Josef de Beer & Elizabeth Henning

Retreating to a Vygotskian stage where pre-service teachers play out social, 'dramatical collisions'

This article describes student engagement in simulation games in a field trip retreat for first-year Education students. The authors propose that the methodology can be a useful vehicle to address key social elements of pre-service teachers' professional learning. They explore a theoretical view of such collaborative learning from the neo-Vygotskian perspective of activity theory, in which the simulation games are viewed as the main tool for mediating learning. From this position they suggest that field trips hold some promise for exploring HIV/AIDS education, issues of race and racism, and an understanding of poverty and food security in education.

Onderwysstudente se velduitstappie as Vygotskiaanse verhoog met sosiale, 'dramatiese botsings'

Hierdie artikel beskryf studente se deelname aan simulasiespele tydens 'n opvoedkundige velduitstappie vir eerstejaarstudente in opvoedkunde. Daar word voorgestel dat hierdie soort metodologie nuttig kan wees vir onderwysstudente om belangrike sosiale kwessies tydens hul professionele opleiding aan te spreek. Die navorsers werk vanuit die nieu-Vygotskiaanse vertrekpunt wat bekend staan as aktiwiteitsteorie, waarbinne hulle simulasiespele as die primêre werktuig vir studente se leerdeelname sien. Vanuit hierdie hoekpunt word daar voorgestel dat dié soort uitstappie belofte inhou vir studente se ondersoeking van sake rakende MIV/VIGS opvoeding, rassisme, asook armoede en voedselsekuriteit, soos dit figureer in onderwys.

Dr J de Beer & Prof E Henning, Centre for Education Practice Research, University of Johannesburg, P O Box 524, Auckland Park 2006; E-mail: josefdb@uj.ac.za & ehenning@uj.ac.za.

SUN M☉DIA
BLOEMFONTEIN

The research, on which this article reports, investigates a specific curriculum component for teacher preparation at university.[1] It inquires into a field trip of students at a large urban university in South Africa and how simulation games are used as a tool to teach social awareness in issues of racism, poverty, and HIV/AIDS education, in a broader context of what is now emerging as reconciliation pedagogy (Ahluwalia *et al* 2012). During the annual Easter break hundreds of students from the university's pre-service teacher education programme join a field trip to a nature reserve. During this retreat their social and pedagogical boundaries are stretched, or "expanded", in the way that the activity theorist Engeström (1987, 2001) uses the term, requiring students to shift their understanding of social issues by means of play. He describes "expanded learning" as transformation, due to tension that necessitates the stretching of one's understanding, like an elastic band expands when pulled from two sides.

The programme aims to involve students in a set of events with specific curriculum logic, pacing, and sequencing scripted simulation games that challenge their perceptions of each other and of some social issues. The games are designed to capture aspects of the harsh social realities of the subcontinent in peda-gogical form, with reflection, discussion, and counselling scripted into the programme. These simulation games are in-tended to raise their awareness as future teachers, by offering them a close (simulated) encounter with issues of racism, poverty, and HIV/AIDS education using dramatic play and integrated small-group work that requires interdependence, as described by Johnson & Johnson (2005).[2]

Such tools are founded on principles of play as anthropological and developmental phenomenon.[3] Although the content of the

---

1 We thank the reviewers and the editor of *Acta Academica* for their detailed and helpful reviews, with comments and suggestions that assisted us in preparing the revisions.
2 Due to space in the article we include reference to two scripted plays only.
3 *Cf* Huizinga 1955, Bruner *et al* 1976, Henning 1981 & 1991, Fritz & Henning 2009, Cotter 2001.

games is scripted and thus simulated or "imitated",[4] their in-
dividual dramatic interpretation remains personally improvised,
and is thus also a personal psychological experience. In the role
they take on, students invoke their feelings and emotions, and
have cognitive, emotional, as well as visceral experiences. Sitte &
Wohlschlagal (2001: 81) argue that simulation/imitation games
are intended to make complex, or challenging historical, or
contemporary processes actable or livable (*erlebbar*), thus invoking
human experience within the rule-bound game (Mühlhausen
1994). Although scripted and within these rules, in dramatic
simulation games the participants are fully in *homo ludens* (playing
human) mode (Huizinga 1955), something that comes naturally
as a form of embodied meaning-making. The students' individual
phenomenology is thus real within the acting, rule-bound
situation, making simulation games such a powerful and even
dangerous tool, as witnessed by the notion of the avatar, who takes
on the individual player's phenomenology, in computer games.[5]

We believe that the seeds of some learning are lodged within
this playing, in the students' own acting, or role-taking, and in
the scripted material. Students will have to invest further in such
learning as teachers in South Africa, where society can be said to
continue to struggle with segregation and exclusion as a way of life,
and over which there is often a curtain of complacence, as discussed
by Spencer (2008) in a USA context. The fact that the students are
in the company of fellow players, their peers, distinguishes this type
of simulation play from computer games and other simulations.
Ragpot's recent work in a higher education context confirms that
the use of some form of drama, whether in role plays, simulations,
improvisations, or multimodal learning events, has been a much
neglected form of learning in higher education, specifically in

---

4   *Cf* Sitte & Wohlschlagl (2001) for a definition of simulation games.
5   Amory A [In press.] Pre-service teacher development: a model to develop criti-
     cal media literacy through computer game play. *Education as Change* 15(2/3).

teacher preparation programmes.[6] We believe that this source of learning needs serious consideration and research.

