

# Transformative Pathways: Inclusive Pedagogies in Teacher Education

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## Abstract

*This paper reports a three-year study of Praxis Inquiry based developments in teacher education undertaken by an international consortium of university colleagues who have worked in Australia, Iceland, Latvia, and the United Kingdom. Our study suggests that the attainment of inclusive community responsive pedagogies—in schools and in teacher education programs—is situated in the public/personal dialectic between the transformation of individual values, world views, ethics and practice, and the sociocultural and structural factors that mediate equity, access, and opportunity in educational systems. (Keywords: Teacher education, inclusive pedagogies, Praxis Inquiry, social justice.)*

Praxis inquiry (PI) and ongoing partnerships with schools as a basis for teacher education has meant a rethinking of philosophies connected to preparing graduate and undergraduate teacher learners (T–Ls) to be effective and responsive educators. In the context of inclusive educational practice, this paper will discuss PI driven curricula approaches that promote authentic learning, innovative pedagogy, and activist reflection (Cherednichenko & Kruger, 2005; Kruger & Cherednichenko, 2006; Sachs, 2002).

Early understandings of inclusion emerged in the 1970s to express equity and justice initiatives related to gender, class, and ethnicity (Kelly, 1986a, 1986b), while activists concerned with disability rights also began to use the term “inclusion” in the 1980s (Dalmau, 2002). However, within educational systems, medical and remedial models of specialist education for ‘special’ populations gradually became identified with the term inclusion (Guðjónsdóttir, 2000). This paper examines reconstructionist and sociocultural approaches that challenge the exclusion and marginalization of individuals and groups on the basis of perceived ability/disability, ethnicity, class, sexuality, gender or religious belief. Current global visibility of ethnic, ideological, and social intolerance accentuates the need for teacher education programs to focus on the preparation of educators who can build inclusive student-centered learning communities that are based on appreciation of diversity and openness to the world.

## PRAXIS INQUIRY: A NEW PARADIGM FOR TEACHER EDUCATION

The ideological framework of Praxis Inquiry at Victoria University (VU)<sup>1</sup> (Australia) was articulated during a review of teacher education completed in 2004 (Cherednichenko & Kruger, 2005). Cherednichenko and Kruger report that PI based learning and teaching creates a new paradigm for teacher education by offering T–Ls the opportunity to develop as informed and competent professionals within teacher education programs that:

- recognize that T–Ls' questions about students' experience of education are critical to their own learning
- construct university based teaching that acknowledges these questions and engages T–Ls in the collegial and professional exploration of technical, epistemological and ontological responses
- acknowledge the impact of pedagogies (constructivism, inquiry-based learning, inclusive approaches), sociocultural conditions (equity, access, social justice) and systemic factors (research, policy, management and differential resource allocation) on the learning and life outcomes of students
- respect the active creation of educational knowledge within schools
- situate learning and practice in strong partnerships between schools, universities and T–Ls

At VU the implementation of PI is supported by 10 years of partnerships with schools. Research over this period has shown that such partnerships provide opportunities for ...

[T–Ls] to experience the authentic demands of teaching—responsibility for the learning of school students—and to inquire into and change their teaching practices so that school student learning is enhanced... teaching practice at VU is not enacted as 'the practicum,' with individual blocks of time in different schools. [T–Ls] work in teams or following Cochran-Smith and Lytle (2001), 'communities of inquiry' on teaching and learning questions of value to the school, which are directly related to student learning (Kruger & Cherednichenko, 2006, p. 6).

T–Ls become members of school teams for a whole year (one day per week plus block placements) and thus experience a shared and ongoing responsibility for student learning. In addition, T–Ls contribute to their placement schools through an Applied Curriculum Project (ACP) whereby they work with their school communities and university colleagues to develop, implement, and document a project that benefits the school now and in the future.<sup>2</sup>

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<sup>1</sup>The research team wishes to recognize the contribution to this paper by colleagues at VU and Icelandic University of Education, in particular Brenda Cherednichenko, Tony Kruger and Mary-Rose McLaren, and also teachers who have graduated from the Icelandic and Melbourne programs.

