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SOCIAL SCIENCES TEACHERS' PERCEPTIONS OF TRANSFORMATORY LEARNINGS AND THE TRANSFER OF TRANSFORMATORY LEARNINGS FROM AN INITIAL IN-SERVICE PROFESSIONAL DEVELOPMENT PROGRAMME AT THE UNIVERSITY OF THE WEST INDIES TRINIDAD AND TOBAGO, 2013-2014

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This paper investigates how social sciences teachers, upon completion, perceive their capability to transfer transformatory learnings gained on an initial in-service Postgraduate Diploma in Education programme (2013-2014) at the School of Education, The University of the West Indies (UWI), St Augustine, Trinidad and Tobago. Using a phenomenological approach, experiences of 14 teachers from various disciplines within the social sciences were investigated through semi-structured interviews in two concurrent focus group sessions. The research questions investigated what learnings on the programme they perceived as transformatory and what were their perceptions on transferring transformatory learnings in their schools. Findings revealed that the main transformatory learnings on the programme occurred through an expansion of pedagogical content knowledge, becoming a reflective practitioner, sharing a community of practice, and sharpening their professional identity. In the transfer of transformatory learnings, participants declared an enhanced pedagogical practice, a piquing of interest, a feeling of empowerment, and other factors that facilitated the learnings. They mentioned certain barriers to implementation such as the emphasis their schools placed on teaching to the test and the challenge of access to educational technology.

Background

As a field of study, teacher education has always been dogged by issues of theory into practice. Such issues that affect the effectiveness of teacher education programmes include: the perceived disconnectedness between foundations courses and the reality of teachers' experiences; the disconnect between the reality of the teachers' working world and the world of the institutions of teacher preparation; and the fit between teacher preparation programmes and the design of the field

experience, as well as the very content of teacher education programmes. These issues are all interrelated and affect the ability of teachers to transform their practices and transfer learning from teacher education programmes into their classroom (Cochran-Smith & Zeichner, 2005; Darling-Hammond, 2006; Goodlad, 1990; Korthagen & Kessels, 1999; Zeichner, 2007, 2010).

Just as the challenge for schools is to prepare children for a world in the future that is difficult to clearly predict, the challenge of teacher preparation involves preparing teachers for educating the young for a world unlike that of their teachers. Teacher preparation, then, requires that teachers be engaged in ways that change, expand, and sharpen their perspectives given that their world is not the world of the future. During initial preparation teachers may be challenged to change their views of education, to understand students in ways they did not before, to interrogate their assumptions about different groups and ethnicities, and to work with peers and others in ways that they did not expect or anticipate. Transformatory learning has, therefore, become a core occupational concern of teacher educators as they seek to design preparation programmes for those willing to join the profession. While transformatory learning refers to changes in the perspectives of the teacher (Mezirow, 1997, 1998), transfer of learning refers to changes in classroom practices that result from the experience of teacher preparation (Darling-Hammond, Chung Wei, Andree, Richardson, & Orphanos, 2009). Transfer of learning therefore occurs as a result of transformatory learning.

Elbaz-Luwish and Orland-Barak (2013) make the case that up till the 1970s the most significant research on teacher development centred on teacher effectiveness. These studies focused on teacher behaviours and student outcomes, and tried to build a research base that linked teacher behaviours to desirable student outcomes (Brophy & Good, 1984).

There was concerted critique in the 1970s that targeted the usefulness of this research, and a new turn in teacher development began, which recognized the teacher as a person with voice, history, ideas, and gender, as well as one who acts with agency and who is also affected by context. The approach to teacher education that evolved after the 1970s took the approach to teacher development as growth in self-understanding and the development of agency on the part of the teacher. Critical reflection and experience were emphasized in keeping with the ideas of Dewey (1938), Vygotsky (1978), and Schön (1983), which can all be subsumed under Mezirow's (1997, 1998) framework for the development of transformatory learning. As part of this new turn in teacher education, separate but interlocking streams evolved, which all emphasized experience,

critical reflection, and rational discourse. These included the emphasis on pedagogical content knowledge (Shulman, 1987); the promotion of the concept of professional identity (Beijaard, Meijer, & Verloop, 2004); teacher as reflective practitioner (Schön, 1983); and the role of communities of practice in teacher growth and development (Cochran-Smith & Lytle, 1999). In addition, action research has become recognized as part of this framework, which has become universal in teacher education programmes since the 1970s.

Research Context

Over the last 43 years, the School of Education (SOE) at the St. Augustine Campus of The University of the West Indies (UWI), Trinidad and Tobago, has been the main provider of a Diploma in Education (Dip.Ed.). The Dip.Ed. provides initial in-service postgraduate teacher professional development to secondary school teachers already employed by the Ministry of Education (MOE) in Trinidad and Tobago. In effect, teachers are employed by the Government of Trinidad and Tobago mostly on the basis of their first degrees, and then apply to do the Dip.Ed. after some years of practice. Ongoing research into the expectations of the Dip.Ed. programme has presented the views of the MOE, the SOE, the participants, and their respective school administration for the period 2004-2009 (Ali et al., 2012). At the request of the MOE, the SOE increased the intake of teachers into the programme for 2013-2014. As a result, the social sciences curriculum group saw its intake increase from 30 to 50 students. It is within this context that the six teacher educators of the social sciences curriculum group decided to investigate the teachers' experiences of the programme to ascertain what their learnings were during the programme, and their intentions to implement them upon their return to their schools.

