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Corrigendum: Exploring judgement and internal bias of Life Orientation teachers in sexuality teaching

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In the version of this article initially published, a reference was misrepresented in the reference list. The reference is hereby corrected to:

Francis, D., 2017, *Troubling the teaching and learning of gender and sexuality diversity in South African Education*, Palgrave Macmillan, New York.

The errors have been corrected in the PDF version of the article. The author apologises for any inconvenience that this may have caused.

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Exploring judgement and internal bias of Life Orientation teachers in sexuality teaching

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There are various challenges in the teaching of sexuality within a South African multicultural context, as there is no uniform knowledge across learner backgrounds. As such, teachings often revert to the teacher's beliefs, in order to create meaning within the uncertainty, at the expense of the individual learners' personal identity formation. This paper explores the teachers' internal bias and its subsequent influence on the teaching of alternative sexualities in Life Orientation classes. Through purposive sampling, four teachers in the Mangaung area of the Free State province participated in semi-structured interviews and electroencephalogram (EEG) measurements. Data were analysed by means of thematic analysis and descriptive statistics collected through EEG readings in order to explore how teachers construct knowledge about alternative sexualities while mediating internal conflict, specifically through measuring frustration responses to stimuli. Findings suggest that the challenge of personal background influences teaching practice as well as limitations at curriculum level, leading to personal interpretations of content. Furthermore, sensitisation to content significantly affects levels of frustration, while the active versus reactive nature of teaching sexuality becomes apparent in how teachers ultimately accommodate personal bias. Recommendations include the need for sensitisation, during teacher induction, to sensitive topics such as sexuality, and to provide less biased messages during teaching.

Introduction

> … the post-apartheid landscape brought the promise of freedom under broad constitutional reforms enshrined in a bill of rights … The current context has therefore steadily and progressively shifted from a model which conceives homosexuality as a behaviour to one in which identities can be produced. (Reddy 2010:18)

The challenge of conceptualising knowledge related to homosexuality is deeply rooted in the complexity of the multiculturalism characteristic of modern South Africa (Sigamoney & Epprecht 2013). This, in turn, causes difficulties for the ideals of identities to emerge without judgement. African culture has strongly critiqued the Westernised discourse and the subsequent construction of meaning related to being homosexual as a perversion entering society based on Euro-American influences (Reddy 2010), still carrying stigmatisation placed on preconceived identities and subsequent stereotyped behaviours. South Africa is characterised by a diverse spectrum of cultural backgrounds with complex historical influences. As such, the role of the teachers' perceptions on teaching against such a myriad of cultural influences in the classroom is challenged in terms of non-biased teachings against the learners' backgrounds (Meier & Hartell 2009). We question how the teachers' internal judgements that influence practice (Perkins 2012), specifically within the subject of Life Orientation, strengthen restrictions on gender identity formation within culturally diverse classroom practices. Ultimately, and with approximately 10% of South Africa's youth experiencing same-sex attraction during puberty, the influences of discrepancy between the teachers' personal bias and the learners' backgrounds can significantly give rise to a myriad of contradictory messages between traditional and modernised knowledge systems related to what homosexual, and sexuality itself, means (Francis 2011; Richardson 2009).

Life Orientation's component of sexuality education was implemented at curriculum level as a step to align the constitutional sunderpinning of respect for sexual diversity and the eradication of gender discrimination at societal level by educating the youth as to their responsibilities within a culturally diverse society (Department of Basic Education 2013). Francis (2011) argues that the focus of sex education in South Africa has been significantly indicative of the judgements related to HIV/AIDS and is underpinned by policies that advocate sexual practice and disease within a unison framework. Formby (2011) refers to the World Health Organization's definition of sexual health accordingly.

'Health' is not defined by the mere absence of disease but encompasses a respectful approach towards sexual diversity, knowledge embedded in intimacy and pleasure related to sex, and is based on the protection of all individuals within a non-judgemental and non-discriminatory context. This is reflected in the Life Orientation curriculum's aim to nurture the learner on not only the physical aspects of life but also the emotional and psychological factors related to sexuality (Department of Basic Education 2013). While the curriculum and assessment policy statement (CAPS) envisions space for such topics as intimacy, sexual preference and desire, teachers who experience discomfort or conflicting morals related to the teaching thereof can still ignore critical reflection on their part when topics of sexual diversity emerge (Shefer & Ngabaza 2015).

In practice, the above ideals of social justice and sexual inclusivity are thus not fully realised within a judgement-free and respectful context (Francis 2011). The educator's knowledge or emotional underpinning related to sexuality forms a transference of prejudice within the teaching–learning environment (Beyers 2013; Meier & Hartell 2009). Potgieter and Reygan (2012), as well as Shefer and Macleod (2015), refer to textbook-level interaction regarding topics related to sexual minorities. While topics of alternative sexualities are covered, the manner in which the messages are conveyed often further marginalises these groups by enforcing gender stereotypes and heteronormative standards. It thus becomes apparent that embodying the ideals embedded in respect of diversity is complicated by emotive topics such as sexuality, widening the gap between policy and subsequent transformative teaching of what learners need to know in a judgement-free society (Morrell, Bhana & Shefer 2012).

This gives rise to issues in policy–teacher interaction and messages conveyed during classroom practice may revert to information that is familiar and of personal value to the teacher (Beyers 2013). While learners enter the classroom with unique individual backgrounds, the teacher also embodies a cultural self (Vassallo 2012) that manifests within teachings and may be grounded in judgements and attitudes related thereto. These judgements create boundaries within which sexuality is conceptualised, often reiterating normative expectations (Applebaum 2013) and placing 'who' and 'what' parameters on the shaping of a personal identity (Formby 2011). Making sense within the complexity of unison knowledge related to concepts of sexual orientation occurs by forming cognitive groupings based on schematic stereotypes of what it means to be male or female (Crespi 2004) to make sense of the environment. Such groupings, however, may form the basis of marginalised and normative boundaries of behaviour (Habarth 2008). This may further be complicated by the formation of culturally unison knowledge related to concepts such as homosexuality (Baumeister & Bushman 2011). In turn, judgements of heteronormativity are counter to those of freedom and allowing identity to emerge within the context. Reddy (2010) underpins the modern views of homosexuality and sexuality in general. Modern

views on sexualities as fluid from labels and categories often form ambiguity in meaning, and subsequently raise the problem of addressing an inclusive and uniform knowledge set applicable across cultural diversity within the teaching of sexuality and gender.