<sup>2</sup>For further information on Project Partnerships at VU see <http://education.vu.edu.au/partnerships/>

PI is underpinned by the work of both Giddens (1984) and Habermas (1987). Kruger and Cherednichenko argue:

If Project Partnerships have enabled teachers to experience ‘what works,’ Giddens’ structuration theory (e.g., Giddens 1984) indicates a mapping of the way in which their reflection on ‘what works’ can generate the complex theorizing which such practice potentially makes available. For Giddens, human action is to be understood as the outcome of human agency-in-structure. The agency-structure duality is an explanation of practice—not in the terms of a grand ‘scientific’ explanation, but as a theorizing of experience ...

...structuration theory asserts that people create the structures in which they live, as much as structures constrain and provide them with opportunities for action. A teacher education curriculum thought of as structuration, then, is an inquiry into social action requiring:

- authentic settings of teacher and student action
- a framework of inquiry enabling participants to recognize and reflexively monitor the structural content of education
- a framework of inquiry enabling participants to recognize and reflexively monitor their own actions and their motivations and rationalizations for action
- opportunities for participants to put their reflexively aware insights about structure, action and personal motivation and rationalization into practice.

From the ‘teachable moment’ in the classroom to ‘lifelong learning’ in the workplace, structuration theory provides an underpinning discourse for practitioner-initiated explanation and change. (Kruger & Cherednichenko, 2006, p. 6)

PI based teaching also relies on the understanding of teacher education as *communicative action* (Habermas, 1987), in which groups of preservice teachers, their mentor school teachers and university teacher educators work in communities of inquiry and practice on the authentic challenge of strengthening school programs and enhancing school student learning outcomes (Cherednichenko & Kruger, 2005).

Considered within this composite framework, the new paradigm is founded on a belief that the authentic questions that emerge from engagement open transformative pathways for collegial learning that eventually lead to changed practice. “Applying developments from the Coalition of Essential Schools [USA], ‘the teacher education curriculum as question’ may be thought of as a ‘protocol’ (McDonald, Mohr, Dichter, & McDonald, 2003), a semi-structured set of questions which collaborating teachers can ask themselves in action-based inquiry” (Kruger & Cherednichenko, 2006, p. 8). The four iterative dimensions of PI support this process (See Figure 1, p. 168). Of particular interest in our work is the positive response of T–Ls to the challenge in the PI Protocol to identify and investigate ontological and epistemological as well as technical aspects of their practice (See Figure 2, p. 168).

<b>PRACTICE DESCRIBED</b> T–Ls describe practice (cases, artefacts, anecdotes) and identify questions (what do I wonder about when I think about this event?)	<b>PRACTICE EXPLAINED</b> T–Ls seek to discover professional explanations for their practice (literature, research, mentors & colleagues, teacher education) (how can I understand this practice?)
<b>PRACTICE THEORIZED</b> T–Ls consider the overriding question: who am I becoming as an educator as I integrate these understandings and beliefs into my practice (who am I becoming as a teacher?)	<b>PRACTICE CHANGED</b> T–Ls plan action (how can I act to improve learning for students and improve my capacity as an educator? and of course what are my new questions?) (Kruger, 2006)

*Figure 1: The four dimensions of the PI Protocol*

<b>ONTOLOGICAL INQUIRY</b> About the school students and their relationship with schooling; e.g., the extent to which the school and its teachers interpret school students' engagement/disengagement in learning as an organized (effectiveness) response or if there is significance accorded to students' socioeconomic location .... Inquiry of this kind for some of us leads to an emotional response—moral outrage at education's participation in social division.
<b>EPISTEMOLOGICAL INQUIRY</b> About the school students and their relationship with knowledge and the school curriculum. For example, in what do students appear to be interested/not interested? How do their interests fit the fields of knowledge contained in the school curriculum? ...
<b>TECHNICAL INQUIRY</b> About the school students and the specific practices which 'work' or don't [for example, organizing] an outside-school study program or the strategies needed to develop literacy through experimental learning. (Kruger, 2006)

*Figure 2: Ontological, epistemological, and technical aspects of PI Protocol*

Our research has shown that T–Ls' strong engagement with students, schools and communities encourages them to think and act as teachers from the very beginning of their university degrees. In addition, the synergy in the PI Protocol between these dimensions and critical awareness of technical, epistemological and ontological factors provides a rich opportunity for T–Ls to recognize and evaluate complex interactions between the learning and life outcomes of students, educational policies, socio-political and cultural factors, and the ongoing discourse of education.<sup>3</sup>

