them. Such an analysis is planned to be carried out in future research with data collected from a survey involving mainstream teachers.

11.4. Repeated measures ANOVA

The participants demonstrated a lack of confidence in meeting the IEP requirements of students with SEN.

<table>
<thead>
<tr>
<th>Course of study</th>
<th>(N)</th>
<th>(M)</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science</td>
<td>54</td>
<td>3.91</td>
<td>0.46</td>
</tr>
<tr>
<td>Humanities</td>
<td>49</td>
<td>4.27</td>
<td>0.51</td>
</tr>
<tr>
<td>Undergraduate education</td>
<td>24</td>
<td>4.16</td>
<td>0.45</td>
</tr>
<tr>
<td>Total</td>
<td>127</td>
<td>4.09</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Table 3 Mean scores of groups undertaking different courses of study in the conative component of attitude
Table 4
Mean scores representing the confidence of the participants in meeting IEP requirements at different stages of a statement of special educational need

<table>
<thead>
<tr>
<th>Stage</th>
<th>N</th>
<th>M</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1 confidence</td>
<td>78</td>
<td>3.76</td>
<td>0.89</td>
</tr>
<tr>
<td>Stage 2 confidence</td>
<td>77</td>
<td>3.38</td>
<td>0.97</td>
</tr>
<tr>
<td>Stage 3 confidence</td>
<td>73</td>
<td>2.95</td>
<td>0.90</td>
</tr>
<tr>
<td>Stage 4 confidence</td>
<td>71</td>
<td>2.62</td>
<td>0.85</td>
</tr>
<tr>
<td>Stage 5 confidence</td>
<td>71</td>
<td>2.31</td>
<td>0.87</td>
</tr>
</tbody>
</table>

The most noteworthy finding of this investigation concerns the participants’ lack of confidence in meeting the IEP requirements of children with special educational needs. Although the participants appeared to be positive towards the general concept of inclusion (see Table 2) what is evident in Table 4 is that their confidence dropped considerably according to the stage at which the children were seen as standing in the statementing process (see also Fig. 1).

Repeated measures ANOVA were calculated to test for significant differences between the means of Table 4. The analysis revealed a significant multivariate effect $F(4,66) = 31.57, p < 0.001$. Following, paired sample $t$-tests were conducted between the means of confidence at stages 1 and 2, the means of confidence at stages 2 and 3, the means of confidence at stages 3 and 4, the means of confidence at stages 4 and 5. Significant differences were found in all the above comparisons ($t = 4.79, p < 0.001$; $t = 6.38, p < 0.001$; $t = 5.26, p < 0.001$; $t = 4.98, p < 0.001$, respectively). The analysis clearly confirms that the participants’ confidence in meeting IEP requirements drops significantly according to the stage at which the children stand in the statementing process.

11.5. Correlational analysis

There was an association between students’ perceptions of the skills they possess and their attitude towards inclusion

The last important finding is that the means of all the three components of the attitude (cognitive, affective and conative) are moderately correlated with the mean of the perceived skills (see Table 5)

Although the above correlational analysis cannot possibly establish causation, it does reflect an important tendency: that is, respondents who
Correlations between mean scores of the cognitive, affective, conative and skills scales

<table>
<thead>
<tr>
<th></th>
<th>Cognitive</th>
<th>Affective</th>
<th>Conative</th>
<th>Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>Cognitive</td>
<td>1.000</td>
<td>0.261(a)</td>
<td>0.320(a)</td>
</tr>
<tr>
<td>Affective</td>
<td>1.000</td>
<td>1.000</td>
<td>0.413(a)</td>
<td>0.400(a)</td>
</tr>
<tr>
<td>Conative</td>
<td>1.000</td>
<td>0.413(a)</td>
<td>1.000</td>
<td>0.222(b)</td>
</tr>
<tr>
<td>Skills</td>
<td></td>
<td></td>
<td>0.400(a)</td>
<td>1.000</td>
</tr>
</tbody>
</table>

\(a\) Correlation is significant at the 0.05 level (2-tailed).
\(b\) Correlation is significant at the 0.01 level (2-tailed).

