Becoming an Inclusive Teacher: Applying Deleuze and Guattari to Teacher Education

Loraine McKay Griffith University

Suzanne Carrington Queensland University of Technology

Radha Iyer Queensland University of Technology

Abstract: *New ways of thinking are required in teacher education to promote beginning teachers as change agents in education. Twenty years after the Salamanca Statement (UNESCO, 1994) that called for schools to provide equitable opportunities for all children, teaching practices in many classrooms are still informed by the deficit view of learning. Beginning teachers need to be prepared to challenge the ideological influences that operate in schools. Deleuze and Guattari's (1987) model of the rhizome is used to report one beginning teacher's journey as she learnt to negotiate structural and personal obstacles to create an inclusive learning environment. Data from reflective diaries, semi-structured interviews and classroom observations highlight contextual and personal factors in one case study that contributed to the nonlinear, complex process of becoming an inclusive educator. The paper concludes by arguing the voice of beginning teachers is essential for the ongoing movement towards the creation of just, inclusive schools.*

Introduction

Responding to the diverse characteristics and broad range of students' abilities is a primary concern amongst the multitude of challenges faced by beginning teachers. Teachers often feel they do not have the qualifications and skills to take on the responsibility of educating some students, particularly those students who are working well below the year level expectations and those students they feel are inherently difficult to teach (Allan, 2006a; Loreman, Deppeler & Harvey, 2005; Westwood, 2008). Some teachers question whether the students with diverse learning needs are their responsibility (Jordan & Stanovich, 2003). Preservice teachers often undertake their professional experience with teachers who share these beliefs. Therefore, it is not surprising, they too are apprehensive about teaching students who are seen as different (Berry, 2010). These factors contribute to the contested nature of inclusive education.

As preservice teachers move into the role of beginning teacher, understanding their responsibilities and workplace expectations regarding how to respond to students with diverse needs can be challenging because of the deficit discourse that surrounds diversity and difference in schools (Bourke, 2010). Deficit discourse and the ideology that surrounds it define the limits of certain students based on their personal histories or perceived abilities and perpetuate educational practices. The deficit view of students legitimised the segregated settings and special pull out programs that existed and still exist in some schools. However, the inclusive education movement challenged these ideologies. In this paper, I advocate for the value of rhizomatic analysis in inclusive education and beginning teacher research to understand the complex process of becoming an inclusive teacher. This process is closely linked with teachers' beliefs.

Beliefs are regarded as assumptions or perceptions that a person holds true. They develop over time through interactions, observations, and inference processes (Ajzen & Fishbein, 1980). Beliefs that are held true for a long period of time become core beliefs and are more difficult to change, whereas, newly formed beliefs are more malleable (Pajares, 1992; Tschannen-Moran & Woolfolk Hoy, 2007). This implies that beliefs formed early in a teacher's career may be more susceptible to change. Therefore, teacher preparation including the transition period into the profession needs close attention to understand the supports and institutional factors required for beginning teachers to contribute to processes that support the goals of inclusive education.

Service learning programs embedded within teacher training programs have been identified as a pedagogical approach that allows preservice teachers to "become more aware of their beliefs and practices and those of others, and how they can contribute to a more socially just society" (Carrington & Selva, 2010, p. 3). By engaging with their community, as a volunteer in a service organisation, preservice teachers may be able to develop new subject positions as inclusive educators as they form greater links between theory and practice and learn to identify societal inequities. Service learning has transformative potential because it provides opportunities for preservice teachers to realise the interconnection between the theory learnt at university and real world experiences through a scaffolded process of critical reflection (Carrington & Iyer, 2011). However, these types of programs, while beneficial may be limited by the assessment oriented nature of academia and the influence this could impose on one's sense of purpose and openness during critical reflection.

Preservice teachers need to be provided with opportunities to critically reflect for the value it offers in developing their understanding of what it means to be a teacher and how it can assist them in negotiating the challenges they will face in their role (Larrivee, 2000). Sosu, Mtika and Colucci-Gray (2010) examined the extent to which preservice teachers' attitudes towards inclusion changed over the course of their teacher training. They found course work provided opportunities for preservice teachers to challenge their beliefs and understanding about inclusion, but did not necessarily provide them with confidence and skills to implement the practicalities of inclusion and how it works. The current study builds on these findings.

Deleuze and Guattari's (1987) conception of a rhizome was used to understand the experiences and development of preservice teachers as they transitioned into the role of beginning teacher (McKay, 2013). A multicase study of seven beginning teachers drawing on the rhizome explained the fluid conception of identity and the varying subject positions occupied by individuals as they challenged structural ideologies. This paper focuses on one participant, Sandra and her journey as she experienced a form of rhizomatic learning. From a

Deleuzian perspective this journey "is always in process, … and never complete (Allan, 2011, p.156). Sandra experimented with practices that supported inclusion in the classroom which at times contributed to her simultaneous experience of exclusion within her school site. Before presenting the data, the discussion now turns to an explanation of the characteristics of the rhizome, its previous applications in education and its links to data analysis in the current study.