## METHODS OF PROFESSIONAL INQUIRY

International collaboration is a strong characteristic of this longitudinal inquiry. Each of the researchers has pursued the study of inclusive education for many years across a number of locations and collaborations (Australia, Iceland, Latvia, UK and USA). The current research team was formed in 2004 when Hafþís Guðjónsdóttir, on sabbatical from the Icelandic University of Educa-

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<sup>3</sup> Refer to the section entitled Exploring the New Paradigm for data related to T–Ls who are exploring technical, epistemological and ontological questions as they (1) participate in professional discourse, (2) build habits of reflective practice; and (3) engage in practice-theory writing in action.

tion, joined the teaching team at Victoria University in Australia, and co-taught a bachelor of education unit on inclusive education. The methodology was framed by principles of self-study and action research and collaborative practitioner inquiry. This conceptual framework for collecting, analyzing, and interpreting data enabled us to consider together our own practice, the experience of T–Ls and the sociocultural context of inclusion (Russell, 2002; Sachs, 2002; Zuber-Skerritt, 1991).

Four dimensions of practitioner research present in self-study and action research make this the most appropriate method. *Self and agency* (i.e., the professional identity and action of individuals is intrinsically bound to the creation and renewal of their practice). *Collaborative creation and dissemination of knowledge* (i.e., collaborative questioning, dialogic, and action-oriented processes are essential to the development and dissemination of authentic educational knowledge). *Continuous learning and action* (i.e., the situation of self-study is ever changing and developing, because researchers must give first priority to managing context that is simultaneously being studied and changed). *The emergent and overlapping nature of changes in understanding and practice* (i.e., researchers work within the constraints and opportunities of personal histories and organizational cultures as they explore new paradigms and create new ways of working) (Bodone, Guðjónsdóttir & Dalmau 2004, pp. 746-747).

The process of action-reflection-learning-action provided the team with three significant opportunities: (a) international data about PI based learning and teaching by T–Ls and university colleagues, (b) a deeper understanding of the nature and possibilities of inclusive education and the processes whereby teachers develop inclusive pedagogies, (c) the review and improvement of the researchers' practice as teacher educators.<sup>4</sup>

Table 1 (p. 170) outlines the international engagement in the study over three years.

## DATA COLLECTION AND ANALYSIS

Sources of data included: minutes of meetings and professional dialogues (within and outside the university), overseas phone conversations, e-mails, audio and visual data recorded at meetings, forums and seminars, course and session outlines, notes, handouts, assessment criteria and feedback, and a two-day international inclusive educational research forum which brought the whole research team together with other educators and community members. Regular debriefing meetings coordinated our collection and analysis of data. During this time we wrote cases, discussed critical issues pertaining to our experiences in class and shared anecdotes of what we valued and took away from our interactions with T–Ls. Data analysis involved qualitative strategies and techniques that drew out emerging themes and a collaborative approach to interpreting inclusive practices through raising ontological, epistemological and technical questions. The trustworthiness of the findings was enhanced by practitioner and peer review, and reflections (Guba & Lincoln, 1994).

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<sup>4</sup> It is significant to note that while the language differs slightly, there is a remarkable similarity in the principles and practices which shape Praxis Inquiry, self-study and action research.

