The impact of a community service learning project on the professional growth of preservice teachers

First submission: 8 February 2011

Acceptance: 28 July 2011

This article reports on a qualitative study based on a group of third- and fourthyear science student teachers, who participated in a community service learning (CSL) project. This study followed five students at three community drop-in centres in order to explore how their participation contributed to their learning. Data was generated from the lecturer's field notes and reports, as well as from the students' reflections, summative reports and presentations. The findings indicate that students found the experience academically, personally and professionally enriching. Working with poor orphans and community workers also helped the students develop a greater awareness of social responsibility.

Die trefkrag van 'n gemeenskapsdiens leerprojek op die professionele ontwikkeling van onderwysstudente

In hierdie artikel word verslag gedoen oor 'n kwalitatiewe studie waarin derdeen vierdejaar Wetenskap-studente deelgeneem het aan 'n gemeenskapsdiens leerprojek. Die studie volg vyf studente by drie gemeenskapsentrums om vas te stel hoe die studente se deelname bygedra het tot hulle leerervaring. Data is gegenereer uit die dosent se notas en verslae sowel as die studente se eie refleksies, summatiewe verslae en voorleggings. Die bevindinge dui daarop dat studente positief gereageer het op die ondervinding en dit is bevind dat dit akademies sowel as persoonlik bevredigend was. Hierdie gemeenskapgebaseerde leerervaring het ook 'n groter bewustheid van gemeenskapsbetrokkenheid gekweek.

Drs S Bansilal & Z Mthembu, School of Science, Mathematics & Technology Education, Faculty of Education, University of KwaZulu-Natal, Private Bag X03, Ashwood 3605; E-mail: bansilals@ukzn.ac.za & mthembuz3@ukzn.ac.za.





lobally, there are increasing demands for students to be educated in ways which prepare them to be responsible, engaged members of a democracy. It is expected that higher education (HE) will have a greater impact than the individual, personal and professional development of students (O'Brien 2005). It is clear that traditional ways of teaching students in the cloistered atmosphere of the university may not prepare them for the realities and dilemmas they face in the real world. O'Brien *et al* (1999: 1) suggest that community service learning (CSL) provides the opportunity for students to develop a strong sense of social responsibility through their participation in service projects and involvement in the community. It is generally agreed that CSL can also lever powerful learning opportunities for students, community practitioners and academics. Bringle & Hatcher (1995: 113) define CSL as a

course-based credit-bearing educational experience in which students participate in an organized service activity that meets identified community needs and reflect on the service activity in such a way as to get further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility.

Mouton & Wilschut (2005: 119) assert that there are three important characteristics of CSL: it is based on community needs; it incorporates reflection and academic learning; and it contributes to students' interest in and understanding of community life. Bender (2008: 208) argues that by foregrounding CSL, universities will be pursuing a scholarship of engagement which means "connecting the rich resources of the university to our pressing social, civic, and the ethical problems, to our children, to our schools, to our teachers, and to our cities". The South African Education Department has also recognised the importance of CSL in HE by introducing The White Paper on the Transformation of Higher Education (DoE 1997). It called on HE institutions to demonstrate social responsibility and make a commitment to

¹ CfMouton & Wildshut 2005, O'Brien 2005, Bringle & Hatcher 1995, Mitchell & Rautenbach 2005, Bender 2008.

the common good by promoting community service programmes (DoE 2007).

This study is concerned with pre-service teachers' experiences of a CSL project. The aim of the project was to help develop a sense of social responsibility, while providing the pre-service teachers with an opportunity to broaden their understanding of the content they teach. Many studies on CSL, both in South Africa and abroad, report positive effects of CSL. One study based on the CSL of a political science module revealed that students found the experience beneficial in terms of its effect on their values and their academic learning (Marcus et al 1993). Evler et al (1997) report on a study that showed positive development of students' attitudes and values and a better understanding of social issues as a result of their participation in a CSL project. In their study of the perceived benefits of using CSL conducted with 32 USA academics, Mckay & Rozee (2004) found eight reasons why academics used CSL with their students. Two of these reasons are that they believed application can enhance learning and that CSL helps students to learn more about the world in which they live.