This study aims to explore both how Life Orientation teachers construct meaning within the teaching of sexuality in alignment with the ideals embedded in Life Orientation, and the role of emotional judgement in the teaching thereof. We shall first place sexuality education within a framework that advocates cultural sensitivity and judgement suspension in order to provide a working framework that aligns with the ideals embedded in social justice and citizenship education. Allowing for meaning to emerge based on interviews, results will be discussed using emergent themes and compared to data gathered by means of electroencephalogram (EEG) readings that measured emotional reaction, in real time, to five videos based on alternative sexualities.

Sexuality education: Towards a conceptual framework of cultural intelligence

Sexual culture draws on the norms and values held by individuals regarding sex and gender, based on specific socialisation agents that ultimately influence the messages conveyed during interaction (Formby 2011). Male dominance, as reflected on earlier in the prevalence of South African cultures, is often still rooted in traditional gender expectations and remains a prominent form of power discourse within our society (Reddy 2010). Such discourse challenges teacher methodologies across cultural diversity and power inequalities in order to instil values of respect and responsibility within classroom practices related to gender equality (Hammett & Staeheli 2011). This calls for greater sensitivity and self-reflection on the part of the teacher when teaching sexuality in order to understand how sexuality is constructed through culturally rooted concepts of power-vested beliefs (Iverson 2012). Drawing on research by Baxen (2006), Davids (2014:41) argues that the role of the teacher in sexuality education is based on being actively involved, as opposed to being mere passive-reactive agents acting as 'rational, intellectual professionals who "mindfully" educate the "minds" of learners'. The view of power thus encompasses not only a socially constructed component but also a biological one, taking into account the responses elicited at behavioural level (teaching). Accordingly, Meier and Hartell (2009) argue the difficulty of teaching actively within a multicultural environment. They refer to the complex interaction between not only the socialisation teachers receive during teacher induction but also the influences of their personal psyche related to past experiences in shaping values and prejudices that influence teaching.

DePalma and Francis (2014a:3), however, draw on the often discomforting and morally deviant nature of teaching about alternative sexualities, specifically the cultural taboo of discussing sexuality with children. They also question the

static nature of uncritically teaching sexuality within the context of South African historical exclusion in envisioning an inclusive future, further emphasising the importance of understanding cultures as 'dynamic, complex and interactive'. It thus becomes increasingly important to engage the teaching of sensitive topics such as sexuality within a framework that advocates dynamic change in both the classrooms as well outside communities. The framework of cultural intelligence accounts for the active role of the teacher, as opposed to the reactive role of uncritically mediating mere knowledge preceding behaviour (Swanepoel & Beyers 2015). Cultural intelligence proposes three primary components: knowledge, mindfulness and behaviour (Thomas 2006).

Knowledge

Knowledge reflects on issues such as the sociocultural context of South African history and sexuality. This component frames teachers' knowledge of issues explored in previous studies such as sociocultural traditions (DePalma & Francis 2014a), colonialism (DePalma & Francis 2014b) and knowledge about nonconforming genders (Collier et al. 2013). While it is not possible to have a complete knowledge base of specific cultural groups (or the subsequent categories such as heterosexuality or homosexuality), cultural intelligence advocates the application of limited knowledge to be used optimally and to adapt dynamically to the current context (Van den Berg 2008). This becomes especially relevant during classroom pedagogies in acknowledging the knowledge, values and attitudes that teachers hold of their own sexuality and culture, and in turn that of the diverse spectrum of sexualities embodied among learners themselves.

Mindfulness

Every context consists of various stimuli that evoke various emotions (Brown & Ryan 2003). Mindfulness accounts for a critical awareness of how the environmental stimuli influence one's emotions, thus adapting accordingly in order to advocate a positive interactional exchange. Mindfulness becomes increasingly important in the teaching of sensitive topics such as sex and sexuality within the classroom (Swanepoel & Beyers 2015).

Behaviour

Behaviour refers to the overt actions taken during teaching based on the above interaction between knowledge and mindfulness. The skill to suspend judgement is also prominent in cultural intelligence. This skill promotes the individual's awareness of his or her limited knowledge and emotional judgements (Hülsheger et al. 2013), to gather further information and thus elicit behaviour based on a better understanding of the current context (Brislin, Worthley & MacNab 2006). The lowest form of cultural intelligence encompasses the individual drawing on culturally normative stereotypes to facilitate behaviour, whereas higher cultural intelligence promotes the individual's understanding of the complexities of culture, and interacting optimally across

various ambiguous cross-cultural contexts with sensitivity and suspended judgement (Swanepoel & Beyers 2015).

Methodology

Participants

A total of eight participants were approached for the research project. However, the selected sample did not take part in the final study as the use of the EEG headset caused discomfort in revealing their emotions and judgements to the researcher in a manner that they could not control. In total, four participants were purposefully selected for this study. According to Blanche et al. (2011), the use of this nonprobability sampling method is adequate for small non-generalisable populations for testing the theory about processes. To examine how teachers mediate knowledge and values related to the teaching of sexual diversity, the researcher selected teachers with at least one year's Life Orientation teaching experience during which they covered the theme of sexuality education at least once. As the study aims to test the teachers' judgement processes regarding alternative sexualities, all selected participants were identified as heterosexual. The final sample of participants consisted of three female teachers and one male teacher.