In this isolated setting, devoid of mobile communication and other technologies, the students meet in small-group, scripted simulation game activities that include dealing with racism, HIV transmission education, as well as poverty and food security. They are also grouped outside of their spontaneous ethnic, gender, and cultural peer contexts to form optimally diverse working groups with the aim of facilitating a sense of interdependence (Johnson & Johnson 2006). They spend a week together in this intensive curriculum. This article reports on findings of an inquiry into the students' experiences in three areas of activity over four years. These descriptive findings are viewed from the perspective of the activity system created by the field trip curriculum.

1.   The field trip as an off-campus activity system

Excursions[7] or field trips, as tools to advance learning, can have nearly any focus, depending on the discipline that being studied. We agree with Hurley (2006), who views field trips as learning experiences that invoke higher order thinking skills. The most common of such events have an environmental education focus that includes orientation games, survival games, or a study of natural (McKeown-Ice 2000) or cultural objects. Another viewpoint questions the overall educational value of such trips, with Tal & Morag (2007) proposing that teacher- or guide-centred excursions often mainly require lower order thinking skills. A popular perception of such excursions is that it is a breakaway from everyday activity, that it is relaxing, and that it affords participants the opportunity to forge new relationships. However, field trips have a general educational requirement and are described as "an off-campus educational/instructional

---

6   Ragpot L [In press.] Performing plays on theories of cognitive development in pre-service teacher education. *South African Journal of Childhood Education* 1(3).

7   The terms "excursion", "field trip" and "field camp" are used interchangeably.

experience" by universities in the USA, where special field trip risk-management procedures regulate these events.[8]

The "off-campus" learning experiences are, generally speaking, organised into what we term a "camp curriculum". We regard this curriculum as a mini-educational activity system. To view this system from a specific perspective, we use an activity theory (Engeström 1987) lens, which situates the field trip in a specific community and as an "activity system" with specific tools (such as the simulation games and small-group work), rules of conduct, division of labour, and a shared object of activity (such as learning the three topics mentioned earlier) which, it is hoped, will lead to an envisaged outcome (*cf* Figure 1).

In addition, we argue that there will be specific tensions in the components of such an "activity system". Although all these tensions will not be discussed in this article, we mention this notion, because it may explain the tensions/"collisions" students experience in the small-group work and the simulation games. According to Engeström (*cf* Beatty 2009), each component of an activity system is susceptible to contestation and tension and hence of impacting the activity itself to some extent. This article focuses only on the discord that arises through the small-group work and the simulation games as tool for learning (in the activity system) in the three topics mentioned earlier. The overall activity is the learning of social and personal skills in the three mentioned areas.

As acting subjects the participants learn through what Veresov (2007), a Russian scholar and recent translator of Lev Vygotsky's work, describes as "dramatical collisions". Veresov's translation of the term epitomises the essence of activity theory in its contemporary form, which emphasises tensions. This theory was spawned by Vygotsky's unfinished work, which ended with his untimely death in 1938 (Kozulin 1990). Broadly also referred to as "cultural, historical and activity theory" (CHAT), it emphasises, from a systems perspective, that communal activity inevitably

---

8   *Cf*, for example, <http://www.uiowa.edu/~fusrm/fieldtrip.html> for the University of Iowa's regulations.
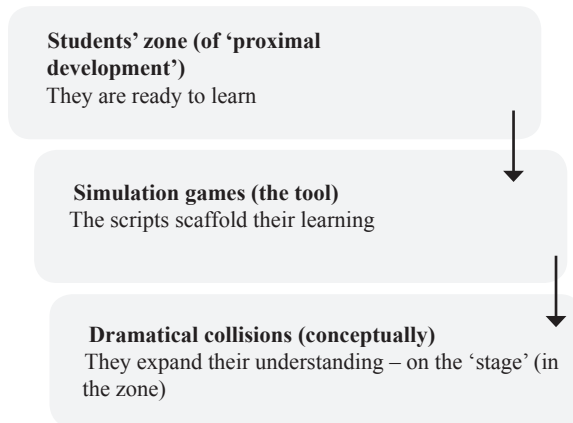
leads to conflict and tension in order to generate change. In a formal educational context, this change can be regarded as learning. Veresov uses the term "dramatical collisions" because he utilises the theatrical language registers of which Vygotsky was so fond, having spent much time in the art world and at the Moscow Art Theatre in the 1920s (Kozulin 1990).

Much of the current research in activity theory is conducted in education, using the work of Yrjö Engeström (1987, 1999 & 2001). He presents a systems perspective on activity. In this sense "activity" means more than an individual task or action; it means ongoing, object- and outcome-oriented engagement, such as learning in a given context/setting in a specific community. We investigated the activity of a field trip programme for pre-service teachers in an activity system with its own dynamic, testing how ultimately the mainstream curriculum can be adapted to address social awareness and reconciliation pedagogy in the three topics more comprehensively. To this end we introduced a specific simulation game methodology for the "camp curriculum", which could later be adapted and used in the mainstream campus curriculum of the relevant course. It comprised HIV/AIDS education, racism in education, and an understanding of the impact of poverty on education. The retreat would thus not be isolated from the main course curriculum, which is aimed at preparing teachers professionally and in which these topics also feature. In the retreat context they would "do" the curriculum in a different way; they would "play" on a safe "stage" and their scripts would be about the macro-social challenges that a teacher has to face in the micro-context of her/his classroom. Part of the subscript would be the students' experience of racism. We surmised that they could then take their "lived" experiences back to the coursework, where they would continue with the curriculum.

