ESTONIAN VOCATIONAL TEACHERS' ATTITUDES TOWARDS INCLUSIVE EDUCATION FOR STUDENTS WITH SPECIAL EDUCATIONAL NEEDS

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This paper presents the findings from research conducted with two samples of teachers from Estonian Vocational Schools. The first sample comprised a group of teachers who had received professional development directly related to the management of students with special educational needs in vocational education settings. Their attitudes and expectations of students with special educational needs were compared to those of a larger second sample of similar teachers who had not received training in this area. Differences of attitudes are discussed in relation to the findings from similar studies conducted elsewhere in Europe, including a developing literature from eastern European states. The paper concludes that whilst most teachers in Estonian Vocational Schools demonstrate positive attitudes towards the greater inclusion of students with special educational needs, concerns remain with regards to the readiness of these schools to accept such pupils onto existing courses. Training of teachers emerges as a critical factor in promoting inclusive practice and there is evidence of the support provided to a cohort of teachers through training courses having positively influenced attitudes and expectations.

The promotion and development of education systems which ensure increased participation and greater access for students deemed to have special educational needs or disabilities has been high on the educational agenda of most European countries for several years (Meijer 2003a, Vislie 2003). The Salamanca Statement (1994) has provided a focus for policy makers and may also be seen to have emphasised inequalities of provision, which have characterised many educational establishments in the recent past. However, it has been argued that whilst much of the ensuing discourse surrounding inclusive education has been focused upon issues of ethics and human rights the discussion of pedagogy and efficacy has been given lesser attention (Croll and Moses 2000, Rose 2002). Where there has been debate about the development of inclusive practice, this has often concentrated upon the conditions which it is perceived as necessary to provide in schools or colleges in order that inclusion might succeed (Ainscow 1997, Pastor 1998, Florian and Rouse 2001, Peters 2007). Much of the research on inclusion has focused on examining the compulsory level of education or to some extent on that provided to children in the early years of formal schooling, but little emphasis has given to the post-compulsory level, a point made by Avramidis and Norwich in their study of teacher attitudes to inclusion between the years 1980 and 2000. The results of their research indicate that attitudes to inclusion tend to become more negative as students get older, possibly as a result of the need to focus attention upon subject teaching rather than concentrate upon the learning needs of the individual.

Much of the research on inclusion has been conducted in Western Europe, though recently there has been a trend towards a closer examination of practices that promote inclusion from Eastern European countries (Ambrukaitis., Ruškus., Bagdonienė and Udrienė 2003, Kivirauma., Klemalä and Rinne 2006, Miltenienė 2006). In a review of arrangements for students with special educational needs in Central and Eastern Europe written in 1999, Ainscow and Haile-Giorgis described how a dominant theory of defectology, which had pervaded provision under the former Soviet Union was gradually being eroded and subsumed in a movement, albeit slowly, towards a more integrated approach to education. In reporting on the progress made in the region, these researchers suggested that contacts with individuals and groups from outside of Eastern Europe had had some impact upon changing

attitudes and expectations of students with special educational needs. However, they recognised that some of the traditional views emphasised within theories of defectology would inevitably persist for some time and that notions of inclusion were likely to remain contentious. A number of more recent writers (Kugelmass and Galkiene 2003, Kõrgesaar 2003, Kossewska 2006) whilst endorsing the difficulties experienced in moving forward from earlier models and perceptions, have provided evidence of a relatively rapid period of change towards embracing an education system, which recognises the rights and potential of students who have previously been marginalized. These writers tend to emphasise the momentum which now exists in moving towards a more inclusive education system and the need to support teachers who have shown a commitment to sustaining and building upon these developments

In Estonia legislation has affirmed the rights of all students, regardless of need or ability to receive an education within the state system (Tiit and Eglon 2000). Major legislative changes in this area had already been made more than a decade ago, and important changes have occurred in the last few years in the area of education for students with special educational needs by several judicial acts at the different levels of education: pre-school, mainstream, secondary, higher and vocational. Estonian general legal policy has established a legislative framework for equal opportunities for people with special needs and this has resulted in a trend in special education towards the inclusion of students within mainstream and vocational schooling. However, newly introduced educational practices which followed this legislation have been restricted in their impact. Rather than radical change, schools have witnessed modification of earlier practices which have not fully addressed the need for a move towards more inclusive education. A gap between legislation and services in special education remains as a cause for some concern (Special Education in Estonia anno 2003, 2004).