The above points indicate a pre-occupation on the part of the respondents with meeting the needs of the pupils whom they will encounter as newly qualified teachers. They also raise major issues about their training; in asking for more knowledge, more training, more experience with pupils with SEN, they appear to be making a clear statement about perceived deficiencies in the content and the quality of their training. However, the underlying paradigm here is the medical one; children with SEN are “special” and “specialist’s knowledge” is required in order to meet their needs.

12. Content analysis of the open-ended items

The questionnaire also included three open-ended questions which gave the respondents the opportunity to raise issues not covered by the scales of the instrument. The data were content-analysed and the key points that emerged are presented below.

12.1. Factors which could make participants’ responses more positive

The first open-ended question was posed to the participants immediately after the affective scale and asked them what would have been needed in order to make their responses more positive. The following issues were reported by the participants:

- More knowledge of different disabling conditions and different strategies for meeting their needs (81 participants, representing 60.14% of the total sample).
- More experience with SEN pupils throughout the training phase (76 participants, 56.2%).
- More ancillary support — which has to be constant — (72 participants, 53.4%) and specialist’s consultancy (63 participants, 46.6%).
- More training on managing the behaviour of pupils with emotional and behavioural difficulties (44 participants, 32.59%).

The above points indicate a pre-occupation on the part of the respondents with meeting the inclusion of students with SEN in the ordinary school.

12.2. Proposed changes in the classroom environment

The next open-ended item was towards the end of the questionnaire and asked the respondents what needed to be changed in the classroom environment. The following issues emerged:

- A different classroom layout which can accommodate children with disabilities was requested by 92 participants (68.14%): layout of chairs, tables, lifts in the school or stairways more accessible to classrooms, ramps, boards at different positions around the classroom.
- The wide majority of the respondents (105, 70.7%) asked for more resources, both human and material: classroom assistants, SEN staff, specialists, differentiated teaching packages, hearing, reading and speech support.
- Finally, 56 participants (41.8%) reported a need for smaller class sizes, especially those with included SEN pupils.
The evidence seems to suggest that radical changes should occur in the structure of the schools. The respondents interpreted the word “environment” in terms of a physical restructuring to accommodate students with physical disabilities and in terms of resources. In this way they appear to strongly argue that without adequate funding special schooling becomes inevitable for some children with significant disabilities. Here, the model which underpins this view is “integration”, not “inclusion”. If we locate the discussion on resources, there will always be some children with significant disabilities whose needs cannot be met in the mainstream.

12.3. Proposed changes in the school environment

The last open-ended item asked what needed to be changed in the school. The following contradictory issues emerged:

- A stronger SEN department was seen as essential by 86 participants (63.70%). Among other things the respondents would like their school to have: back-up specialists, greater co-ordination between teachers — special needs co-ordinators (SENCO)-parents, SENCO consultancy, an increased SEN budget and specific time available for in-service training.

- However, 31 student teachers (23.70%) underlined the importance of developing a new school ethos; for example, positive attitudes toward inclusion and a well established inclusive policy (schools should abandon the streaming of classes), more work on differentiation in every subject department, better co-ordination, better co-operation between teaching staff-ancillary support and SENCO and a welcome atmosphere for newly qualified teachers.

The above sets of responses are contradictory in the sense that the first set of respondents are more enculturated into the integration model in asking for more resources — human and material — in the form of a strong SEN department. However, some respondents (second group) deal with the concept of inclusion by reconceptualising the concept of “special educational need” and taking a systemic approach to meeting the needs of a diverse school population. This set of respondents argue that a different school ethos and a radical change in the attitudes and organisation of the school (systems change) is required, if “inclusion” is to be successfully implemented. It is also interesting that these students talk about a lack of co-ordination, a lack of co-operation between the staff and, in some cases, they ask for a more welcome atmosphere for newly qualified teachers. Again these points raise major issues about the quality of their school practice.

13. Discussion

The participants appeared to be positive towards the overall concept of inclusion. This is hardly surprising in view of the fact that in a number of studies (of teachers’ attitudes toward integration not inclusion) younger teachers and those with fewer years of experience were found to be more supportive of integration (Center & Ward, 1987; Clough & Lindsay, 1991). Therefore, it would not be unreasonable to assume that newly qualified teachers hold positive attitudes towards inclusion when entering the professional arena.