The programme structure comprises four courses: The course on *Educational Foundations* explores the foundational areas of Language, Philosophy, Psychology, Sociology, and Health and Family Life Education (HFLE); the *Project in the Theory of Education* requires teachers to undertake a literature review of a topic relevant to education; the *Curriculum Process* engages teachers in action research; and *The Practice of Education*, or practicum, requires participants to deliver and critique lessons taught in their own schools in the presence of a faculty teacher educator. In addition, through specially allocated Field Days, participants teach in other colleagues' schools in the presence of their peers and teacher educator. A developmental portfolio forms part of this last course. Teachers are grouped under their subject areas for

Curriculum Process and *The Practice of Education* courses (The University of the West Indies. Faculty of Humanities and Education, 2013).

The social sciences curriculum group comprises four subject areas: History, Geography, Social Studies, and Business Studies. The aim of the social sciences curriculum offering is to develop teachers in their personal and professional capacities so that they may be able to use social science subjects as avenues of learning toward holistic human development.

For the academic year 2013-2014, the participants met as one group during the five-week induction period in July-August 2013, and then separated into their specific subject areas from September 2013 to May 2014 to be tutored and supervised by each teacher educator, who continued to expose them to the following topics during the year: curriculum integration; the nature of social sciences and its disciplines; exploring learners and the learning context; distinguishing between *curriculum* and *syllabus*; learning theories; differentiated instruction; subject-specific Unit and Lesson planning; preparing for the blended learning environment; introduction to the portfolio; and planning for school visits – the Practicum (Curriculum Outline, personal communication, July 2013).

Rationale for the Research

Principals and Heads of Departments commented that previous graduates from the programme appeared to revert to their old ways of teaching, and did not seem to display a heightened professionalism upon return to their schools (Ali et al., 2012). Transformatory learning is a desired outcome in professional growth, so there was a need to know whether the Dip.Ed. programme promoted transformatory learning. As social sciences teacher educators we delimited our study to focus on participants in our disciplinary area. Our goal was to capture incipient elements of transformatory learnings gained on the Dip.Ed. We wanted participants to declare learnings gained after having completed the programme, and to express how they perceived their capability to implement these learnings in their schools. Essential to Mezirow's conceptualization of transformatory learning is the element of process involving critical reflection (Mezirow, 1997, 1998). Within this process, we wanted to capture any early indications of change that may have taken place in students as they reflected on experiences in the programme. This was deemed helpful to us as we needed to have some idea as to the impact of our work with the students over

the duration of the programme, and if we had succeeded in putting them on the path to transformatory learning.

There are several pertinent reasons why a study of immediate graduates is relevant and necessary in research on transformatory learning. One tenet on which the programme is based is reflective activity in the tradition of John Dewey (1997). Dewey's work promotes intelligent practice, which for the teacher would involve the development of a problem-solving capacity. At the point of exiting the programme these graduates are best able to consciously articulate their capacity for reflection. In addition, Zeichner and Tabachnick (1981) argued that the shifts teachers make during their university programmes can be washed out by the experience they subsequently experience in the classroom. It is therefore one way that the teacher educators responsible for the programme can determine their own effectiveness as teacher educators. In addition, an outcomes-based study in the classroom would have to acknowledge and separate various influencing factors such as in-school effects, from mentoring effects, from supervisors in school, and from the effects of experience of teacher preparation at the SOE. For their own professional development, teacher educators need to understand the contributory value of their own practice. Insights gained from studying teachers exiting the programme would enrich the the Dip.Ed. teacher education programme, and would also assist in crafting relationships with other stakeholders in the system such as schools, principals, and mentors (Zeichner, 2010).

Literature Review

This literature review explores Mezirow's (1997, 1998) definition of transformational learning, and describes the nature of various streams that have constituted what can be called a transformative pedagogy for teacher education: pedagogical content knowledge, professional learning communities, professional identity, reflective practitioner, and critical action research. These approaches all focus on providing a transformatory learning experience for teachers. Subsequent to the discussion of transformatory learning, the review ends with a survey of the literature on the issue of transfer of transformatory learning.

Mezirow (1997, 1998) defines transformatory learning as the process by which a person undergoes a change in frame of reference or a shift in the structures through which they understand their experience. Experience, reflection, and collaboration with others are identified as important strategies to promote the shift in frame of reference. The Meyer and Land (2003) threshold concept

is also useful to consider in this respect as it possesses, among its characteristics, the aspect of learning that is transformatory in character:

> A threshold concept can be considered as akin to a portal, opening up a new and previously inaccessible way of thinking about something. It represents a transformed way of understanding, or interpreting, or viewing something without which the learner cannot progress. (p. 1)

It is acknowledged by these authors as linked to Mezirow's insights.