Data gathering

The gathering of data took place in three phases. Phase one consisted of semi-structured interviews that lasted between 45 and 60 minutes. These interviews focused mainly on participants' knowledge, prompting responses based on the participants' experiences, opinions and background knowledge as related to the teaching of sexuality and alternative sexualities within the classroom context. This phase also elicited responses of participants' views regarding their own teaching practices and behaviour. In the second phase, the participants watched five videos (20 minutes in total) while wearing the EPOC-Emotiv EEG headset (see Figure 1 for an example of the headset, and Figure 2 and Figure 3 for data collected and represented in

Source: Emotiv (n.d.)
FIGURE 1: The EPOC-Emotiv headset.
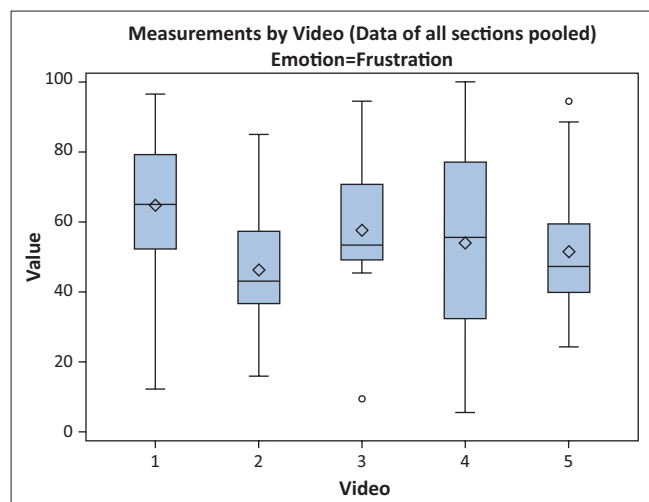
Source: Department of statistical analysis at the University of the Free State

FIGURE 2: Box-plot of frustration across the five videos.

Source: Department of statistical analysis at the University of the Free State
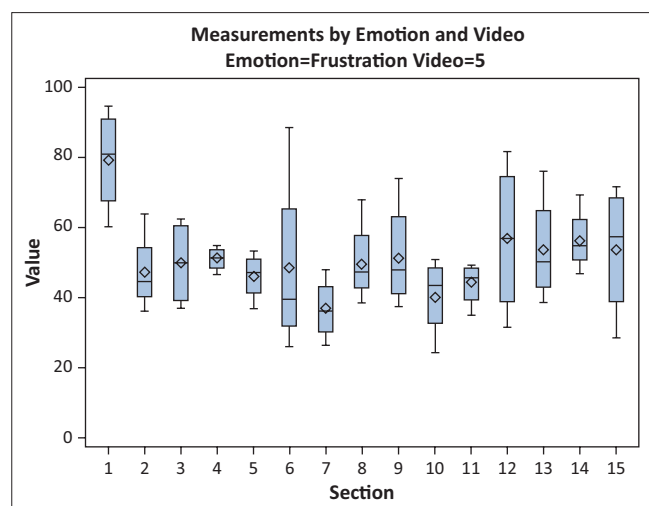
FIGURE 3: The stark decline through to the end of Video 5 for frustration.

visual form) that measures five specific emotions, namely attention, short-term excitement, long-term excitement, frustration and meditation. The final phase of the study entailed a semi-structured interview to gain insight into the teachers' understanding of what they watched and their emotive responses thereto. For the five selected videos, this paper will report mainly on the findings gathered through Videos 1 and 5, with specific reference to frustration. The Wi-Fi-enabled headset provides the ability to measure the intent and emotional underpinning of expressions and responses (Zier 2012), incorporating sensory and perceptual responses to content and stimuli. Harrison (2013), in a study of the device's validity, often reflected a dissociation between self-reporting and measurement, referring to the value of the device's use among small samples. This proves valuable as the study sought to measure the conscious awareness of individual teachers as compared with the true emotional responses that underlie their narratives. The EEG system thus holds value for measuring smaller samples but should be used with caution in generalising results. For this study, however, the measurement is merely a means to

identify the manner in which emotions and bias underpin interviews and narratives, and thus not to generalise finding across the spectrum of participants.

The videos used in this study were selected on the basis of issues relevant to sexuality and judgement, specifically their reflection on prejudice, stereotyping, bullying and equality. The videos reflected the following content:

Video 1: Heteronormative activities across the lifespan of a man being filmed, ending with him proposing to the cameraman who is revealed to be male.

Video 2: Ellen DeGeneres speaking out about bullying, teenage suicide and unsafe school climates.

Video 3: A satirical video of the legalisation of gay marriages, while a heterosexual family believes it is the end of their own marriage.

Video 4: A video portraying various people who do not conform to homosexual stereotypes addressing the public to speak out against stereotyping and stigmatisation.

Video 5: A young man exploring his homosexual feelings and visiting various gay spaces in order to find love, yet only finding promiscuity and further heartbreak. While surfing, he meets another man who ultimately proposes to him, with his family agreeing to the union.

Data analysis

The first level of analysis was informed by a thematic analysis of the qualitative data according to Tesch's (1992) method. The interviews were primarily transcribed and read through individually to gain an understanding of the global base thereof. Transcripts were then read for meaning and the emerging patterns were identified, coded and named. Patterns of meaning that emerged from the transcription were grouped as themes that became descriptive of the content that participants expressed. Prominent themes that will form the prime report of this article include personal background influences, the limitations of the CAPS and textbooks, and the active versus reactive role of the teacher.

For the EEG data, each video was broken down into sections in which the emotional states of short- and long-term excitement, meditation, frustration and attention were captured on a moment-to-moment basis. For the purpose of this study, we shall focus on the data captured from the emotional state of frustration. This emotion reflects a physiological arousal that connects with the idea of a sudden realisation. This aligns with a moment of insight that occurs during a sudden internal realisation and accounts for a moment of arousal at a specific time (Harrison 2013). For the purpose of this paper, the main examination will be informed by frustration, which is used to explore dissonance of internal judgements (Allen 2013) or previous perceptions that are challenged in certain sections of the videos used.

The captured data were standardised and represented in percentages, where 0% reflects a very low or no arousal, and 100% a very high arousal. A senior statistician using Statistical Analysis Software (SAS) further analysed data from the EEG readings by means of descriptive methods. For each video and section within the video, the following descriptive statistics were calculated: mean, minimum, median and maximum. Initially, pooling the data from all sections of a given video, the data from the five videos were plotted side-by-side as boxplots, reflecting each of the five emotions. The plots clearly indicate that the measurements for the emotions 'attention' and 'meditation' were essentially constant and uninformative. Therefore, data for these two emotions were not analysed further. Because of the short timeframe of each video, 'long-term excitement' was not included in the analysis of the results. For the emotion 'frustration', and separately for each video, the data from the various sections of the videos were further plotted side-by-side as boxplots.

