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Cagliari, Italy

16TH INTERNATIONAL CONFERENCE
COMpetition and Exploratory
Learning in Digital Age

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2019

PROCEEDINGS

Edited by
Demetrios G. Sampson
Dirk Ifenthaler
Pedro Isaías
Maria Lidia Mascia



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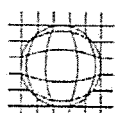
16th INTERNATIONAL CONFERENCE
on
COGNITION AND
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IN THE DIGITAL AGE
(CELDA 2019)

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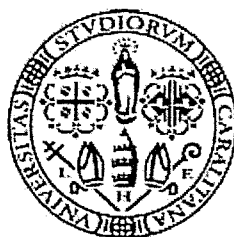
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FOREWORD

These proceedings contain the papers of the 16th International Conference on Cognition and Exploratory Learning in the Digital Age (CELDA 2019), held during 7 to 9 November 2019, which has been organized by the International Association for Development of the Information Society (IADIS) and co-organised by University Degli Studi di Cagliari, Italy.

The CELDA conference aims to address the main issues concerned with evolving learning processes and supporting pedagogies and applications in the digital age. There have been advances in both cognitive psychology and computing that have affected the educational arena. The convergence of these two disciplines is increasing at a fast pace and affecting academia and professional practice in many ways.

Paradigms such as just-in-time learning, constructivism, student-centered learning and collaborative approaches have emerged and are being supported by technological advancements such as simulations, virtual reality and multi-agent systems. These developments have created both opportunities and areas of serious concerns. This conference aims to cover both technological as well as pedagogical issues related to these developments. Main tracks have been identified. However innovative contributions that do not easily fit into these areas will also be considered as long as they are directly related to the overall theme of the conference – cognition and exploratory learning in the digital age.

The following areas are represented in the submissions for CELDA 2019:

- Acquisition of Expertise
- Assessing Progress of Learning in Complex Domains
- Assessment of Exploratory Learning Approaches
- Assessment of Exploratory Technologies
- Cognition in Education
- Collaborative Learning
- Educational Psychology
- Exploratory Technologies (Simulations, VR, i-TV, etc.)
- Just-in-time and Learning-on-Demand
- Learner Communities and Peer-Support
- Learning Communities & Web Service Technologies Pedagogical issues related with Learning Objects
- Learning Paradigms in Academia
- Learning Paradigms in the Corporate Sector
- Life-long Learning
- Student-centered Learning
- Technology and Mental Models
- Technology
- Learning and Expertise
- Virtual University

The CELDA 2019 Conference received 87 submissions from more than 25 countries. Each submission was reviewed in a double-blind review process by at least two independent reviewers to ensure quality and maintain high standards. Out of the papers submitted, 48 were accepted as full papers for an acceptance rate of 55%; 15 were accepted as short papers and 1 was accepted as reflection paper. Authors of the best

published papers in the CELDA 2019 proceedings will be invited to publish extended versions of their papers in a book from Springer.

In addition to the presentation of full, short and reflection papers, the conference also includes one keynote presentation from an internationally distinguished researcher. We would therefore like to express our gratitude to this year keynote speaker: Dr. Baltasar Fernández Manjón, Director of the e-Learning Research Group e-UCM, Complutense University of Madrid (UCM), Spain.

A successful conference requires the effort of many individuals. We would like to thank the members of the Program Committee for their hard work in reviewing and selecting the papers that appear in this book. We are especially grateful to the authors who submitted their papers to this conference and to the presenters who provided the substance of this meeting. We wish to thank all members of our organizing committee.

Last but not least, we hope that participants enjoy Cagliari and their time with colleagues from all over the world.

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Cagliari, Italy

November 2019

DIGITAL STORYTELLING: STUDENT VULNERABILITY DURING THE PROCESS AND ITS IMPACT ON TEACHING AND LEARNING ONE YEAR LATER

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ABSTRACT

Digital storytelling (DST) is described as ‘the modern expression of the ancient art of storytelling’ with one of its categories focusing on personal narratives in which authors tell their own personal stories about significant experiences in their lives. The imperative to tap into our students’ social-emotional learning through DST and creating a trauma-sensitive school culture is at the forefront of pedagogical conversations today. The DST process allowed pre-service teachers to take risks, risks of self-disclosure, risks of change, risks of not knowing, all of which rendered them vulnerable, resulting in deepened learning. The findings indicate that the process motivated newly qualified teachers to reflect on their own development, their practice and student learning through the lens of human connections, lived curriculum, self-reflection. They learnt the true value of social interaction and student engagement.

KEYWORDS

Digital Storytelling, Vulnerability, Pedagogy, Re-Humanization, Lived Experience, Reflection

1. INTRODUCTION

‘Stop moments’ in our lives describe not only the ‘emerging openings’ we experience that shape and shift the direction of our lives but also allow ourselves to be shaped by it. It includes being prepared to ‘labour, risk, learn and play with possibilities that could interrupt the normative ways of doing things’ (Rodricks: 2018).

Digital storytelling (DST) provides those ‘stop moments’ where a ‘voice’ is given to students as an opportunity for self-expression. Xu, et al. (2011) describes storytelling to be a natural method of communicating with others in our daily social interactions. DST, however, is described by The Digital storytelling Association (2002) as ‘the modern expression of the ancient art of storytelling’ with one of its categories focusing on personal narratives in which authors tell their own personal stories about significant experiences in their lives (Robin, 2008: 224).

These personal stories can overstep boundaries which can render teachers vulnerable in their daily task of teaching. The emotional dimension of vulnerability can develop, within teachers, feelings of negativity, frustration, guilt, anger and even fear which will impact the teaching and learning situation since education has and always will be powered by human connection. However, this emotional dimension can also be both a strength and an essential pillar of learning.

2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 A Pedagogy of Vulnerability

This study is nestled within a theoretical framework of a pedagogy of vulnerability. Pedagogy of vulnerability is, according to Brantmeier (2013: 3), ‘an approach to education that invites vulnerability and deepened learning through a process of self and mutual disclosure on the part of co-learners in a classroom’.

A dictionary description of being vulnerable is: capable of being wounded or injured; open to attack; and sensitive to or affected by certain influences (Turner, 2006). To further conceptualize vulnerability we draw on definitions provided by Hooks, Brown and Kelchtermans. Brown (2015:34) defines vulnerability as 'uncertainty, risk and emotional exposure'. These descriptions conjure up images of negativity and weakness.