Deleuze & Guattari (1987) identified a number of principles of a rhizome: multiplicity, connection and heterogeneity, asignifying ruptures, and cartography and decalcomania. While each term is addressed here separately, the components of the rhizome are interrelated. Multiplicity is concerned with the new knowledge created when teachers connect theory from university to the situations they experience at their school site. The site becomes part of the multiplicity and through critical reflection beginning teachers identify and challenge the historical, structural, cultural, and social barriers to learning. Connection and heterogeneity signify how reflective practitioners connect the theory of learner differences (deficit v social) to the actual learning experiences in the classroom. Theories of learner difference range from theories of deficit that situate the problems linked to learning as being situated within the child, to those that view learners as competent. This view locates the problems linked with learning through a wider lens that includes factors external to the individual.

Asignifying ruptures occur when teachers problematise teaching and question what classroom practices are limiting achievement. As a result, they consider new and alternative approaches to teaching and learning by utilising theoretical knowledge in new, practical forms. Central to the model is the final rhizome characteristic cartography and decalcomania as these illustrate the "mapping or tracing" of teacher development. Tracing refers to the replication or mimicking of teaching practices beginning teachers adopt through observation and past experiences. Tracings can be useful as beginning teachers learn to work within structures of schools. Mapping refers to the teaching practices beginning teachers selectively employ as a result of critical reflection within three domains: moral, ethical, and political (Howard, 2003).

Critical reflection requires thoroughly analysing and monitoring personal beliefs (moral domain) and teaching practices (ethical domain). However, Brookfield (2000; 2005) and Thompson and Pascal (2012) contend reflection is not critical without an analysis of the power relations and influences that exist within the learning and teaching environment (political domain). By considering their practices within the three domains, beginning teachers question aspects of their practice that enable them to create a map, a way of teaching that is context specific and can be negotiated within the bounds of institutional structures. Reflective practices enables new teachers to create tracing or replications of the work of significant others selectively, and gives due consideration to relevant factors within the learning process, such as students' differences.

Grellier (2013) suggests rhizomatic analysis has the capacity to "disrupt power structures, to include the voices of the previously unheard and to open analyses in messy, incomplete ways" (p. 83). Exposing the power structures or other conditions within schools that prohibit change is important because it is the first step in addressing them (Brookfield, 2005).

The deficit model and its focus on what students cannot do is a source of influence that needs to be exposed. This view is still influential on teaching practices 20 years after the

Salamanca Statement (UNESCO, 1994) called for schools, at a global level, to accommodate all children, regardless of difference in physical, intellectual, social, emotional, and linguistic ability. The Salamanca Statement supports the social model. This mode of thinking draws on a broader conceptualisation of difference and considers what is needed to support the individual's learning. It does not dismiss disability as an element to be considered in the learning process. It opens thinking to consider other aspects of the individual's learning environment that could assist in the learning process and ways to minimise the challenges that may be experienced because of the disability (Florian, 2007). The social model underpins inclusive education.

The Educational Goals for Young Australians calls for schooling that promotes excellence and equity so all "Australians become successful learners, confident and creative individuals and active and informed citizens" (p. 8). Excellence and equity cannot be achieved in schools where the deficit view prevails. Data indicates a number of Australian students are not meeting national standards in Literacy and Numeracy. For example, 2013 NAPLAN data in Queensland, the third ranked state by population in Australia, shows that 6% of students are below in reading; 16.9% in writing; 6.2% in spelling; 11.1% in grammar and punctuation (ACARA, 2013). The 2011 data presented as part of the Gonski Review into educational funding, claimed one in seven Australian students were at risk of not achieving at the level required to participate in the workforce in the 21st century (Boston et al., 2013). Clearly, if the goals of Australian schooling are to be met, change within educational settings needs to occur.

Australian educational policy is influenced from an ethical and political stance on human rights. The Australian Government has agreed to uphold and respect human rights treaties including the Convention on the Rights of the Child and Convention on the Rights of Persons with Disabilities. In addition legislation, such as the *Disability Discrimination Act* (1992) and their associated standards (Disability Standards for Education, 2005) are designed to protect individuals from discrimination based on their disabilities. The tenants of these documents are important in shaping inclusive education. However, the top down approach has limitations because the values and beliefs of teachers need to align with policy to be effective. Policy may be enacted through administrative and technical decisions such as the provision of additional resources and pedagogical choices, but the emotional climate of the classroom will not enhance inclusive learning opportunities of students unless the teacher's values and beliefs align with the intentions of the policy. Teachers' values and beliefs can be influenced at preservice level (Sosu, Mtika & Colucci-Gray, 2010) and creates an opportunity for supporting a bottom up approach to the development of inclusive education.

Why is it important to give preservice/beginning teachers a voice and expose stories such as the case study presented in this article? This teacher's experience uncovers the valuable contribution beginning teachers can make in the change process when they position themselves as agentive: as someone willing to seek alternative ways of thinking to enact change and enact the role of advocate for themselves and their students. Why is it important to open analysis up into messy and incomplete ways? It illustrates the understanding of teacher development, inclusive education and the enactment of inclusive practice in terms of a multifaceted process much more complex than the dichotomy of success or failure. Strom and Martin (2103) suggests by recognising the rhizomatic nature of experiences and the underlying influences within organisational structures, teachers can remain open-minded, cognisant of ideological influences and challenge these influences to create transformational possibilities within their classrooms.

