We will discuss the following two articles in this meeting, each of which is summarized at the end of this document:


In addition, bibliographic information is below for other relevant articles published since the November 2012 meeting¹:


This study investigated 35 physical education teachers' appreciation of a continuous professional development (CPD) training on need-supportive teaching, embedded in Self-Determination Theory, using qualitative (i.e. focus groups) and quantitative methods (i.e. questionnaire). The findings suggest that teachers highly valued opportunities for active participation, collaboration and experiential learning (e.g. microteaching). Of particular interest was the unexpected essential value they placed on theoretical knowledge. In addition, it was critical to be authentic to the content by delivering the training in a need-supportive fashion. Implications for the use of theory and the relevance of congruent teaching in the wider CPD literature are discussed.


The MTL is a practice-based professional master's qualification, aimed at attracting Newly Qualified Teachers (NQTs) to National Challenge schools in order to help improve outcomes. The MTL programme was also developed as a continuation of a teacher's PGCE and subsequent induction year. A key element of the MTL is the tripartite relationship of HEI tutor, school-based coach and MTL student, with funding weighted towards schools (60%) and the HEI (40%). The role of the HEI was to be quality assurance and assessment, with the in-school coach doing most of the programme delivery. The project reported here is based on interviews with in-school MTL coaches to explore, firstly, how their role had developed within the MTL. Coaches are typically without a formal master’s qualification themselves, so a second aim of this study was to examine the consequences of this in and on practice. Finally, we explored the effect on all involved as flaws in the model emerged. Formal case-study interviews were the main empirical research data upon which this study is based, although they are supplemented by additional data. Where the MTL coach enjoyed a level of success, we suggest that this was primarily because of the attitudes of the coach in school and the HEI staff working alongside them. The lack of a master’s-

¹ For the January 25, 2013 TeachingWorks journal club we considered the following journals: *Journal of Teacher Education* (the November/December 2012 issue was covered in the November journal club, the January/February issue, which was not available in time for this session of the journal club, will be covered in the March issue), *American Educational Research Journal* (December 2012 issue), *Elementary School Journal* (December 2012 issue), *Journal of Curriculum Studies* (Volume 44, issues 5 and 6), *Teachers College Record* (Volume 114, number 12), *Educational Evaluation and Policy Analysis* (December 2012), *Teaching and Teacher Education* (Volume 29), *Journal of Education for Teaching: International Research and Pedagogy* (Volume 39, issue 1).
level qualification amongst coaches had some negative impact, but the most significant issue we contest is that to create true working partnerships with school, the HEI has to be able to share assessment procedures with school-based colleagues.


This paper reports the results of an experimental study investigating the impact and the one-year sustainability of the effects of the Dynamic Integrated Approach (DIA) to teacher professional development. Teaching skills of the participating teachers and their student achievement in mathematics were measured at the beginning and at the end of the interventions. The DIA had an impact on improving teaching skills and student achievement. A follow-up measurement of teaching skills, one year after the end of the interventions, revealed no further improvement or declination. Implications are drawn and suggestions for further research are provided.


Master’s-level accreditation of teachers’ professional development (PD) is a feature of some of the highest achieving education systems internationally. In aspiring to raise its international standing, the New Labour government in England launched a new, fully funded master’s-level degree for in-service teachers, the Masters in Teaching and Learning (MTL), in 2010. In this paper we present a case study of the enactment of the East Midlands Masters in Teaching and Learning (EMMTL). The MTL is couched in the language of personalisation and support for teachers but can be viewed as part of an increased centralisation of state control of teachers’ PD, with an instrumental approach and emphasis on training linked to performativity agendas in the UK and internationally. In resistance to the national MTL Framework, the two HEIs involved in this case study sought to develop a regional approach that took personalisation seriously, built on strong HEI-school collaborative partnerships and put research and context-based practitioner enquiry at the forefront of the degree. The case study shows that it has been possible to retain the fundamental characteristics of master’s-level work in the EMMTL and support personalised PD that is valued by participants. Following the current Conservative-led coalition government’s decision to discontinue national funding, we draw from the case study implications for the development of master’s-level, practice-based programmes that have emancipatory potential for teachers in relation to complex political agendas both in the UK and globally.


For well over a decade school districts across the United States have struggled to recruit and retain effective mathematics teachers. In response to the need for qualified math teachers and the difficulty of directly recruiting individuals who have already completed the math content required for qualification, some districts, including Baltimore, Philadelphia, Washington, D.C., and New York City, have developed alternative certification programs with a math immersion component to recruit otherwise well-qualified candidates who do not have undergraduate majors in math. This article examines the qualifications, student achievement gains, and retention of Math Immersion teachers in New York City compared to New York City mathematics teachers who began their careers through other pathways.


This research explores the value and challenges of establishing and maintaining a master’s-level
professional learning community. The research has a focus upon participants on the Masters in Teaching and Learning (MTL) in one higher education institution (HEI) in the south-east of England. The impulse for the design of the MTL was concern on the part of the UK Government that schools placed in the category of “National Challenge” suffered from an unsettling turnover of staff and low pupil attainment. The MTL was thus designed with the aim of addressing these issues through a new and rather different master’s programme that merged the boundaries between school and university. This three-year longitudinal study draws upon work undertaken with 30 MTL participants on the value of a learning community. Through narrative enquiry, participants’ voices have been captured, focusing in particular upon a consideration of critical incidents. Participants’ voices highlighted the demands of working in challenging schools and the value of the MTL community which has evolved. The significance of this community in terms of supporting the development of shared rituals, a critical, empowering discourse and structural and emotional enablers is explored in this paper. The findings interrogate the challenges faced by participants in National Challenge schools and celebrate the emergence of an enabling professional learning community, rich in potential to create powerful relationships, affirming practices and teacher agency. The learning community has been seen to counteract alienation and provide emotional support for early career professionals practising in demanding contexts.