Brown (2015) however, affirms that being vulnerable is not about winning or losing; it's being courageous enough to show up and be seen when we are unsure and have no control over the outcome. 'Vulnerability is not weakness; it's our greatest measure of courage'. Hooks (2010) outlines vulnerability to be a process of empowerment, a place of mutual openness where learners are encouraged to take risks. Kelchtermans (2009), however, argues that when referring to vulnerability we are not making reference to a mood or emotion but rather to understand vulnerability as structural and, therefore, as an inherent condition of the teaching profession. The pedagogy of vulnerability allows for voices to be heard and validated in formal school settings. It is a pedagogy that is relevant, especially for teachers who want to contribute to current school climates positively.

The pedagogy of vulnerability 'is guided by a willingness to meet our students where they are. This is a process that does not happen overnight, but one that involves building trust over the course of the semester by taking the time to learn what matters to our students, both inside and outside the classroom' (Merishon, 2018), bearing in mind that being vulnerable means that you are capable of being hurt.

2.2 Digital Storytelling and Pedagogy

'The imperative to tap into our students' social-emotional learning and create a trauma-sensitive school culture is at the forefront of pedagogical conversations' (Dukes, 2018). The DST technique is one mode that can be used to create a platform for students to journey through their own social-emotional arena. Gachago (2015) contends that the DST 'originates directly from participants lived experiences'. This technique allows students to 'combine the art of telling stories with multimedia objects such as images, audio, video, text, graphics and music' (Rossier & Garcia, 2010:37b). Robin (2008:224-228) discusses one category of DST as the opportunity to create and share personal narratives of significant experiences from various episodes in their lives, hence the process can be extremely emotional.

Zembylas (2011) argues that in teaching and learning emotions are regarded as being 'internal states of being' and should remain individual and private so that sentimentality can be avoided. This sentimentality or newly found sensitivity taught pre-service teachers that whether you were a teacher or a learner, whether your backgrounds were diverse, all the stories were similar (Condy, 2015). Ultimately the DST process allowed pre-service teachers to take risks, 'risks of self-disclosure, risks of change, risks of not knowing', all of which rendered them vulnerable, resulting in deepened learning (Brantmeier, 2013).

Robin (2008: 224-228) continues to discuss the benefits of DST to include:

- It supports learner-centred activities;
- Promotes multiple skills in learners;
- Gives a voice to struggling learners; and
- Encourages deep reflection.

Similarly, Barret (2005) makes reference to the convergence of four learner-centred strategies that are enhanced through DST.

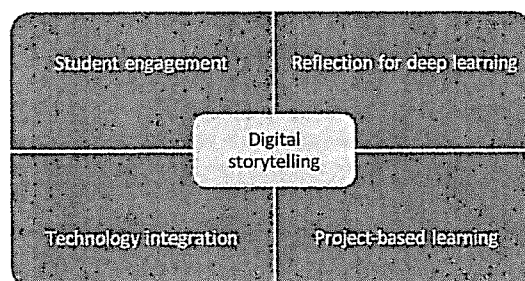


Figure 1. Convergence of four learner-centred strategies (Source: Barret, 2005)

Both Robin (2008) and Barret (2005) purport the significance of using DST as a pedagogical tool, 'to define and explore the 'promise and the pain of a pedagogy of vulnerability, exploring how and when sharing their stories can deepen learning' (Brantmeier, 2013; 2). This deepened learning, Brantmeier (2013) explains, is learning that 'allows for flexibility and responsiveness and it is learning that endures over time'.

2.3 Overstepping the Boundaries

Vulnerability has for many been seen as a sign of weakness. People work hard to hide their vulnerability behind a mask – if you are embarrassed or hurt, you show aggravation; if you are scared or disappointed, you show indifference, if you secretly really like someone, you show contempt...otherwise you are regarded as desperate and pathetic. We buy into the notion that hostility proves strength and vulnerability weakness, and that 'independence and invulnerability are synonymous with power and success' (Straka, 2018). However, to be vulnerable is to be courageous since the focus is on facing your imperfections, facing your authentic self rather than hiding behind a mask.

In accepting our authentic selves we are able to face others and we are able to work from a 'place of mutual openness rather than from an attitude of defensiveness'. Hooks (1994) argues that 'a holistic model of learning will also be a place where teachers grow, and are empowered by the process. That empowerment cannot happen if we refuse to be vulnerable while encouraging students to take risks...'. Lasky (2005) agrees and views this vulnerability as the 'chosen behaviour' for teachers.

Merishon (2018), however stresses that we cannot overstep the boundaries and we need to 'hold ourselves to the same standards we hold our students'. Through the pedagogy of vulnerability we must develop a strong sense of trust (Brown, 2015) between teacher and student, for this trust is not only the 'lubricant of thriving societies (Delhey, et al. 2011:787), but also 'the keystone of successful personal relations' (Forsyth, et al. 2011:3). However, Brown (2015) argues that this vulnerability must be based on mutuality and must respect boundaries. She further relates that 'imperfections are not inadequacies; they are reminders that we're all in this together'.

2.4 The Power of Human Connection

In overstepping our boundaries and creating safe spaces for teaching and learning through the development of strong bonds of trust and respect, we can generate 'deep meaningful connections with self and others' (Straka, 2018). She further stresses that these connections are paramount, both in our development as human beings and in teaching and learning where it is especially critical.

Palmer (1998:17) states that teaching 'is a daily exercise in vulnerability' for it is the way 'teachers live in their jobs'. This translates into a lived curriculum which refers to the content of our lives and our past life experiences which, according to Straka (2018) is the basis of all new learnings. She explains that great learning benefits can be derived from classrooms where lived experience is as important as academic curriculum. These, nestled in a framework of vulnerability, becomes engagement of learning about life itself.

Connecting with vulnerability is a humanizing pedagogy which is 'directed by compassion, care, respect and love for students and teachers, and their identities, histories and experiences' (Keet, Zinn & Porteus, 2009). However it is argued that 'there is an art to disclosure' (Keet, et al, 2009:11) which requires careful judgement. Considering learners and their experiences of possible past trauma and emotional pain is paramount if we do not want them to experience further rejection in the classroom. Re-humanizing vulnerability requires a greater awareness on the part of the teacher and the student in order to eliminate these possible risks.