In South Africa, there have been many recent research studies on CSL but few have reported specifically how CSL experience has enhanced students' learning.² Stears (2009) reports on a study with Biology student teachers required to design a school environment policy in collaboration with the school as part of their service learning. Her findings reveal that the students experienced the process as being of personal rather than academic benefit. O'Brien [s a] regards CSL as having the potential to advance inter- and transdisciplinary scholarship, based on the recognition that society is not divided into disciplines, and often a single CSL undertaking requires a variety of disciplinary expertise. The blurring of boundaries between different types and sources of knowledge has its problems. Students find it difficult to simultaneously merge acquired academic, practical and experiential knowledge or even appreciate the value of knowledge

² CfBender 2008, Mouton & Wildschut 2005, Lazarus 2007, O'Brien 2005, O'Brien et al 1999.

and experience gained at different times in their lives. O'Brien $[s \ a]$ recommends that questions posed to students in structured reflection activities should be used as an opportunity for students to make connections in their experience across time and type.

Nduna (2007) argues that CSL practice could improve and that its impact on communities could increase if the community's voice is taken into account. She recommends that community needs are linked to defined learning expectations for students. However, Stears' (2009) study showed that while the community (the teachers of the schools in which the CSL students were placed) were positive and willing to consult with the students, their interest waned when it came to implementing the policy.

Mitchell & Rautenbach (2005: 103) caution that South African academics must consider the "specific set of contextual and developmental factors that set South Africa apart from other countries" from which much of the research and literature on CSL emanates. There are two contextual factors of interest in this study. One particular challenge facing South Africa is the large numbers of child-headed households as a result of the Aids epidemic. This article examines the placement of students at informal centres which have been set up to provide support to children who live on their own. A second contextual factor of interest is the poverty of the students themselves. The majority of South African students come from poor backgrounds and thus need financial assistance in order to participate in CSL experiences.

1. The study

In order to encourage a strong sense of social responsibility with pre-service teachers, the authors introduced a CSL component into an existing teacher education module. Lazarus (2007) reports on a survey of community service initiatives at South African higher education institutions (HEIs). One of the findings (Lazarus 2007) was that "generally these projects were initiated by innovative academic staff and not as a deliberate institutional strategy". Although CSL is included in the University of KwaZulu-Natal's

mission statement, it has not been formally incorporated into its education programmes. This poses a challenge for individual lecturers who want to build the component into their teaching. In order to encourage the students' interest and participation, we re-designed an existing module (Physical Science for Educators) so that the CSL component formed an integral part of the module. Changes were made particularly in terms of weighting the assessment. As part of the re-design process, we were required to identify and negotiate with various community organisations about their willingness to participate and the particular ways in which we could meet some of their needs. The community organisations indicated that they would welcome student supervision of the learners' homework and extra lessons in specific subjects. Seven organisations were chosen as partners and while the student placements were done in consultation with the students, the lecturer concerned made the final decisions. This study focuses on three drop-in centres, whose caregivers indicated that they would welcome specialist help for learners who attended the centres.

The selected drop-in centres are situated in the vicinity of Durban where school-going children are taken care of during the day after school. They also act as day care centres, where small children are looked after during the day. These places have expanded to cater for homeless and vulnerable children, most of whom are orphans from the surrounding area. Many of these children go to the drop-in centre in the mornings before school to have breakfast and in the afternoons for a meal, where they do their homework under supervision. There are no accommodation facilities at the centre, so children return to their homes for the night. The choice of the centres was based on practical considerations such as proximity to the campus, access to the learners, and timetabling issues. The timetable of the community centres is structured towards the learners who utilise the centres and is different from the university timetable. The three drop-in centres were deliberately chosen for this study because they are not formal welfare organisations recognised by the government. We wanted to explore the potential for students' learning from such centres which are not even sufficiently staffed. In their study of CSL courses at participating universities, Mouton & Wildschut (2005: 136) noted that, although the placement of students at rural facilities was regarded as very costly and resource-intensive, the students found the experience to be particularly useful. In this study, we wanted to explore the particular learning opportunities offered by these informal and semi-rural centres. This CSL component was offered in addition to their teaching practice experience which is carried out at various schools, where the students are mentored by teachers. A crucial difference between the school-based practicum and the CSL component is that in the former, students have support from their mentor teachers in designing their lessons and carrying out the teaching. At the drop-in centres, the students worked by themselves with no experienced educators on hand to offer advice.

Some of the challenges encountered in this study are related to what authors Mitchell & Rautenbach (2005) highlight as being contextual factors specific to South Africa and are also a consequence of CSL not being as highly regarded as the university functions of teaching and research, but instead being considered a poor connection. The students themselves were financially struggling, and could not afford transport costs and materials for teaching. The lecturer (second author) had to therefore source external funding for this project without which the project would not have been able to run. The study was funded by the Joint Education Trust (JET) and this enabled the lecturer to subsidise the students' travel and materials costs. However, the lecturer's additional time and transport costs were not subsidised. In order to complete this project, the lecturer had to draw upon her own funding and resources.