**Table 1: Elements of the Inquiry**

	Australia	Joint Activities	Iceland
<b>2004 Stage 1</b>	<ul style="list-style-type: none"> <li>• Review of Inclusive Education (IE) Unit in BED at VU</li> <li>• Initial introduction of PI approaches</li> <li>• WebCT support to local learning community</li> </ul>	<ul style="list-style-type: none"> <li>• International IE Forum extending data analysis with other educators and researchers (VU, United Kingdom, USA, School Teachers etc.)</li> <li>• Presentation of findings at Australian Association of Educational Research (AARE)</li> </ul>	<ul style="list-style-type: none"> <li>• Teaching at VU and participation in review.</li> <li>• Use of WebCT and other electronic means to maintain contact with Graduate Students</li> </ul>
<b>2005 Stage 2</b>	<ul style="list-style-type: none"> <li>• Implementation of recommendations from Stage 1 research in IE Unit of BED</li> <li>• Adoption of PI based learning and teaching</li> <li>• Extension of WebCT support to local learning community</li> <li>• Documentation of teaching practice and projects</li> </ul>	<ul style="list-style-type: none"> <li>• Joint presentation at AERA (Montreal)</li> <li>• International data-sharing, reflection and critique (email, phone, Skype, shared writing and shared access to University Web Pages and WebCT)</li> <li>• Progressive documentation of data and findings</li> </ul>	<ul style="list-style-type: none"> <li>• Implementation of PI based case/commen- tary in Graduate Teacher, Latvian and Distance Education Programs</li> <li>• Presentation of PI Protocol as imple- mented in Iceland and Australia</li> <li>• WebCT support to local learning community</li> <li>• Documentation of teaching practice and projects</li> </ul>
<b>2006 Stage 3</b>	<ul style="list-style-type: none"> <li>• Implementation of recommenda- tions from Stage 2 across Years 3 &amp; 4 of the BED</li> <li>• Further documentation and development of teaching practice and projects</li> <li>• Further extension of WebCT sup- port to local learning community</li> <li>• Review of findings with School of Education colleagues and graduate teachers</li> </ul>	<ul style="list-style-type: none"> <li>• Joint presentation at AERA (San Francisco)</li> <li>• Joint Presentation at Sixth International Conference on Self-Study of Teacher Education Practices, Herstmonceux, UK</li> <li>• Joint Presentation at CELDA Conference (Barcelona)</li> <li>• International data-sharing, reflection and critique (email, phone, Skype, shared writing and shared access to documentation of teaching practice and other materials via University Web Pages and WebCT)</li> </ul>	<ul style="list-style-type: none"> <li>• Implementation of PI based case/commen- tary and PI Protocol in Graduate, Undergraduate, Special Education and Distance Education Programs</li> <li>• Further documentation and development of teaching practice and projects</li> <li>• WebCT support to local learning community</li> <li>• Review of findings with University colleagues and graduate teachers</li> </ul>

## TRANSFORMATIVE PATHWAYS: EXPLORING THE NEW PARADIGM

At every moment of the journey university colleagues and T-Ls faced the challenge to extend their capacity to interpret experience, and reframe and recreate practice. The most important thing was that learning began with T-Ls questions about their school-based experiences and that we were able to respond by reframing our teaching and creating a dialogic and collaborative community of inquiring professional learners. This was challenging for all of us. Our Icelandic colleague likened her experience to throwing away a life ring.

When in Australia I travelled to the Great Barrier Reef on a snorkelling expedition. I was faced with the choice to hold onto the life ring near the boat or swim out to the reef with younger and fitter people. Finally I found the courage to leave the life ring and explore a exhilarating new world. That's what PI learning and teaching feels like to me—I have had to leave the security of accumulated lesson plans and PowerPoints and share my knowledge and learn with students in flexible and responsive ways ... After I shared this story in class one of my T-Ls wrote to me to say that his experience of inquiry led learning and teaching was similar ... (e-mail communication, 10-11-2005).

Our self-study has demonstrated that it is difficult for teacher educators to go beyond didactic teacher focused approaches, and to make the change to learner-centered PI based learning and teaching. T-Ls and university colleagues felt more secure when faculty were answering T-Ls questions, rather than supporting them to describe, explain, theorize, and act upon their experience. The dilemma we faced was not simply related to our teaching techniques. We, and the T-Ls, needed to go beyond cultural assumptions that knowledge is there in the university to be transmitted and that effective learners reproduce that information.

A strong impetus for change was the view that to effectively teach inclusion in action required the consistent modeling of inclusive practice. The opportunity for T-Ls to think and act in an inclusive manner was often dependent upon educators who displayed evidence and modeled inclusive principles and actions. Unveiling the contradictions between university academic expectations and democratic practice meant that both T-Ls and university colleagues shared similar roles and responsibilities; both were learners and leaders during various stages; both took on a critical lens similar to that required by Freire's 'conscientizacao' (1993, p. 93).