A wide body of literature drawing on the work of Deleuze and Guattari is developing in the field of teacher education. Goodley (2007) explored socially just pedagogies in disability studies by drawing on the rhizome, and Allan's (2006b) study of exclusion adopted a theoretical lens of Deleuze and Guattari to understand the rhizomatic disruptions that could occur in special education to create difference. Allan (2011) notes how the work of Deleuze and Guattari enables new ways of thinking about difference, in particular people with learning disabilities and other aspects of disability. Deleuze and Guattari's philosophy offers an opportunity to think differently "to produce previously unthought questions, practices and knowledge" (Sellers & Gough, 2010, p. 589) to consider how inclusion can become a reality for all students and the potential role beginning teachers can play in this process. Cole (2011) draws on Deleuze in particular to introduce *educational life-forms*. Educational life-forms create the possibility for individuals and groups to challenge the structures of schools and institutions from within. Cole notes a Deleuzian approach to changes in education is pragmatic, builds on the existing, and allows insider knowledge to prevail and influence future directions. This challenges the top down hierarchical structures of schools and education systems and locates beginning teachers as possible agents of change.

A Case Study of Rhizomatic Growth

This case is drawn from a wider multicase study (McKay, 2013). Drawing from a sociological domain this case study is concerned with "the constructs of society and socialization in studying educational phenomena" (Merriam, 1998, p. 37) related to one beginning teacher's journey and her understanding of what it means to be an inclusive educator.

Sandra is in her early forties and as a mature-age student specialised in the middle years of education as part of her Bachelor of Education-Primary degree. Sandra brings to the classroom a wide range of personal experience gained from parenting, international travel, and working with children who have experienced physical and emotional abuse. Drawing from middle years philosophy and lived experiences Sandra places a strong emphasis on the value of building relationships in the classroom and how this contributes to engagement.

Data were collected in two school sites. Sandra completed the final two preservice professional experiences of her teacher training: a four week practicum and a six week internship at School A. In the second year of data collection, Sandra was employed full time at School B. Employment was on a contractual basis renewed after each semester. Families at both schools came from various socioeconomic backgrounds, ranging from low to middle income earners. At School B, however, the majority of families were in the low income range. A Special Education Program (SEP) was established at both schools but conducted differently. At School A students verified with a disability or identified with severe learning difficulties were predominantly removed from the classroom to receive support from SEP staff. There was very little collaboration with classroom teachers. At School B the SEP staff had a stronger focus on supporting classroom teachers with lesson planning and adjustments to meet the needs of verified students within the classroom context. Students in Sandra's class had a broad range of abilities and included at least one student verified with an intellectual impairment. At School B Sandra was also supported by a literacy coach who modelled lessons and provided feedback.

Data Collection

Prior to data collection ethics approval was granted by the university where the researcher was based. Informed consent was given by the participant, and participating institutions. Over a two year period data were collected through reflective diaries and semi structured interviews. Classroom observations were included as a data collection tool during the beginning year of teaching.

Data from the preservice year consisted of nine diary entries (approximately 500 words each) and two semi structured interviews (each providing 12 pages of data). The beginning year data were collected in each of the four school terms. This data set included six diary entries (approximately 500 words each) four classroom observations (each two hours in duration) and four semi structured interviews (each providing 15 pages of data). In total over 70 pages of data were analysed drawing on Deleuze and Guattari's (1987) components of the rhizomatic model which is detailed in the following section.

The interviews were used to clarify information or elicit further details obtained from the diary entries and provided opportunities for data follow up during analysis (Lincoln & Guba, 1985). All interviews were recorded and transcribed verbatim and checked by the participant for accuracy. Sandra used the optional template provided to complete her reflective diaries. The template provided guiding questions, however, Sandra often made use of the section provided for additional information she wanted to share. The diary template include questions such as
- Describe the set up procedures and routines you have established in your classroom to enhance the learning experiences of students with learning difficulties? Explain your reasoning for these decisions.
- Outline any challenges you have already experienced working with this class or particular students and briefly explain the way you managed them. Explain your reasoning for these decisions.
- How would you deal with this situation next time?
- Is there anything else you think I'd like to know or you would like to share?

A classroom observation protocol was used to focus observations. Classroom observations allowed the researcher to triangulate data supplied by the participant. In addition, they provided access to information the participant may not have offered during the interview perhaps seen as irrelevant, insignificant or because she was not comfortable raising particular issues. Subtle factors including mannerism, language choices, and non verbal communications were able to be observed first hand and provided valuable material to challenge the participant through critical reflection.