2. Research design

The participants in the study were a group of 15 third- and fourthyear Physical Science method students who were required to fulfil a compulsory term of CSL as part of a Physical Science education method module. The study employed a qualitative, interpretative research design. Denzin & Lincoln (2008: 4) state that

Qualitative research is multi-method in focus, involving an interpretive, naturalistic approach to its subject matter. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret phenomena in terms of the meanings people bring to them.

By studying the students' experiences of CSL, we were able to make sense of and interpret the students' participation in terms of their own set of meanings. A case study approach was used where a researcher decides on a particular case and comes to know it well by exploring what it is and what it does (Yin 2009: 18). We chose to focus on the three case studies of the three drop-in centres that were serving the neediest children, who were mainly orphans. This article reports on 5 students' work at three drop-in centres: T, KW and KL. Two male students (Sibo and Thami) were placed at centre T, two female students (Sandy and Dudu) at centre KW, while only one male student (Sibi) was placed at centre KL. In this article, pseudonyms are used to protect the identity of the participants.

Students were asked to provide at least eight hours of extra science tuition to the children, in response to the need that was identified by the community centres. The students were expected to prepare lessons and compile detailed journal reflections for each session. They were encouraged to diagnose the children's problems and to find ways to help them overcome their problems. Detailed summative reports were required to be submitted as part of the assessment for the students. In addition, each group per centre did a presentation for assessment purposes, which was open to the faculty. One lecturer (second author) conducted site visits to each centre to support the students and to liaise with both the students and the community centre management.

3. Data analysis

Data was generated from the lecturer's field notes and reports, as well as from the students' journal reflections, lesson plans,

summative reports, and presentations. During the first layer of analysis, the process we (the authors) followed in constructing the vignettes from the data is what Polkinghorne (1995: 12) has described as narrative analysis. Outcomes (themes) were identified and we tried to use the data and identified "thematic threads" in a condensed chronology comprising each vignette. In this type of analysis, the researcher's task is to configure the data elements into a story that unites and gives meaning to the data as contributors to a goal. In this instance, the goal was the identification of their learning experiences. The second layer of analysis involved using Dewey's four categories as elucidated by Saltmarsh (1996), as a framework to find answers to the main research question: How did the students' participation in the CSL project contribute to their learning?

Saltmarsh (1996: 15-9) highlights some areas of Dewey's perceptions and philosophy of education that are related to community service learning. These were used to develop the three dimensions of our analytic framework:

• Linking education to experience

Dewey emphasised the importance of connecting theory to practice: action and doing on the one hand, and knowledge and understanding, on the other. Under this category we considered the students' views of their CSL experiences and the links they were able to make between their educational training and the experience.

Democratic community and social service

In this category we combined Dewey's two areas of democratic community and social service. Dewey considered education to be a social process connecting 'I' and 'we'. He also viewed learning as including participation in a democratic community, contributing to the well-being of society as a whole, and interdependence of interest and social rights. Under this category we identified ways in which CSL project influenced the students' views about participation in the community and their role in social service.

Reflective enquiry

Reflective enquiry critically connects thought and action, breaking down distinctions between the two. It includes theory and practice, knowledge and authority, ideas and responsibilities, and it provides the opportunity for the creation of meaning from associated experience. Under this category we examined the students' reflections in order to identify the ways in which they were able to connect theory with practice and the ways in which the CSL experience enabled their professional growth.

In the next section, the actual quotes by students are presented without any editing. Whenever phrases have been inserted, these are indicated by means of square brackets.

4. Results

The results are presented in the form of three cases, each of which being further organised according to three headings for ease of reading: students' experiences at the centre; challenges encountered by the students, and reflections about their experiences.

4.1 Case 1: Sandy and Dudu

4.1.1 Students' experiences at the centre

Sandy and Dudu chose the KW Drop-in Centre which is a three-roomed house in a township. There is a kitchen, a room where young children are taught and a room for older children. Sandy and Dudu are third-year female Physical Science pre-service student teachers. They visited the centre eight times over a period of three months. They did not work closely with the worker from the centre, for various reasons. They taught children from primary to secondary school level, ranging from Foundation Phase in subjects such as Physical Science, English, Economic Management Sciences, Geography and Mathematics. Some of the diverse lessons they taught included introducing the South African flag, English grammar, fractions in Mathematics. They were also pleased when

one child showed her confidence in them by asking them to help her with a project that required much research.