Conscientization is more than simple stream-of-consciousness journal writing, or abstract analysis of decontextualized information. It is a risk-taking and dialogic form of reflection that occurs over time, when educators, (1) recognize and challenge long held beliefs, assumptions and knowledge, (2) consider the sociocultural, historical and political factors that shape their practice, (3) reframe and reconstruct their

worldview, and (4) deepen their commitment to collaborative and transformative action. (Dalmau, 2002, p. 66)

The following sections describe practices that featured consistently in the study across the three years. In the interests of clarity, we have subdivided these elements into four threads of action, even though we recognize that each of the elements contributed holistically to the integrated practice of T–Ls and of ourselves as teacher educators.

## THE PROFESSIONAL DISCOURSE OF TEACHING

A critical element of our practice was providing the opportunity for T–Ls to engage in learning at a new level as they joined with us in the related discourses of learning/teaching, inclusion and the sociocultural context of education. For example:

***Inquiry:*** In Stage 2 we framed the unit around three inquiries: Inclusion, Diversity and Inclusive Pedagogies. During their time in schools T–Ls collected artifacts, which provided evidence about each area in turn. In the university classroom PI Teams of T–Ls created posters from the artifacts and together generated questions for further investigation. A critical element of this process was their consideration of the meaning of their shared data with questions such as: “What do I think of when I see the picture created by our collected data?” “What does this picture tell us about inclusion/exclusion?”

*I am grateful in the way we were taught to use powerful inquiry tools to investigate so deeply ... and more importantly to reflect and improve continually.*<sup>5</sup>

*When I went to school to inquire into diversity I realised that I did not know what diversity meant—I got a few artefacts and brought them to class—it was only when we put them all together and started talking about what we had found as a group that I began to get an understanding.*

Discussion of these questions also continued between T–Ls and university colleagues through WebCT based discussion and feedback.

**Readings and WebCT:** We resourced this ongoing inquiry through two resource collections.<sup>6</sup>

1. Readings: book divided into three sections—Socially Just Inclusion, Appreciating Diversity and The Pedagogies of Inclusive Learning and Teaching.
2. Technology: WebCT site contained class notes, references and links to significant sites plus the invitation to T–Ls to record their observations and questions and thereby to also contribute to the learning of their peers.<sup>7</sup>

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<sup>5</sup> This formatting indicates reflections used with the permission of teachers who have graduated from the Icelandic and Australian programs.

<sup>6</sup> Maintained by T–Ls and university colleagues

<sup>7</sup> Which they did with enthusiasm



**Responsive Teaching:** One of the most challenging issues we faced was changing the way *we taught*. This was difficult for both university colleagues and T–Ls. Over millennia universities have constructed a culture of dissemination of information and wisdom by the learned. Initially T–Ls were nervous about taking responsibility for their own learning and university colleagues were doubly confronted by the students’ resistance and by their own fear of a new relationship with learning and teaching. The focus on personal teacher agency in the PI Protocol presented us with opportunities to work our way through these dilemmas and to have what we would claim is an authentic social content in our work.

The PI Protocol can thus support student teachers, teachers, and teacher educators as they

... engage in joint construction of knowledge through conversation and other forms of collaborative analysis and interpretation. Through talking and writing, they make their tacit knowledge more visible, call into question assumptions about common practices, and generate data that make possible the consideration of alternatives. Part of the culture of inquiry communities is that rich descriptive talk and writing help make visible and accessible the day-to-day events, norms, and practices of teaching and learning and the ways different teachers, students, administrators, and families understand them. In this way, participants conjointly uncover relationships between concrete cases and more general issues and constructs (Cochran-Smith and Lytle, 2001, pp. 53–54).

Participation in the professional discourse of learning and teaching thus provides a solid base on which to build habits of reflective practice that T–Ls can take into their professional careers.

*[University colleagues modeled] inclusive education and assisted so much in my developing an understanding of inquiry based learning and negotiating curriculum. You never placed restrictions on our group in terms of discussion or content and you always took the time to ensure we explored, as a group, any questions/issues which arose. This (PI) was, in my opinion, the most valuable and worthwhile learning experience the university could have provided me with. I feel so adequately prepared and ready to enter the teaching profession as I have been given ample opportunity to explore, investigate, develop, question and reflect on my teaching experiences throughout the duration of my degree.*

## HABITS OF REFLECTIVE PRACTICE

Critically reflective practice is integrated throughout all elements of the BEd (Australia) and undergraduate, graduate, and professional development programs (Iceland and Latvia). In this section we will discuss processes we used to nourish this habit.