The notion of activity as "doingness" (from *Tätigkeit* in the German literature on the topic, according to Kozulin 1990) emphasises the systemic dynamics in activity and is described by authors such as Roth & Lee (2007) and Daniels (2006a & 2006b) who work in activity theory. Thus, the tenets of classical

Vygotskian theory are evident in work that utilises what has become known in popular academic parlance as "the triangle" (*cf* Figure 1), meaning the diagram model which Engeström (1987), following Vygotsky and then Leontiev (1978), devised to capture a systemic, dynamic view of engagement in an activity. We use this thinking device to explore the dynamics of the simulation games as tool. Based on this, we propose that an activity theory perspective holds much promise for examining this type of collaborative learning and for identifying the "collisions" that students encounter in the simulation games.

Figure 1: The activity system of the field excursion

Students' zone (of 'proximal development')
They are ready to learn

Simulation games (the tool)
The scripts scaffold their learning

Dramatical collisions (conceptually)
They expand their understanding – on the 'stage' (in the zone)

We used the heuristic tool of an activity system as follows:

- The subject in the activity system: First-year education students enrolled at a large comprehensive, urban South African university.
- The tools (and signs): Simulation games are predominant, although they are complemented by other tools. Another tool is small-group work.
- The object: The three selected topics of the "camp curriculum" and personal interaction with peers in new group configurations.

- The rules: Rules of conduct are mostly negotiated with the students. Ethics rules are basic.
- The community: Members of the community are the students, academic staff members, practising teachers and principals, and graduate students in educational psychology, who act as counsellors.
- The division of labour: Students are more autonomous during the excursion than they generally are on campus. There are tasks for all participants and they are distributed in vertical and horizontal relationships.
- The leading activity (Leontiev 1978): Learning in the "camp curriculum".
- The (envisaged) outcome is a socially aware and culturally sensitive teacher. (In activity theory outcomes are not short-term objectives, but envisaged long-term effects.)

2. The inquiry

The data used for this study come from a much larger corpus. This section points out which data we selected from this corpus and how we processed these in order to study the unit of analysis – the students' engagement with the three topics studied through dramatic play in simulation games.

The overall four-year population comprised 1294 students and 21 members of staff who participated in the programme during this time. The students in each cohort were divided into three groups and each group comprised on average 100 to 150 students.

2.1 Data sources and selection

The data sources comprised the following:
- The students submitted a multi-faceted excursion portfolio as part of their semester assignment in a year course.
- Two staff members and two postgraduate students wrote ethnographic field notes during each of the events (four cohorts comprising 11 groups).

- We conducted focus group interviews with one group of 10 students in each cohort over a four-year period (2007-2010) soon after the event, and with one group two years after the excursion.

For the purpose of detailed analysis we selected the portfolio data of 30 (on average 10%-15% of the annual population) students for each year, applying the principle of purposeful sampling (Merriam 1998), with maximum demographic variation. From their narratives and from the interviews, we extracted the main themes on which the students focused and which related specifically to the three topics of inquiry. We traced these by way of qualitative content analysis (Miles & Huberman 2004, Henning *et al* 2004: 104-5). From the portfolios we used introductions and one seminal episode, incident or observation, with its pictorial or other visual illustration. We used all field notes.

2.2 Data analysis

Per data source we categorised the main, emergent themes that were derived from the content analysis process and then collapsed these with the aim of seeing a configuration or a pattern that would address the question about how the excursion programme showed tensions in the three areas of interest, namely racism, poverty as an obstacle to education, and HIV/AIDS education.

As mentioned earlier, the data were analysed annually for their content (Henning *et al* 2004: 104-5) and parts of it also for discourse (Henning *et al* 2004: 117-21, Fairclough 2003). To this end we extracted seminal sections from the portfolios (in particular, the narratives), and the focus group interviews to conduct micro-analyses. Typically these included introductions and conclusions as well as episodic highlights. The examples provided in this article will illustrate some of the "raw" data.

2.3 Ethical considerations

All students in the programme signed letters of consent, and the aims of the research and of the field trip intervention were explained to them. They were also aware of the fact that they would

participate in simulation games that would capture harsh realities. Permission was obtained to make video material of the activities (which we did not use for this analysis), and to use extracts from student portfolios for purposes of research only. Pseudonyms are used where vignettes or student quotations are provided.

3. The setting of the data sources: acting on a Vygotskian 'stage'

The simulation games that we introduce in this annual event follow a specific curricular sequence and pacing logic (Ruthven *et al* 2009), which is intended to raise students' awareness of their view and position towards societal hardship and the disposition of care required by teachers and described by Petersen & Henning (2010). It is structured to increasingly facilitate more psychological and social discomfort or "disequilibrium" (Lewin 1999, Schein 2006) than a lectured or workshop-facilitated curriculum would do, because of the role-play that is required in the simulation games. We also expected, in this sequence, a sense of unease as described by both Piaget (1976) and Vygotsky (1978) when they discuss play as developmental component of human learning. In fact, Vygotsky explains the genesis of conceptual understanding and how it develops through multimodal avenues, one of them being through imagination and play in both adolescence and adulthood.