Ethical considerations

Registration and clearance were provided by the higher education institution where the study is based. Further ethical clearance was gained from the Department of Basic Education to perform research in the Free State province. The participants were briefed about the scope of the study, and no deception took place. Full anonymity was ensured with the option to withdraw from the study at any time. To ensure anonymity, all the participants' names were changed. Should the participants feel uncomfortable with the use of headsets or videos, they were allowed to stop the process at any given time. While the videos were selected to portray everyday interactions, a registered psychologist was approached to debrief any discomfort the participants may have experienced during the course of the study, if need be.

Results and discussion

In discussing the qualitative section of the study, we shall draw on the results and the discussion thereof based on the following three themes: namely personal background influences, the limitations of the CAPS and textbooks, and the active versus reactive role of the teacher. The discussion will be informed through the three components of cultural intelligence.

Discussion

In the analysis of the qualitative data, three prominent themes emerged from coding the participants' narratives. While the dominant measurement of emotional reactions will be discussed as informed by the EEG readings at an internal level, it is valuable to draw on the participants' narratives pertaining to their emotional awareness during the interviews in order to provide a holistic construct of how they engage with alternative sexuality teaching and their conscious understanding thereof. Correlations between teacher narratives will be identified alongside the EEG measurements as a means to strengthen the reporting as well as examine

how emotive underpinnings are mediated on part of teachers during sexuality teaching. The question the narratives and the EEG thus address is: How do teachers mediate emotional responses during content ambiguity such as sexuality education, and how aware are they of sexuality bias? To sustain the reporting of the results, narrative extracts will inform the discussion of the respective themes. The second stage of reporting will base the qualitative data within the findings of the EEG readings, and this will be discussed accordingly. However, as narratives are often strongly correlated to the EEG counterpart of the study and inform the discussion, the discussion will reflect on the use of the EEG at various stages where the data correlate with participants' responses. These two segments are accordingly placed under two categories; however, they should be read not as mutually exclusive but as interconnected and correlative.

Theme 1: Personal background influences

The first theme elicited various subthemes pertaining to religion and culture. It is within this context that various judgements are formed through socialisation on the part of the teacher. The challenge, elucidated in the following narratives, reflects finding common ground between establishing a mutual relationship between teachers and learners in the classroom during sex education. This refers to the interference that may occur between the teacher's prejudices and the learners' backgrounds in a culturally diverse classroom (Meier & Hartell 2009).

When asked about his experiences of teaching Life Orientation within the realm of sexuality, Jonathan responded:

> My experience is that when you deal with sexual orientation, you as a facilitator have to be clear what your sexual orientation is. If you are at peace with that you know about yourself then you will be able to let learners discover themselves also. Because the information which you give them if you know about your own orientation will be true, it will not be based on some religious ideas or some norms that have changed or the learners' peers' influences. You will be able to help the learner discover his own sexuality, and how he fits into the world and what role he can play.
>
> As I said our school comes from a poor community. The norms and values that are set within those settings are very traditional. It has been influenced by the way the church wants us to live, how our parents, their own parents, perceive their own sexuality, the type of topics that are allowed to be discussed in the home therefore. You have to be quite sure that the way in which you attempt to address the topic will not be in conflict with what the child learns from home. So you try and have that relationship you have although *the church says this about sexuality* and *this is wrong* and *your parents may believe it*, there is another stance that one can take. (Participant 1, male, Life Orientation teacher in a rural context school)

As reflected in Jonathan's narrative, the stringent normative expectations of some contexts reflect the unyielding norms and judgements of traditional sexuality expectations in the community (Butler & Astbury 2008). Jonathan draws on the

importance of being knowledgeable about one's own sexual orientation as a counterpart to successfully teaching about alternative sexualities. This narrative portrays the mindfulness component of cultural intelligence in that the individual exhibits a heightened sense of awareness of the self and emotions that mediate interaction at a given time (Hülsheger et al. 2013). Further importance is given to promoting learner understanding about knowledge systems that can differ from their personal upbringing and beliefs as a means to successful sexuality teaching. While Jonathan has been teaching Life Orientation for 12 years, his narrative indicates a confident and broad understanding of normative values and the influence thereof within his teaching. Consider the following extract from Sandra (who is a White teacher who has been teaching Life Orientation for three years) when asked to elaborate on how her background influenced her perspective on homosexuality:

> Let's start with religion. Because I am a Christian, they tell you a man and a man should not be in a relationship or be sexually attracted to each other, that a woman is made for a man. My parents have never told me that being gay is wrong. We haven't really ever spoken about it, but I think if you look at today and you look at religion, you need to consider the time in which the bible was written. If you look at the Old Testament, we are not allowed to eat pork, or wear certain clothes, which we all do. So gay being wrong should be taken into consideration, and knowing that times have changed, it might not be the case anymore and I think that if your relationship with God is strong and you are on the right track then why would he not want you to be happy and love the person of your choice. (Participant 2, female, Life Orientation teacher for 3 years)

The discourse of religion again prevails. Compared to Jonathan's reference to the church as a socialisation agent and the influence thereof on teaching, Sandra exhibits a more personal perspective. She specifically draws on a generalisation in that 'we are not allowed to eat pork, or wear certain clothes, which we all do'. Her narrative, albeit accepting of alternative sexualities, forms a discourse of inclusive Christianity. This is an issue, as such a message may unknowingly exclude and marginalise other religious beliefs and practices, especially when she concludes that 'we all do'. The lens through which sexuality and background influences such as religion give rise to judgement becomes further apparent in Jenna's narrative:

> I want the best for my learners, and that they live healthy and responsible lives. I am a Christian, and it will always be important for me to connect sexuality to that belief. It is very difficult in a diverse classroom to discuss it (alternative sexualities), especially in a conservative Afrikaans classroom if I think about where I taught … it will offend the learners if I discuss how a homosexual person can have a healthy orientation. I will prefer that learner … that learner must come talk to me afterwards … I want the best for that learner, so sadly … I will teach a lesson based on heterosexuality, the mainstream. I will need to receive training, because it is … it is against … I will not want to advocate it. I think there is a lot of turmoil … From my perspective something happened which made you enter that orientation, like a passive father figure or absent father. (Participant 3, female, Life Orientation teacher within an urban context school)