**Praxis Inquiry Teams:** T–Ls worked together in long-standing teams of four. As well as our observations of the level of discourse, WebCT contact, and support, comments such as the following have been encouraging:

*The collegial groups which were formed at the beginning of the year were key in assisting with our 'inquiry based learning.' Quite often and without consciously realising, we group ourselves with people whom we feel most comfortable - However, a lot remains to be said about working with people we either a.) don't know well or b.) have never worked with before. Through these PI groups (randomly formed for us) I was able to gain new and different perspectives on issues or questions our group raised.*

**Praxis Inquiry Logs:** PI Logs were one of the most significant factors in opening the way for T–Ls to become responsible for their own learning. University colleagues developed these semi-structured, loose leafed documents so that T–Ls could freely add their own materials. Outlines of activities, space for recording personal and shared inquiries, and information are included. In addition T–Ls completed a meta-reflective activity about the nature of their reflective practice during the semester (practice described and explained) and their plans for growth in this area (practice theorized and changed).

*... by writing things down you can visually see what you need to improve on...it's almost a motivation to improve on these things—I can see how much my questions develop and change.*

*I loved the way [the PI Log] was put together as it allowed me to record my own personal notes and collect and add articles and relevant information. I also found my log book to be extremely useful when developing my Educational Philosophy as I had written personal thoughts about my own practice which I was then able to refer back to.*

Most T–Ls saw the PI Log as a place for reflecting on experiences, formulating questions and grappling with issues and dilemmas.

**Teaching and Learning with ICT: Building Connected Communities.** T–Ls feedback on the importance of ICT-aided communication (e.g., WebCT, MSN, Skype) to their shared meaning making raised questions for us. E-mail communication, electronic document sharing, Web-based research, data-logging and WebCT have long been a part of the learning environment in teacher education classrooms. However the outcome of all this activity has been largely technical, providing increased efficiency, information retrieval and transfer (Skamp, 2004). As T–Ls became more deeply engaged in authentic, praxis inquiry based exploration of learning and life outcomes for students and their own response as teachers, they began to use ICT supported connectedness to support ontological and epistemological reflection (Kolodner, & Guzdial, 1996).

Our shared focus on inclusion also supported the development of critical consciousness and the recognition that ICT can be made ubiquitous to student learning and professional inquiry in order to facilitate new learning environments, continuous learning, and collaboration with local and global communi-

ties. This led to a developing understanding of “how the integration of ICT can influence the restructuring and reorganization of classrooms and schools for improved student learning” (Dakich, 2005, p.6).

Social, pedagogical and cognitive perspectives informed our shared practice as we considered the broader context of equitable learning with ICT (e.g., poverty, consequent unequal access to technology, potential for local and global impact), sensitivity to individuals (response to the impact of poverty on students), and professional application (understanding how collaborative use of technology can create inclusive learning opportunities for previously excluded students) (Angus, Snyder, & Sutherland-Smith, 2004; Austin, 2006; Warschauer, Knobel, & Stone, 2004).

## PRACTICE-THEORY WRITING AND ACTION

At the heart of T–Ls professional growth as reflective practitioners is their capacity to express and enact the practice-theory dynamic. This process entails a movement away from the unquestioning acceptance of methods and ideas, to the thoughtful analysis of the experiential, theoretical, and ethical dimensions of their practice. In our courses we introduce a range scaffolding that is designed to support T–Ls to extend their ways of thinking and action (e.g., the PI Protocol and the PI Log described above).

**Case and Commentary:** We supported T–Ls to write cases related to the inclusion or exclusion of students. They then used the PI Protocol to frame a reflective and action-oriented commentary (Shulman, 1992). As they described, questioned, explained, theorized, and proposed changes to their practice, new understandings of the impact of inclusion/exclusion on learning emerged and became part of individual, team and class discussions and action. For many, these were their first self-conscious expressions of practice-theory writing, which in turn opened other avenues: e.g., responsive professional development, increased awareness of the constraints and opportunities imposed by systemic factors, and more comprehensive pedagogical awareness.<sup>8</sup>

**Interviews with Students:** In a similar vein, an assessment task which required T–Ls to interview post-compulsory or middle years students extended T–Ls capacity for practice theory writing. To support this process we developed a series of scaffolds to assist T–Ls with qualitative analysis of their data that extended beyond personal feelings to the consideration of pedagogical, curricula, organizational, and systemic issues.

