

PREPARING TEACHERS FOR RESPONDING TO STUDENT DIVERSITY: FINDINGS FROM THE COMENIUS DTM_p PROJECT

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Abstract

This paper reports the insights into the process of preparing teachers for responding to pupil diversity, based on the evaluation of a three-year (2004-07) Comenius 2.1 project among teacher educators from seven EU countries. The DTM_p project (Differentiated Teaching Module, primary) produced a *Teacher's Handbook* and *Tutor's Manual* and a DVD Media pack with readings and video clips. The materials were piloted with pre- and in-service teachers in online or face-to-face courses in each of the seven partner institutions. Post-course evaluation data was collected from course participants and tutors who also held a transnational course-evaluation meeting. A qualitative analysis of data highlighted the following key processes for teacher educators: (1) Develop own openness to diversity; (2) Focus on the learner; (3) Build a safe, inclusive learning community; (4) Focus on learner reflection; (5) Focus on learner reflection-in- and on-action; (6) Challenge assumptions; and (7) Use social interactive rather than individual learning.

Introduction

It is widely recognised that one of the most pressing competences that teachers in the EU need to acquire is the ability to respond effectively to the diversity of strengths and needs of their increasingly diverse learners:

The demands placed upon teachers are increasing: they work with pupil groups that are more heterogeneous than before (in terms of mother tongue, gender, ethnicity, faith, ability etc.); they are required to use the opportunities offered by new technologies, to respond to the demand for individualized learning and to assist pupils to become autonomous life-long learners ... (CEC, 11.07.07, p.9; see also Eurydice, 2002; EC Directorate General for Education and Culture, 2003; Meijer, 2003; Bartolo & Smyth, in press)

The same is reported for the US where the issue has been the subject of a growing body of research over the past two decades (Hollins & Guzman, 2005). In addition, teacher education programmes almost all over the US ‘require general education teachers to complete coursework on educating students with disabilities’ (Pugach, 2005).

While the need for teachers to respond to diversity is widely acknowledged, there is less agreement on *how* teachers can be prepared for teaching for diversity. Relevant studies have focused on three main course aims: reduction of prejudice, development of an ‘equity pedagogy’, or field experiences for raising student teacher awareness and understanding and sensitivity to student cultural diversity (Hollins & Guzman, 2005; cf. Kiselica *et al.*, 1999). One of the clear findings from these meta-analytic studies is that most teacher candidates enter teacher education programmes with a lack of experience and understanding of diversity (Hollins & Guzman, 2005).

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There is an understanding that in Europe the teacher education situation regarding preparation for diversity is similar to that of the US. But there is a lack of research on this issue, despite the fact that the area is given priority by EU funding and there are several projects that address the issue as a practical challenge. This paper gives an account of the findings from such an endeavour, namely from the three-year (2004-07) Comenius 2.1 Programme (intended for training of school education staff) Project titled, 'DTMP: Differentiated Teaching Module – primary: Preparing trainee teachers to respond to pupil diversity' (www.dtmp.org).

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The project team was made up of teacher educators from seven EU countries: the Universities of Malta (Coordinator), Leipzig (Germany), Manchester (UK), Inholland (Netherlands), Dalarna (Sweden), Marijampole College (Lithuania), and the NGO Motivace - Zivotni Styl (Czech Republic). Partners came from different disciplines: only one had an inclusive education background; one specialized in differentiated teaching; three in educational psychology; two from the field of learning disability and special education; one from the pedagogy of mathematics; one from the pedagogy of language learning; one from the area of socio-emotional development. There were two common threads: all members were engaged in teacher education and all were concerned about social justice in education.

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actual collection of the materials was done in pairs of partners, with each member being a writer and a critical friend to his or her colleague. An editors' meeting was held by three team members to review all materials to ensure coherence. The materials were piloted with groups of pre-service and/or in-service teachers in each partner country in January-June 2006. The materials produced were a *Teacher's Handbook* (Bartolo *et al.*, 2007a), a *Tutor's Manual* (Bartolo *et al.*, 2007b), and a DVD with readings and video-clips (Ale, 2007).