To protect learners from the pain of rejection or relived trauma during disclosure, and keep their learning space safe, there is a need for constant self-reflection on the part of teachers. Self-reflection is a process of self-examination and self-assessment deliberately effected to improve professional practice (Shandamo, 2010). Brookfield (2004) argues that without reflection, teachers run the continual risk of making poor decisions and bad judgments. This is substantiated by Squires (1999: 16):

Most professional problems are messy and inchoate... they require a continuous process of reflection on what is happening and what has happened (reflection in action and reflection on action). Such a process can improve the quality of decisions and is contrasted with unreflective, unthinking routine, or habit driven behavior.

In many learning contexts, the pedagogy of vulnerability becomes very relevant to teachers for the practice of co-learning. Within this practice we need to build trust and promote critical self-reflection where the assumptions of one's views, values and behavior can be questioned. Brantmeier (2013:4) refers to this critical self-reflection as a 'contemplative practice of examining the origination of one's own worldview and gently, kindly scrutinizing that worldview with comparative and contrasting frames of reference'.

2.5 Vulnerability and Teaching and Learning

Kelchtermans (2009) promotes teachers to consider, more seriously, teaching with vulnerability since it could lead to greater teacher resilience. Greater teacher resilience translates into 'better equipped teachers to be in connection with themselves and their students, creating the necessary conditions for meaningful learning to take place'. Kohan and Turpin (2014) illustrates the link between Kegan's (1982, 1995) concept of disequilibrium and Dewey's (1993, 1989) concept of 'felt difficulty' and argues that 'in order for transformative learning to occur, one may have to "lose balance" or experience disequilibrium. One can surely argue that vulnerability does not automatically lead to deep learning but undergoes many reflective processes in which a 'disequilibrium' or 'felt difficulty' is experienced before transformation can take place.

For deep learning to occur it is important to develop strategies that will foster a resilient mindset to eliminate the possibility of students putting up barriers to positive development of teacher-student interactions. The following strategies will reinforce a positive mindset within the framework of a pedagogy of vulnerability. Teachers should

- Understand the lifelong impact they have on students, including instilling a sense of hope and resilience;
- Believe that the learning that occurs in the classroom and the behavior exhibited by students has as much, if not more, to do with the influence of teachers than what students might bring into the situation;
- Believe that attending to the social-emotional needs of students is not an "extra curriculum" that draws time away from teaching academic subjects;
- Recognize that if educators are to effectively relate to students, they must be empathic, always attempting to perceive the world through the eyes of the student;
- Appreciate that the foundation for successful learning and a safe and secure classroom climate is the relationship that teachers forge with students; and
- Realize that one of the greatest obstacles to learning is the fear of making mistakes and feeling embarrassed or humiliated

Brantmeier (2013:3) refers to the pedagogy of vulnerability as a transformative pedagogy which assists in the actualization of goals for a higher education. Transformative pedagogies are the vehicles to deeper learning and 'holds the potential for self-transformation, self-growth and social change.

Unless we are able to embrace our vulnerability we will not reach our full potential. All we will do is to build walls that will constantly prevent us from understanding or being understood.

3. METHODOLOGY

An interpretivist, qualitative research approach was followed in this study. Data was collected through:

- Digital stories conducted in 2017 and 2018 and
- Focus group interviews, based on the digital stories, conducted in 2019.

Four newly qualified teachers (NQT's), purposively sampled, took part in the 90 minute focus group interview in order to elicit how they experienced the process of creating their digital stories as pre-service students as well as how this experience impacted their teaching one year later. Since the engagement was one of sharing and listening to each other's digital stories, it was thought best to keep the group small to allow a safe space for participants to reflect on their emotional experiences. Focus group interviews were selected as a method to collect data in an attempt to ensure that the process was not intimidating and that a stimulating space could be created for this emotional engagement, rather than one-on-one interviews (Madriz, 2003:365). Participant responses were allowed to dictate the flow of the conversation. Cohen, Manion and Morrison (2008:376) explain that the participant rather than the researcher's agenda should predominate because the interaction from the group during the interview will yield insights that 'might not otherwise have been available in a straightforward interview'. An audio recording was made of the focus

group interview data and it was transcribed verbatim.

The data was inductively analysed. The transcripts were read and repeatedly examined. Conceptual themes and issues emerging from the data were identified. The technique of clustering, making comparisons and contrasts was applied (Miles & Huberman, 1994).

Permission was obtained from the institution before the study commenced. Verbal as well as written consent to participate in the study was sought from all participants. Consent was also sought to have the focus group interview recorded. In service teachers were assured of confidentiality and anonymity.

3.1 Findings and Discussion

In an attempt to reflect on the DST process four NQT's experienced one year ago, a focus group interview was conducted to deliberate the process and its impact on their current teaching as well as their students' learning. While engaging in discussions using the pedagogy of vulnerability, NQT's understood that they would need to overstep boundaries which would render them vulnerable within their classroom community and with student engagement.

In the analysis of the data four themes became evident. They are:

- The teacher: facing our imperfections;
- Re-humanizing vulnerability;
- The lived curriculum and self-reflection; and
- Teaching and learning in the face of vulnerability

3.1.1 The Teacher: Facing our Imperfections

Excerpt 1

A discreet and cautious attitude started arousing my personality and character, such that I avoided to be seen by people. I had to deal with the assumptions people concluded about my life. No one had an idea what I was going through and no one showed interest as to why I was discreet and shy. I felt very vulnerable, even today as a young adult there are times I feel small and intimidated; I learnt to be independent at an early age because I knew that one day I will conquer the trial of poverty.

Facing our imperfections means letting go of who we think we should be and embracing who we really are. All four NQT's found it difficult to face their own imperfections during the DST process. Facing your imperfections translates into being vulnerable and this is very often coupled with feelings of fear, anxiety and frustration and has almost become synonymous with being weak. The pre-conceived thoughts are that in vulnerability you open yourself up to a host of criticism, to assumptions, to harm, to negative consequences. 'Walking into our stories of hurt', according to Brown (2017), 'can feel dangerous'. This is evident in the responses by all NQT's:

...she started the course, a lot of people... when they heard about the digital storytelling, I think that caused the most chaos in our class. Because I will say 85% of the people didn't want to do it at all and most of the times, I would speak to them, why don't you want to do it? For most of them it was fear...