The PI Protocol formed the basis of a range of reflective activities that gradually built up conceptual understandings, which emerged in T–Ls practice/theory writing, thus extending their professional competence and confidence.

## AUTHENTIC ASSESSMENT AND PROFESSIONAL EXPOSITION

Authentic assessment tasks created within our programs were central to T–Ls development as reflective practitioners. It was in the assessment tasks that they

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<sup>8</sup> Appendix 1 contains the preliminary notes of an Icelandic T–L using the PI protocol to scaffold the writing of a commentary on a case about teaching mathematics

made significant leaps in professional understanding *and* became aware of their developing skills and knowledge. For example, by interviewing students, considering the data and developing curriculum innovation for their particular students/class/school, T–Ls grappled with fundamental questions and capacities related to diversity and inclusion.

In PI based pedagogy, assessment tasks form an integral component of learning and teaching, rather than a quantification of the knowledge transfer that has occurred. Authentic assessment tasks are:

- predominately formative using multiple approaches (providing T–Ls with the information and understanding they need to improve both their practice and their response to assessment tasks e.g., through collegial feedback on drafts)
- based on PI Protocol and Partnerships rather than highly prescriptive
- related to T–Ls experience and collaboratively negotiated to be useful (as determined by T–Ls)
- intrinsic to the pedagogy, (supportive of critically reflective practice and developed by communicative action involving T–Ls, university colleagues, PI Teams and School Partners)
- completed across the learning period and aligned with relevant timetables in schools and communities.
- significant opportunities for T–Ls to make sense of, validate and celebrate their emerging professional understanding and competencies.
- graded according to negotiated criteria by peer, self, school mentor and university colleagues.

Assessment, guided by this theoretical construct, is embedded in T–Ls' learning and teaching and achieved through the sustained reflective dialogue of university, school and T–L colleagues.

For example, the portfolio or exposition task led to the collection and annotation of artifacts that demonstrate T–Ls' support of student learning in all areas of practice and the integration of ICT in their teaching. In the context of PI, these portfolios became a significant vehicle for demonstrating the breadth and depth of T–Ls appreciation of the complexities of their work and their growth as teachers.

*Assessment such as the individual review (4<sup>th</sup> year) and professional portfolio (4<sup>th</sup> year) I found to be very helpful in realising what I knew and who I was as a teacher. I think that 1<sup>st</sup> or 2<sup>nd</sup> year students should be doing these kinds of assessments from the beginning*

We also introduced the opportunity for T–Ls to produce digital portfolios, as the multimodal construction contributed to their reflection on the links between theory and practice.

However, the place of assessment in learning and teaching continues to raise issues for both T–Ls and university colleagues. The impact of sociocultural and historic assumptions about the nature of assessment in universities and schools,

systemic and institutional power dynamics, and current debates about quality and standards in education cannot be underestimated among the challenges university educators face in developing negotiated, inquiry-driven assessment practice (Dalmau, 2002)<sup>9</sup>. Our experience has shown that authentic assessment is at the heart of supporting T–Ls to become responsible learners, willing to take risks to construct their own learning, knowledge, and practice. We have also found that PI based teaching—when it involves respect for learner agency and collegial communicative action—has the potential to facilitate the creation of new processes of learning and teaching (including assessment) (Giddens, 1979; Habermas, 1987). In spite of the difficulties mentioned above, we remain committed to local and international endeavors to reframe the expectations and experience of assessment in teacher education and university culture.

## UNDERSTANDING THE NEW PARADIGM

Discourse and actions generated through collaborative practitioner research and self-study led to new and powerful approaches to defining inclusive practice. Use of the PI Protocol promoted continual reflection on teaching through systematic inquiry and documented practice that allowed the deconstruction of taken-for-granted assumptions of what inclusive pedagogies might look like and encouraged questions about the construction of social justice in schools and the community.