Shared understanding of each one's different education systems and concerns was achieved through an initial qualitative study of how teachers from each participating country tried to reach out to all their pupils. The analysis of interviews held with five teachers from each partner country became the basis of the content of the handbook (see Bartolo *et al.*, 2005; Humphrey *et al.*, 2006). Excerpts from the teacher interviews are quoted throughout the handbook (Bartolo *et al.*, 2007a).

The diversity of partners and teacher-interview material led to a combination of a rather unusually wide variety of issues that members of the team related to inclusive education and differentiated teaching. The handbook has six chapters: (1) It starts by focusing on action research as a tool for professional development particularly in relation to responding to diversity; this focus is maintained throughout with a section at the end of each in each chapter on reflective questions and activities. (2) It has an important chapter dedicated to understanding and respecting student diversity, particularly culture, language, gender and exceptionality, and the application of inclusive education principles. (3) It considers the personal and social growth of individuals within a caring and supportive environment,

with a focus on holistic education, teacher-student and student-student relationships, as well as inter-staff and staff-parent and community collaboration. (4) It has an important basic focus on understanding student diverse characteristics, with foci on constructivist approaches, on multiple intelligences and learning styles, on emotional intelligence, as well as on attributional styles. (5) This is complemented by another basic wide focus on diversifying the curriculum and teaching and learning organisation, with foci on diversifying curriculum *content*; the learning *process* – including use of different modalities, the creation of independent working time, as well as cooperative learning and group work; and on learning *product*, including issues of assessment for learning and use of portfolios. (6) Finally, it also has a focus on a reflective application of all the previous principles holistically during actual teaching practice.

The materials had initially been produced as a combined face-to-face and online course (refer to paul.a.bartolo@um.edu.mt), but were revised after the pilot with a clearer focus on use in face-to-face delivery. The materials were also evaluated by two external teacher education experts.

This paper presents the insights into teacher education for responding to pupil diversity that were obtained by the project team through the experience of piloting the course with pre- and in-service teachers from the different countries.

Methodology

This study was aimed at describing the process of conducting a teacher preparation course for responding to student diversity. A case-study qualitative approach was

therefore deemed appropriate to be able to describe *how* to run such a course (Yin, 2003).

Participants consisted of groups of from 10 to 33 pre- or in-service teachers at the seven partner institutions who participated in either a face-to-face or an online course using the materials produced by the DTMP project (see Table 2.1). Courses were run either as two-hours-a-week courses or in 3-day seminar blocks. Only parts of the materials were used in each course.

Table 2.1: Piloting of the materials by type of participants and mode of delivery

	Face-to-Face	Online
Pre-service teachers	Malta Netherlands Sweden	Malta UK
In-service teachers	Czech Republic Germany Lithuania	

Both quantitative and qualitative data were collected on the adequacy of the courses for addressing the stated aims. The evaluation data included first of all the responses of participants to a post-course evaluation questionnaire including questions on the interest, relevance and usefulness levels of the course. In addition each course participant wrote a brief account of his or her professional self development through the course. Course tutors too were

asked to keep a record of their self evaluation of course delivery. A three-day meeting was finally held among all course tutors to evaluate the adequacy of the course materials and process. Each partner country presented the evaluation of the course and a discussion was held on important features of the course that were to be included in the *Tutor's Manual* (Bartolo *et al.*, 2007b).

This paper made use of the qualitative data to pick up the key processes in answer to the question: *What was perceived as having or not having had a desired impact on the development of teachers in responding to diversity?*

All data were inductively and qualitatively analyzed into main themes. Seven main processes were identified as essential for engaging educators in working towards responding to pupil diversity.

Results and discussion

This section gives a brief account of the seven key processes that emerged from the project team experience and how these relate to the existing relevant literature on teacher preparation for diversity.

The processes were related to the attempt to model for participants the inclusive processes we were trying to help them develop, as well as to other processes regarded as essential for bringing about change in attitudes and professional development. The seven processes were as follows: (1) Develop own openness to diversity; (2) Focus on the learner; (3) Build a safe, inclusive learning community; (4) Focus on learner reflection; (5) Focus on learner reflection-in- and -on-action; (6) Challenge assumptions; and (7) Use social interactive rather than individual learning.