This paper examines the Masters in Teaching and Learning (MTL) from the aspect of the MTL in action. It is written by university lecturers who are responsible for its delivery and examines the idea of teacher development through a work-based master’s course. We provide three case studies of the views of MTL participants and their coaches, presented as vignettes. These explore the themes of teacher agency and risk-taking, developments in practice and the role of the coach. We found that the MTL provides a framework in which teachers may feel more confident in enacting agency, trialling new ideas and taking risks, and that they have developed the way in which they reflect on their practice. This has involved a deeper critique of their teaching and learning strategies. Lastly, examination of the coaching model around which the MTL was developed has identified contrasting, yet effective, situations in practice. All three scenarios highlight that the teachers perceive engagement with theoretical perspectives to be greatly beneficial.


Through the metaphor, “learning to teach in the ‘eye of the storm’”, a beginning teacher's experiences of teaching in one of America’s diverse urban campuses become known. Three themes of global significance emerge: (1) the similarities and differences between professional learning communities and knowledge communities; (2) the morphing of ‘the eye of the storm’ into ‘a perfect storm’; and (3) the connections between shifting teacher identities and shifting school landscapes. The narrative inquiry foreshadows how the teacher's ‘story to live by’ became ‘a story to leave by’ as she worked in a urban school district riddled with massive change.


Promoting inclusivity is a core aim for many teacher education programmes throughout the UK, USA, Canada and other highly diverse nations. However, despite this aim, teacher education programmes continue to face challenges in preparing teachers who feel confident in addressing issues of diversity and inclusivity in their classrooms. The purpose of this research was to present an in-depth examination of how one initial teacher education programme coherently promotes inclusivity through various pre-service programme structures and experiences. Data were collected from four senior programme administrators, 10 faculty members and 25 teacher candidates via interviews, focus groups and professional development journals. Results provided a complex analysis of programme coherence related to the multiple ways in which inclusivity was
interpreted and experienced within the teacher education programme. Specifically, three different interpretations of inclusivity were identified across participant groups: integrative, dialogical and transgressive. Each of these interpretations were manifested in varied ways through programme structures of field-based placements, curriculum and pedagogies. Based on this analysis, the paper concludes by identifying critical issues related to the preparation of inclusive educators as a foundation for future research and teacher education development.


Modern economics has placed lifelong learning (LLL) at the center of an intensive ongoing political debate. Evidenced-based interventions are needed, not only in continuing education courses for teachers, but also in schools. This paper introduces evaluation results of TALK, a teacher education program for professional teachers with the objective of fostering LLL in schools. Two main goals were investigated: effects on teacher competences and cooperation. 40 secondary-school teachers participated. Repeated measures in a control group design established the gains of TALK: It must be evaluated as a program which is successful in the robust enhancement of teacher competences and cooperation.


This paper considers the notion of “criticality” in relation to the Masters in Teaching and Learning (MTL), the Teacher Development Agency (TDA)-funded masters programme for school teachers in England. After the two current cohorts complete the MTL in 2013 -- one a cohort of Newly Qualified Teachers (NQTs) and one of more senior Teaching and Learning Responsibility holders (TLRs) -- government funding will not be provided for any subsequent recruitment to the course. In light of this, debates around the MTL may be viewed as redundant, but we do need to acknowledge that there will be a cohort of students who hold a Masters in Teaching and Learning and for whom it is a valid qualification. Beyond this, discussion of what a masters course in education might consist of is still a relevant and urgent matter. Our argument in this paper draws upon our experience of working on the MTL but is, we submit, applicable more generally to the “practice-based” masters courses that have proliferated in recent years. Our focus is upon criticality as an essential component of “masterliness”. We consider briefly ways in which critique might be construed and practised before going on to argue that a certain idea of critique, which draws upon historical conceptions of education’s role in serving the social good, is essential to educational practice and to claims to mastery in education. We conclude by drawing attention to difficulties that may be presented to teacher-researchers on master’s courses that offer themselves as school-based programmes of professional development.


In the United States, it is increasingly likely that elementary teachers will encounter students whose first language is not English. There are 10.9 million school-age children who speak a language other than English at home (National Center for Education Statistics 2010). In this environment, teachers must know the best practices for students’ linguistic development. However, teachers must also understand that assumptions about second language acquisition can create false beliefs about English Language Learner (ELL) children and their communities. For example, Karabenick and Noda (2004) found a significant percentage of teachers believed that use of a home language interfered with second language acquisition. Likewise, education professionals often assume ELL parents are illiterate because they cannot communicate with them in spoken language (Restrepo and Gray 2007). When working with linguistic minority students, teaching practices must be paired with challenging the teacher’s assumptions (Bartolomé 2004). In sum, educators must both learn the methods for teaching literacy and address their own beliefs and attitudes toward language and language learning.
This qualitative case study examined the perceived impact of immersion language study for pre-service teachers. The focus of the case was a month-long exploratory language and cultural immersion project in Costa Rica. The guiding questions were: what knowledge of teaching literacy do pre-service teachers reflect upon during a linguistic and cultural immersion experience and what connections do they make to their future profession, if any? The researchers solicited elementary education students who completed coursework in literacy methods and were prepared to student-teach. Data were gathered from observations, interviews and daily journals. The participants reflected upon the difficulties inherent in foreign language and cultural immersion; the researchers found applications to future classrooms, students, and communities.