Mezirow's approach to transformatory learning included 10 steps:

1. experiencing a disorienting dilemma
2. undergoing self-examination
3. conducting a critical assessment of internalized assumptions
4. relating dissonance to the similar experience of others
5. exploring options for new ways of acting
6. building competence and self confidence in new roles
7. planning a course of action
8. acquiring the knowledge and skills for implementing a new course of action
9. trying out and assessing new roles
10. reintegrating into society with the new perspective (Cranton, 2006)

Three common themes of Mezirow's theory are the centrality of experience, critical reflection, and rational discourse. Through these processes the individual is able to engage in perspective transformation. It is clear that this approach to transformatory learning accommodates transformation that is personal, institutional, and societal in outlook. In so doing it accommodates transformation in keeping with Kolb's (1984) four-stage process involving experience, reflective observation, abstract conceptualization, and then application in a new context. The Mezirow's stages also accommodate Dewey's (1977) stages of experience, reflection, and action. Another and more radical approach to transformatory learning can be accommodated in the Mezirow's definition of transformatory learning. In this approach, transformational learning is interpreted as more than reflection and a view of knowledge as socially constructed. Accordingly, it can be seen as a quest for equity and social justice (Freire, 1970; Giroux, 1981). In this approach, the teachers

in preparation programmes are urged to consider the kinds of injustice and discrimination that are perpetuated by the existing social structures of the world. Issues of gender, environment, equity, and race are unearthed for consideration in schools. Teachers are urged to recognize the ethical and ideological foundations of the education system in the historical context in which they operate.

Pedagogical Content Knowledge

In contrast to the trend of the time, which emphasized a skills-based approach to teacher education premised on teacher effectiveness research, Shulman (1987) emphasized both content and context. He advocated pedagogical reasoning, which was a competence needed for good teaching. He felt that pedagogical reasoning involved a transformation of the personal academic knowledge of the teacher into an experience suitable for children and appropriate to the content being taught. In bringing about such experiences, the teacher would use strategies and resources in creative ways to help the learners make sense of the content being taught. Teaching therefore in his model meant that teachers were open to, and prepared for, the challenge of transformation of received knowledge into forms that students could appropriate for themselves.

Professional Learning Communities

Cochran-Smith and Lytle (1999) highlight the fact that communities of practice are evolving in such a way as to afford teachers the opportunity to construct knowledge of practice through engagement in community sharing. This emphasis on community supports a view of knowledge as supported in social acts and as situated and enacted in social communities of practice. This suggests that the very nature of professional communities of practice supports the notion of transformatory teacher learning as experiences, and contexts are shared in professional dialogue.

Ideas about professionals learning in community now blend in with research on pedagogical content knowledge. The phase of admitting teacher voice in research has opened avenues for studying teacher growth and development. Lieberman and Miller (2011) survey various studies of communities of practice and identify the problematic aspects of forming and maintaining them. The power of these communities was highlighted due to the way they privilege theory and practice; and the way they encourage members to examine their own practice, try out new ideas, and reflect on what works and what does not work.

Professional Identity

Beijaard, Meijer, and Verloop (2004) recognize different aspects to the evolution of identity from the literature on professional identity: the concept of self, the sets of roles and functions the teacher is called upon to execute, and the set of images and expectations of what a teacher should be that is imposed by the wider society. How the teacher learns and the effectiveness of any programme of teacher preparation depend on how the teacher resolves identity conflicts arising from new ideas or curricular changes introduced in schools. Through the use of case studies, journaling, teacher biographies, and interviews, the teacher is assisted in this reconciliation of conflicts, which is important not only for transformatory learnings to take place but also to ensure that they are sustainable and effectively transferred into classrooms. Many recent studies have been conducted on the relevance of professional identity to effective design of teacher education programmes and the way the components of professional identity impact on transformatory learning, whether this is embodied in teacher education or in education change programmes (Avalos, 2010; Sugrue, 1997; Vahasantanen, Hokka, Etelapelto, Rasku-Puttonen, & Littleton, 2008; Yamin-Ali & Pooma, 2012).

Reflective practitioner

The teacher as reflective practitioner was promoted by Schön (1983). This generated an approach to professional development that was adopted in teacher education. His approach to reflective practice was based on two premises. Schön supported the idea of tacit knowledge and, consequently, criticized the use of a positivist paradigm of teacher preparation. If teachers had tacit knowledge, then it was necessary to allow them to become aware of their tacit knowledge in order to develop as teachers as they sought to incorporate new learnings. Schön therefore advocated reflection in action and reflection on action.

The work of Schön was later taken a step further as reflective practice was adopted by researchers advocating critical pedagogy, such as Freire (1970) and Giroux (1981). In this stage of the development of the reflective practitioner idea, the teacher is made to face his or her own assumptions and beliefs underlying his or her approach to teaching and learning. The teacher is encouraged to confront any contradictions between practice and espoused beliefs, as well as the underlying assumptions of the curriculum and the education system overall. The teacher is also invited to reconstruct old approaches and to engage in alternative approaches to the paradigm in force.