(1) The first key finding was that *tutors need to develop their own openness to diversity as an enrichment* rather than as a problem. This theme arose from the team members' experience of changes in their own attitudes and understanding of diversity through the intercultural dialogue we engaged in during our team meetings over three years of the project. Each one was challenged with different perspectives on education and inclusion which were based on our different experiences in different education systems. No one could impose his or her approach on others, but we all became less rigid in our understanding of inclusion and differentiated teaching. The English speaking members were themselves challenged strongly by the experience as shown in this point raised by one of the other members:

A question is - to whom is this project prepared? It seems to me that it is mostly for English speaking countries. Excuse me, please, but it looks like this. There are sometimes so often links to web sites which are naturally in English - I understand it, but do you think that students - participants from not English speaking countries will be so equipped with English that they will be able to use it? Shouldn't we consider it? If we will not consider it - it seems to me that it is against the purpose of the project. It will not be differentiated teaching. It will be excluding...

It was thus easier to be open to the different baggages each encountered in the course participants. This finding is very much in line with what is required of teachers: self development towards a positive attitude to difference is regarded as a primary component of multicultural competence (Cushner, 2006; Humphrey *et al.*, 2006; Hollins and Guzman, 2005). Teacher education institutions should proactively support such development:

If supervision for social justice is to become a priority for their teacher education programs, universities must be

willing to provide professional development for supervisors so they can become more culturally responsive and knowledgeable. (Jacobs, 2006)

In that sense, the *Teachers' Handbook* and *Tutor's Manual* described in this paper were also intended to make relevant material on teacher preparation for diversity more easily available to all teacher educators.

(2) On the other hand, a second key finding was that the teacher educator needs to *focus on the learner*. This widely known but less practiced factor of the effectiveness of a holistic and constructivist approach to learning applied equally to higher education. It was also brought home to the project team most strongly by the team experience. The team had spent a lot of energy over one and a half years on producing a set of common training materials and were focused on piloting *them*. However, the materials were a compromise collection that applied variedly to the very different contexts with regards to inclusive education practices. Thus a strong need was felt by the tutors to adapt the content to the different background of the participants in the different countries. For instance, the German partners reported:

For the further development and success of DTMP, it is necessary to discuss the participants' motivation, previous subjective principles and views on school and students that guide their actions.

All partners felt the need to engage with their participants through allowing space for their experiences and different perceptions of the issues. This required flexible materials. The first version of the materials, produced also for an online course, were extremely structured, and this on reflection contradicted the principle of constructivist teaching. After the pilot, the materials were revised in such

a way that only broad aims are stated for each chapter, and a list of activities appears at the end of each chapter thus allowing for more choice of specific or across chapter tasks. In addition, relevant readings were put in boxes that could be flexibly used or left out by the reader. The preface to the handbook reflects this process:

Finally, we have tried not to be prescriptive and allow as much as possible for users of the handbook to make use of their *own experience and relevant texts* in their culture to make sense of the issues raised in this handbook. Responding to student diversity is a dynamic, embedded process that develops over time and in specific cultures and educational systems. We hope you feel empowered to make flexible use of the handbook. (Bartolo *et al.*, 2007a, p. xv)

The pilot evaluation also revealed that the constructivist approach was often a new experience for course participants used to instructor-directed learning. Tutors had to create the atmosphere and give time and space for students to take more control of their own learning. This was also reported by Lynn and Smith-Maddox (2007) when they tried to induce pre-service teachers into an inquiry based approach to becoming social justice educators.

(3) The third related key finding was the importance of *creating a safe and inclusive climate*. This was again an attempt to model the creation of a sense of community among pupils, creating a feeling of belonging for all by extending an invitation and appreciation for contributions to the discussion by all participants (Bartolo *et al.*, 2007b). A safe and inclusive climate was also a necessary setting for engaging in the process of challenging attitudes and values. The sharing of personal views and experiences in relation to diversity requires it. Course tutors experienced the need to allow for the expression of non-inclusive perspectives that

would be challenged empathically through the facilitation of different ideas in the group. Managing this process is one of the important challenges in courses of professional training for diversity, as was also observed in the field of psychology:

Multicultural coursework moves into what is viewed as more personal domains beyond listening skills and personality theories. Culture-centered faculty introduce material many students have never thought about, may not care about, and may have reluctance to engage in, even if the course work is required (Jackson, 1999). Thus the challenges for faculty, advisors, and supervisors require multiple skills to ensure a safe learning environment, an ability to know the course content, and to manage emotions that emerge. (APA, 2002, p.33)