Neoliberal agendas, globalism and the marketisation of higher education have had profound implications for teacher education throughout the world, including increasing standardisation, accountability and credentialism. The rhetoric is “teachers need better training”. However, raising the bar to a master’s degree without analysing carefully the rationale for such a reform seems short-sighted. What alternatives are there to a master’s degree as a standard in teacher accreditation? What are the significant issues facing learners of the twenty-first century? In a post 9/11 world, with drastic changes stemming from globalisation, what is important? Teachers need global citizenship education to nurture global citizens who have the knowledge and skills required to critically evaluate phenomena in a rapidly changing world. In this paper, a narrative case study of a unique initial teacher education programme at a Japanese university is juxtaposed with discussion of a well-established Canadian programme offering multiple pathways into teaching. The results show that effective teacher induction integrating global citizenship education and providing a gradual acculturation into teaching is possible within undergraduate programmes, providing opportunities for sharing the transcultural personal, practical and professional knowledge of teachers.


Beginning teachers have legitimate learning needs that cannot be grasped in advance or outside the school context. These needs are documented in Western literature, but the skills required by beginning teachers in the United Arab Emirates (UAE) have not been investigated. The present study responds to this research gap. Data were collected through a self-administered survey with multiple-choice and open-ended questions completed by beginning teachers. Then focus group meetings with selected participants were conducted. Classroom management, creating attractive learning environments, motivating pupils to learn and using different teaching strategies are the most critical learning needs of beginning teachers in the UAE. Interestingly, being responsive to the diverse cultural and social backgrounds of pupils, creating extra-curricular activities and teaching in overpopulated classrooms were considered less crucial. These findings are significant for improving pre-service teacher education programmes and in-service teacher training and mentoring programmes in the country.


This study examines the magnitude, destinations, and determinants of mathematics and science teacher turnover. The data are from the nationally representative Schools and Staffing Survey and the Teacher Follow-Up Survey. Over the past two decades, rates of mathematics and science teacher turnover have increased but, contrary to conventional wisdom, have not been consistently different than those of other teachers. Also, contrary to conventional wisdom, mathematics and science teachers were also no more likely than other teachers to take noneducation jobs, such as in technological fields or to be working for private business or industry. The data also show there are large school-to-school differences in mathematics and science turnover; high-poverty, high-minority, and urban public schools have among the highest
rates. In the case of cross-school migration, the data show there is an annual asymmetric reshuffling of a significant portion of the mathematics and science teaching force from poor to not-poor schools, from high-minority to low-minority schools, and from urban to suburban schools. A number of key organizational characteristics and conditions of schools accounted for these school differences. The strongest factor for mathematics teachers was the degree of individual classroom autonomy held by teachers. Net of other factors such as salaries, schools with less classroom autonomy lose math teachers at a far higher rate than other teachers. In contrast, for science teachers salary was the strongest factor, while classroom autonomy was not strongly related to their turnover.


The purpose of this exploratory mixed methods study was to investigate how teacher beliefs were related to technology integration practices. We were interested in how and to what extent teachers’ (a) beliefs about the nature of knowledge and learning, (b) beliefs about effective ways of teaching, and (c) technology integration practices were related to each other. The participants were twenty two teachers who have participated in a four-year professional development project funded by the U.S. Department of Education. Specific relations between teachers’ beliefs and technology integration practices are presented. The implications for professional development and suggestions for teacher belief change and technology integration are discussed.


The article reviews twelve of 79 articles focusing on language teachers, language(s) teacher education, teaching, and learning published in *Teaching and Teacher Education* since 1985. The twelve articles, divided into three sections, include narrative inquiry and identity, teacher education topics, and contexts. The articles provide local and contextual expressions that taken together begin to compose a landscape or sphere where various language education researchers share wonderments and puzzlements, queries and inquiries, and insights and understandings. The TATE articles provide puzzle pieces lending evidence to a plausible postdisciplinarity sphere of growing and developing research and studies in language(s) teacher education.


With universities seeking to increase their enrolment of international students, and the increasingly diverse domestic market, it is not surprising that researchers’ interest has turned to the impact of a diverse university population. The focus of this paper is a model that has been implemented to enable higher levels of achievement on the professional experience or practicum component of a teacher preparation programme at The University of Queensland, Australia. The participants were students from backgrounds that were non-English speaking. The programme has been provided since the academic year beginning January 2004 and has sparked interest in transferring the model to other areas of the university. While the study was conducted in Australia, the issues it raises, and the model developed, appear to be applicable to any programme on offer in any university with culturally and linguistically diverse students.