I think the fear was from the judgement of peers...

... like you're scared because she tells us prior to the screening that your digital story will be watched by your fellow classmates, so now you're like, oh my God, now people are going to see my struggles...

However, it is in the midst of these struggles of facing our imperfections that we rise up, become courageous and regain our footing. These struggles may differ in magnitude, but as Brown (2017) articulates, 'We reckon with our emotions and get curious about what we're feeling; we rumble with our stories until we get to a place of truth; and we live this process, every day, until it becomes a practice and creates nothing short of a revolution in our lives'.

One NQT shared her revolutionised experience as:

'You get to look at yourself and look at the stereotypes..., the biases and the expectations that you have... it taught me to accept people as they come, so more especially when I started teaching... I can never judge the learner ... I don't know their situation... what the underlining issues are...'

Being vulnerable requires us to be brave and to trust. This results in reciprocity, giving birth to genuine connections being formed; connections which open doors to learning, learning in a safe space.

3.1.2 Re-Humanizing our Vulnerability

Excerpt 2

Alcoholics supported my behavior because in my culture men must drink and marry. I was following the footsteps of my forefathers, and I should not be ashamed. Other relatives were against the strategy that I used to deal with my mother's death. Some had stereotypes about orphans; they believed that orphans end up being alcoholics and failures.

As days passed I realized my life was falling apart. I lost almost everything that my mother had left behind. Eventually I gave up alcohol and drugs and decided to go back to school. I managed to work for one year to get registered in tertiary education.

Now I'm doing my final year in Bachelor of education, and I'm going to be a teacher.

Another important theme that emerged from DST was that this experience became the tool with which students could critically engage with their own emotional trauma leaving most of them with the determination to succeed. 'Initial trauma and devastation... unites human beings... if we're allowed to talk openly about our collective grief and fear – if we turn to one another in a loving and vulnerable way, while at the same time seeking justice and accountability – it can be the start of the healing process' (Brown, 2017: 57).

However, in the absence of this opportunity to unite, because of vulnerability presenting itself in the form of 'stifling fear' as in the case below,

... how do I tell people that I was raped?... and she wrote a story... her digital story was on something that was not real, the real thing that she wanted to share with the class she never managed to say because the lecturer said, if you don't feel comfortable sharing your story, don't.

'We experience an emotional diversion away from the unravelling that's really happening in our homes and our communities' (Brown, 2017:57). Straka (2018) agrees and states that 'experiences of vulnerability are characterized by passivity, sensitivity and fragility', qualities that 'conjure up images of deficit'. These feelings of negativity respond to the 'dehumanizing circumstances' which result in 'low expectation'. However, vulnerability is a 'fundamental component of human experience' which contributes to further development in teacher resilience (Straka, 2018: 3).

For most of the NQT's their vulnerability became their greatest strength. Faced with opportunity to share emotional trauma gave the NQT in excerpt 2 the license to heal:

'it helped me to change the way I view the world because now I believe that every individual has something to tell...'

Other NQT responses further justified:

'I think the process of the digital story telling makes you vulnerable but it also gives you strength because it's part of the healing process, ja.'

I gained a voice to share my experience ... OF ALL- I LEARNT THAT IT IS OKAY TO BE VULNERABLE FOR I KNOW I AM ENOUGH.

Re-humanizing vulnerability reveals strength and human capacity, leading ourselves and our learners to develop greater resilience and deeper learning.

3.1.3 Lived Curriculum and Self-Reflection

Excerpt 3

Personally I would say it is has changed the way that I view my learners. When I was starting with my teaching I would go on teaching practice and I used to have these expectations about children. But then I knew that they were different ... and I used to think but then if so and so can do it, why can't this child do it. It has taught me to be aware not everyone is cut from the same cloth. We are all different, we do things differently.

And I've managed to look at the child in a more holistic way ...

Findings in this study showed that reflecting on their own vulnerabilities translated into NQT's making their lived curriculum part of their classrooms. An almost natural part of the process for all NQT's was to reflect on their experiences, understanding how this translates into the lived curriculum and how the latter impacts their daily engagement with their colleagues and students. When reflecting on our own vulnerabilities we see, more vividly, the vulnerability of others. This is evident in the following responses:

It is an empowering process I would say because you get to, to question things.

I think digital storytelling has taught me to be confident enough to educate my learners... that we are different we are all coming from different backgrounds. But we must not let our backgrounds be the barrier to our teaching and learning... So each person in the classroom has something that is bothering them... we are all human at the end of the day.

I think the process of the digital story telling gave me the confidence like to do self-introspection - so I reflect on whatever I do, like in my working environment, in the classroom, so I reflect and I try to treat people in a way that I would like to be treated, so I just tell myself, maybe that person is going through some stuff, so...

It is this DST experience that sowed the seeds of self-reflection, where 'learning becomes more relevant, has value beyond the classroom, and new meaning is constructed in the process' (Brantmeier, 2013). His substantiation reads: 'Share your story. If the educator opens her/his identity and life up for examination as part of the lived curriculum of the classroom, students will model that self-examination and go deeper in their learning'.

3.1.4 Teaching and Learning in the Face of Vulnerability

Excerpt 4

I think one thing that it has taught me is, to not judge my learners. The school that I'm at - most of the teachers say - oh but these children don't listen, don't even bother about them, ... but I opened up my classroom, not only for the learners that I teach, for the learners that are also coming from other classes. My class is always full, whether it's after school, ... we chat ... so at one stage one of the HOD's asked the learners, what do you like about being here? They said when we come to this class, we feel at home... They are not shy to come to talk to me about things, they come to me and they tell me about these things but when they talk to their own teachers, they are judged ... so I've got a lot of children in my class who come and sit, they just want to talk...

It was clear that all NQT's gained new insights around their learners and how they learn. It is evident from excerpt 4 that the DST process brought forth the realization that learning is more than just acquiring academic knowledge, it strengthens social engagement. Dunleavy & Milton (2009) indicates that the literature connects social engagement and intellectual engagement and purports that

'When students have opportunities to connect with adults who approach these relationships with a spirit of caring, empathy, generosity, respect, reciprocity and a genuine desire to know students personally, they can make a unique contribution to young peoples' emerging adaptive capacity, self-sufficiency, resiliency, confidence, and knowledge of themselves as learners' (Dunleavy & Milton, 2009: 15).