Jenna displays a strong awareness of her religious background and the manner in which it influences her teaching. Internal conflict, however, emerged during her discourse in justifying her beliefs and providing an acceptable answer or an answer that will be acceptable to the research content, known as *demand characteristics* (Stangor 2011). This may be because of the researcher's presence as an agent of change in her dialogue. However, her discourse soon reverted to the premise of an absent father figure to construct meaning about sexual identity. It is, however, worth reflecting on her judgement suspension during the viewing of Video 5 (a more explicit portrayal of a gay man's struggle in finding happiness apart from mere promiscuity). Her focus begins with the view of turmoil and non-acceptance. However, Jenna, acknowledges the positive nuances of the video while recognising her own discomfort:

> What I saw was he had a lot of turmoil, his parents are also not happy with him. He is looking for acceptance. We see at the end that he is happy with the partner he chose, he cannot believe this guy committed to him. It feels odd, that interaction [between the two men]. I felt at one point to stop, but wanted to see how the video plays out. (Participant 3, female, Life Orientation teacher within an urban context school)

After viewing Video 2, depicting a satirical portrayal of a heteronormative couple who fears that they will have to divorce once gay marriages are legalised, the researcher asked whether the video reflects truth. Jenna's response was 'drama queen based, not containing emotion'. The characterisation of 'drama queen' is linked to the stereotype of gay men who often make scenes (Dynes 2014), a stereotype perpetuated by the traditional portrayal of homosexual men, which, through examples such as Jenna's narrative, echo the stereotyped judgements placed on certain behavioural cues to construct meaning at a very reactive level to the video. Classifying behaviour within the video as such, the question arises as to how such a classification would be received within the Life Orientation classroom. Sandra's response to the messages of the video on a more critical level reflected a deeper understanding of the problematic portrayal of the heteronormative family. During the interview, she exhibited a great deal of frustration in body language during her narrative. When Sandra was questioned as to whether the video intended to be humorous, she responded:

> I don't think it matters. Look at the message being sent. If I was not as educated as I am, I would think it would be bad for all people if gays were allowed to get married, which is not the case. Why would that influence my marriage? Why would I hate my kids? It's ridiculous. Even if it is a joke, is the joke funny? No its not, many a true word is spoken in jest. People make jokes about things they don't understand or don't necessarily want to understand, and why in today's time and age where it is still a struggle to get married if you are gay, or even to come out and say I like men or I like women … why would you make something like this? That can have such an immense effect on those people? (Participant 2, female, Life Orientation teacher for 3 years)

While each of the narratives reflects distinct approaches to how the teachers approach the teaching of sexuality in the

Life Orientation classroom, it becomes apparent that an awareness of self and personal backgrounds interlink with how the topic is taught at pedagogical level. Beyers (2013) refers to the importance of challenging the teachers' self-concept to create a more valid approach to teaching sensitive topics such as sexual diversity. Not only the awareness of the self but also an intimate knowledge of the sociocultural background against which topics are taught shape the messages conveyed during teaching (Thomas 2006). As such, teachers should approach topics with a firm awareness of terms that carry biased and stereotyped labelling, as well as an understanding as to how personal bias due to culture or religion constructs these topics.

Theme 2: The limitations of the curriculum and assessment policy statement and textbooks

The implementation of the CAPS statements for Life Orientation saw the ideal to promote knowledge and skill sets that will enable learners to adapt optimally within their communities (Magano 2011). There is, however, critique as to whether change is caused at practical levels pertaining to the content taught according to the curriculum (Coetzee & Esterhuizen 2010). In their analysis of CAPS-based textbooks, Potgieter and Reygan (2012) found that, when the topic of alternative sexualities is covered, the manner in which it is approached is often stereotypical, marginalising non-conforming genders as separate from heteronormative standards.

The following extracts reveal two of the teachers' experiences (Samantha and Sandra) with the CAPS documents pertaining to the teaching of alternative sexualities when prompted about how they use the resources to frame their teachings at curriculum level:

> The CAPS documents are very good at generalising and giving a broad perspective, but it does not adequately cover what they would need to get to the point of acceptance. It doesn't branch out to the different types of sexualities. Once again, to me it once again says society is generalising and stereotyping one acceptable sexuality. (Participant 4, female, Life Orientation teacher in a rural context school)

> I think it (CAPS) is superficial. You cover it … you do it a lot, instead of going deeper into the issues and what the learners are experiencing, for example if they are gay … the judgement from others, how they exert themselves in their communities. Instead of talking about that, it is always about sex before marriage, STDs, and that I have a problem with. I think it is all round still, I don't think that CAPS and being teachers go deep into the subject matter. I actually leave a lot of space in my planning for learning interaction. I will talk to them about it and will stop and ask, what you want to know, what do you experience, let's talk about that. I cannot sit at home and think 'maybe this is what they experience'. I need to know, so then in the classroom we will have a discussion about it. So then we will address it and talk about it, so that they know I am on their side and that I want to be there for them. (Participant 2, female, Life Orientation teacher for 3 years)

Both extracts reflect the participants' opinions that the CAPS are limited in scope as to guidelines pertaining to sexuality as

a topic. Samantha's narrative reflects the manner in which heteronormativity is advocated as the dominant content base. In this instance, the participants felt that CAPS does not provide a uniform or stable knowledge set that should be taught regarding the appropriate characteristics of diverse sexual categories. The emergence of topics pertaining to sexual orientation and sexuality is thus based on normative standards and, in turn, can further be stigmatised by the teacher reverting to heteronormative messages in order to accommodate topics that may arise (DePalma & Francis 2014a). Francis's (2011) research indicates South Africa's dominant discourse of sex education as being based on disease and safe-sex practices (reflecting the knowledge component of cultural intelligence), an argument highlighted by Samantha who explains that 'it is always about sex before marriage, sexually transmitted diseases (STDs), and that I have a problem with'. While these issues are important aspects of sex education, it becomes an issue when teachers focus mainly on pathology in their teachings at the expense of critically reflecting on aspects of holistic psychological, emotional and physical well-being related thereto.