This paper describes the implementation of the Master of Teaching degree which was introduced at the University of Melbourne in 2008. The programme aims to produce a new generation of teachers (early years, primary and secondary) who are interventionist practitioners, with high-level analytic skills and capable of using data and evidence to identify and address the learning
needs of individual learners. The programme marks a fundamental change to the way in which teachers have traditionally been prepared in the University of Melbourne and builds a strong link between theory and practice. This linking occurs within a new partnership model with selected schools. The model was influenced by the Teachers for a New Era programme in the USA and by the clinical background of senior faculty. The programme sees teaching as a clinical-practice profession such as is found in many allied health professions; this understanding is also embraced by the university’s partnership schools. These schools are used as clinical sites, actively involving their best teachers in the clinical training component. These teachers are recognised as members of the university and are highly skilled professionals who are capable of interventionist teaching and who use appropriate assessment tools to inform their teaching of individual children.

The study explores the process of facilitation in professional development for educators. The study relies on discourse analysis of interaction among K-12 teachers and administrators in a Midwestern U.S. state during a semester-long professional development program especially designed for educators working with English language learners (ELLs). The study examines the facilitation practices employed by the lead facilitator of the professional development program from three analytical lenses: context as participation, context as ideology, and content. The paper provides an empirical illustration of how recommendations in the literature about professional development for educators of ELLs can be put in practice.

This article draws together theoretical ideas from studies of space/spatiality and the history of teacher education. These ideas form a theoretical framework through which to analyse the findings from a small-scale ethnographic study of the geographical relocations made by two university schools of education in England. Data collection instruments included documentary analysis, field notes from dedicated observations, pre- and post-relocation questionnaires and semi-structured interviews, again pre- and post-relocation. The findings indicate the ways in which the spaces of teacher education are integral to the historical and contemporary practices, social relations and professional identities found in the field.

Boston Teacher Residency (BTR) is an innovative practice-based preparation program in which candidates work alongside a mentor teacher for a year before becoming a teacher of record in the Boston Public Schools (BPS). The authors found that BTR graduates are more racially diverse than other BPS novices, more likely to teach math and science, and more likely to remain teaching in the district through Year 5. Initially, BTR graduates for whom value-added performance data are available are no more effective at raising student test scores than other novice teachers in English language arts and less effective in math. The effectiveness of BTR graduates in math improves rapidly over time, however, such that by their 4th and 5th years they outperform veteran teachers. Simulations of the program’s overall effect through retention and effectiveness suggest that it is likely to improve student achievement in the district only modestly over the long run.

An important development in higher education is the increased learning possibilities brought by ICT. Many academics seem reluctant to embrace technology. An online teacher training program
was followed by 73 academics from nine higher educational institutions. Data were gathered using the Technological Pedagogical Content Knowledge (TPACK) model and the Teacher Beliefs and Intentions questionnaire using a pre–post test-design. The results amongst 33 participants who completed both pre- and post-test indicate that TPACK skills increased substantially. Over time academics were less convinced about the merits of knowledge transmission. Disciplines and institutional cultures, time investment and beliefs towards employability influenced training retention.


This study reports belief survey data from 92 preservice teachers responding to questions about the moral work of teaching. Those data reveal that participants commonly express the belief that modeling is a primary means by which moral education occurs. The survey responses are analyzed to show a number of themes regarding the nature of preservice teachers' beliefs about how modeling works. Recommendations for teacher education practice to prepare preservice teachers for the moral work of teaching, by addressing their beliefs about such work, are discussed, along with ongoing research needs to support effective and responsible teacher education practices.


This article reports on a qualitative small-scale case study that investigated what pre-service teachers learned from a former generation of teachers about the context and nature of teaching and teacher education during the 1950s and 1960s. Data comprised semi-structured interviews and a grounded theoretical approach was used to analyse the data. A process of coding and re-coding of the data resulted in the identification of emergent patterns and broad overarching themes and subthemes. Findings suggest that the pre-service teachers drew inspiration from the older teachers’ emotional connection to the profession, and their own passion for teaching developed or intensified as they came to understand teaching as a rewarding lifelong career. It is suggested that mentor relationships between pre-service teachers and those from an older generation have the potential to support novice teachers in developing a passion for teaching and, ultimately, resilience and longevity in the profession. Recommendations are made for the inclusion in teacher education of opportunities for intergenerational learning through such relationships.


This article explores the suggestion that the UK should follow the lead of the United States and establish Troops to Teaching programmes. In particular, it examines the worth of the suggestion that non-graduate qualifications similar to those that have been designed for teaching assistants might be usefully employed to achieve this. In England, foundation degree study has typically been the route followed by teaching assistants who have decided that they would like to become qualified teachers. The value of adopting such an approach, in relation to the UK coalition government’s desire to establish a viable Troops to Teaching programme, is specifically explored. Research which has investigated English school-based teaching assistants’ experiences of participating in foundation degree study is drawn upon to interrogate this theme.


The introduction of the Master’s in Teaching and Learning (MTL) was a significant milestone in the continuing professional development of teachers, signalling the intention that teaching could become a master’s-level profession. This initiated a distinctive approach to school improvement requiring schools and higher education institutions (HEI) to work in partnership in order to offer
this qualification to teachers. Within the south-west of England, Transform gained the contract to offer the MTL and subsequently developed an innovative collaborative approach to the design and implementation of this new qualification. Against a background of critical, and at times hostile, professional and media responses, the MTL was introduced in January 2010, and Transform began to deliver the MTL to eligible teachers from Easter 2010. An evaluation of Phase 1 of the MTL, commissioned by Transform in October 2010, focused on the three principal stakeholders in the MTL partnership (the HEI co-ordinators and tutors, school-based coaches and MTL participants in the scheme). This paper documents the process and findings of that evaluation and asks questions about what has been gained from an initiative that promised so much, was hindered throughout the process of development and was then stopped before it had any chance of making a significant impact on the nature of teachers? professional development. Was the MTL ?a revolution in teacher education or a bright light quickly extinguished?? This paper argues that the latter was the case and concludes by identifying some ?sparks? that could inform future good practice in postgraduate professional development.