(4) The fourth important outcome of the pilot experience was in line with the literature: the need to engage course participants in *reflective learning*. The concept of the reflective practitioner (Schon, 1983) is widespread in teacher education courses: the terms ‘teacher reflective practice’ called up 99 publications on the Amazon website for 2006-07. Reflection is even more essential for this course. The team had an explicit discussion on what to prioritize: should it be skills training or attitude development? The option was

to stimulate self development in the trainee towards a greater appreciation of the need for responding to student diversity, an attitude that the team regards as an essential element in enabling teachers to become truly responsive in the classroom. (Bartolo *et al.*, 2005, p.36)

Similarly, among the six main teacher competencies that have been highlighted in the related field of culturally responsive education, the first three concern teacher attitudes:

Culturally responsive teachers (a) are socioculturally conscious, (b) have affirming views of students from diverse backgrounds, (c) see themselves as responsible for and capable of bringing about change to make schools more equitable, (d) understand how learners construct knowledge and are capable of promoting knowledge construction, (e) know about the lives of their students, and (f) design instruction that builds on what their students already know while stretching them beyond the familiar. (Villegas and Lucas, 2002, p.20)

Thus the handbook recommends that the course includes training in action research and reflective practice (Chapter 1). Each chapter ends with a section titled, ‘Think, Reflect, Plan’ with tasks requiring reflection on one’s personal experience, observations, readings or teaching practice. A reflective journal was the preferred method of assessment for the pilot course.

(5) The fifth key theme built on the previous one: reflection should be *in* as well as *on* action (Schon, 1983). Changes in teaching behaviour are developed in reflective practice. This also was a pre-planned understanding: the final chapter of the handbook is focused on supporting the teacher to implement the principles of inclusion and differentiated teaching *in* actual teaching practice. The participants appreciated it:

One of the important things about this course was that it helped me to reflect upon my teaching practices with the aim of becoming a better professional teacher. *During* my practice I faced many difficulties which in turn made me reflect a lot... dilemmas like how am I going to present integrated, meaningful content at an appropriate level and how am I going to adopt a holistic attitude? (Pre-service teacher, Malta, italics added)

I can say that this course gave me the opportunity to work with someone who found difficulty in learning. I can say that I learned some important skills in dealing with these children, especially the disabled, and now I'm more comfortable if I come to deal with such situations, because *I tried that which I learned in practice*. (Pre-service teacher, Malta, italics added)

In a meta-analysis of such an approach, Jacobs (2006) found that researchers reported challenging supervision of practice as more effective than engaging in discussion about social justice in society or schools in general.

(6) The sixth key theme links closely to the above: the need to *challenge student assumptions*. It should be noted that teaching practice on its own may not be effective, but requires challenging supervision particularly because trainees may often focus on the challenge of adjusting to the school system rather than critically appraise it. For instance, the online version opened the section on constructivist approaches with a video clip of a science teacher conducting a lesson on heart rate, where he directs the students to record their heart rate, do exercise and re-record it. The experienced teachers first saw the lesson as quite exemplary with 'hands-on' activity for the pupils. Reflections took a different turn when challenged by the tutor to think more deeply:

While I agree that this lesson is much better than the so called direct instruction, don't you think that this is still a very teacher-centred process? ... (Tutor)

A much deeper and richer discussion followed:

When watching the clip over and over again, one does realize how, although the children are learning through hands-on experiences, the lesson is not very child centered. I feel that the teacher could have left

some time for discussion, either in groups or as a class. The children weren't really given the time to express their views about what was being taught. The teacher could have made the children predict before actually conducting the experiment, after analyzing their results to see if their prediction was correct. Even during the experiment, the children were just left to write down their answers on a worksheet, a discussion did not take place about what was happening. ... (Teacher, online forum)

Such challenges are even more necessary in equity issues. When pre-service teachers were asked to keep a journal of multicultural issues in their practice, they only brought up surface issues such as including reference to food in different cultures (Grant & Zozakiewicz, 1995). Abt-Perkins, *et al.* (2000) reported significant impact only when supervisors engaged the teachers in critical reflection on their practice, such as raising the issue of how far an otherwise quality lesson was relevant and appropriate in terms of subject matter and instructional strategies for students from various cultural backgrounds.