Action Research

From a survey of teacher education programmes in the United States and Australia, Hine (2013) suggested that there was great confidence in the role of action research as a learning endeavour for teachers about the execution of their work in general, and particularly in promoting deep understanding of context and students. The action research principles of observe, think, and then act make for critical exploration of the teaching and learning experience. Identifying problems for research, collecting data, and drawing conclusions help to develop a strong professional outlook. Action research has become a critical aspect of teacher education programmes, since by its very structure it seeks to engage teachers in self-improvement and reconstruction of their practice. It has become a potent tool in the evolution of the pedagogy of transformative teacher education (Johnson, 2012; Kemmis & McTaggart, 1988).

Transfer of Learning

Desse (1958, as cited in Haskell, 2001) affirms the importance of what came to be known as the transfer of learning:

> There is no more important topic in the whole psychology of learning than transfer of learning….practically all educational and training programs are built upon the fundamental premise that human beings have the ability to transfer what they have learned from one situation to another. (p. 3)

Haskell (2004) articulates the concept in his own way: "Transfer of learning is considered to be the use of past learning in the learning of something new and the application of learning to both similar and new situations" (p. 575). In the context of this study, transformatory learnings, as desired outcomes of the Dip.Ed., are expected to be applied or transferred in a school and classroom context as an essential part of the teacher professional development programme.

The study by Leberman, McDonald, and Doyle (2016) brings together many of the key concepts, principles, related theories, and concrete case studies illustrative of the process of transfer of learning. Their view is that a thorough examination of transfer of learning reveals "a complex and multifaceted concept and one that has engendered considerable debate and controversy" (p. xi). Nevertheless, these experts assert that understanding transfer and how it occurs is directly "related to education and therefore pivotal in promoting learning [and that in the world of work]... both employer and employees expect transfer to occur" (p. 6). In terms of

educational outcomes as applicable to the issue of teacher professional development, the expectation is that there should be significant improvement in what the teacher does as a professional in helping children learn.

Darling-Hammond, Chung Wei, Andree, Richardson, and Orphanos (2009), in a large-scale study done on the status of professional development in the United States, identified some clear criteria for effective professional development programmes:

1. Professional development should be continuous and ongoing and connected to practice.
2. It should focus on student learning and address specific curriculum content.
3. It should align with school goals and priorities.
4. Professional development should build strong relationships between teachers.

While this report dealt only with professional development programmes and transformatory learning was not a focus of the study, the findings are nonetheless instructive. They suggest that for successful implementation into the classroom of any programme, there should be relevance to the teachers' work, both at the level of the classroom and at the level of the school, as well as an engagement among the community of practitioners with whom they work.

Merriam and Leahy (2005), from an exhaustive review of literature on transfer of learning, identified three main variables: the participant characteristics, the design and content of the programme, and the overall support structures that graduates work with after the programme. Participant characteristics involved such things as the pre-training motivation of the participants, as well as the level of self-efficacy of learners generally and with regard to the new learning. When learners display very high motivation generally and do not view the training in a negative light then there is a greater chance of transfer of learning into the workplace.

The Merriam and Leahy (2005) study also revealed a number of factors with programme design that facilitated transfer, such as the use of a variety of teaching strategies, active consideration of post-training challenges during the programme, sufficient feedback during the programme, and targeting learners' needs. With regard to the work environment, some essential requirements for transfer identified from the literature review include: the existence of opportunities for practising the new knowledge, incentives to transfer the new learning, supervisory support, and the general climate of the work organization. Their survey of the literature also uncovered three major strategies to enhance transfer: incorporating participants in the

planning of the programme, incorporating strategies that link to transfer in the programme design, and ensuring a supportive transfer climate.

Pritchard and McDiarmid (2006) examined an action research programme in primary schools in New Zealand where there was limited success with the outcomes of the programme in some schools. In the case of this mathematics-based programme, a number of lessons were learnt about transfer of learning. It was felt that changes in pedagogical skills do not happen quickly and take time. The need for competent subject leaders and principal leadership was seen as critical for success. Two related components are necessary. Firstly, there is the element of developing a capacity for reflective practice, which Haskell (2004), on exploring the literature, affirms as being significant for the transfer of learning. Secondly, success is promoted through the development of a learning community in the school: a learning community that de-privatizes practice, encourages safe and informed reflection on practice, and encourages a culture of collaboration as well as shared values and a focus on learning. Reflecting on school as a learning community, Wenger-Trayner and Wenger-Trayner (2015) urge educators to be mindful; that the learning to be sought in such a context is not to be conceived as learning in isolation, but inherently geared to learning transfer, in that the nature of the desired learnings are not only those relevant to real-life situations but also affirming of life situations as arenas of learning.