At this point, we would like to hypothesise the problematic nature of addressing a curriculum that provides clear guidelines for the educators in teaching alternative sexualities. Samantha's manner of addressing the topic displays interaction in which the meaning is constructed, and the learners form a guiding agent in how to approach the topic. However, the teachers' skill sets and pedagogical methods of teaching lead such discussions. We question the viability thereof to be done truthfully across schooling contexts, as the bias of the teacher (viewed as an agent of power in the classroom) can ultimately fill in the gaps of the lesson's content. On the other hand, a stringent curriculum with guidelines as to different sexual orientations can become problematic and will mean a uniform knowledge base for contexts where cultural constructs thereof take on different meanings. Jonathan highlights this when asked how he experiences CAPS in terms of teaching sexuality:

> CAPS is about three years old, its new, I think it is a curriculum that can be developed more to be focused on Life Orientation. Yes, CAPS is a nice practical curriculum. It's not educator based, it is discussion based, so it creates that space. At the moment it creates the space for new ideas about sexuality and gender. But one must … it creates the space where people will be identified, labelled, but because we focus on other themes, we talk about the healthy lifestyle … the themes are interrelated. You can discuss these by using the constitution. (Participant 1, male, Life Orientation teacher in a rural context school)

It is thus essential to find a harmonious combination between the educator's teaching and the construction of knowledge within an interactional space, enhancing a bias-free pedagogy that will still be based within the guidelines for the educator to follow. Consider Jenna's narrative, as to how the topic can be completely silenced during classroom interaction:

> It [alternative sexuality] was never named. If the CAPS textbook had it I would have covered it. I was taught in Life Orientation didactics that one must be careful of pushing your values on

the child. (Participant 3, female, Life Orientation teacher within an urban context school)

The above narrative contrasts with Jenna's discourse earlier stipulating that her pedagogy will be linked to her Christian beliefs. While her school context is Christian in itself, it is broadly stated that all learners will share the denomination of Christianity and, in turn, receive messages with equal acceptance. It also becomes apparent that the 'silence' in the textbooks about alternative sexualities provides an opportunity not to touch on the topic. As Jenna explained earlier, she will conduct the lesson according to the normative standards of heterosexuality and would rather have learners approach her individually with questions about alternative non-conforming sexuality topics according to what she feels is best. Would such freedom be of value to the ideals of creating proactive learners, or does silence indicate an acceptance of marginalising groups? In this way, the emotional and psychological perceptions of learners can be challenged through content in order to frame a less ignorant, less biased, and more sensitised perspective on the issues of judgement and homophobia.

Swanepoel and Beyers (2015) consider the manner in which questions facilitate interaction in the classroom at both educator-learner and textbook level (which is often riddled with ambiguity about sexual categories, or normalises sexuality within a heterosexual perspective and classification of information). They draw on the importance of moving away from reactive questions such as 'Do you think homosexuality is wrong?' or 'How do you feel about same-sex marriage?' to an approach that will allow the use of cultural intelligence's components of knowledge, mindfulness and behaviour with less reactive judgement. For example, 'How has South Africa's past influenced the way in which we feel and act towards same-sex marriages?' and:

> Should you feel uncomfortable when meeting someone whose sexual orientation you do not agree with, what can you do to ensure that both you and the person feel respected during interaction? (Swanepoel & Beyers 2015)

Such questions enable learners to incorporate non-judgemental attitudes and construct knowledge and skills in such a way as to facilitate a behavioural outcome that is consistent with their own background as well as that of the topic or person in question.

Theme 3: The active versus reactive role of the teacher

An important point raised by Jonathan's narrative earlier reflected that the role of the teacher has changed from that of an educator to that of a creator of context within which discussions are facilitated. He later draws on the transformed role of the traditional Life Orientation teacher to the modern facilitation role:

> There was a difference between guidance in the old days where you had to sit and do and accept the educator's view of topics, repeat what was written in the books. LO was introduced, the focus changed from the orientation of the educator to the view of

the learner. So you became, the educator became … a facilitator. He facilitates discussions around the theme and learners give their views, but he won't force his view whether it is indigenous beliefs, whether it is sexual orientation, whether it is the view of the church, families, you have the theme in front of you, you present the outcomes … and you discuss and facilitate them. (Participant 1, male, Life Orientation teacher in a rural context school)

The importance of not enforcing personal background beliefs on the learners forms an important aspect of Jonathan's discourse. This embodies the role of the modern Life Orientation teacher who suspends judgement to facilitate topics of value to a multicultural classroom context. This in itself is a further cornerstone, as discussed earlier, to being a culturally intelligent educator, in that one takes on an active role as opposed to a reactive role that biases personal beliefs in the teaching of alternative sexualities. Sandra's reaction to the next question that arose during the interview further reflects the skill of suspended judgement, in that the teachers acknowledge their limited knowledge about a topic and gather information before responding. She further draws on the component of mindfulness by referring to her own emotional comfort with the context of the question. Sandra's answer reflects a high embodiment of cultural intelligence as to when learners approach her regarding topics of sexuality of which she is not knowledgeable or with which she feels uncomfortable, for example her narrative as follows which aligns with the findings of discomfort teachers experience in Swanepoel and Beyers (2015) and Francis (2017):

> Okay firstly I wouldn't discuss it in the class as a group, and I would honestly say to the learner give me a chance that I will come back to you. Just to go and prepare, how should I approach this, what is the right way to go about this. So that I will not be uncomfortable, but also so that the learner is not uncomfortable either. So I will first go and do my homework and come back to what you wanted to know, lets discuss it. I have now talked to people and whatever, and now know the right way to do it in the classroom. (Participant 2, female, Life Orientation teacher for 3 years)

The theme of the active versus the reactive role of the teacher emerged strongly in all four participants' narratives. They are all of the opinion that the role of the modern Life Orientation teacher is facilitator-based, and that the learners should form an active part in the construction of knowledge. However, while Sandra and Jonathan's narratives remained constant throughout all four themes, Jenna and Samantha's narratives as a whole reflected discomfort about raising the topic of alternative sexualities in the classroom. While Jenna stipulated that it will not be consistent with her Christian beliefs, Samantha was of the opinion that it will be difficult, as her classroom consists of mostly Black students, while, as a female teacher, she will be disrespected for raising a topic that is against the learners' background influences. It is interesting to note that Jonathan, highlights this during his interview in the following extract from his narrative:

> In terms of gender, sexuality specifically, some teachers don't want to talk about it, especially young teachers. They tend to stay away from topics like sex because the teachers now are 21, and some of the learners in grade 9 are 18, so the age difference

plays a big role. It all depends on the emotional intelligence and emotional development they received during the years. (Participant 1, male, Life Orientation teacher in a rural context school)

These findings are consistent with Swanepoel and Beyers's (2015) findings. They propose that the role of the teacher can either be reactive or proactive, and accordingly the latter will yield a more empathetic and judgement-free classroom context. This is further aligned with the mindfulness component of cultural intelligence in how behaviour is strongly mediated through emotional influences. The figure is based on the manner in which an educator perspective will inform the traditional classroom context, whereas the culturally intelligent and proactive classroom context will be based on a reciprocated way of constructing knowledge. Jonathan's narrative highlights the important aspect of challenging teacher perceptions during teacher induction to reflect a greater emotional awareness on the basis of the self and the learners in the teaching of sexuality education (Beyers 2013).