4.1.2 Challenges encountered by the students

One of the challenges they faced was that the venue did not have sufficient seating space; the children stood throughout the lessons. This meant that the students had to ensure their lessons were interesting enough to keep the children's attention.

The two students felt uncomfortable with the unpredictability of the times and the planning. In fact, Sandy and Dudu felt that the CSL component would have been more useful to them had they carried it out at a school because of the challenges of planning for changing times and different learning needs of the learners. They were also frustrated that so much time was lost due to transport delays or learners' changing plans. The students were also fazed by the unpredictability of the schools. They could not teach two sessions because the schools had finished early and consequently the children went to the drop-in centre earlier and left before the students arrived. The students commented that their time was lost because of the problems over which they had no control. However, the unpredictability of the CSL experience is itself a valuable learning opportunity about the unpredictability of real life, which these students did not realise.

4.1.3 Reflections about their experiences

The students seemed to mature as time went on. In their later reflections, Sandy and Dudu wrote that they learnt a great deal from the CSL component and that they simultaneously took on the roles of teacher, researcher, manager and social worker. They were of the opinion that CSL could enhance the image of young people in the community and they saw themselves as providing role models to the learners "... because they are encouraged to do their best in schools so that they will be like us".

The students also wrote that such experiences could contribute to the building of a just society because they saw themselves as professionals-in-training who would actually teach at some stage. The CSL experience would help them promote "constructive change".

4.2 Case 2: Sibi at Drop-in Centre KL

4.2.1 Sibi's experiences at the centre

Sibi is a fourth-year male student, training to become a Physical Science teacher. He chose the KL Drop-in Centre which is a small room at the back of a house. Sibi spent only three days over a period of two months at the centre. He had gone to the centre four times, but once it was closed because the learners were on holiday. On his subsequent visits he made sure that he was early in order to make up for the time; he was often there one and a half hours early.

Sibi enjoyed getting to know the learners and was excited when one child drew Batman for him. He also expressed his appreciation for the music the children sang to him when he was leaving: this made him look forward to their next meeting.

Some of the lessons he taught included Grade 7 Mathematics (square roots), Natural Science (mammals), Grade 6 Mathematics (division), Grade 8 English (writing a letter) and physical activities.

4.2.2 Challenges encountered by Sibi

The venue was restricted and this meant that they had to move around to create more space. Sibi mentioned that when the children were eating he had to go out so that they could move freely – this is an indication of how small the place was. The other challenge encountered by Sibi was that he only made three visits to the centre which limited his intervention with the children. However, he made sure that he did not lose any time during those visits by arriving early and leaving later.

4.2.3 Sibi's reflections about his experiences

Sibi described his experience as "awesome". In terms of his short CSL experience, he wrote that:

... the project was very relevant to the module and it aroused the curiosity for all of us to make a difference in our communities. It shaped us to grow outward and inward as teachers, but most of all it made us acknowledge and recognize the importance of social structures and institutions.

I have never worked with small kids and I think the exposure I got there helped me realise the importance of finding and knowing kids' backgrounds because it plays a big role in a child's education.

He was also able to work on a one-to-one basis with the children. The close attention he paid to the children enabled him to identify their individual needs and to design exercises to target those needs. Sibi gave the children individual feedback, and was himself surprised when the children appeared to understand the section. He included samples of the children's work to support the descriptions of his interventions. He made the following comments about teaching:

I experienced that it is also important to consider context before your teaching and learning process, because kids relate things with what is around them [...] Every teacher should never consider kids as empty vessels waiting there to be filled with water, they have the information but we need to ensure that we dig that information and build our lessons upon them.

In fact, Sibi demonstrated that he understood these theories and even when faced with the restricted environment of the one-roomed drop-in centre, he intuitively applied these pedagogic theories and achieved success.

4.3 Case 3: Sibo and Thami at Drop-in Centre T

4.3.1 Sibo and Thami's experiences at the centre

Sibo and Thami are third-year Physical Science student teachers who chose the Drop-in Centre T to do their service learning experience over three months, comprising a total of seven afternoons. This centre is a room situated at the back of a caregiver's house. The room is used for cooking and serving food, as well as for making the young children sleep. Although the service learning assessment was part of a Physical Science module, they found that they had to teach many other subjects to the learners, who were at many different levels, from both primary and secondary schools.