Data Analysis

Thematic analysis was used in this study drawing on Deleuze and Guattari's rhizomatic model. This method allows for the identification, analysis and reporting of patterns within the data (Braun & Clarke, 2006). The data analysis process was guided by techniques described by Lincoln and Guba (1985), and Braun and Clarke (2006). Coding and categorisation of data involved the constant interplay of theory and data. Inter-researcher reliability checks were undertaken throughout the data analysis process.

Marginal annotations were used for initial coding. Codes such as relationships, leadership, high expectations, and positive classroom support were identified within the data drawn from inclusive education literature. Analysis was iterative and the process rhizomatic, sometimes condensing codes into others or reallocating codes to different themes: the picture created from the data "perpetually in construction or collapsing" (Gregoriou, 2004, p. 244). On many occasions data analysis informed subsequent data collection, creating ruptures and connections through *new lines of flight* (Deleuze & Guattari, 1987) allowing a deeper understanding of the situation to develop. Facesheets (summaries) created of each data collection phase over the 2-year process enhanced the overall analysis at the end of data collection.

While NVivo was used to store and organise data, physically manipulating the data was helpful in understanding the interrelated messiness and relationships within it. The process described by Simons (2012) as "dancing with the data" (p. 140) allows the data to be read, reread, viewed from various angles and organised in multiple ways. Analytical and interpretive level of thinking about the data allowed relationships and patterns to emerge. Allan (2011) suggests, "the metaphor of the rhizome can be deployed effectively in relation to the process of analyzing research data, enabling what has previously been closed to surface and effect" (p. 158).

Initially, concepts drawn from inclusive education literature and the research question informed two themes: personal factors and cultural factors, and were organised into a concept map. As analysis proceeded it became evident certain features were missing from the concept map and it was difficult to communicate the levels within the data and the messiness. Eventually an alternative way to code the data, informed by the theoretical framework and the literature, was developed. Two major themes were named: personal attributes and humanising practices.

Each set of themes, sub themes, and codes were allocated descriptions and a concept map to illustrate the links amongst the data, although, the depth of the relationships in the data was not being conveyed in a two dimensional diagram. Eventually, the data were conceptualised for analysis as a three dimensional model. As rhizomatic theory contends, learning is not a linear process (Allan, 2011). Limited in how to display the concept of the three dimensional model electronically, a cardboard diorama was created. As primitive as this process may seem, it served its purpose to communicate the messy relationships that existed amongst it. A photograph of this three dimensional model appears in Appendix A.

Emerging Themes

Personal factors and humanising practices were identified as major themes. Given the influential role values, attitudes, and beliefs play in shaping teachers' behaviour (Beswick 2003; 2008; Brady & Woolfson, 2008; Jordan & Stanovich, 2001; Silverman, 2007) and how limited or advanced knowledge and skills have been identified as an influencing factor between espoused and enacted beliefs (Carrington, 1999) they formed the categories of the personal factors theme.

Three categories made up the humanising practices theme and were drawn from critical theory and Deleuze and Guattari's rhizome. Critical theory provides a framework to name and challenge the institutional barriers and constraints through critical reflection. Deleuze & Guattari's rhizome illustrates the interrelated nature of the themes. Humanising practices

included the multiplicities created when theoretical understandings were considered within the context of the school site. This included consideration of the historical, structural, cultural and social influences on teaching and learning such as school leadership, employment status, and the school community. Connection and heterogeneity included the subthemes related to classroom relationships. These subthemes illustrated the complexity of relationship building while managing the power dynamics within the classroom and school. Problematising teaching resulted in asignifying ruptures and included practices that limited or enhanced teaching and learning opportunities. Underpinning the two main themes was the role of critical reflection.

Together the two themes intertwined to create pathways to answer the research question *What sociocultural factors contribute to the transformation of beginning teachers' perceptions of teaching and learning, and how do these factors influence the provision of effective teaching for students experiencing learning difficulties?*

Findings

Drawing on the rhizomatic model, lines of flight (Deleuze & Guatttari, 1987) in the data that illustrate the messiness of Sandra's transformation into an inclusive educator were identified. In particular, the data highlights how Sandra's understanding of inclusive education was influenced by the interconnection of school context, her sense of efficacy and her capacity to critically reflect which enabled her, at times, to navigate structural constraints and ideological influences that operate in schools.

Beliefs about Inclusion

Sandra's confusion was evident as she attempted to make connections between the theory of inclusive education and practice. This process was made more difficult by staff attitudes at School A.

> *I spoke about it with several teachers and I feel ... I'm beginning to feel like inclusiveness is just not wanted by most teachers.... I was trying to discuss it with teachers and it's just do what you need to do for uni ... because there is no such thing as inclusivity ... I did not find any teacher who said, well if you don't agree ... how could we change it?*

Beliefs about inclusion were also challenged by the personal beliefs Sandra held about her efficacy and the practices she witnessed in schools. Although her *book learning* supported her beliefs about social justice and equity, they were not supported by school discourses or practical implementations she witnessed during preservice professional experience at School A. She reported teachers making claims some students

> *shouldn't be in the classroom, and to some degree I agree with that. You know I can't disagree because I have seen the benefit. I cringe saying this, of having them out of my class for certain lessons.... because I can see it makes for easier lesson.... I'd be lying if I didn't say that.*

Sandra noticed withdrawing students in the short-term made the lessons easier to manage and the students who were withdrawn were making short-term gains. It was her belief that students would not make the same gains in regular class lessons because they needed individual attention that she could not provide. However, she also came to realise

withdrawing the students broke down the relationships she had worked hard to develop and her belief that "*it is so important to have relationships*" as part of the learning process.