A discussion conducted by Kukk and Kaikkonen (2003) on the development of more inclusive education has identified this as one of the priorities in the Estonian vocational education system. However they claim that even though vocational schools have been willing to accept students with special needs, they need a greater understanding of how to develop curricula, to change school organisation and to interpret what kind of in-service training teachers might need to be able to achieve this. Whilst legislation has been put into place and actions taken to secure a more inclusive education system within Estonia, there has, as yet, been little research conducted into the efficacy of provision or the perceived conditions necessary for the promotion of inclusive practice. For most teachers working in mainstream schools and colleges, the move towards greater inclusion is presenting challenges and expectations, which are new to them. Attitudes of teachers towards the education of students with special educational needs are not uniformly positive. For example, about half of mainstream school teachers believe that they are not ready to teach such pupils within their existing schools (Haljaste 2000).

Vocational schools, charged with the responsibility of preparing students for life in the work place and enabling them to play a role in the development of a social and economic infrastructure have always played an important role in the Estonian education system. However, before being able to examine how vocational schools and teachers are facing the challenges of working in a more inclusive environment it is necessary to examine the development of vocational education in general in Estonia during the last decade.

Vocational schools faced a new situation after Estonia's independence at the beginning of 1990's. During the 51 years of occupation, the structures of education in Estonia were based on a highly planned soviet economy, strict centralisation and a stable and very predictable labour market. Despite hidden conflicts the country lived in a culture whose operations were quite uniform. Vocational education establishments were schools for a privileged working class where Marxist-Leninist philosophy formed an important part of instruction (Mutka & Kaikkonen 1999). After independence was gained in 1991, however, the situation in Estonia changed drastically and rapidly. The profound social changes that took place no longer respected the distinctions, divisions, classifications and hierarchies with which the Estonian people had hitherto been accustomed to make sense of social and political life and the world of work. The operational modes of the economy changed quickly and thoroughly. Trade relations had until then been largely with other eastern European states, but as early as in 1993 they had already turned mainly westward (Meri 1995a). As a result of the breakdown of the old systems and the emergence of the ideas of a market economy and consumerism, social and political discussion turned very quickly to subjects shared with the rest of the Western world: the operation of market mechanisms, the segmentation and polarisation of working life, the increasing threat of

unemployment and the vocational qualifications required in new areas of work (Väärälä 1995). Independence led to a strong desire to emphasise the country's old European identity and reinforce the workings of a democratic state (Meri 1995b). This also made the cultural and ethnic differences within the country more openly visible. When considering developments in the education system it is important to acknowledge these influences and to recognise that Estonian teachers do not form a heterogeneous group; instead they come from substantially differing linguistic and cultural backgrounds.

These contextual factors amount to a conceptually interesting starting point when discussing the issues which are perceived as essential from the point of view of teaching as an occupation within an Estonian environment. When considering the role of teachers it is necessary to acknowledge the challenges which came about when the forms of education that served the purposes in Soviet times were no longer appropriate for vocational education and its development in a democratic Estonia. The knowledge and skills of vocational teachers would clearly form one of the corner stones of the development of vocational education and working life in the new state. This would inevitably be influenced the international co-operation that had started soon after independence. Besides the changing structures of society, the established priority of joining the rest of Europe also strengthened the demand to develop vocational teacher education at the end of the millennium (Mutka & Kaikkonen 1999).