The importance of sensitising teachers to topics of sexuality, especially regarding the emotional dissonance found with frustration, becomes clear from the EEG data reported below, namely that emotional reactions related to sexuality topics influence bias and preconceived ideas about sexuality. The data below will be discussed accordingly, with careful consideration as to the role of sensitisation regarding the topics on which the teachers reflect. Specific focus will be on Videos 1 and 5 as a means to understand how viewing these videos influences internal reactions.

Results and discussion of the Emotiv electroencephalogram data: Frustration

Descriptive statistics calculated the mean, minimum, median and maximum readings for each section in the video and for all sections in total. To represent the descriptive results comprehensively, box-plot figures are used to inform the discussion of the results that show significant fluctuations in the readings. The main fluctuations were found in Videos 1 and 5. While fluctuations in sections and videos, in general, could be because of various external variables, the consistent attention level across all participants strengthens the reliability of the results (Table 1).

Pooling the averages of all sections per video provides an overview of all four participants' frustration levels. Video 1 reflects the highest mean, with an average of 65% across all sections, followed by Video 3 (58%), Video 4 (54%), Video 5 (51%) and Video 2 (46%). It is interesting to note the different results between Videos 1 and 5, with a difference of 11%. Video 1 reflects the least amount of content pertaining to alternative sexualities, with the only reflection thereof being at sections 7 and 8, with the reveal of the cameraman being male and the subsequent marriage proposal. Video 5, however, contains frequent content related to homosexuality, yet reveals the lowest range for percentages across sections compared to Video 1. While the build-up to the end reveal of Video 1 shows an increase

TABLE 1: Frustration calculated by means of descriptive statistics.

Video	Section	Mean	Minimum	Median	Maximum
1	1	60.05	12.31	67.92	92.06
	2	70.11	38.75	74.22	93.25
	3	68.43	44.22	66.49	96.54
	4	55.74	46.70	53.98	68.32
	5	67.52	50.69	70.37	78.65
	6	57.91	50.46	57.99	65.21
	7	68.94	46.54	70.23	88.74
	8	70.04	35.45	77.97	88.74
	All	64.84	12.31	65.02	96.54
2	1	43.12	15.85	42.63	71.35
	2	54.37	37.01	47.70	85.07
	3	43.29	27.56	43.67	58.23
	4	45.61	35.45	41.64	63.74
	5	45.80	23.65	46.43	66.70
	All	46.44	15.85	43.04	85.07
3	1	58.58	9.27	65.74	93.56
	2	56.10	46.17	54.84	68.56
	3	54.89	45.43	50.58	72.97
	4	61.96	49.31	52.03	94.48
	All	57.88	9.27	53.28	94.48
4	1	67.47	30.44	69.73	100.00
	2	57.70	6.16	62.32	100.00
	3	57.61	28.77	55.77	90.13
	4	57.61	12.48	67.81	82.32
	5	42.89	6.85	43.83	77.05
	6	44.03	7.58	45.80	77.00
	7	50.83	19.29	53.52	76.99
	All	54.02	6.16	55.45	100.00
5	1	79.21	60.35	81.02	94.46
	2	47.31	36.11	44.59	63.93
	3	49.81	37.05	49.89	62.41
	4	51.10	46.63	51.42	54.94
	5	46.12	36.87	47.03	53.54
	6	48.56	26.10	39.72	88.68
	7	36.67	26.56	36.27	47.59
	8	50.32	38.78	47.30	67.90
	9	52.03	37.54	48.16	74.26
	10	40.60	24.28	43.60	50.91
	11	43.90	35.09	45.75	49.02
	12	56.76	31.56	56.95	81.57
	13	53.78	28.54	50.28	76.04
	14	56.43	46.84	54.73	69.44
	15	53.67	28.4	57.39	71.50
	All	51.08	24.28	47.55	94.46

Source: Department of statistical analysis at the University of the Free State

in frustration (section 1, 60%; section 8, 80%), Video 5 shows a strong decline (section 1, 79%; section 15, 51%). A possible explanation for this is the participants' preconceived expectations, as reflected in the following narratives when participants were asked about their experiences with the videos. Because of the content of the research study, preconceived judgement was already formed regarding expectations. The narratives are followed by the percentages of individual frustration in sections 6, 7 and 8 (the final sections of Video 1).

Video 1:

When the ring opened I knew there will be more. (Jonathan's frustration level increased greatly from the previous section, 59%, to sections 7 and 8, 89%) (Jonathan).

I expected the ending, because I am here for what I am here for. (Sandra's frustration level decreased greatly from the previous section, 57%, to sections 7, 47% and 8, 35%) (Sandra).

When I saw it was a male, I thought okay … I would have wanted it to be a girl. (Jenna's frustration levels increased greatly from the previous section, 50%, to sections 7, 76% and 8, 80%) (Jenna).

From the above narratives from Video 1, it becomes apparent that when expectations are met with preconceived judgements, there is a significant decrease in frustration (as with Sandra). However, when expectations are challenged, frustration levels increase, as with Jonathan's and Jenna's individual results. Video 1 enables the participants to form judgements and further expectations as the video progresses. For this reason, Video 5 starts with content that challenges expectations immediately in section 1 that follows through to the end of the video. The following are extracts from participants' narratives when asked about their experiences with Video 5.

Video 5:

That was amazing. It is the ultimate search for identity … and finding yourself. (Significant decline in frustration from section 1, 60%, to section 15, 28%) (Samantha).

Joh, very graphic. It is the first time I see a video of two men being in love. In some scenes I felt awkward seeing two men being together, but as they expressed love, it felt normal again. (Significant decline in frustration from section 1, 94%, to section 15, 49%) (Jonathan).