It was found that all NQT's appreciated the value of their lived experience and became more aware of the importance of the social interactions with their learners and how it impacted teaching and learning positively. Their responses below bears the evidence of this:

... it teaches us to understand others, when you transfer that understanding of the role of the digital story ... it teaches us to understand our own learners.

... the digital story ... prepared me for my teaching profession,... a sort of awareness, I must be aware of my surroundings, ja. Secondly, looking at the staff... it prepares me that when you are looking at someone like you see the inner part of that particular person and the outer part ...

...when we were doing digital stories, we did not know that the guy that always likes to put on his headphones at the back of the classroom, is going through serious traumatic things, so it actually helped me to understand that people and even children go through a lot and that could be a barrier to teaching and learning.

'Just as teachers need safe spaces to process their vulnerability' (Straka, 2018) so too their learners need safe spaces to process theirs. Without strong social interaction between teachers and students, this vulnerability can 'prove to be a barrier to the creation of effective teacher-students interactions' (Brooks, 2008) – impacting learning negatively.

4. CONCLUSION

The objective of this study was to explore how the DST process impacted teacher vulnerability and consequently how it impacted teaching and learning in classroom settings. This study, set in a framework of a pedagogy of vulnerability, commenced with four NQT's experiencing the creation of their own personal

stories which spoke to two themes viz: 'being human today' and 'colliding worldviews'. Limitations in the study include the following: a small sample of four NQT's provided the data and all the participants had completed their degrees at the same site/university. Access to literature, particularly around the concept of vulnerability also posed a limitation to this study.

While vulnerability is part of teaching, teachers manage it differently, and these differences have profound importance for:

- Teachers and their development

The experience of NQT's creating their own digital story forced them to accept their own imperfections, face their fears and anxieties, exposing themselves to critique and assumptions, yet emerging as stronger beings. Straka (2018:4) contends that our vulnerability is transformed into our strength and when we are ready to navigate those vulnerable episodes, those experiences will lead us to developing 'deep, meaningful connection with self and others. It is this connection that is central to our development as human beings'. The implementation of developing these deep meaningful connections will enhance teacher development and their pedagogy.

- Students and their learning

Overstepping the boundaries of vulnerability through personal disclosure led NQT's to understand the value of sharing and thus the importance of reciprocal exchanges with their students. They report that they now view their students through a different lens, a lens which re-humanizes vulnerability and understands that all students are vulnerable and should not be judged with assumption. Brooks (2008) purports that 'the assumptions teachers possess of themselves, their role as teachers and their students capabilities play a significant role in determining expectations, teaching practices and ultimately student success and happiness'.

- Teacher educators and their practice.

The DST process gave birth to a new appreciation of lived experience and self-reflection. NQT's questioned their perceptions of 'why', 'what' and 'how' they teach. They learnt the true value of social interaction and student engagement. The lesson: 'everyone experiences some challenges in life, and most have a story of their own journey through the tough times of life. The puzzle is that two people, who have experienced the same amount and intensity of adversity, and even the same exact event, can emerge differently' (Taylor & Parsons, 2011).

Brinkmann (2010:83) contends 'one of the most important things a human being can learn is to see through acts of dehumanization and recognize vulnerable human beings as human beings'. The vulnerabilities experienced by all those who participate in the process of education are inherently threaded and becomes a powerful resource in the process of learning and connecting to ideas and to one another (Loveless, D.J. et al, 2016).

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USING DIGITAL STORIES TO EXPLORE FOUR FINAL-YEAR STUDENT'S COLLIDING WORLDVIEWS AND HOW THIS IMPACTED THEIR CLASSROOM PEDAGOGY

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ABSTRACT

As contexts in schools and higher education become increasingly more diverse, engagement with human differences and different knowledges becomes essential. Institutions need to change their practices to respond to the different needs of learners, as well as valuing their knowledges and prospective teachers need to be better equipped for these experiences. Hence, the purpose of this paper is to explore the intersectionality of four final-year students colliding worldviews within a digital story project and how, this experience supported, or not, their own classroom pedagogies. Through the use of the pedagogy of discomfort, we argue that this intentionally initiated module of using digital storytelling influenced these four learners to confront their colliding worldviews, identify their strengths and challenges. They all reflected on how this process had encouraged them to become more self-reflective thinkers in their own lives, those of their peers and their learners.

KEYWORDS

Classroom Pedagogy, Colliding Worldviews, Digital Storytelling, Pedagogy of Discomfort, 21st Century Classroom, Higher Education Institution

1. INTRODUCTION

The purpose of this paper is to explore the intersectionality of four final-year students colliding worldviews within a digital story project and how, this experience supported, or not, their own classroom pedagogies. In this way, the convergence of both these advances in educational psychology and computing, impacted the educational arena and especially the students in this final-year course of a Higher Educational Institution (HEI) that prepares teachers in South Africa.

This innovative research project was anchored in a compulsory subject called Professional Studies for final-year students, in 2017 and 2018 with 106 and 86 students respectively. The majority of students came from working class backgrounds and would have been classified by the Apartheid government as Coloured and African. Although these terms are rejected by the authors, they are used normatively by the student population (Gachago, Clowes & Condry, 2016).

This module was developed in response to the Department of Education's policy to prepare future teachers for diverse classrooms, to provide competent and responsible qualified beginner teachers (Department of Education, 2001). The Minimum Requirements for Teacher Education Qualifications (Department of Higher Education and Training 2011, pp 4) stress that teaching is a complex activity that requires teachers to integrate and apply knowledge and respond to different contexts. Condry, Green and Gachago (2019) state that as contexts in schools and higher education become increasingly more diverse, engagement with human differences and different knowledges becomes essential. Prospective teachers need to be well equipped for these experiences. This is confirmed by Bozalek and Zembylas (2019, pp 9) who state that institutions need to "change their practices to respond to the different needs of learners, as well as valuing the subjugated knowledges that students bring with them."