Thus the same educational challenges as in the rest of Europe became increasingly a topic for discussion on Estonian vocational education and training: lifelong learning, entrepreneurship, e-learning, co-operation between vocational education and working life, to mention a few examples Along with this a new focus upon respecting learners' individuality and to include students with special needs into vocational education quickly emerged. To understand the development of more inclusive education it should be emphasised that a move towards greater inclusion was only one of the many challenges facing the Estonian vocational education system. Finding an answer to these challenges at the beginning of the 21st century demands close co-operation between all agencies working within an education and social welfare system and the evaluation of current practices embedded within vocational education. Under these conditions, the central questions involved in vocational education and training were and are: what kind of vocational competencies are needed by people living in the midst of emerging social change? How are all students to be taught and introduced to these competencies? In previous times students with special educational needs were taught in separate segregated schools and ordinary vocational teachers were not considered to need any training or knowledge in this area, and accordingly many of them consider themselves ill prepared for the challenges of working in a more inclusive educational environment (Mutka and Kaikkonen 1999; Kaikkonen, Maunonen-Eskelinen and Mutka 2002).

As with other phases of education, teachers in vocational schools have been increasingly confronted by legislation which has endorsed change in an effort to create a more inclusive system. Teachers in vocational education in Estonia, as elsewhere, have a range of experiences, beliefs and knowledge which influences their perceptions of the abilities of students with special educational needs, and their expectations with regards to their likely achievements. The need for training to support inclusive education, both through the development of teacher competencies and the changing of attitudes and perceptions has been cited as a key element of preparation for inclusion in much of the literature (Giangreco 1997, Kaikkonen 2001, Tilstone 2003, Blake and Monahan 2007).

The research reported in this paper focused on Estonian vocational teachers' attitudes towards inclusive vocational education and their assumptions about its further development within the context of vocational education. It also considered the impact of professional development provided to a group of vocational school teachers upon their understanding and attitudes about inclusive education by comparing them with a sample for whom direct access to such training had not been provided.

Method

The research described was undertaken with two main purposes in mind. Firstly, to ascertain how teachers working in vocational schools in Estonia perceived the moves towards the inclusion of students with special educational needs into their schools following the implementation of national legislation. Secondly, to assess whether training provided to a small cohort of teachers from vocational schools had significantly impacted upon their perception of special needs related issues and to gauge whether their attitudes and perceptions differed from those of teachers who had not experienced this training.

In order to gain such information it was adjudged most appropriate to use survey methods, which would obtain data that was both qualitative and quantitative in nature. In constructing a survey, which used both questionnaire and interview methodologies, the researchers were confronted by challenges associated with current levels of understanding of concepts of inclusive education within an Estonian context, and also by issues of culture and language which demanded careful construction of the research instruments. Griffiths (1998 p.66) has emphasised that many of the educational terms used by researchers may be *value laden* and as such may elicit responses from participants in the research process, which are guarded or heavily influenced by personal constructs. When working across cultures and languages this difficulty may be considerably exacerbated. This is certainly true with regards to the concept of inclusion which may be seen to have been subject to several interpretations and examined from a variety of perspectives in Western Europe (Florian 1998, Farrell 2001, Oberski 2003) and has to an extent been transposed to an Eastern European context with inadequate consideration of how it may be unified with existing social and educational constructs. It was thus deemed essential to ensure that all research instruments were developed and piloted in full collaboration with colleagues who were working within an Estonian context. Similarly, fieldwork was conducted by a member of the research team who was able to conduct interviews in both Estonian and Russian, as preferred by respondents. Even with this attention to detail it is important to acknowledge that in order to involve all of the researchers in data analysis there was a necessity for translation with the attendant difficulties of interpretation associated with this process. Interpretation of information within such cross-cultural research is inevitably a hermeneutic process, which involves the researcher(s) in constructing meaning. Carspeken (1996) suggests that when working under such conditions it is necessary that all researchers become *virtual participants* in the actions being researched or that they have an insider with privileged access to the situation. The role of one of the key researchers, a native Estonian speaker working within the country who is also fluent in Russian (the chosen language of some respondents) did enable the research team to take necessary steps towards overcoming limitations. The team viewed their differing experiences and expertise as a strength, whilst acknowledging that this would also impact upon working practices in relation to specific tasks undertaken within the project.