The factors that affect transfer of learning into the classroom are wide ranging and include learner characteristics, programme design, continuous support in the work place, a culture of continuous professional development, and principal leadership. What is noteworthy is that these researchers see the absence of reflective practice and a community of practice as deterrents to the transfer of learning. Shifts in frames of mind are necessary to ensure continuous engagement with the process of transfer of learning in the classroom. Therefore, while these researchers do not focus directly or specifically on transformational learning, the findings are even more relevant since transformational learnings that change perspectives of teachers will require even more support if they are to be sustainable, since they frequently imply a paradigm shift in practice.

Methodology

All researchers who worked on this paper are teacher educators in the social sciences curriculum grouping, with at least two years' experience as lecturers on the Dip.Ed. programme. This research emerges from the year-end self-evaluation that was undertaken through the lens of

transformatory learnings. All authors, having worked in varied educational contexts over many years, bring depth of perspective to the lens of transformation and are responsible for developing expertise in the teaching of a number of social science disciplines: Social Studies, History, Business Studies, and Geography.

In exploring teacher-trainee experiences of learnings, IPA or Interpretative Phenomenological Analysis (Smith, Flowers, & Larkin, 2009) was selected. This approach is useful in encapsulating what is true of people's experiences and how they make sense of them: "IPA is a qualitative research approach committed to the examination of how people make sense of their major life experiences. IPA is phenomenological in that it is concerned with exploring experience in its own terms" (p. 1). The Dip.Ed. programme is geared to providing participants with a watershed experience for transforming their professional modus operandi as teachers, and thus can be considered a major life experience from which different persons may derive meanings particular to each of them. There is awareness that the investigatory task involves a "double hermeneutic because the researcher is trying to make sense of the participant trying to make sense of what is happening to them" (Smith et al., 2009, p. 3). In the course of discerning the meanings attributed to particular experiences as articulated through the perspectives of participants, researchers engaged in analysis of the circumstances relevant to each participant, and by way of critical discussion arrived eventually at consensus on what the interpretation of the participant's meaning-making activity most accurately represents. In addition, because of shared experiences on the programme and close sustained contact between students and lecturers, such "bias" was seen as an advantage in interpreting the perspectives of the teacher-participants to derive the precise meanings intimated.

On the other hand, this is not to say that researching "perceptions" is unproblematic, as a study such as the present one shares in queries related to qualitative research itself. For clarification, McLeod (2001) identifies two key themes that are related to qualitative research—"the search for validity and truth, and the development of critical reflexivity" (p. 181). The first regarding validity and truth pertains to the assumption that "experience of reality is constructed" (p. 182); there being thus a measure of subjectivity to perceptions emerging from that experience. In addition, the expression of the experience deemed to be real consists of perceptions expressed in words that contain a measure of slipperiness, leaving room for interpretation. Discussions among researchers, however, and consensus arrived at served to

connect to reality as a shared entity, and to give stability in meaning to the words conveyed by the respondents. But then this introduces the theme of reflexivity, since ascertaining meanings also runs the risk of researchers influencing the "findings" to shift intended meanings (p. 195). The antidote to this "interference" is the practice of critical reflexivity, which necessitates constant self-reflection by researchers on their possible influences on data collection, interpretation, and methods. This critical reflexivity, along with practices of transparency, improves methodological rigour. Due to the number of researchers involved and the regularity of meetings in which critical discussions ensued, what emerged was a peer-reviewed critical interaction, which embodied the principle of critical reflexivity.

The research questions guiding the study were as follows:

1. *What learnings on the Dip.Ed. programme can be perceived as transformatory?*
2. *What are the perceptions of social sciences teachers on transferring transformatory learnings acquired on the initial in-service postgraduate Dip.Ed. programme 2013-2014?*

Data Collection Method

The perspectives of the teacher-participants in the two focus groups were recorded, transcribed, coded, and reduced into portions relevant to the research questions. Because "access to a person's experience [is] through the participants own account of it" (Smith, et al., 2009, p. 3), a method was sought that would allow for perspectives of teacher trainees to be captured. Focus group interviews were chosen as suitable for providing the necessary information needed from the targeted group of teacher-participants from whom perspectives were to be obtained, in the "permissive non-threatening environment" of classrooms at the SOE, which were familiar to all (Krueger & Casey 2009, p. 2). In these quiet, comfortable surroundings, two separate venues were chosen with two focus groups (one group of eight participants and three interviewers, and the other group of six participants and two interviewers). One interview was of one-and-a-half hours duration while the other was two hours long. The group with eight participants was comprised of two males and six females, while six females made up the other group. In addition, within the two groups, seven of the participants taught in denominational schools whereas five taught in non-denominational schools. The participants also had a varied number of years teaching experience ranging between 7 to 23 years.