The main aim of this research project was to create a constructivist learning environment where the students would be challenged to teach a decolonised curriculum, by foregrounding disrupting colliding worldviews and understanding stereotypical views of difference. The researcher considered the 21st century deep learning competencies necessary for the Fourth Industrial Revolution; to live and survive in a rapidly changing world and how to deal with the complexities and ambiguities found in many South African classrooms (Gravett, 2019). Hence the research question became: How did the digital storytelling project, with the focus on colliding worldviews, impact four students pedagogical classroom practices?

2. BACKGROUND AND LITERATURE REVIEW

In South Africa 78% of our Grade 4 children are not able to reading for meaning (Howie, Combrinck, Roux, Tshele, Mokoena & Mcleod Palane, 2016). It is stated in the 2016 PIRLS that our learners could not retrieve basic information from the text to answer the simplest questions. When these learners arrive at HEI's, together with the present technological world, they lack the motivation to read stories and improve their own reading and writing skills, despite signing up to be trained as teachers. Stories are fundamental to develop human communication, learning by analogy rather than direct learning and higher order thinking (Ribeiro, Moreira & Pinto da Silva, 2016, pp 182). Hence the idea of developing a multi-modal approach to this course by integrating a digital storytelling module with mixed groups, a trained facilitator, taught the students how to share their valuable stories, write, organise, cooperate and collaborate their colliding worldviews. Graham (2002) would call these experiences of students coming together to help and support each other a relational worldview.

3. DIGITAL STORYTELLING

For generations, the oral storytelling tradition has been used as a tool for the transmission and exchange of values and knowledge because it is a powerful and a natural form of communication (Smeda, Dakich, & Sharda, 2014). Over the last decade, with the increased use of hardware and software systems available today, the dissemination of stories have changed. Today digital stories can be seen as the merging of traditional stories with the more modern use of multimodal technology used more widely as a pedagogical tool in higher education.

Typically a digital story is a short, personal, narrative of only 3-5 minutes long (Lambert, 2009) combining voice, image and music (Benmayor, 2008), integrating different literacies to engage and motivate students (Ribeiro, Moreira & Pinto da Silva, 2016, pp 183). Technology is more effective when used as part of a broad educational improvement agenda (Pitler, 2006). In this particular research project the digital stories were purposefully used to disrupt students uncritical approach when reflecting on dominant worldviews (Gachago, Clowes & Condy, 2018). Coventry (2008, pp 207) observes, that "Working in multimedia brings something to the student's learning that would otherwise not be possible: speaking and explaining through relatively unfamiliar modes of communication helps enforce a deeper engagement with ideas".

During the two-month teaching module, the researcher took the students through a carefully structured approach of constructing their own digital stories (Kajder, Bull & Albaugh, 2005), using all the elements of digital storytelling to reflect on their colliding worldviews. Students worked in purposively arranged groups so that they shared with people with whom they would not normally have collaborated. This constructivist approach of learning through using authentic contexts, including the social paradigm is one of the most influential educational contexts in the 21st century (Smeda, Dakich, Sharda, 2014).

4. WORLDVIEWS

Politicians, educationists and economists in South Africa are constantly struggling to find out why our literacy and numeracy rates are consistently low in both international and national assessments. One aspect that has not been researched is the fact that as human beings we need to make sense of our lives, our biases,

stereotypes and prejudices which gives rise to our worldviews (Tiburt, 2010). Education does not occur in a vacuum. In a 21st century classroom, a teacher may expect to find many worldviews being expressed and encountered, it is essential that teachers need to be aware of and knowledgeable about a range of worldviews. In any society there will be dominant worldviews held by the majority of the community. Alternative worldviews do exist that may be different, unconventional, marginal or complementary to the dominant worldview. Some may provide a purpose and a direction in life, provide values, inform decision making and suggest standards of conduct, and some may even be in conflict to each other. Hence, Tiburt (2010, pp 180) suggests that in the “health profession, as challenging worldviews may be, educators must learn to acknowledge their complexity so that trainees can more effectively communicate with patients and populations who may not share their own worldview.”

Tiburt (2010) believes worldviews are metanarratives or sets of beliefs and assumptions that are deeply embedded and largely implicit in how cultures interpret and explain their experience. Hart (2010) extends this belief by saying that worldviews are described as mental lenses that are entrenched ways of perceiving the world. They are intuitively, unconsciously and uncritically developed over time throughout a person's life through socialising and social interaction, and are often taken for granted. Worldviews can be cognitive, perceptual and affective maps that people continuously use to make sense of the social landscape and to find their way to whatever goals they seek (Hart, 2010).

Children are not born with a worldview. Parents or significant others, society and culture, together are important facilitators in developing a child's emergent worldview. A worldview can be either communal as well as personal (Fisher, 2012) as shared vision often promotes community, where there is a strong sense of community, tied together by familial relations and the families commitment to it (Graham 2002). Individuals enjoy freedom in self-expression because it is recognised by the community that individuals take into consideration and act on the needs of the community as opposed to acting alone.

A counter argument exists which suggests there is growing concern that it is not necessary to have a worldview which includes a systematic codified belief system. Fisher (2012) claims that disparate and eclectic presuppositions from a variety of worldviews can fit together, despite apparent contradictions, and may be able to answer life's questions. When systematised and codified worldviews become extreme they move towards fundamentalism. Where this type of worldview refuses to entertain and evidence contrary to his or her worldview.

5. THE PEDAGOGY OF DISCOMFORT

Boler (1999) in her book, *Feeling Power: Education and Emotions*, first introduced the concept of the ‘pedagogy of discomfort’. She explained how students, during the Persian Gulf war, disengaged with media, denying the war took place, with the resulting emotions of powerlessness and numbness. To survive these injustices, and an inability to effect change, students became desensitized, which reinforced their numbness. The students were silenced, which lead to self-hatred and distanced them from human connections, increasing their sense of isolation. This sense of self-imposed isolation not only occurs at an individual level but to the broader societal level, which manifests as identity politics, power relations and fear. Taleb (2010, pp 4) posits that when individuals face knowledge that is fragile and contradicts the beliefs they hold as true “... they may experience discomforting emotions such as guilt, fear, anger, anxiety and deep emotion.”