The samples

Data was collected from purposive samples defined by the parameters of involvement in vocational education and regular encounter with students with special educational needs. Two samples were identified for the purpose of gaining insights into Estonian teachers working within vocational education. The first (A) comprised teachers who had undergone a specific course of training in relation to special and inclusive education provided through two separate projects, which had been managed through a programme of European co-operation, and which had special and inclusive education as a focus. The second sample (B) was drawn from teachers working in vocational education across Estonia who had not undertaken specific training in these areas. The two samples were identified in order to provide an opportunity to evaluate whether the training provided to sample A had achieved an impact in terms of influencing attitudes towards inclusive education, which was distinctly different from those held by teachers in sample B. All teachers in both samples were working within vocational teaching establishments across Estonia and were drawn from all of those schools.

The demographic characteristics of the two samples were as presented in table 1.

Table 1

Demographic characteristics	**Sample A (Teachers who had attended training) Project Group**	**Sample B Control Group**
N=	101	20
Age (Mean)	48.50 years	47.47 years
Female	100%	98.92%
Male	0%	1.08%
Head of school	0.5%	0.1%
Vocational teacher	35%	28.71%
Subject teacher	64.5%	71.28%

Data collection

Data was collected through survey methods using a questionnaire and semi-structured interviews. The initial questionnaire survey was sent to teachers in both samples (see below), with a view to eliciting responses related to specific themes. The sample comprised all Estonian state owned Vocational Schools (N = 49) and a return of 73.04% was gained (1-5 questionnaires from each school). A first theme of the questionnaire considered teacher experiences in respect of both their general teaching

experience and of working with students with special educational needs. The second theme concerned the levels and type of training related to special educational needs, if any, that each individual teacher had received, and sought further information about training needs. A final theme was focused upon expectations and attitudes towards the inclusion of students with special educational needs in mainstream vocational education classes. It was anticipated that the initial questionnaire survey would gather information, which could be used to examine influences upon attitudes and beliefs and also to generate both quantitative and qualitative data, which could be built upon through the second phase of the research.

This second phase of research was based upon semi-structured interviews with a smaller sample (N= 10, five from each sample) of vocational teachers. These were self-selecting, having been asked through the questionnaire if they were willing to be interviewed as part of the research process. All interviews were audio recorded and transcribed prior to analysis. The interviews, all of which were conducted in the respondents preferred language were used to expand upon issues raised within the initial questionnaires and to generate further qualitative data which both verified and built upon that obtained through questionnaires.

Interpretation of the findings

Teacher experiences

Vocational teachers in both samples were asked specific questions about their attitudes towards inclusive education. This data was collected after the training had been provided to teachers in sample A. All teachers in both samples had encountered students with a range of special educational needs (see table 2), though as might have been expected the extent of this experience was variable. Most were able to articulate their experiences of teaching students with varying degrees of learning difficulties and physical disabilities and had also encountered those who exhibited challenging or anti-social behaviours. Teachers in both samples had less experience of working with students with sensory impairments or those with autistic spectrum disorders, a fact that was confirmed through the interview data. In interview when questioned about the distinctive features of students with special educational needs whom they had taught, some teachers in sample A were more precise in describing individual needs and contextualising these in terms of the ways in which they had adjusted their teaching to ensure participation.

Table 2

Vocational teachers' previous teaching experiences of teaching students with special educational needs

Experience related to teaching students with special educational needs (SEN)	All vocational teachers(%)	Project group (A)(%)	Control group (B)(%)	A – B *t* - values
Deaf or hearing impairment	34.7 1	55	30.69	2.02**
Blind or partially sighted	13.22	25	10.89	1.39
Autistic spectrum disorders	10.74	20	6.93	1.40
Severe learning difficulties	31.40	40	29.7	0.87
Moderate learning difficulties	67.77	70	67.33	0.24
Mild learning difficulties	84.30	95	82.18	2.07**
Specific learning difficulties (dyslexia, reading and writing difficulties)	52.89	65	50.5	1.23
Physical disability	42.15	75	35.64	3.65**
Emotional and behavioural difficulties	81.82	90	70	2.47**
Answered:	***100 (N=121)***	***100 (N=20)***	***100 (N=101)***	

** results significant at p<0.01 level

Attitudes

Most of the vocational teachers in this study had positive attitudes toward inclusive education – about two thirds of teachers gave positive comments, though many did so with conditions attached related to resources or the school structures in which they would need to operate.