Additionally, pupils with emotional and behavioural difficulties (EBD) were seen as causing more concern and stress than other types of special needs. This also is hardly surprising because teachers have been consistently found to be averse to having difficult pupils in their classes (Chazan, 1994; Clough & Lindsay, 1991; Johnson, 1987). Moreover, they are not very enthusiastic about their reintegration even after a period in some form of mental health facility (Schloss, Miller, Sedlak & White, 1983). In the light of a rise in exclusions in recent years (OHMCI, 1996), student teachers should be provided with intensive training in managing classroom behaviour and meeting the needs of children deemed to experience EBD.

With regard to gender, our study found female prospective teachers to be more positive than male. This finding agrees with several researchers who noted that female teachers had a greater tolerance level for integration and for special needs persons than did male teachers (Aksamit, Morris &

With regard to the type of courses the participants were undertaking in the university, our study found that those undertaking science courses held significantly less positive attitudes towards inclusion than those undertaking humanities courses. Here, it could be speculated that prospective secondary teachers of Maths and Science might be more concerned about the academic performance of included SEN pupils and thus hold more cautious views regarding inclusion. However, in the absence of any previous studies examining the relationship between teachers’ subject specialisation and their attitudes towards inclusion, this finding should be interpreted very cautiously. More research is needed in this area.

Our study also examined the relationship between independent demographic and situational variables such as age, phase taught, area of school where students engaged in school based work (SBW), size of school and size of classroom and teachers’ attitudes toward inclusion. None of the mentioned variables was found to be significantly related to the respondents’ attitudes. Indeed, in previous studies the relationship between these variables and attitudes has been inconsistent and, as Jamieson (1984) and Hannah (1988) concluded in their review of attitude studies, none of the above variables can be regarded as a strong predictor of educator attitudes.

However, the most important finding of our study was the identification of the participants’ lack of confidence in meeting the IEP requirements of children with special educational needs. What is striking here is that their confidence drops significantly according to the stage at which the pupils are perceived as standing in the statementing process. In this, our study confirms Australian research (see Ward et al., 1994 for a detailed review) which indicated that the nature of disabilities and the severity of presenting educational problems negatively influenced the educators’ attitudes toward integration.

More recently, similar findings were reported by another Australian study which involved prospective teachers (Ward and Le Dean, 1996). Moreover, in the present study the means of all the three components of attitude (cognitive, affective and conative) were moderately correlated with the mean of the perceived skills. That simply means that respondents who perceived themselves as competent enough to cater for SEN pupils, appear to hold positive attitudes toward inclusion. Therefore, if attitudes are seen as developing out of the interaction between knowledge, skills and experience, then it is important that newly qualified teachers possess appropriate levels of experience, knowledge and skills in order to support pupils’ learning in a diversity model.

In the UK, Government Circular 9/92 describes the competences newly qualified teachers should possess; i.e. they should be able to meet the needs of a wide range of pupils within ordinary schools and be able to identify those educational needs which come under the rubric of “special”. Also, following this circular, schools are encouraged to enter into a partnership with Higher Education (HE) institutions, and they should offer “contributions … to the training of students and to the planning and management of … the education of children with special educational needs” (DES, 1992, p. 4). Thus, students qualifying as teachers should possess appropriate knowledge and skills (competences) and have had school-based experiences which have broadened and deepened those competences.

In the light of this, in the UK the initial training of teachers now includes compulsory elements concerned with the needs of pupils with SEN. However, the participants in our study raised concerns about the nature and extent of SEN coverage, both in college-based work and in school placements. Similar findings were reported by Garner (1996), who examined the views of a group of students who had completed their teacher training courses in four higher education institutions in the south-east of England. These findings raise issues about Initial Teacher Training (ITT) in the UK and it is to the discussion of this point that we now turn.

Two main routes to teacher training are available in England and Wales. Both provide for specialist training in either primary or secondary teaching and are available in universities and colleges of education: a three or four-year course leading to the B.A. (Ed) which includes study of a teaching subject as well as teacher training, and...
a one-year post-graduate certificate of education (PGCE) for graduates leading to qualification to teach in primary or secondary schools. The most common approach to the development of a special needs element in both types of ITT is the “permeation” model. Permeation can be defined as a process by which SEN matters are subsumed within each element of a teacher-training course and become the responsibility of all tutors within the ITT team. Whilst this approach encourages all tutors — and, most important, all mainstream tutors — to be involved more directly in SEN concerns, and for their students to obtain at least some SEN-specific information, it is very difficult to implement and monitor in practice. Mittler (1992), for example, has noted that “permeation is by its very nature invisible and therefore difficult to monitor” (p. 5) whilst an official view has been that permeation has an “insufficient foundation by way of specific course content” (DES, 1990, p. 17). Moreover, the shortage of special needs tutors in teacher training institutions makes it difficult and often impossible to provide adequate teaching to ITT students or to support mainstream staff in doing so.