Participants can challenge each other. For instance, in response to one participant from Malta saying it is not possible to differentiate learning if one is preparing for a one-size-fits-all examination, another participant challenged:

I agree with T that differentiated teaching is demanding with the extensive syllabus that teachers have to cover. However, every pupil needs to have an equal chance to learn. I understand that it is difficult to meet the needs of every pupil but the teacher must at least try. (Pre-service teacher, online forum)

Participants can also be challenged through direct contact with people who have experienced discrimination and

exclusion. In one course (Netherlands) a session with a parent of a child with a disability who was not accepted at the regular school raised empathic understanding from the participants who rated it as one of the most significant experiences in the whole course.

(7) The seventh and final principle was the importance of engaging the participants in *a social learning experience*. This too was preplanned. All pilot courses involved interactive work. This required proactive tutoring particularly in the online version of the course. The interaction online was achieved through a deliberate structure requiring participation in a forum on each theme. The tutor also intervened at the beginning and other relevant points in the forum to stimulate discussion, while also ensuring that all views were respected. Participants appreciated the flexibility of learning from home but were struck by the enhanced participant interaction that was achieved:

The resources were far more interesting and being able to work from the comfort of my home was very convenient. Amazingly this did not inhibit the interaction between participants, on the contrary, in increased it in my opinion. People who rarely talk in a lecture at university, were constantly giving their opinions in this course. (Malta, online forum)

The group setting has been seen as offering more opportunities for developing sensitivity to different perspectives on issues - an essential ingredient in responding to diversity. Such a setting is a most important

opportunity to identify important issues and discuss their representation in course readings, instructional strategies, and student teaching. This set the stage for them to listen

to alternative voices and to take control of their own learning. (Lynn & Smith-Maddox, 2007)

This approach is further called for because changing response to diversity is not merely an individual endeavour but involves changing the culture of communities and organizations (see e.g. Hutchinson & Martin, 1999; APA, 2002). In our case it was raising the status of diversity issues as a learning experience at the group level too.

Indeed the DTM_p experience suggested that social learning should occur not only among the course participants but also among tutors. The project team had developed the materials in a transnational multicultural group. Each member felt that he or she had grown in appreciation of diversity issues through this challenging interaction. This led to the suggestion in the *Tutor's Manual* that both teaching and learning should best be carried out in collaboration:

Within the constructivist approach also, it is suggested that a **team approach** to teaching and learning be adopted. Whether taken online or face-to-face, a major characteristic of a course based on this *Handbook* needs to be the sharing of ideas, values, experiences and reflections among the teachers themselves. There are many tasks that encourage participants to share their knowledge and skills. They will also be sharing their teaching experience as a team with colleagues both on training and in the schools. This can be modeled most effectively if tutors also undertake the training as a team – as we ourselves experienced the development of these materials as a team. (Bartolo *et al.*, 2007b, p.7)

Conclusion

This study has presented seven main insights into the teacher preparation process for responding to pupil

diversity. The insights were based on pre- and in-service teacher response to a particular course. The data were enriched by the fact that participant tutors and teachers were from seven different countries and the themes were developed through democratic intercultural dialogue over time. However, like most studies in teacher education courses in this area, the findings were based on data from courses conducted by the tutors themselves, and no control groups were used; and data consisted of tutors' and teachers' self-report at the end of the course; moreover no data was available on whether changes were maintained over time (Hollins & Guzman, 2005).

There is a need for longitudinal studies which study the development of pre-service teachers' multicultural competencies over time from the beginning of their teacher training to their first years of teaching in the classroom in order to clarify the kind of preparation that would be most developmentally appropriate during their training course. Similarly, there is a need for a longitudinal study of changes in in-service teachers' attitudes and perceptions and teaching behaviour before and after going through specific training courses or workshops.

On the other hand, it should be noted that most of the principles arising from this study are actually similar to those that have been advocated for use by teachers in classrooms, such as constructivist, inclusive and differentiated teaching. So they fall within the challenge that pre-service teachers often pose to their tutors: 'Practice what you preach.' In that sense, we hope that this study will stimulate self-reflection in teacher educators which is widely seen as a primary step in preparing teachers to respond to pupil diversity.

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