Analysis of Data

From the transcripts derived, initial coding took place collaboratively, where members highlighted extracts relevant to answering the research question and agreed on codes that were attached to each particular extract identified. One member of the group assumed responsibility (Saldana, 2013) to place the chosen extracts along with corresponding codes into an Excel spreadsheet; this made it easier to reduce the data further so that the choicest vignettes could be clearly set apart from the rest. Another Excel sheet (minus extracts) with the codes from the first sheet was created, which facilitated the inductive emergence of themes and sub-themes. The constant comparative method (Glaser & Strauss, 1967) was employed throughout to ensure the commonalities among codes and the accurate classification of codes under themes and sub-themes. Once again, all authors arrived at consensus through critical discussions at this juncture and at all levels of analysis, thus ensuring robust trustworthiness and validity of findings.

In addition, for the ethical reason of preserving confidentiality, pseudonyms were used in place of names of the respondents.

Findings

The general themes associated with transformatory learnings emerged clearly from the data: pedagogical content knowledge, reflective practice, community of practice, and professional identity. The themes that resulted from data reduction for the transferring of transformatory learnings were: enhancing pedagogical practice, barriers, facilitators, empowerment, and challenge.

Transformatory Learnings

Pedagogical content knowledge

The curriculum study provided the teachers with a desire to diagnose the strengths and weaknesses of students, and to design strategies to improve students' learning. The curriculum study is an action research project in which teacher-participants are charged with implementing an intervention with a class in order to solve a problem that is affecting student learning. As Shulman (1987) pointed out, pedagogical reasoning involves a transformation in the way that teachers attempt to solve problems by way of reasoned reflection and experimentation. Betty, who teaches Economics at a denominational school, claims that "*I have to keep inventing these new ways of*

doing things and I found through curriculum study, I learnt valuable ways"; whilst Opal, who teaches Social Studies at a non-denominational school, recounts how conducting her curriculum study helped her become more attuned to her students' learning: "*I'm able to look at my students and think, find out, what would reach them in the most effective way. How would they learn?*" It is for these reasons, where teachers experienced themselves as becoming more empowered to diagnose and problem-solve, that action research has become a potent tool in the evolution of the pedagogy of transformative teacher education (Johnson, 2012; Kemmis & McTaggart, 1988).

One major aspect of teachers' transformation was the recognition that they needed to understand, fully, the nature of the subject they taught so that their pedagogy would improve. According to Lily, a Geography teacher:

> *I am a lot more appreciative of getting them to move from just being an ordinary civilian, who* [is] *not really acquainted with Geography, to get them to thinking like a Geographer, not just absorbing content and you know regurgitating it back on a paper at the end of the term.*

Lily was able to transfer what she had learned from the programme to the classroom by recognizing that the subjects taught did not find their importance solely in the content, but also in the ways they contributed to the development of students, the mission of the school, and the vision of the wider society.

Pedagogical content learning also extended to the teachers' approach to group work. For Kate, who teaches Social Studies in a non-denominational school, the use of group work was a transformatory experience: "*I could not believe group work was going on in my class. I couldn't believe it…and I just saw them discussing and I mean like serious about it.*" A significant aspect of transformatory learning was the recognition of the individual differences of students and the need to adhere to a student-centred approach to teaching. Yma, who teaches Economics in a non-denominational school, recognized "*All of the students are just not the same. There is diversity in the classroom.*" Yma and Vera admitted that they had to "*find ways to deal with the various ways in which students learn.*" This shift from uniformity to diversity in teachers' approach to learning is transformatory, and knowledge is transferred in such a way as to afford optimal appropriation by students (Shulman, 1987). The recognition of student diversity also had its impact on the search for improved pedagogical practice in the classroom. Opal, for instance, sensitized to the needs of

her diverse learners, was anxious to "*find out what would reach them in the most effective way*" and to put into effect strategies for student engagement.

Reflective practice

Making decisions to improve praxis to cater for students' needs and individual differences was a transformatory experience that emerged from reflection on issues within the complex dynamics of the Trinidad and Tobago classroom. Reflection on students and self contributed to the development of teachers who were more disciplined, organized, and willing to conduct research to find solutions to situations emerging in the classroom. Fran confessed: "*I think Dip.Ed. really encouraged me* [to] *delve more and to be like a historian and find other sources of information for the students...the understanding of history is always looking for more information and getting different perspectives.*" In Betty's case, reflective practice took the following form:

> *That for me was very, very instrumental in understanding the Nature of Economics. I never took the time to understand that before. It is a very, very good exercise that I would recommend that you all continue to do because it really helped me to understand the nature of the subject that you are teaching, where does this come from, why is it so full of Maths and all these quantitative things.*

Betty's reflection resulted in a new understanding of the nature of her subject, Economics.

Reflective practice was also evident in the fact that teachers recognized that, while the content of the subject was important, the main concern of teaching was the development of students' personalities by teaching *through* rather than *in* the subject. Fran's and Betty's testimonies are consistent with the view of Schön (1983), who purports that reflective thinking brings about new understandings of the role of the teacher and the nature of the subject. These testimonies also lend support to Schön's contention that the transition from positivist assumptions of a subject to tacit knowledge of pedagogy occurred regardless of the subject taught.