This dilemma caused ruptures in her thinking as she became aware that the break down in relationships made behaviour management and engaging students more difficult. Asignifying ruptures provide a means of identifying and resisting structural boundaries and sources of power in education. Sandra identified new problems related to relationship breakdowns were exacerbated through limited collaboration with the support teachers. Confusion existed for Sandra as she tried to reconcile the theoretical understanding of inclusion, her ideals about behaviour management, her perceived personal limitations and the realities of the classroom.
How am I going to do it on my own? That is where I lack confidence.

Inclusive education relies on a community culture of sharing and support to create a sense of belonging (Carrington & Robinson, 2006). The preservice experience had two notable outcomes for Sandra as an inclusive educator. First, it diminished her sense of efficacy because of limited opportunities to work with students who were not making grade level expectations. Second, it reinforced her view that "inclusion is not entirely achievable" and failed to provide her with good models of differentiated instruction. These outcomes have serious ramifications for universities to consider when placing preservice teachers for professional experience.

The conditions for Sandra's growth were more favourable during the beginning teacher year. At School B the SEP staff worked in collaboration with teachers to support students on modified programs. While not always successful in engaging all students, Sandra came to identify the academic and social benefits of inclusive education for the students with and without disabilities. By the end of her first year of teaching with multiple levels of support from administration, colleagues, and through her own reflective practices Sandra concluded
When I was in uni, it all sounded impossible to incorporate all learning abilities in the class. I now realise that the classroom is a richer place for it. Yes, it is challenging, EVERDAY. Yes, there are days that I still feel it is impossible as I watch my II student just happily draw as I have not been able to engage him. I have come to realise that inclusive education is not doing everything for everyone all of the time, but rather doing something for everyone as much as I can.

The supports at Site B allowed multiplicities to occur in Sandra's perceptions about teaching. Critically reflecting on her beliefs, her practice, and the ideological influences of school staff and community allowed her to align her practices more closely with her beliefs. Sandra was able to engage in critical reflection necessary to overcome the limitations imitation can have on the development of teacher identity and professional growth (Thompson & Pascall, 2012). Critical reflection allowed Sandra to put the tracings, or imitations of other teachers' practice back on the map (Deleuze & Guattari, 1987) so new ways of thinking about inclusive education could be considered (Hagood, 2009). However, this was a messy, challenging process and caused considerable emotional angst.

Sandra still had to overcome various obstacles within the school context. She did not always feel her ideas were valued. Her feeling of restriction and the need to conform to the majority led to her sense of isolation within the wider school staff. A close working relationship with her part-time teaching partner, and the year level teacher next door, however, developed into a "*nice little network*" and provided her with enough support to unmask certain power sources (Brookfield, 2005) within the school culture. Inclusive

practices such as the open door policy she had for parents and her resistance to use the school behaviour management system based on exclusionary practices came at a cost to her emotional wellbeing. The backlash from some teachers experienced as a form of exclusion made her particularly wary of her decision-making and being able to trust some members of staff. Rather than having an emancipatory influence, her work towards creating an inclusive environment challenged her confidence and highlighted the oppressive conditions that restricted various opportunities within the school (Ellsworth, 1989).

Power of Critical Reflection

Engaging in critical reflection allowed Sandra to identify the conflicts between her beliefs and her practice. As Larrivee (2000) contends, "approaching teaching as a reflective practitioner involves infusing personal beliefs and values into a professional identity, resulting in developing a deliberate code of conduct" (p. 293). Sandra's identity as a beginning teacher was strengthened through critical reflection (Sutherland et al., 2010) because she developed a greater sense of control in the day to day decision making in her classroom (Brookfield, 2005). For Sandra, critical reflection led to more deliberate practices and increased her confidence to try new approaches. While Sandra showed some evidence of critical reflection during the preservice experience, this practice further developed throughout the beginning teacher year.

> *I am discovering now where I can improve and I'm coming back to those areas where I am not meeting expectations and looking at it and going okay what on earth am I doing?*

Multiplicity, through critical reflection, created offshoots of new growth in her teacher identity in terms of responding to diverse learners, her perceived potential to improve, and the adoption of new roles including that of advocate. This process meant, at times, she had to challenge the ideological influences of the school to take an agentive position.

Positioning Self as Agent of Change

Frustrated by the decisions made by the mentor teacher and the SEP staff during her preservice experience Sandra requested two students from the special education program be allowed to remain in class and take part in her maths program. She believed they were capable of reaching the lesson outcomes with adequate scaffolding. Her positive attitude toward their learning was rewarded as illustrated in the following comment.