Bheekie and van Huyssten (2015) explain how a dominant culture reinforces emotions that are either acceptable or unacceptable and how HEIs accept these biased viewpoints as normative. Twenty-five years after South Africa's transition to democracy, the constitution provides for a more social just society where issues of diversity such as; race, language, gender, religion, culture and socio-economic status, are still very much alive amongst the student population at the HEI where this research project took place. This project encouraged the participants to engage in critical thinking that explored issues of power in dominant worldviews, habits, practices and knowledge. A classroom environment was created whereby the students explored the messiness of power relations and “to stay away from neat unquestioned stereotypes” (Condy, 2015, pp 145).

6. RESEARCH APPROACH

A case study approach was used within a critical interpretive research paradigm for the researcher to explore four final-year student's colliding worldviews and how this impacted their classroom pedagogy. This design helped describe and explain their real-life phenomena and to develop a true reflection of what was happening by considering the context within which it occurred (Yin, 2003, pp 1).

Qualitative data were collected from two sources: in the form of digital stories in 2017 and 2018 and a focus group interview in 2019. The information gathered from these stories and the one focus group interview helped the researcher to gain insights through "... subjective understanding ..." of how these students and managed their colliding worldviews and how these experiences helped them in their own teaching experiences (Henning et al., 2007, pp 3).

The four students who were purposively selected to be part of this study were involved with postgraduate studies and were available to be interviewed. At the time of the interviews, two students had been teaching for 6 months and two had been teaching for 18 months. The students' names will be kept anonymous: named as NK, SM, MN and LT. All students and the university signed ethical clearance for this research.

7. FINDINGS

Four vignettes present four students' colliding worldviews and how they rose above their circumstances. A short discussion on each vignette follows. To conclude this section, the results of the interviews and how this project influenced their teaching will be discussed.

Vignette 1

Debt almost killed me, my being, and my values. It almost destroyed my future.
Between the period of my matric year and my first year of varsity, I found myself in adjacent walls tall enough to suffocate me, ending my dreams. A corner that was subconsciously built by my parents due to their bad financial decisions.
Deep down in my heart I knew a parent would never intentionally kill their children's dreams or life desires but by allowing debt into our lives, they simultaneously allowed poverty to creep in like darkness tangling innocent light, with no hope of escaping the torture and pain of poverty in our lives.
The void and smell of poverty impregnated my heart with anger, the un-intentional knife caused by the people I loved so dearly had slit through my being and bought pain in my comfort zone, with tears racing down my cheeks each time the thought of the situation at home crossed my mind with unanswered questions
Was it necessary to sacrifice our happiness?
If only my mother never built that house in Eastern Cape...
If only my father never took that loan...

She concluded her digital story by stating that:

Wearing a smile and confidence was my key to success, my vulnerability fed my hunger to success because through the series of unintentional poverty I had three choices, to give in, to give up or to give it all I got. And I chose giving it all I have...

Discussion

NK grew up strangled by her parents relational worldview culture; who consciously made decisions, probably influenced by the community, putting her family into deep poverty, torture and pain. She knew she had to act alone to rise above her and her families colliding worldviews.

Vignette 2

Days came and passed as I wondered when that day will come, where my long waited for expectation will be fulfilled. I was young and vulnerable but at the same time, I was socialised that I will grow up and be a woman and have my own home and children. I had a view that even though I was younger and uneducated my mother would respect my choices. However, she had a single story about what it meant to be a mother. I was at the age of 19 when I got engaged. Our relationship turned sour when I fell pregnant and had a baby.

She abandoned me because she did not approve of my relationship. Regardless of all her promises to love us unconditionally, she did not keep the promise. Was it a collision of world views? My mother expected me to stay out of school and get a job and further my studies but I thought marriage was the right thing for me at that time. My view was it is okay to get married first and then go back to school later. She wanted what she thought was best for me but it was my choice to make a decision.

SM completed her digital story by stating:

I grew from this experience and learnt how to forgive, be open minded, allow people around me to be imperfect and build relationships that are none power based. I gained a voice to share my experience with my mother and love her more, show her compassion. Of all I learnt that it is okay to be vulnerable for I know I AM ENOUGH!

Discussion

SM lived in a community that shared a deeply embedded implicit worldview, often taken for granted, that mothers helped their daughters with their children. She intuitively believed that although she was to have a baby before being educated, her mother would support her child. In this case the mother chose consciously not to abide by this codified belief system which developed into a clash of ideologies.

Vignette 3

Life without my mum was not easy. I thought I will be with her for the rest of my life. Her passing away changed everything in my life. I became rebellious and opted to drink alcohol and do drugs. I thought this route would work for me, but it didn't work at all. The consequences of doing drugs were divisions within the family. Our family views collided. Alcoholics supported my behaviour because in my culture men must drink and marry. I was following the footsteps of my forefathers, and I should not be ashamed. Other relatives were against the strategy that I used to deal with my mother's death.

Some had stereotypes about orphans; they believed that orphans end up being alcoholics and failures. Some of my family members lose hope on me especial in the side of education, assuming that I won't be successful without my mother.

As days passed I realized my life was falling apart. I lost almost everything that my mother had left behind. My siblings were angry with me. Eventually I gave up alcohol and drugs and decided to go back to school.

MN completed his digital story by declaring:

Fortunately, I got a part-time job in the university in order to get something to eat and books. I told myself that the death of my mother is not the end of my future and dreams. Now I am doing my final year Bachelor in Education, and I'm going to be a teacher.

Discussion

Although in MN's culture there was a strong sense of community where men must drink and marry, he, personally, experienced a colliding worldview when he chose drugs to mourn the death of his mother. He was not acting on the needs of the community: rather he chose to act alone against his cultural deeply rooted worldviews. After hearing they believed he was a failure, he consciously and critically decided to change his worldview and worked hard at changing his landscape to find his way to achieve his goals.

Vignette 4

Born and bred in the valleys of the Eastern Cape residing with my mother, father and siblings. Our mother was our pillar of strength, as she 45 was the breadwinner, there was no one to support her in raising us. She was however, not a single mother.

In the outside world I felt isolated and small, my ego was bruised my self-esteem was crushed. I sometimes wished I wasn't born, regretting to be part of my own family and friends. I felt worthless in society, since we had nothing and we were underestimated.

School was a knotty experience and obscure to society. I was never present in school excursions due to financial problems that we had. In class, I felt continuously anxious; the only thought that I pondered is "I can't wait for lunch time so that I can get a slice of that delicious jam sandwich."