Community of practice

The value of engaging with other teachers on the Dip.Ed. programme apparently created a community of practice as put forward by Cochran-Smith and Lytle (1999). This community of practice was encapsulated in Kate's experience when she shared her perceptions of group work: "*It was an unbelievable moment for me…that has changed my whole perception.*" This transformation is noteworthy as Kate, being a teacher for nine years, surprisingly neglected the use

of collaborative learning in her lessons. Furthermore, she said, "*Something that really stood out for me and has made me better is the use of group work…before I did Dip.Ed. I never did group work. It was never in my classes.*" Lieberman and Miller (2011) posit that one of the main powers of these communities of practice in the transformatory process is in seeing community members successfully try new ideas as influenced by others. In Kate's case, exposure to teachers from other school contexts outside of her familiar non-denominational school setting may have facilitated her transformation.

In contrast, Yma saw the need to develop a community of practice within her department and the wider school body, indicating that transferring transformatory learning can make for a more interesting learning environment. More specifically, Yma speaks of the piquing of interest that emerges, which she describes as a process of "*injecting the school…getting them infected with*" transformatory learnings.

Professional identity

Meanwhile, several responses espoused a transformation in professional identity as evident in imbibing the passion for teaching as a humanizing process. Kate, for instance, said that, "*I know that what I am sharing with them is something that they will be able to use, whether they pass the exam or not, so that is comforting.*" Similarly, Lily was able to articulate the humanizing process of schooling, by suggesting that the respective academic disciplines, while being important bodies of knowledge in themselves, are more importantly means of developing the human personality. The experience she gained afforded her the capacity for "*thinking through Geography rather than just thinking the subject, Geography*"; meaning by this, that while content knowledge is an expected outcome, so too is the use of the specific discipline in service of developing the learner as a human being. Lily's transformation with regard to professional identity has added utility given its occurrence in an all-boys denominational school. More specifically, her transformation can have a profound impact on how she uses her subject in the context of her role as a teacher in meeting societal expectations. This experience of change of role and deepening of personal competence is significant by way of professional identity (Beijaard et al., 2004), and is quite noteworthy for Lily because she has already been teaching for over 17 years.

Transfer of Transformatory Learnings

Enhancing pedagogical practice

Enhanced pedagogical practice by way of improved instructional strategies, better use of resources, and student-centred teaching is indicative of early signs of transformation taking place. Kate and Opal hail from similar school backgrounds where they felt that stirring teachers to improve and be innovative in curriculum delivery was quite a challenge. Kate saw the usefulness of incorporating curriculum integration strategies in lesson planning as she said:

> *I am trying my best to* [incorporate] *activities that are student-centred in all of my lessons even though it requires a lot of planning*...[I see the] *importance of trying to create lessons that target all of them so if it means using music or even trying to do art or whatever is required.*

Kate's sentiments suggest that the Dip.Ed. programme was, in her case, effective in developing a high teacher efficacy, as shown by her determination to use a variety of teaching strategies aimed at student-centred classrooms; her directed impulse is important for promoting the transfer of learning (Merriam & Leahy, 2005).

Equally significant for Kate was that she was apparently now convinced that her job was to prepare her students for lifelong learning instead of simply preparing them for an exam:

> *So it is frustrating, yes, but I know that what I am sharing with them is something that they will be able to use. Whether they pass the exam or not. So that is comforting despite it being very frustrating.*

This belief is aligned to the educational goals for Trinidad and Tobago, which, while encouraging academic excellence, are also heavily weighted toward holistic human development (Trinidad and Tobago. National Task Force on Education, 1994). Likewise, Opal also reported that she was able to transfer her learnings in the Dip.Ed. and enhance her pedagogical practice by being more student-centred in her teaching. Clear use of strategies by Opal seem to make for more effective student engagement in her lessons. She, now conscious of students' learning styles, remarked: "*What type of learners are in front of me and I have seen myself making charts, putting up charts on the wall…trying to engage them more*."

Like Kate, Opal had similar intent with regard to the goal of their enhanced pedagogical practices. The quickness and willingness that they now have to transfer the learnings from the

Dip.Ed. into their pedagogical practices in the teaching of social sciences in the secondary school contradicts the findings of Pritchard and McDiarmid (2006)—though their study did focus on Math teaching in the primary school setting—who suggest that transfer of pedagogical practice of a programme does not happen swiftly.

Barriers

For Indra, the heavy quest for certification in schools coupled with a restrictive time factor, given the crowded timetable for the school day, constituted barriers to transferring transformatory learnings. In her words:

> *Despite the fact that I have learnt new techniques and new ways how to execute a lesson there are systems still at my school that hinder me. So although I may know or I may be willing to or invest the time to execute a student-centred lesson, my school is marks-driven so I feel that although I have acquired all this knowledge, I am still stuck in a box, still trying to devise new ways to work around all the obstacles and challenges that I am facing.*

Indra seems to be in a predicament after 7 years of teaching. Many teachers who come from denominational schools, like Indra, battle with implementing new teaching strategies versus administrations' expectation of exceptional examination results. Furthermore, Indra stated: "*I feel like I'm on this journey by myself all the time*." Choosing between the transference of the transformatory learnings and meeting the expectations associated with a denominational school was a dilemma Indra has yet to resolve. Comparatively, Yma saw the need to embody professional identity, and in contrast to the passion she now embodied, she was saddened with her school colleagues who seemed to display an absence of professionalism as she highlighted: "*When I said to them that we are professionals and I heard one of them say 'This job? We* [are] *not no professional here!' and it was sad that they did not think themselves as professional*s." In cases like these, attention should be paid to the school-wide dimension, in that Darling-Harmond (2009) alludes to the need for effective professional development programmes to be aligned to school goals and priorities.