> *I have noted that the girls learn best through hands on activities and therefore I thought I would try and give the girls the opportunity to use the materials through being my assistant and then attempt to do it independently. It must have worked as when I kept them back [from the special education unit] the following day, they not only confirmed their understanding from the previous day, but applied it to the new concept being taught within the second lesson. I was over the moon with their progression and I voiced it to them publicly and privately. They were so excited with being able to keep up with the rest of the class. When I tested the class on this concept at the end of the 5 weeks, these two girls scored extremely well pertaining to this concept. ... YAY!*

Although generally positioned as a subordinate as a preservice teacher, Sandra was willing to take risks in this lesson. She had to challenge the deficit assumptions about some

learners that had become the accepted ideology of the classroom and reinforced through the operation of the Special Education Program in that school. The removal of these students was ideologically driven and the deficit discourse surrounding their potential was accepted and unchallenged by the staff (Paugh & Dudley-Marling, 2011). These small stories that illustrate successful application of the principles of inclusive education were important events in the bumpy journey of professional growth that, as illustrated later in this section, contributed to her agentive position as a classroom teacher.

The asignifying ruptures provide examples where Sandra was able to respond to the needs of the students in an inclusive manner. However, this was not an hierarchical process reliant on a developing set of skills, rather it was a process where ruptures occurred at various places along the rhizome (Deleuze & Guattari, 1987) and were influenced by a variety of factors, in particular the ability to engage in critical reflection. During the preservice and beginning teaching year, Sandra described the classroom as a battlefield. This reference was not related to student behaviour, rather, the internal turmoil she experienced about being able to address the needs of all students in her class. It illustrates the erratic nature of her growth, sometimes advancing in the battle, other times retreating, until another rupture creates a new pathway. Not surprisingly, Sandra's sense of efficacy deteriorated during the preservice professional experiences and she questioned her preparedness to become a teacher.

Efficacy

> *I feel I am very ill-prepared.... I don't think I am ready for this... The biggest worry I have is being able to differentiate for all their needs ... I know the process but it is a different thing when you are in the classroom ... I lack confidence and that is obviously what is going to bring me down.... I just feel I should be coming out of University and I should know this and I should be ready to do it but I am not.... I think what I have come to terms with in my head, I am not going to ... go into a school and change it all ... I can only make a difference in my own small capacity and that I cannot take everybody with me. ... I need to be more realistic.*

At various stages throughout Sandra's journey she described significant emotional responses ranging from frustration to exhilaration. Negative emotions such as frustration, guilt, or confusion, often seen as examples of failure related to inclusive education (see Allan, 2008) were re-interpreted as ruptures that occurred in Sandra's values, attitudes, and beliefs and contributed to her transformation. These were not perceived as failures due to the valuable inner reflection that these moments provided that helped her to re-visit values and re-form perspectives. Transformation occurred as Sandra's meaning schemes (Mezirow, 2000) were challenged. Several institutional factors played a notable role in her capacity to critically reflect on her practice and how she responded to students experiencing learning difficulties.

From Faking it to Making it

> *I'm struggling with the idea of catering for their needs and I don't know how I am going to do it but I will wing it … as I go. I will fake it 'til I make it.*

While Sandra's sense of efficacy and confidence were challenged during the preservice experience the interconnection of her personal determination, passion for teaching, and keen

sense of social justice played a significant role in the development of her teacher identity. "An assemblage is precisely this increase in the dimensions of a multiplicity that necessarily changes in nature as it expands its connections" (Deleuze & Guattari, 1987, p. 9). Learning occurred in a non-linear fashion constantly forming, collapsing and re-forming (Gregoriou, 2004) and illustrated the fragility of Sandra's efficacy.

Becoming an advocate for students was one "line of flight" from her preservice data that ceased and then re-emerged later in the beginning year. She claimed she did not "beat [her] drum loudly enough" for one of her students to be included in a particular support program. She claimed to *have "learnt [her] lesson, however, and in future would be more assertive when it [came] to the kids in [her] class."* This may indicate she was feeling more confident in how she positioned herself as an agent of change in the school. It may also illustrate the lack of efficacy she felt in being able to make a difference to the learning needs of some students which was reinforced through the intern experience. Interestingly, the very program Sandra was advocating to get the student into she later described as,

> *anything but helpful. ... The students are out the class for an hour four days of the week ... miss out on a lot of content. The inconsistency of the lessons has been disruptive to their learning too. Of all the kids to have inconsistency, these kids that struggle should not be the ones to encounter this ... Scattered learning in an inconsistent learning environment just makes them unreceptive to learn. ... I wish they were not removed from the class.*

This rupture coincided with her increased levels of confidence in her ability. She explained that *"believing [she could] do this [was her] ... greatest accomplishment."* Through critical reflection Sandra was able to identify the inadequacies of the intervention program which she had previously valued and was significant in her transforming views towards inclusive education and her own efficacy. It illustrated that without critical reflection, hegemonic practices have the potential to deskill teachers and position them as obedient technicians (Giroux, 1988; Kincheloe, 2008).