The purpose of this article is to contribute to the discussion concerning teacher knowledge in teacher education from the Finnish perspective. The article focuses on Finnish secondary school student teachers’ reflection on the educational purposefulness of their teaching at the beginning of their pedagogical studies. The empirical data include student teachers from all school subjects in the Department of Teacher Education at the University of Helsinki (N = 280) at the beginning of their one-year pedagogical programme, in 2010. According to the data, the student teachers emphasised some general purposes of teaching, regardless of the subject matter they taught. They all viewed themselves as responsible professionals whose task was to provide students with basic knowledge of their subject matter. Furthermore, they viewed themselves as responsible for the holistic education of the students, including their personal and ethical growth. We could also see some subject matter-specific purposes in the subject-specific teaching by student teachers of different subjects.


The aim of this methodological paper is to expound on and demonstrate the value of conversation-analytical research in the area of (informal) teacher learning. The author discusses some methodological issues in current research on interaction in teacher learning and holds a plea for conversation-analytical research on interactional processes in teacher encounters. As an illustration, an analysis is presented of the way university lecturers manage intersubjective understanding in an inter-professional meeting. With a micro-analytical focus on the architecture of turns, turn taking and the sequential organization of the interaction, the analysis shows how intersubjectivity is reached interactionally by the participants.

**Abstract**

This paper reports the results of an experimental study investigating the impact and the one-year sustainability of the effects of the Dynamic Integrated Approach (DIA) to teacher professional development. Teaching skills of the participating teachers and their student achievement in mathematics were measured at the beginning and at the end of the interventions. The DIA had an impact on improving teaching skills and student achievement. A follow-up measurement of teaching skills, one year after the end of the interventions, revealed no further improvement or declination. Implications are drawn and suggestions for further research are provided.

**Summary**

This article examines the impact of professional development on student learning and on quality of teaching and the sustained impact of professional development after one year of the intervention. The authors warrant the investigation on professional development by the increased pressures for "improving quality of teaching and learning and the demand for increasing accountability" (p. 1).

The article rests on three assumptions:

- First, that quality professional development can improve teaching practices and that improvement in teaching practices lead to increased student achievement.
- Second, that expertise in teaching follows a developmental path in distinct stages.
- Third, that it is possible to identify teachers’ stage of development via observation.

All these assumptions are necessary to justify the authors’ work: an experiment comparing the impact of two interventions of professional development, the Holistic Approach and the Dynamic Integrated Approach. The Holistic approach uses reflection on practice, creation of plans to improve that practice, application of those plans, and reflection on the outcomes. Teachers do this work in a collaborative setting. It is called Holistic because teachers are not provided a specific focus to attend to, rather they select from their whole practice what features or aspects they want to reflect on/plan/apply etc. The Dynamic Integrated Approach has the same reflection, plan, application, reflection cycle as the Holistic approach, but the teachers are grouped according to the stage at which they are according to a five-developmental stage model and are given concrete areas to work on. Authors describe on p. 5 (section 4.2.3.2) what they do with the teachers, but this description is too general, so I can’t provide examples of what the teachers work on.

The authors have two main findings to report for the teachers in the Dynamic Integrated Approach group. First, their students have statistically significant higher achievement than students of teachers in the Holistic group at the end of the year. Second, one year later, the level of implementation of the lessons in the PD is sustained. This actually happens for both groups, but because the Dynamic Integrated Approach group ended up with higher implementation scores, the differences are significant.

These two findings rest on the measures used in their experimental design.

In this paper, the authors describe the use of three observation instruments (a high-inference one and two that are low inference) to measure the teachers’ classroom behaviors. Each teacher is observed 6 times (presumably three times by 2 observers). The instruments are meant to capture eight effectiveness factors through five measurement dimensions of the Dynamic Integrated Approach.
Approach. They together determine the five stages of the development path (Table 1, p. 3).

Because this was a bit obscure to me, I secured a second paper, Using a multidimensional approach to measure the impact of classroom-level factors upon student achievement: A study testing the validity of the dynamic model (Kyriakides and Creemers 2008). From this paper I learned what the eight effectiveness factors and the five measurement dimensions are. These are in Table 1 in this document.