When interrogated about the ability to include students with special educational needs in vocational classes there was a significant difference of attitudes between teachers in the two samples (Table 3). Those who had received training in the area of inclusive education had a more positive view of the potential to include students with special educational needs. Indeed none of the teachers who had received training opposed the idea of inclusion on the grounds of feeling that the current climate was not yet ready for this move, though they did see the necessity for making changes in terms of

availability of resources and further training. However, some did believe that vocational schools were not yet ready for increased inclusion because of the extra demands which students with special educational needs made upon teacher attention. Teachers from both samples when interviewed often commented upon the need to provide individual attention to students and suggested that opportunities for this provision were limited. Whilst half of the teachers who had received training perceived inclusion to be a human rights issue (as opposed to only 17.35% of teachers who had not received training) only ten percent believed that inclusion could be achieved for all students with special educational needs without significant changes to current conditions in the schools. The climate for moving towards a more inclusive system had, in their opinion been achieved, but significant shortfalls in resourcing and professional development were likely to restrict immediate progress. This belief, that the progress of inclusion may be impeded by lack of resources, even when positive attitudes and a conducive climate has been achieved is borne out by examples of emerging inclusive schooling elsewhere in Europe. Meijer (1999) in a study of the financing of special education in seventeen European countries raises critical questions about the funding of inclusion. Whilst acknowledging that it is possible to work effectively within a range of fiscal models, he questions whether in some instances financial support is directed too much towards bureaucratic procedures and insufficiently targeted at schools. When probed further on this issue several teachers commented that they needed a better knowledge of specialist approaches to managing students with special educational needs and needed specialist equipment, which would enable students to gain better access to lessons. Teachers who had undertaken the training course were able to comment on specific aspects of pedagogy and classroom management which they felt enabled them to create a more inclusive classroom, whilst those who had not received training were more imprecise in their discussion of classroom practices. This finding endorses those described in the study conducted by Avissar (2003), and also that of Avramidis and Norwich (2002), who suggests that as teachers gain a greater understanding and experience of the potential of inclusion, they become more systemic in their definition of potential advantages.

Class size and teaching arrangements

Teachers from both samples were in agreement that class and group size was a factor in determining the ability to include students with special educational needs. One respondent commented that it was often useful to have more than one student with a disability or special educational need in a class as this enabled teachers to give a greater priority to meeting needs and sometimes meant that groups of compatible ability could be assembled. The themes of class size and organisation of groups are common to much of the literature on inclusive education (Hunt, Staub, Alwell, and Goetz 1994, Sebba and Sachdev 1997, Jenkinson 1998). However, there is evidence to suggest that class size factors are probably of lesser significance than some of the other conditions required to promote inclusive classroom practice. Rose and Coles (2002), in a study of teacher experiences of including pupils with special educational needs in mainstream primary and secondary schools in the UK found that teachers who had experienced working in inclusive classrooms placed less emphasis upon class size than did those with little experience of inclusion. In their study, classroom support and appropriate training were seen as much more significant factors in providing classrooms conducive to inclusive practice. Many of the teachers in the study reported here had limited experience of inclusion and the majority had received no training in this area. It is possible that their anticipation of challenges associated with class size may be assuaged if they are provided with confidence through appropriate training and gain experience of successful inclusion in their own learning environment.

The provision of separate classes for students with special educational needs was seen as one of the conditions, which might be acceptable in promoting inclusion, by some of the teachers who had not received training. This contrasted with the trained sample who did not regard this as appropriate but perceived that this might be an obstacle to inclusion. Estonian law (Estonian Ministry 1998) states that students with SEN in vocational education and training should in general be taught in mainstream classes but retains a possibility to form separate classes if there is a cohort of six to eight students with diverse special educational needs studying within the same professional area.

In many countries in Western Europe the provision of special *units* attached to the mainstream has become a feature of the move away from total segregation and towards a more inclusive system (Meijer, Soriano and Watkins 2003, Preece and Timmins 2004). This has, in many instances been regarded as a means of providing opportunities for social inclusion for those students considered too challenging to be educated entirely alongside their peers. The use of separate teaching sessions, with students entering the mainstream classroom to work alongside their peers has been seen to provide some security to both students and teachers as they work to gain a greater confidence and

understanding, which may eventually lead to full time participation in the mainstream class (Pijl and Scheepstra 1996, Jacklin 1998). The evidence gathered in this survey suggests that this transition approach may be essential in increasing the confidence and competencies of teachers working within Estonian vocational education schools.