Varying levels of efficacy impacted on how Sandra positioned herself as a teacher. It is "these subject positions, offered, claimed or accepted" (Burr, 2003, p. 114) that defines the identity of the teacher and constrains or enables various practices. Positioning contends that teachers have the capacity to view themselves differently within their role and suggests the social context of the work environment is influential in this process (Zembylas, 2003). Teacher identity and the work environment played a notable role in how Sandra worked to create an inclusive classroom. She described her class as
> *very supportive of each other. They know if they are a marker it is to support others ... very much enforcing the team effort ... I will always say can you help and it is not that I am being lazy.... In the beginning I thought I was being lazy but it is not, because I have seen the benefit of it.... Sometimes I think that they have more power than I do in teaching.*

Sandra's transformation required changes in her beliefs and critical self-reflection (Mezirow, 1995). As Sandra's confidence increased in this context she learnt to let go trying to control all aspects of the classroom. Strom and Martin (2013) contend the classroom is a site of perpetual transformation where "the educator and the student do not coexist as mutually exclusive beings. Rather, the students, teachers, their life histories, perceptions, beliefs, and values meld into a multiplicity" (p. 226). However, the transformation evolved through critical reflection where Sandra identified and challenged the frames of reference

entrenched within her values system (Mezirow, 1995). Sandra came to share the power and control with the students because she viewed them as competent.

Letting the students know that I see them as capable and able to take control of their own learning has placed the responsibility back onto the students. So when one of the students just sits there when they don't know what to do, I then use the same language, "how are you helping yourself to learn?"

Teacher and students became partners in the learning process and valued citizens of the learning community. Her earlier focus on building relationships re-emerged as a focal point of classroom organisation and management. An inclusive educator values classroom relationships and uses them to create an inclusive classroom where all students feel a sense of worth and belonging (Alton- Lee, 2003).

Discussion

Data analysis using the rhizomatic model allowed Sandra's development as an inclusive educator to be understood in terms of maps she created through her personal journey rather than tracings developed through a set of hierarchical stages of development frequently seen in teacher education. In addition, the dichotomy of success and failure of inclusive education is re-visioned through critical reflection. Ruptures exposed the limitation imposed by school cultures and personal knowledge and skills which revealed new ways of thinking and acting.

The success of Sandra's transformation into an inclusive educator relied on several interrelated factors. Transformation is revealed as rhizomatic through the principles of connection and heterogeneity where the reflective practitioner connects the theory of learner differences to create authentic learning experiences in the classroom that value learner competence. Multiplicity occurred through new knowledge being formed that allowed espoused beliefs to align more closely with practice. Creating a cohesive learning environment and developing the skills required to response to student differences did not come from the recall of academic knowledge and understandings, rather through the production and application of new knowledge at the school site.

The principle of assigning rupture explains Sandra's movement towards student-centred practices, grounded in inclusive principles. This process was fluid and often emotion driven. It was influenced by how well she was supported to negotiate the political and cultural influences of the work site. This finding is similar to the findings of Flores and Day (2006) who found teachers' professional identities were shaped and reshaped over time by the affiliation of contextual, cultural, and personal factors, which in turn influenced their teaching practices.

Sandra's shifting identity was fragile. She reverted to more traditional teacher-centred approach at times when she felt insecure, but when conditions were right student-centred practices re-emerged. Elements of effective teaching such as engagement and motivation, goal setting, feedback, trust, and shared responsibility featured more predominantly in her classroom decision-making and changed the dynamics of the classroom relationships. This process of growth was nonlinear and messy, reliant on critical reflection.

Rather than tracing the practices of more traditional educators, Sandra took on the role of facilitator. Her success in this role was influenced by the multiplicities developed by ongoing support at the school site and critical reflection to translate theory into practice

throughout the beginning year. As Fantilli and McDougall (2009) found the supports available to beginning teachers was a major influence on teacher development. Considering this support within the principles of cartography and decalcomania illustrates the vital role critical reflection plays in the process of bottom up change in education. Creating inclusive classrooms is not about replicating a set of observed skills, rather selectively applying theoretical understandings and one's observations in context specific ways.

This study supports beginning teachers as possible agents of change, even if it is only a small change within their classroom. Small rocks dropped into the water make a ripple that stretches across the surface. Small changes in one classroom, especially if they are supported to be sustainable, have the potential to spread into others. Understanding the challenges Sandra identified when trying to work as an inclusive educator during her transition into teaching allowed an insider view to prevail (Cole, 2011). The small stories of beginning teachers should influence future directions of teacher education.

Universities have a responsibility to move beyond the transmission models of teacher education to seek innovative ways to prpeare teachers as critical pedagogues. These teachers will be better positioned to counter the limitations imposed by scripted curriculum, high stakes testing, and accountability regimes becoming more prevalent in education, both in Australia and internationally.

Contemporary teacher training needs to provide opportunities for preservice teachers to critically reflect on the relationships between theoretical understandings, their personal belief system and the realities of school, and how to manage any discrepancies that exist (Flores & Day, 2006; Noble & Henderson, 2012). Given the rhizomatic nature of teacher growth and the multiplicities that occur through the application of theory used in new ways at the school site, careful selection of sites and mentor teachers is also crucial.