Clearly, the permeation model needs to be rethought. Our study revealed that the participants perceived their experience as unplanned and incoherent which does not argue well for the development of student competence. Similarly, at the international level, the attention of policy makers needs to be directed to examining ITT, if they are to promote inclusive practices which result in improvement in the lives of all children. The findings presented from this study support the need for every teacher training institution to examine carefully “coherence” within courses and the nature of school-based work with regard to SEN.

With regard to the qualitative findings of our study, the content-analysis of the open ended items suggested that the participants are more enculturated into the “integration” model, in the sense that they were over-stressing the need for more resources in order to accommodate children with SEN in their classrooms. However, this is not what “inclusion” is about. Inclusion is about values (Bayliss, 1997; Lindsay, 1997) and there is nowhere in the data any awareness that teachers have moral–ethical obligations to teach pupils with SEN. A teacher cannot reject a pupil who is Catholic, black or female as ineducable because they are Catholic, black or female. Why should the dimension of disability be different? If student teachers see the problem in terms of skills deficits and resource issues, rather than social–ethical requirements, there will always be some marginalised groups who are deemed ineducable.

Finally, it is worth noting that some respondents found no difficulty in dealing with the concept of inclusion. These students underlined the importance of developing a new “ethos”, if schools are to become truly inclusive, and argued that a radical change is needed in the way schools are organised; above other things, they mentioned that positive attitudes are needed, a well established inclusive policy, better coordination among the teaching staff and efficient use of resources. We strongly believe that in a period in which resources and general funding are monopolising the discussion about “inclusion”, attention should be paid to developing an inclusive policy (a mission statement), especially when data from large-scale evaluation studies of inclusion in action (see Ward et al., 1994) have given qualified support to the importance of having such a policy and have reaffirmed the importance of school ethos, of which attitudes are clearly an important component. (See also the study by Stanovich & Jordan, 1998 where the subjective school norm, as operationalised by the principal’s attitudes and beliefs about heterogeneous schooling was an important predictor of effective teaching behaviour).

It has to be said that results from this investigation should be interpreted cautiously in the light of several limitations of the study. The first limitation involves the sample; data were collected from only one institution, while participant selection did not always follow strict randomisation procedures. Another limitation is that the instrument employed did not provide for a differentiation between attitudes toward the inclusion of children with different exceptionalities. Therefore, it is possible that in the case of the more severe presenting conditions, segregationist attitudes were obscured by a format of questionnaire which referred only to the concept
of inclusion. However, recognising these limitations, the investigation does offer several important practical implications for policy makers, teacher educators and administrators.

We would strongly argue that prospective teachers need to have early and continuous exposure to students with special educational needs, preferably through field experiences in inclusive settings. In addition, if students receive a heavy emphasis upon the skills of mixed-ability teaching, they may feel more confident about dealing with the instructional and management problems presented by students with SEN. Similarly, the outcomes of research suggest that providing extensive opportunities for training for prospective teachers in inclusive settings may also support the development of confidence and competence. Prospective teachers may not hold “negative attitudes”. Rather they may not see solutions to problems which they feel are outside their competence or control. Therefore, the boost of teacher self-efficacy is mainly a matter of teacher training. Finally, the process of implementing policies related to inclusion, as opposed to integration, also presupposes that teachers understand the concept. Here training, whether at the pre-service or in-service levels, may result in change, if it focuses on a critical understanding of inclusion rather than technical responses to particular “needs”, i.e. integrational approaches. Such training is more likely to provide the practitioners both a vision and skills to operationalise that vision, skills which allow them to modify their everyday practice in ways which are ultimately inclusive.

Acknowledgements

The authors would like to express their appreciation to the anonymous reviewers for their helpful comments and suggestions on an earlier version of this manuscript.

References


DES (1990). Special educational needs in initial teacher training. London: HMSO.