Table 1: Effectiveness Factors, Measurement Dimensions, and Developmental Stages (Antoniou & Kyriakides, 2013, Kyriakides & Creemers, 2008)

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<td>1. Orientation</td>
<td>1. Frequency</td>
<td>1. Basic elements of direct teaching</td>
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<td>2. Structuring</td>
<td>2. Focus</td>
<td>2. Putting aspects of quality in direct teaching and touching on active learning</td>
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<td>4. Teaching modeling</td>
<td>4. Quality</td>
<td>4. Differentiation of teaching</td>
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<td>5. Applications</td>
<td>5. Differentiation</td>
<td>5. Achieving quality and differentiation in teaching using different approaches</td>
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<td>6. Management of time</td>
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<tr>
<td>7. Teacher role in making classroom a learning environment: Teacher-Student &amp; Student-Student,</td>
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<td>8. Classroom assessment</td>
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It seems that the eight factors and the five dimensions are crossed tabulated to get at least 40 items to measure. In the Kyriakides and Creemers (2008) paper they realize that Factor #7 (Environment) has to account for two sub-factors, Teacher-Student relations, and Student-Student relations. To me, this means that there are in reality 9 factors and 5 dimensions yielding 45 items to measure. The cross-tabulation is presented in Figure 1. Notice that most of these cells are accounted for in the Stages Table (Table 1 in Antoniou & Kyriakides, 2013, p. 3). Notice also that this table has an extra factor, Feedback, that is not mentioned in the Kyriakides and Creemers (2008) paper. In the cross-tabulation below (Figure 1) I colored the cells according to the stages in the developmental model.
It is a mystery to me how the developmental stages are generated. In the Kyriakides and Creemers paper the authors mention a confirmatory factor analysis and that some of the items did not load. Note, though, that in that paper the outcome variables were different: achievement in mathematics, Greek, and Religion, and Attitudes towards religion). A copy of the observation protocols would be very useful—these are not available in either of these two papers. The Kyriakides and Creemers paper has more detail about the characteristics of the low and high inference protocols, but the description is not very clear (see p. 193).

In the Kyriakides and Creemers paper the authors use HLM to identify the extent to which the different measurement dimensions allow for explaining most of the variance in students’ outcomes and the impact on student achievement scores. Besides the three observation instruments they administered a student survey with the intention of cross-validating the observations. They find great alignment for all dimensions using 3 or 4 instruments. The authors find that relative to each of the other dimensions, the quality dimension explains most of the variance in the students’ scores than any of the other dimension. More importantly, they find that using the five dimensions altogether explained most of the variance (60% in mathematics, 61% in Greek, 59% in Cognitive Rel. Education, 57% in Affective Rel. Ed.).

I return now to the Antoniou and Kyriakides paper. Recapping: the two interventions are Holistic, which includes ‘critical reflection’ only, and Dynamic Integrated Approach, which in addition to critical reflection includes a “focus on teaching skills of the dynamic model which correspond to teacher developmental stage and needs” (p. 3). In critical reflection, teachers: “developed action plans, engaging in the whole spectrum of knowledge, skills attitudes, and beliefs about teaching, to discuss with other teachers in their groups and identify what they considered as an important area for professional improvement” (p. 3-4). Their main point is that critical thinking is necessary but not sufficient: “there needs to be both knowledge and bodies of intellectual and performance skills that form the basis for critical analyses.” Both interventions sought to increase general (not specific) pedagogical knowledge.

Methods
130 primary school teachers volunteered to participate, but they were randomly assigned to the two professional development groups. Quality of teaching and student achievement were measured at the beginning and end of Year 1 and quality of teaching was measured again at the end of Year 2. It was not possible to obtain an end-of-Year 2 measurement for student achievement (p. 4). Authors report that through the observation, 32 teachers were classified as being in “Stage 1, 34 in Stage 2; 32 in Stage 3, and 28 in Stage 4. Only 4 teachers were classified in Stage 5” (p. 5). Each group took part in nine PD sessions during one year (08-09). Each session is described (p. 5); they were meant to be opportunities for teachers to identify success and failures, discuss with and learn from others, focus on a specific area, and make plans. Teachers were interviewed during those visits and some of their diaries were examined;

Another paper, Kyriakides, Creemers, and Antoniou (2009), might contain an explanation of how teachers were classified into each of the five stages.
they indicate that both groups of teachers had similar struggles implementing their action plans (e.g., finding time for planning, reflection, and collaboration, dealing with administrative issues that delayed plans, impact of leadership support).

**Measures**

Student achievement in mathematics using a research team developed, criterion-referenced test based on the objectives of the national curriculum in Cyprus, student background variables (gender, SES) and opportunity to learn (time spent on homework and tutoring), contextual variables at classroom level (average math achievement score, average SES, % of girls), teacher background variables (gender, position, years of experience), quality of teaching (three times, beginning and end of Year 1 and end of Year 2). Each class was visited 6 times, 26% of them were observed by pairs of observers. They report high alpha reliability coefficient for the scales (all above .83) and inter-rater reliability (rho squared) higher than .78. Observers were not aware of the teacher’s stage.

**Models**

The impact on student achievement is tested with a three-level model, student, teachers, and schools. Table 2 on p. 7 has the results of the models. In the empty model 71% of variance is at the student level; 19% is at the class level and 10% at the school level. The consecutive models add different clusters of variables at a time. Notice how variances at student and classroom levels decrease as the models become more complex from 49% to 44% at the student level and from 185 to 9% at the classroom level (the variance does not change much at the school level).

I found the most interesting models to be 3 and 4. Model 3 includes all context and background variables at the student and classroom level and the developmental level of the teachers (the reference is level 3). Notice that the impact of teachers classified in either Stage 1 or 2 is negative on student achievement, and it is worse for students of teachers in Stage 1. The impact of Stage 4 teachers on student achievement is positive. In Model 4, the intervention variable is added, and relative to the Holistic Approach, the Dynamic Integrated Approach has a positive and significant impact on student achievement. Thus, focusing teachers’ critical reflection on the areas in which they need more help has a measurable and significant impact on student achievement.