Table 3
Vocational teachers' attitudes towards inclusive education

Attitudes towards inclusion	All vocational teachers (%)	Project group (A) (%)	Control group (B) (%)	A – B *t* - values
Negative comments				
Against inclusion, under any condition	20.34	0	24.49	5.64**
Against inclusion; not possible now because conditions are not right	4.24	0	5.1	2.29**
Against because students with special educational needs demand more attention from teachers	5.93	15	4.08	1.33
Positive comments				
Inclusion can be achieved without significant changes in current conditions	2.54	10	1.03	1.32
Positive about inclusion; because it is a human rights issue, and an essential step towards inclusion in society	22.88	50	17.35	2.76**
Positive comments with conditions				
Positive only with right resources and special staff	12.71	15	12.25	0.32
Positive when there are not severe disabilities	10.17	5	11.22	1.07
Positive when there are small groups	4.24	5	4.08	0.17
Positive when there are separate classes	9.32	0	11.22	3.52**
Answered:	***97.52 (N=118)***	***100 (N=20)***	***97.03 (N=98)***	
Unanswered:	***2.48 (N=3)***	***0***	***2.97 (N=3)***	

** results significant at p<0.01

Professional development of teachers

Training is often cited as a critical factor in enabling teachers to manage students with special educational needs in their classes (Thomas, Walker and Webb 1998, Mittler 2000, Avramidis & Norwich 2002, Golder, Norwich and Bayliss 2005). It was noticeable in this study that whilst both samples of teachers expressed a need for training, that there was significant difference between the perceptions of the two groups (table 4). Teachers who had attended the training course appeared to articulate their needs in respect of specific teaching to improve social skills and an increased general knowledge about special education, this was particularly coupled with a desire to know more about how inclusive practices had been developed elsewhere in Europe. Those who had not received training were more concerned to understand the characteristics of students than about teaching approaches. However some teachers in sample B who had not received the training course were anxious to prioritise an emphasis upon vocational education of students with special educational needs rather than on general aspects of special or inclusive education.

In the interviews conducted, teachers who had attended the training course were generally more focused when answering questions about the kinds of professional development needed to encourage inclusive practice. They often mentioned specific teaching approaches and classroom management skills, whereas teachers in sample B tended to give a more generalised response focused upon perceived pupil deficiencies. Teachers who had received training emphasised a training need for general knowledge about promoting pupils' personal and social development as opposed to the teachers in the other sample who saw a need for general knowledge about child psychology. Cardona Molto (2003) in her discussion of teachers' acceptance of instructional adaptations to promote inclusion identified that, particularly for older students with special educational needs this could be a major obstacle. She suggests that such changes of practice require teachers to be well motivated and to be prepared to make adaptations to planning and classroom routines. A declaration by some teachers in sample B that there is no necessity for change in their vocational schools (table 5) suggests that changes to pedagogical procedures may be hard won. On the other hand, the teachers in sample A

Table 4
Vocational teachers' perceived training needs in relation to the teaching of students with special educational needs

Training needs in relation to teaching of students with special educational needs	All vocational teachers (%)	Project group (A) (%)	Control group (B) (%)	A – B *t* values
Practical experiences of inclusion				

Practical experiences about inclusion which can be learned from other European countries	7.45	29.41	2.6	2.39**
Knowledge and information needs				
General knowledge's about special education	22.34	70.59	11.69	5.06**
Characteristics of different special educational needs	20.21	11.76	22.08	1.13
Training specifically related to the Vocational education of students with special educational needs in relation to professional subjects.	4.26	0	5.19	2.05**
Laws related to special educational needs	4.26	23.53	0	2.29**
Psychology	19.15	23.53	18.18	0.48
Psychiatry	4.26	5.88	3.9	0.32
Social pedagogy (developing of social skills of students)	6.38	23.53	2.6	2.00**
Techniques for classroom management				
Didactics (teaching approaches)	39.36	41.18	38.96	0.17
Development and management of individual study plans	4.26	11.76	2.6	1.14
Creation of an environment for promoting and motivating learning	8.51	11.76	7.79	0.47
Answered:	***77.67 (N=94)***	***85.00 (N=17)***	***76.24(N=77)***	
Unanswered:	***22.31(N=27)***	***15.00 (N=3)***	***23.76(N=24)***	