This position is taken further by contemporary scholars of Vygotsky, such as Veresov (2004, 2007 & 2009), who argues for an understanding of the notion of "dramatic collisions" during learning (*cf* De Beer & Henning 2010). In his metaphor, Vygotsky refers to the conflicts that dramatists envision when they write for the theatre. He uses this image in his writing about the genesis and development of concepts. He also refers to play production and the stage itself, where "upstage" and "downstage" are used as metaphors to posit one of the main tenets of his work, namely the "genetic law" of how culture is internalised (across the "stage"). He also uses such images in discussing how the genesis of concepts lies in the signs of its bearers, such as its language

and other tools. According to Veresov (2007), Vygotsky used the discourse of theatre productions to explore how the semiotics of a culture (such as that of a university faculty in the case of this research) mediates learning directly. Thus, the university, where this inquiry was conducted, would mediate a specific position towards the phenomena in society that requires a teacher's attention, including issues of racism, disease, and poverty.

The design of the "camp curriculum" is meant to increase the epistemological discomfort in the simulations. Slowly, through the course of the week, students begin to realise that "knowing" also means "doing", "feeling", "sensing", and "experiencing". It is hoped that, ultimately, they will "know" that teaching also means caring and that there is a great deal of functional equivalence between knowing and caring. The activities are described in the following sections.

3.1 Addressing racism and stereotyping

Integrated with all the activities was the sub-curriculum or subscript of inclusivity. Activities were planned in a specific small-group format and the groups were thus composed with maximum demographic variation and diversity in mind. Students were afforded the opportunity of working closely with peers with whom they were unlikely to have collaborated on campus, simply because of fixed conventions of social integration and segregation of races and gender.

3.2 The challenge of poverty in education

The aim of the game on this topic is to let the students experience, by way of role-play in a simulation game, how poverty structures society and how this is reflected in education. This game invariably leads to unsettling visceral experiences. In a country where 68% of children live in households under the poverty line (which is set at R350) per person per month, and are undernourished, the topic of food security is a priority in the public discourse. Some of the students on this field trip wrote in their logbooks/portfolios that

one of the reasons why they enjoyed it so much was because they could have three meals per day.[9]

The game is simulated as a formal banquet, with tables laid and decorated, and name cards placed in such a way to create a mix of "countries" at each table.

- Students were divided into three groups. A small group of students role-played as citizens of industrialised, developed countries such as those in Western Europe and the USA. A relatively small second group took on roles of citizens of an emerging economy (a developing country such as South Africa or India). The remainder of the group role-played citizens of underdeveloped, "third-world" countries (for example, Zimbabwe or Bangladesh). We hesitated to include war-torn countries.

- Each student received a "passport" for that specific country, on which they filled in their name. Based on the country to which the passport belonged, each student received an amount of money in a W$ (World Dollar) voucher. Inhabitants of developed countries received W$50, those from newly industrialised countries received W$10, and those from developing countries received a W$1 voucher.

- Camp staff set up a buffet table from which the "guests" served themselves, using the voucher. A ham and cheese sandwich could cost W$10, a soft drink W$5, and an unbuttered slice of bread W$1. Fruit was priced at anything between W$4 and W$8.

- The students used their voucher to obtain food from the buffet. In essence, a student from a developing country was able to afford a slice of unbuttered bread. A few students volunteered not to receive any money or received only a few cents, representing the reality of Darfur, Somalia, or war-ravaged Afghanistan.

In a subsequent discussion and debriefing with counsellors the students showed their surprise at the reality of the simulated hunger.

---

9   The trip is sponsored by the university, with the students contributing R400 to the total cost of R1 200.

3.3 HIV/AIDS education

This game is the experiential learning climax in the curriculum sequence in a country where many appear to suffer from "AIDS information fatigue". This is a very powerful simulation game to show students how everyone is at risk. We briefly describe the method of this game: One needs cheap and easily available chemicals such as calcium carbonate, sodium hydroxide (or another base solution), phenolphthalein (the indicator changes a base solution into a pink colour) and water.

At the outset of the game the majority of the students received a (first) glass with a calcium carbonate solution, indicating (unbeknown to them) an HIV-negative status. 10% of the students received a glass with sodium hydroxide solution (or a base solution – a drain cleaner chemical works well), indicating an HIV-positive status. Students were then given the freedom to mix their solutions with up to four fellow students.

Although forewarned, some students entered the simulation game area ostensibly with great hilarity, with many making more than the suggested number of exchanges. However, once phenolphthalein, which colours the solution to denote an HIV-positive status, had been introduced in each student's second glass, and some students' solution turned a bright pink (indicating an HIV-positive status), the mood of the groups changed.