The second analysis they conduct is on the impact of the PD on quality of teaching and the sustainability of the quality after a year. Follow up with teachers a year later to collect data on teaching quality revealed that teaching quality had been maintained in both groups. But because the teachers in the Dynamic Integrated Approach had a marked increase in their quality at the end of Year 1, the difference at the end of Year 2 is significantly maintained (Figure 1, p. 8).

**Main discussion points:**

1. Do not assume that teachers will ‘naturally’ evolve over these stages (the assumption of the Holistic Approach model). If one wants teachers to progress through these stages of development, then professional development needs to target those specific areas in which teachers are lacking. (p. 9)
2. Perhaps a variation of the above theme: teachers do get better at the skills they are asked to improve; in the Dynamic Integrated Approach the teachers did just that and not only got better, they were able to sustain those gains after a year in the field.
3. Training courses should “address the needs of specific groups of teachers” (p. 9).

**References**


**Abstract:**
Promoting inclusivity is a core aim for many teacher education programmes throughout the UK, USA, Canada and other highly diverse nations. However, despite this aim, teacher education programmes continue to face challenges in preparing teachers who feel confident in addressing issues of diversity and inclusivity in their classrooms. The purpose of this research was to present an in-depth examination of how one initial teacher education programme coherently promotes inclusivity through various pre-service programme structures and experiences. Data were collected from four senior programme administrators, 10 faculty members and 25 teacher candidates via interviews, focus groups and professional development journals. Results provided a complex analysis of programme coherence related to the multiple ways in which inclusivity was interpreted and experienced within the teacher education programme. Specifically, three different interpretations of inclusivity were identified across participant groups: integrative, dialogical and transgressive. Each of these interpretations were manifested in varied ways through programme structures of field-based placements, curriculum and pedagogies. Based on this analysis, the paper concludes by identifying critical issues related to the preparation of inclusive educators as a foundation for future research and teacher education development.

This article addresses two main questions: how inclusivity is interpreted by different participants in a Canadian (Ontario) Initial Teacher Education [ITE] program (programme), and how inclusivity is enacted through four areas, the overall program, course work, field-work placement, and pedagogy. The authors use Darling-Hammond et al’s 2005 definition of inclusivity, as: “supporting and accepting a full range of diversities within a learning context to promote equitable education for a more cohesive society” (p. 551).

There were three levels of participants: administrators (four), faculty (10), and students (teacher candidates, 25). Interviews with faculty and administrators and focus groups (15 students) and journals (10 students) were the sources of data.

The author identified several gaps in the literature regarding inclusivity. First, that investigations only look at elements of programs (courses, pedagogy, content) in isolation and not in a programmatic way. Second, that there is not a common definition of inclusivity that permeates these investigations. The term is “young” and therefore it is somewhat under-theorized and interpreted in multiple ways. There is no research that accounts for the “conceptual and practical variance” of inclusivity.

The two research questions are:
1. What do different people in the program mean by inclusivity?
2. How are those interpretations enacted in the teaching and learning experiences in the program?

The author’s intention is not to produce generalizable findings, but to give a good description of the program and to highlight strengths and challenges as the people involved in its planning seek

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3 A fourth level of participants, cooperating teachers, was mentioned tangentially, but their views were not collected in this study.
to have an inclusive program. The aim is to inform others so they can “examine their own approaches to promoting inclusivity in their local contexts” (p. 552).

**Definitions:**

- **Program structure:** DeLuca describes the program as involving both on-campus coursework and field-based experiences (p. 553). The program is eight months long and graduates about 600 students per year (primary/junior, intermediate/senior); 12 weeks of field-work are in “school settings” and 3 are in an “alternative field-based experience” (p. 555, the latter ones presumably including some diversity component). The program emphasizes an “integrated approach to teaching and learning” (p. 555). There are two required inclusivity courses and two elective inclusivity courses.

- **Coursework:** refers to the courses students take on campus. Can include inclusivity in three ways: infused (across courses), separated (individual required courses), combination of both (infused in courses and optional, elective courses).

- **Pedagogy:** it is not defined in the text. DeLuca describes two pedagogical approaches, content-based (focuses on transmission and application of knowledge and skills related to inclusivity, via lectures, text, and class activities, p. 554) and process-based (engages students in “active meaning making through processes of critical reflection on self, teaching practices, and systemic structures” p. 554). Four pedagogies are mentioned as “effective in research related to social justice education and process-based learning: (1) personal narratives (2) cognitive dissonance and critical consciousness (3) action-based and action-research learning, and (4) student diversity representation” (p. 554).

- **Field-placement:** placing students in “real” classrooms. The placement can be in mainstream classrooms or in “alternative,” specialized classrooms (p. 554).

- **Integrative inclusivity:** “the inclusion of diverse learners into the school setting through “academic accommodation modification or alternative programming” (p. 557). This form of inclusivity refers mostly to academic work. In this form of inclusivity, needs are identified first in order for the program to be able to respond through curricular offerings. Two Administrators, four Faculty and 18 Students spoke of inclusivity in this way. This form of inclusivity highlights or emphasizes the differences in order to make sure that the “different” feels included in spite of the difference. In the words of a teacher candidate “it is a space where students with diverse cognitive and physical abilities are welcomed into the classroom and accommodations are made so that they can learn” (TC-13).