Walkington (2005) contends it is the responsibility of both universities and school to develop the skill required for reflective practice. Universities and schools need to work synchronously so preservice teachers and beginning teachers can reflect on developing personal and professional identities (Jones, 2011) and importantly, the understanding that this is a fluid process that continues throughout their career. Understanding that learning to be a teacher is a messy ongoing, nonlinear process may further prepare beginning teachers to be agentive in creating education that is inclusive of everyone.

Conclusion

A significant result of this study is that teacher development does not shift along a predetermined set of accomplishments (Allan, 2004). It is a messy and ongoing process. Sandra's perception of teaching and learning was not unidirectional, or consistent across all aspects of her practice, rather it was rhizomatic (Deleuze & Guattari, 1987); growing and changing, sometimes returning to original forms and then growing and changing in a new direction or remaining dormant ready to grow at another time (Gregoriou, 2004).

Critical reflection created ruptures in the rhizomatic growth experienced by Sandra by helping to develop her understanding of being a teacher. She came to realise university training was only the tip of learning to be a teacher and that critical reflection is an important skill and essential component of effective teaching (Larrivee, 2000; Sutherland et al., 2010; Toomey, 2007). This study supports Russell (2005) and Larrivee's (2008) understanding that

reflective practice can be taught and is important in the development of teachers' professional knowledge. Reflective practitioners learn to work within institutional boundaries and challenge the ideological influences that hinder the development of inclusive cultures. We have attempted to illustrate how this beginning teacher learnt to be an inclusive educator and assert there is much to learn from the voice of beginning teachers.

Limitations and direction for future research

A limitation of this study is that Sandra did not become a critically reflective practitioner through participating in the study or through academic learning alone. She learnt that becoming critically reflective takes time and constant self-surveillance, hence the data though collected over two years was not sufficient to map her ongoing transformation or lack thereof. Further longitudinal studies are required to safely assert that through critical reflection teachers can shift their perspectives.

Why are some teachers able to engage in critical reflection more than others? What activities, resources, and processes enhance the development of critically reflective practitioners? This would be an interesting extension to this study given the importance of critical reflection on teachers' professional growth and the development of a professional identity.
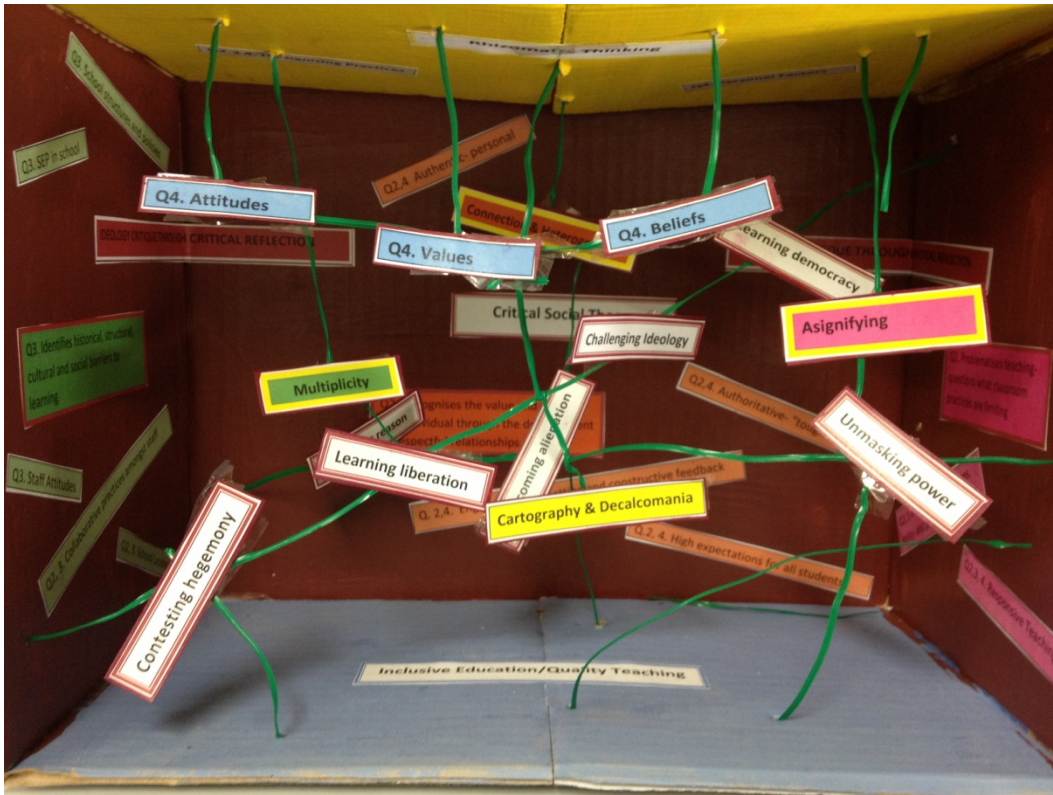
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Appendix

Appendix 1. 3D Model of Analysis