4. Findings and discussion: simulation meets reality

The annual samples of participants that we selected as data sources yielded similar data over four years. In fact, with each year the previous findings were confirmed qualitatively. The main finding is that the curriculum has some immediately observable effect in that it destabilises the students' perception of themselves with regard to sexual behaviour, the impact of poverty in education, and acts of racism in which they engage. We will not know whether it is at all a lasting effect, unless we trace the students in their university career and thereafter. In their follow-up interviews and in the portfolio extracts, the discourse becomes more sober, as
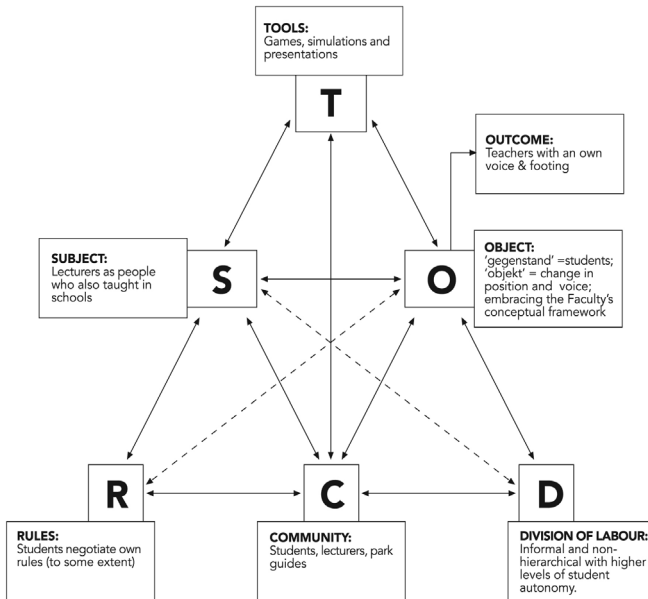
expected, but the content remains the same. These games served as an awareness-raising tool in this community and as a catalyst for some serious reflection. However, our humble claim is merely a descriptive rendering of a curriculum in action.

To discuss this main pattern in the findings, we turn to the ideas of Nikolai Veresov, who describes the tensions that are inherent to activity metaphorically as "dramatical collisions" using, as mentioned earlier, the terminology Vygotsky used in his original writing. Veresov (2007) proposes that these "collisions" push the boundaries of what Vygotksy (1978: 87) describes as the "zone of proximal development" to its outer limits. Vygotsky writes of learners who are in the process of developing an understanding of an object, or a concept, that one should "take into account (of) not only the cycles and maturation processes that have already been completed, but also those processes that are currently in a state of formation, that are just beginning to mature and develop" (Vygotsky 1978: 87). Vygotsky coined the phrase "zone of proximal development" to describe this specific psychological space of development. This is, psychologically speaking, regarded as a nearest "zone" for learning. In the simulation games we suspected that the students' zone of proximal development with regard to the topics of the two games, in particular, would be activated in some way.

Hence, for the purposes of our use of the metaphor "dramatical" tensions, we refer to this "zone" as a social and psychological "stage" on which to "perform" the simulation games in order to learn more about the three topics discussed in this article. Figure 2 illustrates the "zone" of the students' awareness and of their individual phenomenologies with regard to the game topics as a pedagogical "stage" on which they are acting, supported (Vygotsky uses the term, "scaffold") by the tool of the simulation games. While they are acting on this stage, experiencing "drama-tical collisions", they are learning at some level in the camp curriculum. The games thus serve as tool in the activity system of the field trip curriculum. If one wishes to elaborate on Vygotsky's metaphor, one can argue that the notion of the "zone" can be viewed as a "stage"

where the "collisions" can take place, moving between "upstage" and "downstage", internalising what they encounter.

Figure 2: Students' learning: how the simulation games serve as tool for learning

TOOLS: Games, simulations and presentations
T
OUTCOME: Teachers with an own voice & footing
SUBJECT: Lecturers as people who also taught in schools
S
O
OBJECT: 'gegenstand' =students; 'objekt' = change in position and voice; embracing the Faculty's conceptual framework
R
C
D
RULES: Students negotiate own rules (to some extent)
COMMUNITY: Students, lecturers, park guides
DIVISION OF LABOUR: Informal and non-hierarchical with higher levels of student autonomy.

Veresov (2009: 2) explored the metaphor of drama in Vygotsky's work extensively. He quotes from a paper by Vygotsky, written in 1932, explaining that cognition and affect combine in learning and that, as an "actor" of learning, a learner links ex-perience from different life domains:

> In the process of social life, feelings develop and former connec-tions disintegrate; emotions appear in new relations with other elements of mental life; new systems develop. New alloys of men-tal functions and unities of a higher order appear, within which special patterns. Interdependencies, special forms of connection and movement are dominant […] The experience of the actor, his

> emotions, appear not as functions of his own personal mental life,
> but as a phenomenon that has an objective, social significance.

Veresov (2009: 3-4) explains that emotional experience, "pere-zivanye", is a bridge to higher mental functions and that "experiencing 'perizivanye' presents the higher order of unity of affect and intellect i.e. higher mental function". He quotes Vygotsky when he concludes that human emotions are "cultural by their origins in culture and the social world". It can thus be argued that learning in structured simulation games, invoking emotions, is a way of developing understanding, and that under-standing originates from, or is embedded in, relationships with others and the tensions created by these relationships.

Activity theorists such as Engeström, starting with his PhD on the topic in 1987, maintain that tensions, contradictions and "collisions" are paramount in these cycles of learning a concept or a disposition, from its genesis onwards, and that an activity system perspective can serve as a lens through which to observe these collisions. Engeström and other activity theorists emphasise these tensions (*cf* Figure 1). In addition, this can also serve, empirically, as a thinking tool with which to manage the tensions, when they occur in a curriculum. Thus, if simulation games are successful in the retreat, there is no reason why they should not be imported into the main curriculum, as Ragpot has done.

Since the first field trip to the nature reserve in 2007 we have learned from the students that they had had little opportunity to interact socially with peers in racially diverse small groups on the campus. We learned from them that racist attitudes are a way of life on campus. When students arrive at the university they remain in their racial and even ethnic groups whenever they are tasked to do something together. They do not do tutorials in racially mixed groups and they divide themselves racially in any group task. They openly and consistently perpetuate racial divisions socially, "othering" each other consistently. In addition, social relations are not addressed in the highly formatted and compressed campus programme that is divided into stringent units and regulated by a study guide. The excursion, on the other hand, focuses on getting

peers to interact and to learn more about the values and languages of different groups and to simply get to know their fellow South African citizens and university programme fellows a little better.