- **Dialogical inclusivity:** “diversity is identified as a central feature of learning contexts in which multiple perspectives are ‘brought into dialog with one another’” (p. 558). Beyond academic inclusion, this perspective accounts for “socio-cultural” inclusion. It was the most commonly articulated (the four administrators, the 10 faculty members and 22 out of 25 students). It is less about differentiating (or “othering”) and more about assuming that everyone is different and they need to be brought together academically and socially. In the words of a faculty member, it “means honoring and respecting everything that each individual brings into the classroom whether I understand it or not. Faculty and administrators identified as a challenge of implementation the reconciliation of multiple views (they can be oppositional or incommensurable) and may harm or threaten individuals. Runs the risk to be enacted simplistically; it can represent cultures in an essentialized, static, or glorified ways.”

- **Transgressive inclusivity:** “classrooms are culturally complex and thus each context of learning is unique. Teaching and learning [is] ‘shared and emergent as based on the interactions amongst students and teachers’” (p. 559). It is not just “with and about diverse students but ‘from’ diverse students” (p. 559). Because each context is unique, knowledge is realized through diversity. Two administrators, two faculty members, and no students articulated this meaning. A faculty member said: “My learning in the class depends on your learning and your perspective and your contribution and vice versa’ (FM-10)” (p. 559).
Experiences: Aspects of the program (and its components) that support inclusivity and challenges to implementation

<table>
<thead>
<tr>
<th>Component</th>
<th>Supports of inclusivity through</th>
<th>Challenges to implementing inclusivity</th>
<th>Types of Inclusivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall program</td>
<td>Cohort model, consistent timetable, annual musical, accommodations for students with exceptionalities</td>
<td>Split campus-practicum generates sense of not belonging; Silos of students (e.g., level) where students experience</td>
<td>Dialogical and transgressive</td>
</tr>
<tr>
<td>Curriculum</td>
<td>The two required courses are key for integrative and dialogical forms; Module gives theoretical underpinnings; The elective courses offer specific cases of inclusivity</td>
<td>The module is short, not very practical</td>
<td>Mostly integrative and dialogical in dedicated courses. In other courses it is done ad hoc</td>
</tr>
<tr>
<td>Practicum</td>
<td>Work on diverse contexts allows for the three forms of inclusivity to be addressed</td>
<td>Uneven exposure</td>
<td>All three</td>
</tr>
<tr>
<td>Pedagogy</td>
<td>Five strategies: 1. Model or seeing faculty not modeling inclusive practices 2. Space configuration 3. Diversity within learning contexts—homogeneity is a problem 4. Critical self-reflection and discussion 5. Learning through art</td>
<td>Hard to engage students in conversations (p. 563)</td>
<td>dialogical and perhaps transgressive (via #4)</td>
</tr>
</tbody>
</table>

In assessing the overall structure of the program, DeLuca identifies four problems:

1. Explicit coursework (required courses) provided a foundation for the students, but the integration of the interpretations of inclusivity across coursework and field placement was less consistent: faculty felt that they explicitly integrated themes of inclusivity in their teaching but that this integration occurred in an ad hoc manner through discussions and reflections.
2. DeLuca found limited evidence that the students recognized that what they learned in coursework was indeed linked to their field-placement experience.
3. Various interpretations of inclusivity were included in the field placement but their enactment depended largely on the supervising teacher. Placement should be done intentionally; students preferred placements in “alternative” environments because they saw those as more conducive to promoting issues of inclusivity than placements in the “general placements.” DeLuca indicates that the quality of the supervising teachers, their approaches to inclusivity, and the connections they make between coursework and placement influences learning in these placements.
4. No participant articulated the three interpretations of inclusivity, but the integrated and dialogical were easily identified in both coursework and placement. So there is little evidence that administrators and faculty promote the three interpretations through an explicit
framework that would allow “students to better negotiate and connect their learning experiences within” the program (p. 564).

DeLuca proposes four areas as suggestions or issues to take into account in designing programs that aim at promoting inclusivity as a fundamental principle in education:

1. Sometimes only the visible exceptionality is acknowledged. Sexual orientation or religion are not visible and therefore tend to be ignored. The program needs to focus on both visible and invisible diversity. More specifically, diversifying the student teacher and faculty populations along these dimensions should be continued.

2. Participants recognized that sometimes they take a politically correct stance. DeLuca suggests that the conversations need to go beyond political correctness. As an example he brings Pinar’s idea of “complicated conversations:” “curriculum moments that push self-reflexivity into erudition and that challenge assumptions governing one’s ideologies and subjectivities” (p. 565).

3. Have strong alignment of the ideas and the practices—modeling the strategies always as the participants noticed that sometimes faculty did not “practice what they preached.” Modeling can be difficult in some contexts (e.g., lecture halls) and it may be different for elementary and secondary education; in occasions the messages students received were contradictory. Faculty members need to work on creating “inclusive learning environments that present congruent interpretations and experiences of inclusivity” (p. 566).

4. A framework for inclusivity that includes these interpretations that can serve as a theoretical model. Such model can help students negotiate mixed and contradictory messages about inclusivity and can help achieve programmatic coherence, without reducing inclusivity “to a single factor or a singular interpretation” (p. 566).