** results significant at p<0.01

Table 5
Conditions which need to be achieved in order to promote inclusion in vocational schools

Conditions for inclusion in vocational schools	All vocational teachers (%)	Project group (A) (%)	Control group (B) (%)	A – B *t* -values
Complementary education for teachers				
Complementary education for teachers about special education	18.18	15	18.89	0.43
Complementary education for teachers about individual study plan	3.64	5	3.33	0.32
Changing of negative attitudes of teachers	8.18	20	5.55	1.16
Resources				
More and better teaching aids and educational equipment specifically designed for students with SEN	10.00	30	5.55	2.32**
Better resources at school	20.00	0	24.44	5.40**
Organisational changes in schools				
Small groups	14.55	25	12.22	1.24
More specialists (psychologist, speech therapist, consultant, social educator)	16.36	30	13.33	1.54
Assistant teacher	3.64	10	2.22	1.13
Shorten the duration of learning in lessons	1.82	0	2.22	1.43
SEN and other students must study in separate classrooms	10.00	0	12.22	3.54**
Co-operation with employer	3.64	20	0	2.24**
More possibilities for SEN for practical vocational training	10.00	15	8.89	0.72
Individual study plan for SEN	10.00	0	12.22	3.54**
Negative comments with conditions				
No needs for changing because all is done for SEN in our school	7.27	15	5.56	1.13
No need for changing because in our school it is not possible	8.18	0	10	3,16**
Answered:	***90.91 (N=110)***	***100 (N=20)***	***89.11(N=90)***	
Unanswered:	***9.09 (N=11)***	***0***	***10.89(N=11)***	

** results significant at p<0.01

reported that where changes had been made to their practices in schools this had had a considerable impact in respect of their expectations of students with special educational needs (Kaikkonen, Kukk and Kõiv 2003).

In the context of this research it is important to accept that teachers in sample A had been through training which was likely to have raised their awareness of inclusion issues and the practices which have been deployed for its promotion. It is therefore not surprising to find the discrepancies in the two

samples. However, when considering the significance of difference in the two teacher samples, we might justly comment that the training has been successful in raising awareness and enabling teachers to reflect upon future need.

In considering the different attitudes, perceptions and beliefs of the teachers in the two samples with regards to inclusive education, and the apparent impact of the training provided to teachers in sample A, it might be expected that their understanding of the conditions needed to promote inclusion would similarly differ. Table 4 reveals that there were indeed significant differences of opinion between the two samples on this issue. Whilst both samples expressed a resourcing deficit in terms of providing for students in vocational schools, teachers in sample A did not see this as a general issue, but one specifically focused upon enabling them to address the needs of students with special educational needs. In interviews, teachers from sample A were more likely to discuss resources in terms of the specific needs of individual students, whereas those in sample B talked in general terms about the under resourcing of vocational schools.

Of particular note is the concern which some teachers from sample B expressed that students with special educational needs should not be educated alongside their peers in the same class. This point was raised again when teachers were asked to prioritise further actions for inclusion (table 5) with a significant difference of opinion between those teachers who had received training and appeared committed to inclusion, and those who had not. This discrepancy can also be seen in respect of the emphasis which teachers from sample B place upon the provision of individual study plans which would enable students to be educated in respect of separate tasks. Perhaps the most noticeable statements came from teachers in sample B who suggested that there was no need to implement change within their schools because inclusion was not possible.

Teachers who had undergone training identified greater collaboration between vocational schools and employers as a key factor in ensuring that inclusive practice was maintained. This was not a priority of those who had not had this training and may well reflect the course approach which identified vocational education within a lifelong learning and occupational context.