It feels odd, that interaction [between the two men]. I felt at one point to stop, but wanted to see how the video plays out. (Decline in frustration from section 1, 87%, to section 15, 72%) (Jenna).

Results for each participant reflect the highest percentage of frustration at the start of the video (Jenna, 83%; Samantha, 60%; Jonathan, 94%; Sandra, 75%) and show a significant decline in frustration, regardless of the explicit content in the subsequent sections. It ends with frustration levels of lower percentages (Jenna, 72%; Samantha, 28%; Jonathan, 49%; Sandra, 65%). It is interesting to note how frustration levels dropped significantly, on average, after section 1 and remained consistently low throughout the remainder of the video. It appears that sensitisation to the content of the videos significantly decreases frustration levels, while results further suggest that frustration levels decrease consistently after a preconceived judgement or expectation is challenged. With reference to Videos 1 and 5, it can be deduced that expectations of the participants led to increased frustration until these expectations were either met or broken, whereas frustration as a whole decreased when there was no time to strengthen expectations or judgements during the showing of the video.

In challenging the preconceived expectations of the participants, the results are indicative of Beyers's (2013) notion that the predetermined ideas about teachers' sexuality must be challenged to form a more truthful basis for the teaching thereof, thus decreasing the preconceived judgements during initial teacher induction. This further

reflects on cultural intelligence in how mindfulness mediates knowledge and how emotions underpin the type of knowledge that manifests during behavioural (and thus teaching) output. The results across the videos suggest that it is viable to introduce such material in stages in order to challenge internal bias and personal background knowledge of alternative sexualities.

At classroom level, however, the teachers acknowledged that Video 5 could not be used due to its explicit content, whereas Videos 1 to 4 would add significant value to challenging the learners towards more truthful knowledge about alternative sexualities and the implications of homophobia and sexism. Jenna, however, remained consistent in her narrative that the videos will not be informative to her learners, as they will reject the messages that will cause significant problems with parents if shown. Jenna's post-narratives touched mainly on the general aspects of the videos, where high frustration level sections were skipped during her narrative of the videos. A decrease in frustration ultimately led to a more open narrative among the other participants to speak about the contents of the videos.

In general, participants' narratives reflected consistency with their EEG readings. The results of the participants' decreased frustration across videos also show consistency with their understanding of how sexuality teaching (and personal teacher dispositions) should be approached during classroom practice and teacher induction in order for messages to be received systematically and to ensure that messages are not rejected outright. After viewing Video 4, Jonathan responded that this would be a good video to show after a lesson, as it would allow the learners to be further challenged by their preconceived ideas about gender stereotypes. He further elaborated that lessons will differ, in the manner in which they are taught, from grade 10 to grade 12, as grade 12 will be a better level to focus on emotions, whereas a knowledge base of alternative sexualities can be systematically built up from earlier grades (specifically grade 8). Samantha's narrative also reflects this (as the extract below shows), while elaborating on the influence of preconceived knowledge about alternative sexualities within the classroom among learners:

Being a new teacher I went too fast. This year I am slowing it (teaching) down to ease them into it. But they do reject the idea, it is in total conflict, you can see them denying it, rejecting it. You have to take it slowly to get them to think outside their traditional box. (Participant 4, female, Life Orientation teacher in a rural context school)

The conflicting messages shown in the videos and the teachers' beliefs are highly indicative of how exposure to content sensitises the perceptions thereof. Internal beliefs about alternative sexualities were met with frustration when inconsistent with the expectations of the participants, while subsequent exposure decreased these emotional levels, as was the case with Jonathan, Samantha and Sandra. Jenna rejected the messages on the basis of her beliefs shared during the pre-interview (as discussed in the section on qualitative results).

The manner in which discomfort and frustration manifest within teacher pedagogies are further reflected upon by Reygan and Francis (2015) and Francis (2016) in how teachers' emotional underpinnings often dictate teachings, and how negative emotions lead to socially unjust messages or complete silence during sexuality education. The remaining participants accommodated messages and, while experiencing initial dissonance, allowed the messages to be evaluated with better awareness. These findings are in line with research on cognitive dissonance in challenging previously held beliefs with incoming information (Baumeister & Bushman 2011; Taylor, Peplau & Sears 2006). Accordingly, the results indicate an understanding among participants that learners must be sensitised by incoming messages in order to accommodate new information against their background influences that cause interference with contradictory knowledge about alternative sexualities.

Recommendations

As part of an ongoing need to establish research within the emotional underpinning of sexuality education, we recommend that critical consciousness and self-reflective practices of teachers become central during teacher induction and life skills didactics. This is especially important in sensitising future teachers to sensitive content such as sex and sexuality as a means to promote comfort during the teaching of sexuality education. It is further important to establish more spaces, such as workshops, where teachers can communicate openly and acquire knowledge about cultural diversity and sexual inclusivity, specifically related to the experiences of colleagues at different schools and with different challenges.

Conclusion

The teaching of sexuality within a multicultural environment is met with various challenges. While teachers are limited in their knowledge about the background influences that shape incoming messages for learners, their personal beliefs shape these messages. This paper focused on how teachers mediate personal bias in teaching about alternative sexualities, with specific emphasis on teacher bias manifesting during teachings. By examining how knowledge is constructed in the teaching thereof, further examination of internal bias was informed by measuring frustration and by post-interviews in order to understand how teachers accommodate the experienced dissonance. Frustration, as a measured item in the composition of teacher emotions, was used to show the extent of teacher responses to dissonant experiences.

The results thus suggest that cultural intelligence is a valuable framework to use for the teaching of sexuality in the South African context. While considering the reactive nature of sensitive topics such as alternative sexualities, the paper details that the active role of teachers with an awareness of their emotional bias and preconceived ideas will align more valid teaching methods in order to give learners the space within which to form their sexual identities. By taking into account the three components of knowledge, mindfulness and behaviour, the active teaching of sexuality in Life Orientation classes can provide a platform where preconceived ideas are challenged, judgement is suspended, emotions are explored and ultimately behavioural change can be facilitated.

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Competing interests

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Authors' contributions

A study completed by E.S. for his master's degree with his supervisor, C.B. and co-supervisor L.d.W. The area of expertise included by C.B. is sexuality education and Life Orientation, and L.d.W. is the expert on the use of the EEG for the empirical part of the study.

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