The activity/"doingness" within the excursion activity system specifically elicits the idiosyncrasies that remain so obscure on campus. Using the rubric of an activity system (*cf* Figure 1), a different "community" is constituted during the field trip; there is a different ethic of "rules", an organically attuned "division of labour", and action towards the "object" with a somewhat different motivational drive for one short week. The activity system provides for different interaction. Returning to the theatre metaphor, there is a different "stage". The students have the opportunity to turn the tables on the rigid higher education system in which they are functioning. Instead of working on the formal curriculum on campus, with social relations as by-product, social relations and what they mean in education are the prime objective of the excursion (*cf* Figure 1).

The simulation games assisted in making them speak in voices that are seldom heard in the formatted campus life; they come across as concerned young South Africans who are staring a still divided society in the face, with part of that face disfigured by poverty and disease. The community, including students, faculty, staff and tutors in this activity system, were physically the same people, but socially they acted as if they were different, highlighting another part of their identity away from campus in "the bush" (De Fina Schiffen & Bamberg 2006). In this instance, within the roles of the simulation games, they could voice their positions more articulately than in lecture rooms or laboratories on campus (Ribiero 2006). The tool of the "bush" curriculum impacted the mediation in unexpected ways and this occurred in all of the groups over the four years of this inquiry. We realise that retreats generally serve this purpose and do not claim that this is in any way unique. However, role play in the simulation games and close/proximal encounters with one another in a secluded space provided more opportunity for different voices to be heard. The first voices we heard from the data were about the practice of racism.

4.1 Facing race and diversity head-on

The grouping of the students, in tasks and in daily living, gave them the opportunity to get to know each other. Yet, many utterances of prejudice were noted. We mention that a few. Black (African) students expressed apprehension about public speaking for fear of critique of their English accents, while coloured students and white students were equally apprehensive to expose themselves or to come too close (emotionally, socially and physically) to students outside their own group. White students were wary of some of the black students' sense of privacy, for example about nakedness in the dormitories. All groups articulated this more intense awareness of difference in social conduct, conversational forms and style, awareness of personal private space, and so on. They were living their diversity close-up and did not try to deny it (Spencer 2008); they had to confront the obstacles head-on. The following comment by a student after the excursion highlights the main finding:

> I am accustomed to integration. But at school we were too afraid to talk about our problems with each other. At Golden Gate we had the latitude, without being judged or becoming angry, to talk to each other about race issues. I started to understand the differences between colour, and we also saw that we are all similar, and that we are all afraid. What was important, were the rules before the discussion. That prevented accusations. I have learned from the feedback of the groups how, as a future teacher, I can deal with integration in my classroom, and how I should talk to my learners about that.

This was echoed by the comments of another white student after four days of sharing both sleeping quarters and educational activities: "The excursion taught me to be inclusive. When I first arrived I was racist and very sceptic [of mixing with other race groups]. I am now proud to say that I am a reformed racist". Of course, we have no way of witnessing how long her conversion will last, but she did have the opportunity for a "personal epiphany".

The following vignette about an incident during a hike on the mountain may illustrate the most telling confrontation of racial prejudice that students have to negotiate:

> While hiking in the park students are given the opportunity to swim in a very deep cave pool. In one of the groups, Thandi, a black female student, swam across the pool but lost her nerve and could not swim back. She was assisted by an Afrikaans white female student Elmarie, and the interaction was captured by another student on her cell phone. Elmarie was very angry at this and insisted that all copies of the incident be deleted. Later when reflecting on and discussing the incident, Elmarie indicated that her reaction was prompted by fear of her father's reaction to her going to the rescue of a black woman.

Her reflections indicate her confusion about her own racialised self and how this may affect her work as a teacher in a multiracial context. We argue that such moments create a "dramatical collision". Her humanistic self predominated in an emergency, yet her socialised self panicked.

However, the other dominant main theme in the students' discourse and in all other types of data is that they also share a common space – they care for children and they want to teach, despite the drawbacks of the profession. This resulted in a gradual move to work more closely together, to make new friends, and to begin to harmonise their diversity in small strides. We were able to trace some of this initial harmonising in the first three groups. On average approximately 32% of the new relationships had been retained after one year.

4.2 Hunger in the face of plenty

The food banquet game was a shocking experience for the majority of the students, despite the fact that they went into this game prepared for the scenario. Some students mentioned that they would have preferred to share their vouchers, although they were participating in a simulation. After the game, students were asked to capture their experiences in one word. Some of these were sadness, disgust, humiliation, guilt, shame, neglect, envy, acceptance, anger, inferiority, gratitude, frustration, alienation, and "virtual hunger". While the words were written on the flip chart in the company of all their peers, there was an uncanny silence. Students commented in the portfolios:

> The food banquet game made me realize how blessed I am to be one of the 'haves'. I realized, probably for the first time ever, that I will be teaching learners who can be categorized as 'have-nots'. And I will have to know how to deal with the situation. It gives me the shivers. Thank you for opening my eyes.

> I hated every moment of the food banquet game- not that it is not a good activity (it is a very thought-provoking, creative activity!) - but it is just so upsetting. I was a citizen of Malawi, and I hated to see the American students eating nice food, while I had to be satisfied with a slice of bread (not even buttered!). When I realized that I will have to deal with this type of poverty amongst learners, when I teach one day, I became very depressed.