Teachers who had undergone training expressed particular concerns that in order to promote inclusion there was a need to change attitudes towards individuals with special educational needs. This factor is particularly significant when an examination is made of interview transcripts. These reveal that teachers from both samples express concern about negative attitudes. However, those from sample A more consistently see this as an issue which needs to be addressed, whereas teachers in sample B appear to accept this as a fact and one which cannot be easily remedied. The attitudinal factors which may inhibit moves towards a more inclusive education system have been emphasised in much of the literature on developing inclusive cultures (Padeliadu and Lampropoulou 1997, Vlachou 1997, Gudonis, Valantinas and Strimatiene 2003). Indeed, Porter (1997) suggests that in order for inclusion to be achieved classroom teachers must believe that students with special educational needs belong in a school and must equally have the confidence that they will learn within the system provided. It is evident from this survey that a significant number of teachers in Estonian vocational schools do not, at present, have this confidence or belief, that the provision of training may have a positive impact upon this situation.

A particularly interesting issue concerns the specific developments, such as the use of individual education plans or active teaching methods to support students with special educational needs. Teachers who had participated in the training courses did not comment upon the significance of these, whereas others emphasised the need to develop them as a condition for practice. This may well relate to the introduction of these as standard procedures in those schools in which the trained teachers worked and therefore resulted in their not being seen as an additional requirement.

Discussion

In common with other countries in Eastern Europe, Estonia is going through a period of considerable educational transition. Expectations upon teachers to change their teaching approaches in order to accept a more diverse population of students within their classrooms have increased. Co-operation with international colleagues has promoted debate and has influenced the beginnings of the development of more inclusive education in Estonia. It is clear that in vocational schools, teachers in Estonia have

many apprehensions about the proposed changes, which will effect the populations of their schools. However, it is evident from this survey that where training has been provided, the understanding and commitment of teachers to inclusion has changed. Teachers who have undergone training focused upon inclusion have demonstrated positive attitudes and an expectation that inclusion can be achieved within their schools. The key factor for creating a more inclusive education at the vocational level appears to be changing teachers' attitudes and supporting teachers to see this development as a part of wider promotion of vocational education. Compared with previous research (Haljaste, 2000) the teachers in this research indicate positive attitudes towards inclusive education which may result from changes implemented towards inclusion in Estonian education in the intervening years. Research results indicated that vocational teachers' training about special education at the international project level influences positively the attitudes of participants about inclusive education.

It is important to see that there is not *one correct way* of achieving inclusion. The development of inclusive education is always a context-bound matter and so each country - and each school will need to assess their own starting point and take actions in accord with established ethos and procedures. Many countries in Western Europe, where teachers have been attempting to promote inclusive practice over several years, have still to make a major impact in this area (Meijer 2003b). The resourcing of special educational needs provision within Estonia has improved considerably in recent years but has, until recently, fallen significantly behind that in many other European countries. Whilst there remains much that is uncertain in the minds of Estonian teachers in vocational schools about inclusion, the impact of the training provided upon a small cohort is apparent in the figures provided. Those teachers who have undergone training demonstrate optimism about inclusive practice and are more able to articulate how this may be achieved within the context of vocational schools. Training is a critical factor, but it is equally important to consider the nature of the training provided. Teachers in the Estonian context were ready to express a need for more knowledge, but were equally aware of the need to be able to translate this knowledge into positive educational actions. There are indicators within the research findings of some of the actions, which might reap benefits in terms of advancing inclusion within this specific Estonian context. In particular, the survey suggests that the focus of future training might well begin with addressing teacher understanding about the expectations of inclusive education and that this may be achieved through the provision of practical examples from elsewhere within a European context. However, this appears most likely to be achieved through providing teachers with training that supports them in taking action within their own educational contexts in order to develop themselves and their own organisations to change towards more inclusive provision. Additionally, a concentration upon vocational pedagogy, and in particular the development of resources and approaches to create inclusive learning environments relevant to vocational education and training may bring rewards in any training provided.

Estonian teacher educators are committed to supporting the development of inclusive educational systems through the continuing professional development of teachers. There is an indication from this study that this commitment can have an impact in respect of changing the face of vocational education in Estonia and providing increased learning opportunities for students with special educational needs.

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