For us, what the PI Protocol does is to transfer to the practitioners—student teachers, teachers and teacher educators—the power to ask the questions that they regard as personally and professionally significant. That is, social justice will be evident in teacher education if and when the agents of education ask questions with morally informed content about their practices and of the schools and systems in which they are embedded. (Kruger, 2006, p. 6)

The PI Protocol was an effective tool that helped to facilitate the implementation of social justice actions (Cherednichenko, Gay, Hooley, Kruger, & Mulraney, 1998).

Given that our research involved two international universities, understanding inclusion at a global level required systematic planning and an understanding of cultural, structural, social, and historical contexts. Likewise partnerships between T–Ls, schoolteachers, and teacher educators offer an integrated approach to the exploration of learning and teaching practices.

Commonly used stereotypes of “inclusive education” tend to limit the discourse to either (a) a narrow medical model which frames exclusion around the

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<sup>9</sup> The following references from the Victorian Department of Education with their emphasis on equity, improved pedagogies and standardized assessment and reporting systems reveal the tensions between pedagogical, inclusive and regulatory paradigms in education. (State of Victoria, Department of Education & Training, 2004; Victorian Curriculum and Assessment Authority, 2006)

deficits or deviance of individuals and groups and involvement in therapy or specialist programs, or (b) a focus on individual difference and learning styles which simply and exclusively relate inclusion to particular teaching methods and ignores research into the complex socio-cultural, pedagogical and political factors that effect differential outcomes of schooling (Teese, 2000).

We consider ourselves to be teacher learners and therefore it is not surprising that our pathways to transformation share many similarities with the authentic learning that we have tried to create for T-Ls. We have taken an inclusive attitude to our work, engaging in purposeful action. Our personal and collaborative learning has emerged in the context of current need and has been shaped by a desire to practice and inspire others to find inclusive teaching pedagogies. We have also taken an expressive and interactive approach to our research, creating many opportunities for opening up our professional discourse and building our own community of inquiry in which we have been both learners and teachers. We too have taken a cognitive attitude to our inquiry, engaging in and enjoying a PI process aimed at authentic learning, teaching, and research (Davies, 2005).

## CONCLUSION

As noted in our findings and the literature, a number of challenges face practitioners who seek to adopt inclusive learning and teaching practice. Our developing understanding of PI required an ethical, pedagogical, and collegial stance that extended our capacity as teacher educators. International discussions on teaching challenged preconceived notions of inclusive practices and facilitated holistic approaches that were responsive to questions of equity, poverty, and diversity. Basing such questions in the realms of PI provides a greater insight into the role of local and broader communities, social structures, and curriculum initiatives in formulating inclusive practice.

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## **APPENDIX:**

### **CASE: LEARNING MATHEMATIC (WORKING NOTES)**

It is a mathematics lesson and the students, eight years old, are working in their mathematics books. I am at the blackboard explaining the problems to them. The students have a hard time understanding, and in the end I go through the whole page with them— something I did not intend to do.

#### **1. Practice Described: Questions/ issues/observations in relation to inclusive education**

- All participated but attention varied. Each worked in his or her own book and participated by answering the questions or by asking questions.
- My teaching strategy was demonstrating on the blackboard and asking students to work individually.
- My concerns are that my students depend on me in mathematics, they are afraid to try themselves or they feel it takes too much time to try by themselves.

#### **2. Practice Explained: Understanding and explaining this event/issue/ dilemma?**

- The teacher needs to be skilful to work with the students and assist them to be independent
- I as the teacher have the power to change this and believe that the students will gain a lot if I manage to change my teaching style. Devlin (1998) says, “real mathematics is about trying to understand ourselves and the world we live in” (p. 3). How can I make sure that my students relate what we are doing in math to their own experience?

- I feel that I am coping with teaching material in Mathematics that is very challenging for many of my students and therefore they need me to go through it with them.
- My opinion is changing though as I become more familiar with the material but it takes time.

### **3. Practice Theorized: My personal theory of action? (Why I do what I do?)**

- Solving this issue is important for students' success in their future education.
- How will I show my respect for students' independence and ideas

### **4. Practice Changed: What have I learned and what could I do?**

- I will develop an action plan, set goals and plan strategies with students for solving problems, and discover Mathematics
- To develop my teaching I need to critically reflect and be open to new ideas.