4.3 Close encounters with HIV/AIDS

During this game, which started off with a buzz in the air each year, students' conviviality quickly faded and many became emotionally distressed after the solutions had been mixed. The counsellors were prepared to assist them. Some simply stared at their solutions with expressionless faces. We allowed them a few moments of silence and then the facilitators posed key questions and dealt with students' responses in the ensuing discussions. For instance, students were encouraged to confront many of their preconceived notions about culturally prescribed sexual roles for men and women, which are still prevalent in many strata of South African society. Many expressed their feelings of despair at the havoc the disease causes and how they have been touched by it in their families. It was disconcerting to hear the nearly fatalistic view students have of their future. Typical responses that capture the data on this issue were:

> Before this game, I wrote my 'educational pledge', of how I want to be a ray of light to other people. I did not for a moment even think of my own sexual behaviour, and that I sleep with several people. This puts people at risk. I might not bring light into peoples' lives, but sadness and misery. The AIDS game made me realize that a pledge is more than just words. I need to walk the talk. I need to be faithful to one person, and practice safe sex. Change should start with me.

My friends and I discussed this game the other day on campus. We all agreed that it gave us food for thought. I think all of us will in future use condoms, and will not practice unsafe sex anymore.

The AIDS game is something that I will take with me into my teaching career. I got the shivers after this game, when my liquid turned pink. I will remember that pink glass, every time I will engage in sexual activities in future. I will spread this message to my learners one day.

I have always laughed the HIV/AIDS lessons off, making fun of it and amusing my friends. I am also sexually active, and normally have more than one steady girlfriend. This game was different. It was like a punch of a fist in my stomach [*sic*]. I got very scared. I am so at risk. I need to get tested. And I need to stop my destructive behaviour.

5. Conclusion: is the excursion worth the effort?

First, we must emphasise that we need to draw a conclusion that pertains only to the unit of analysis used for this article, namely the students' participation in and experience of the simulation games on the three topics they addressed. A more comprehensive interpretation of all the data in this intervention research will yield its own conclusions about the value of the project in its Faculty of Education. This is beyond the scope of this article.

Having thus narrowed down the parameters, we conclude that the simulation games are not likely to have yielded the same results, had the work been done in the campus curriculum. The main reason for this is that the stage (in a Vygotskian sense) cannot be set in such a deliberate way, facilitating the appearance of the "dramatical collisions" as witnessed in the data. The activity system of the course in the campus university programme is unlikely to provide students the community, the rules of conduct, the division of labour and the tools they were afforded in the field-trip setting. Based on the findings of this inquiry, we can thus claim that simulation games on these three topics, facilitated on a "retreat stage", are likely to yield usable knowledge results for the purposes of pre-service teacher education. We propose that some elements be imported into the campus curriculum.

In addition, we conclude that the framework for examining students' participation in the simulation scripts is a useful one, as it investigates more than simply the results. It invokes the activity system within which the results were produced. This work adds to the findings concerning pre-service teacher education, as reported by Hyland & Heschkel (2010) and Mills & Ballantyne (2010).

According to Nespor (2000), excursions are critical occasions for introducing students to their role in public societal spaces. We agree with this view, adding that field trips have a unique role to play in getting diverse students together in a shared daily social setting beyond the university lecture rooms. Although it would be difficult to evaluate the impact of the programme, unless it is done longitudinally, we believe that it is fair to say that the simulation games and small-group work, in this specific setting, took the students beyond their cognitive grasp of disease, poverty, and racism. We conclude that it may require a "retreat" away from the routines and habits of their everyday life, and playing out on a Vygotskian "stage" to help them cross some of the boundaries in other sections of the pre-service teacher education curriculum. As Hyland & Heschkel (2010) argue, the institution itself, with its firmly cast curriculum boundaries, often forms a barrier to student learning.

Bibliography

Ahluwalia P, S Atkinson, P Bishop, P Christie, R Hattam & J Matthews (eds)

2012. *Reconciliation and pedagogy: practical, theoretical and philosophical considerations (postcolonial politics).* London: Routledge.

Bruner J S, A Jolly & K Sylva (eds)

1976. *Play – its role in development and evolution*. New York: Penguin.

Beatty I D & D Feldman

2009. Illuminating teacher change and professional development with CHAT. *Proceedings of the National Association of Research in Science Teaching* (NARST) <http://ian-beatty.com/files/beatty-2009itc.pdf>

Clements R L & L Fiorentino (eds)

2004. A *child's right to play. A global approach*. Westport, CT: Greenwood.

Cotter M

2004. A closer look at the ontological role of play. Clements & Fiorentino (eds) 2004: 329-42.

Daniels H

2006a. Analysing institutional effects in Activity Theory: first steps in the development of a language of description outlines. *Critical Social Studies* 2: 43-58.

2006b. The 'social' in post-Vygotskian theory. *Theory and Psychology* 16(1): 37-49.

De Fina A, D Schiffrin & M Bamberg (eds)

2006. *Discourse and identity*. Cambridge: Cambridge University Press.

Engeström Y

1987. Learning by expanding: an activity-theoretical approach to developmental research. Unpubl PhD dissertation in Comparative Human Cognition. San Diego: University of California.