A discreet and cautious attitude started arousing my personality and character, such that I avoided to be seen by people. I had to deal with the assumptions people concluded about my life. No one had an idea what I was going through and no one showed interest as to why I was discreet and shy.

LT narrated at the end of her digital story that:

My vulnerability and persevering through my trials and tribulations made me believe that poverty and my background will never determine my future. Instead I will keep rising above my circumstances to be the human I am today, because I believe that I am like a lighthouse that has never been shaken by heavy storms

Discussion

In LTs family, poverty was the commonly held worldview, but this differed from the community in which she lived and where she was educated. Within her community the core worldview held a belief that learners should be able to attend excursions and be socially involved – this was her colliding worldview when she found herself alone.

8. INTERVIEWS

When analysing the focus group interview data about how the digital storytelling project explored the students colliding worldviews, and how this experience impacted their classroom pedagogy, it became evident that the main theme was that they gained a greater awareness. They became more self-reflective within their own thinking and their own lives; they were more aware of how to deal with their learners, and how to be aware of working with their staff members.

The students reflected that this digital storytelling process provided them with a greater sense of awareness to themselves, their learners and their teaching environment. One student narrated that this process of exploring ones colliding worldviews was an empowering process because you have got to question things: “it helped me to change the way I view the world because now I believe every individual has a story to tell ... that we can be different as people but we have the same circumstances that we go through ...” Another student added that: You get to look at yourself and look at the stereotypes that you’ve got, the biases... the expectations you have. However, one student cautioned: “I must be aware of those stumbling blocks you see, there are difficulties that I’m going through at work – it’s a sort of an awareness thing ...”

One student confronted the idea of a worldview as a given construct saying: “I want to disagree with the fact that it [a worldview] is a given ... views actually mutate ... It is given at a certain age perhaps when you are still growing up. What your parents teach you is what you take. But then as you grow older you start making your own decisions – like you can change those views, you can question them, critique them ... I think views change based on circumstances or situations and the moment you start realising them you start being aware of them you will constantly critique the way you view your thinking.... You realise you have a right to confront people when there’s biases and stereotypes...”

One student shared that: “it gave me strength like to be the person I am, that will stick to my morals and values because I feel like I am the role model to my learners, so I have to be true to myself.”

Not only were the students more self-aware but this process encouraged a more awareness of working with their learners:

like its personal issue so we don’t have to judge or punish. You must just speak with the learner asking why are you behaving like this. So that you can get more information so you can be aware of what is happening to that particular learner.

I use it a lot with my children because when we teach, we expect children to respond in a certain way and at the same time, you find the school has got expectations about the learners. I look at my learners and then I’m like, I don’t know what this child is going through, ... but then I can never judge the learner ... so that has taught me a lot.

I think one thing that it has taught me is, to not judge my learners.

it actually helped me to understand that people and even children go through a lot of things ... seriously traumatic things... and that could be a barrier to teaching and learning.

One student explained that this process helped her to constantly motivate her learners: "it has also transferred in a sense that, you as a teacher like you need to constantly motivate ... So now you need to constantly tell children that they are the ones being educated. So it also helped in that sense."

For the one student whose parents made the decision to put the family into financial stress, she shared that this process: "empowered me in a sense that ... I'm more aware of my financial expenditures, so for me to learn from that ... in providing a stable future for my child and for myself. I know that I need to be careful with a lot of things because otherwise I will find myself back in that situation. In the classroom – yes – because for instance with casual money you find that some children cannot pay casual money." She proceeds to provide options of payment to her learners so "that you do not have to stress. That's how I apply my learning."

Now that these teachers are teaching in schools, this process has taught them to be more aware of their teaching environment:

I must be aware of my surroundings, looking at the staff, that I'm working with, it prepares me ... it is very important to understand people, you see, even their behaviour. Academically or like here at work, it prepares me that it gives me strength ... because there are stumbling blocks ...

... it has a sense of greater awareness not only for yourself but for what's happening around you because from that digital story, you were able to see that people have burdens within and they're not just going to show you, so in the teaching profession that also happens because yes in varsity it was peers but now it is your colleagues ...

The whole process has taught me to be confident enough to educate my learners that we are different – we must not let our backgrounds become the barriers to our teaching and learning – we are all human at the end of the day.

9. CONCLUSION

Through the intentionally initiated influences of this module, framed within the pedagogy of discomfort, which set out to address evolving learning processes with supporting pedagogical applications, these four students developed socially, emotionally and professionally. As a result of collaboration, reflection and interpersonal communication skills, these students have been motivated to use multimedia to confront their own biases and stereotypical worldviews and to consequently, improve their own pedagogical practices.

Teachers today require more complex and different skills to be prepared to engage, address and challenge the critical and dominant worldviews, in our educational arena facing our diverse learners. They need to be aware of the interconnectedness between fast-changing different knowledges and professional practices that will result in transforming our learners in the 21st century. The researcher agrees with Tiburt (2010, pp 180) who suggests that educators should learn to acknowledge the complexity of student and learner's worldviews so that we can more efficiently communicate with them. The pedagogy of discomfort created a safe space for this transformation to occur where all four students agreed that this process of writing and reflecting on a particular colliding worldview and putting it into a digital story, was an uncomfortable experience. Yet six months to a year later, they shared how much they had learnt from sharing their vulnerabilities and that they have been able to inculcate these learnings into their own personal lives as well as their pedagogical practices.

All four students willingly shared their taken-for-granted, unconscious personal and community worldviews and the discomfort of these traumatic experiences. At the time of these ideological clashes none of the students were able to change anything. However a few years later, when reflecting on this experience, during the making of their authentic digital stories, they shared how this experience created many different personal and pedagogical opportunities and how much stronger they had all become to rise above their circumstances.

The findings of the focus-group interviews suggest that this project, heightened the students awareness of their own colliding worldviews which in-turn encouraged them to become more metacognitively aware of their own worldviews as well as learning valuable pedagogical approaches of how to manage their peers, learners and be a role model in their communities. Some students reflected on how they could now identify their own 'stumbling blocks' and those found in their peers in the staffroom and now know they have to be

approached with caution and care. The researcher argues that these students now hold strong views on listening to their learners, motivating them, exploring their worldviews and how not to judge. They have become more passionate about confronting people who hold unconvincing biases and stereotypical worldviews.

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