Facilitators

Through reflection, the teachers highlighted facilitators to the transfer of transformatory learning. One such facilitator was the capacity gained to be more resourceful, in that teachers were able to be more diverse in their planning and implementation. George, a male Business studies teacher

from a non-denominational school, has been teaching for the past 17 years and now admits that he no longer has to depend only on the textbook for lesson delivery: "*So you don't look at topics from one angle again, like the textbook angle. You look at it from...what resources we could get…newspaper clippings…*[for] *project based leaning.*" Additionally, teachers could learn vicariously from colleagues. This was a favourite chorus throughout the interviews. Opal, for example, positively advocated for a programme where "*teachers could sit in on other teachers' lessons* [and] *learn from them.*" The use of technology was also a significant facilitator. One such example was explained by Wendy:

> *I was able to go on so many different sites like Edmodo and network with other teachers and you learn from not just teachers here but from other areas...I was able to even share it with my other colleagues in school.*

Likewise, Yma commented of the usefulness to her department, "*I have been using technology with my colleagues and sending them memos...I have been trying to encourage workshops for them, encouraging them to use technology*."

Empowerment

The teachers noticed their personal and professional growth, especially through the experience of participating in a learning community with their colleagues on field days. In this regard, Yma applauded "*the collaboration, asking, the ideas, sharing of the ideas and different perspective*[s]." These sessions afforded them the experience of teaching in colleagues' schools, at the end of which they felt empowered to teach in any type of school. She also indicated her transfer of the transformatory learning by her expressed willingness of "*injecting the school, getting them infected with this whole thing*." Fran, who has been teaching in the same denominational school since she began teaching eight years ago, articulated: "*If anything happens to me and I decide to leave* [my denominational school] *I know that I can teach somewhere else and I would be okay, you know, I could do it.*"

Challenge

Just as there is the feeling of empowerment, there are also the challenges. Opal acknowledged that though she experienced herself as enabled through learnings gained, there were still challenges that lay ahead for her in executing her classes, especially those using electronic technology. She was constrained in ways "*to limit the time to when the Tech. Ed. lab is free…But*

when I do it in the regular classrooms there is too much disturbance." She was, however, motivated "*to get the use of a projector—I plan to buy one…with my own money.*"

Recommendations

From the findings the following recommendations are made:

1. Given that participants perceived their curriculum study (action research) as occasioning and developing their capacity for evidence-based problem solving, schools could be encouraged to institutionalize research projects of like nature to redound to the benefit of both teachers in their professional development and for the sake of the students, whose improved learning would be the aim of such endeavours.
2. Participants identified various assignments (such as the curriculum study and the task of exploring the nature of their discipline); teaching approaches (group activities, use of ICT, curriculum integration); and ways of relating with students and colleagues in school (occasions where vicarious learning took place) as occasioning transformatory learning and desirable competencies as outcomes. These competencies included problem solving, innovation in teaching strategy to reach a diversity of learners, ability to connect outcomes of classroom activities with humanizing outcomes to benefit society at large, and passion for their discipline. Such transferable competencies are to be encouraged, and can therefore be incorporated at the level of school departments to assist in enhancing schemes of work into units where outcomes, strategies for achieving such, and assessment of teachers' approaches could be more clearly earmarked and executed.
3. To counter the certification/exam-driven culture identified by some respondents, which they perceived as competing with time taken to prepare transformatory student-centered approaches, school administrators (in their role as school curriculum leaders) can provide the necessary leadership that this involves. Such may entail the provision of a support structure wherein vicarious learning can occur among staff, both within and across disciplines, where innovative best practice can be modelled. Such a structure would serve to promote and enhance the community of practice among staff, as well as to encourage a counterculture to that which is exam and certification driven, where a happier marriage of achievement standards and transformatory learning experiences can be promoted.

Conclusion

Perceptions of the teachers indicated that transformatory learnings from the programme took place in pedagogical content knowledge through student engagement in reflective practice, community of practice, and professional identity. A notable aspect of the programme in their perception was the vicarious learning gained from field days.

In transferring these learnings, teachers declared that they were in fact enthusiastic, empowered, and favourably disposed to transferring what they had learnt, but were also clear as to the institutional, cultural, and infrastructural impediments to sustainable transfer of the learning that they had acquired during the programme. While the Dip.Ed. programme can itself adapt to more deliberately prepare teachers to face the challenges of implementation, school and MOE policies would do well to be supportive of this transfer of learning.

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