1991. Activity theory and individual and social transformation. *Activity Theory* 7(8): 6-17.

2001. Expansive learning at work: toward an activity theoretical reconceptualization. *Journal of Education and Work* 14(1): 133-56.

Fairclough N

2003. *Analysing discourse. Textual analysis for social research*. New York: Routledge.

Fritz E, E Henning & E Swart

2008. When all the world became a stage. Young children enacting a community's fear and sense of loss. *International Journal for Qualitative Studies in Education* 21(4): 375-87.

Henning E
    1981. Dramatic play in senior primary teaching. Unpubl MA dissertation in Education, Faculty of Humanities. Pretoria: University of Pretoria.

    1991. Drama-making in ESL teaching: the need for classroom-based research. *Journal for Language Teaching* 25(2): 74-88.

De Beer J & E Henning
    2010. Pre-service teachers in pursuit of transcurricular, social awareness in a field excursion program. Publ presentation at the American Education Research Association (AERA) National Meeting, April 2010, Denver, USA.

Henning E, W van Rensburg & B Smit
    2004. *Finding your way in qualitative research.* Pretoria: Van Schaik.

Huizinga J
    1955. *Homo ludens: a study of the play element in culture.* Boston: The Beacon Press.

Hurley M M
    2006. Field trips as cognitive motivators for high level science learning. *The American Biology Teacher* 68(6): 61-6.

Hyland N E & K Heschkel
    2010. Fostering understanding of institutional oppression among US pre-service teachers. *Teaching and Teacher Education* (26)4: 821-9.

Johnson D W. & R T Johnson
    2005. New developments in social interdependence theory. *Genetic social and general psychology monographs* 131(4): 147-74.

Kozulin A
    1990. *Vygotsky's psychology. A biography of ideas.* Cambridge: Harvard University Press.

Lee C D
    2008. The centrality of culture to the scientific study of learning and development: how an ecological framework in education research facilitates civic responsibility. *Educational Researcher* 37(5): 267-79.

Leontiev A
    1978. *Activity, consciousness and personality*. Englewood Cliffs, NJ: Prentice-Hall.

Lewin K
    1999. *The complete social scientist.* Washington: American Psychological Association.

McKeown-Ice R
    2000. Environmental education in the United States: a survey of preservice teacher education programs. *The Journal of Environmental Education* 32(1): 4-11.

Miles M B & A M Huberman
2004. *Qualitative data analysis: an expanded sourcebook*. 2nd ed. London: Sage.

Mills C & J Ballantyne
2010. Pre-service teachers' dispositions towards diversity: arguing for a developmental hierarchy of change. *Teaching and Teacher Education* 26(3): 447-54.

Mühlhausen U
1994. *Überraschungen im Unterricht, Unterrichtsprobleme spielerisch erfahren - ein Simulationsspiel*. Berlin: Beltz-Verlag.

Nespor J
2000. School field trips and the curriculum of public spaces. *Journal of Curriculum Studies* 321: 41-54.

Ostern A & R Heila-Ylikallio (eds)
2004. *Spraksomkultur – brytningar I tidSpraksomkultur - brytningar I tidoch rum.och rum.* Vasa: Abo akademi.

Petersen N & E Henning E
2010. Design refinement tools for a teacher education curriculum: the example of a service learning course *Perspectives in Education* 28(4): 61-71.

Ribiero B T
2006. Footing, positioning and voice. Are we talking about the same things? De Fina *et al* (eds) 2006: 68-91.

Roth W M & Y J Lee
2007. Vygotsky's neglected legacy: cultural-historical activity theory. *Review of Education* 77(2): 186-232.

Ruthven K, C Laborde, J Leach & A Tiberghien
2009. Design tools in didactical research: instrumenting the epistemological and cognitive aspects of the design of teaching sequences. *Educational Researcher* 38(5): 329-42.

Schein E H
2006. Kurt Lewin's change theory in the field and in the classroom: notes toward a model of managed learning. *Reflections* 1(1): 1-5.

Sitte W & H Wohlschlagl
2001. *Didactic plays. Contributions for the teaching of geography and industrial studies instruction/Beitrage zur Didaktik des Geographie und Witschaftskunde Unterricht.* Vienna: Institute for Geography and Regional Studies, University of Vienna.

Spencer M B
2008. Lessons learned and opportunities ignored since Brown vs Board of Education: youth development and the myth of a color-blind society. *Educational Researcher* 37(5): 253-66.

TAL T & O MORAG
2007. School visits to natural history museums: teaching or enriching? *Journal of Research in Science Teaching* 44(5): 747-69.

TINDALE R S (ed)
2006. *Theory and research on small groups.* Dordrecht: Springer.

VERESOV N
2004. Zone of proximal development (ZPD): the hidden dimension? Ostern & Heila-Ylikallio (eds) 2004: 13-30.

2007. Sign mediation: magic triangle: sign-mediated action and behind. *Fourth Nordic Conference on Cultural and Activity Research*, 15-17 June 2007 Oslo, Norway.

2009. Emotions, experiencing, and cultural development: Vygotsky's unfinished project. <http://www.unil.ch/webdav/site/psydesc/shared/Nikolai_Veresov.pdf>

VYGOTSKY L S
1978/1934. *Mind in society .the development of higher psychological processes.* Ed and transl by M Cole, V John Steiner, S Scribner & E Souberman. Cambridge, MA: Harvard University Press.

1992. *Thought and language.* Ed and rev by A Kozulin. 6th ed. Cambridge, MA: MIT Press.