The learners needed help in Mathematics Literacy, English, Geography, Accounting and Natural Sciences. They had to draw upon their high-school knowledge, which they had not been trained to teach, in order to help the learners with their various queries. However, this was an opportunity for them to develop insight into pedagogic challenges, previously only encountered as theory and which they now experienced in their practice. They displayed their insight when they noted that:

Learners never had enough time to reveal their misconceptions, mistakes etc., we even had a challenge on preparing for our lessons as it took place after a week we last saw them [...] we [did not have] enough time to help learners eradicate misconceptions.

These comments reveal that they were aware of the need to find out the learners' problems in order to help them deal with any misconceptions.

4.3.2 Challenges encountered by Sibo and Thami

The students found that they had to practise within those complex realities that are usually not encountered when undertaking their teaching practice experience. The space constraints limited their interactions with the learners. They could not divide the children up into groups for different grades. They had to teach five grades (5, 6, 8, 10 and 11). While working, they were frustrated because if they were a few minutes late, they would miss some learners, and often learners were delayed: this impacted on the available time for teaching. They then made sure that they were at the centre 20 minutes earlier each day. The students valued every minute of the available time and tried to design the lessons so that the time was utilised optimally. They suggested that it would be an improvement to build in more time for the service learning component. One suggestion was that the service learning component be extended to three (or more) days a week instead of the two days. This response from students, who regularly complain that they are being asked to spend too much time on study projects, reveals how rewarding the project was to the students, although they were initially reluctant to participate. The lecturer also faced reality when her car landed in an enormous potholes on the road leading to the centre. The students had to help her push the car!

4.3.3 Sibo and Thami's reflections about their experiences Sibo and Thami were deeply affected by the children's life stories. In their words, "some of these stories about these children can even raise your emotion" and "... that is where I actually saw how needed I am in the society and I also saw the need of this [CSL]". They were also impressed by the caregiver and the work that she managed to do with her limited funds. The caregiver shared her life story and the sad stories behind some of the learners who use her centre. They were also touched by the learners' responses to them; for example, they were honoured when the learners addressed them as "Silindo malume" [meaning uncle], after they had sung and recited poetry to them.

Both students emphasised the value of the service learning project:

One of the critical experiences that we got working in a community-based project [was] where you offer services to the communities in terms of development and so forth, to care for people and others in need.

They also gained a crucial experience in how to work with communities as teachers who are required to play a pastoral role within the community. Both students were extremely moved by their experiences. During their reflections they wrote of what they learnt from this experience:

We also found out how needy our people are and how few people are in a position to [...] assist another. We have learned that all it takes is a good heart, love and seeing someone's problem as your own to ensure well-being of other people. We have learned that there is much that all of us can do and contribute no matter how small.

They were of the opinion that the CSL experience "was real learning and experience of real life situations" and they asserted that "before we are students, we are members of the community".

5. Discussion

In this section, we attempt to answer the research question by focusing specifically on the three components of learning drawn from Saltmarsh (1996): linking education to experience, democratic community and social service, and reflective enquiry.

5.1 Linking education to experience

5.1.1 Students' perceptions about their CSL experiences

In terms of the students' perceptions of their service learning experience, all conveyed positive sentiments. However, they displayed different levels of engagement with the project. Sibo and Thami related how they were moved by the entire experience and were grateful for the opportunity to play a pastoral and community role as teachers. They were very empathetic to the caregiver and admired her achievements under difficult circumstances. Sibi described his experience as "awesome". In fact, Sibi spent the least time but got involved the most with the learners. He interacted with the learners on an individual basis. Sibi wrote that the experience helped him grow "inward and outward" as a teacher. Sibo and Thami as well as Sibi changed their travel arrangements and made sure that they were at the centres earlier than expected in order to make the most of their times. Sandy and Dudu, by contrast, kept themselves a bit aloof and separate from the running of the centre. Although they spent the most time at the centre, they did not develop any relationships with the caregivers. They complained when the learners were late but did not make any changes in their plans to accommodate the learners' time adjustments. Sandy and Dudu found it difficult to deal with the uncertainties and to plan ahead because of the unpredictability.

However, as time went on, their perceptions changed. Where they initially viewed their time at the centre as an inconvenience, they began to see it as a learning opportunity. Sandy and Dudu, in their later reflections, noted that the service learning taught them a great deal within a short space of time. They started to perceive themselves as social workers, alluding to the fact that they got involved in the learners' personal lives.

In terms of personal affect, all the students conveyed a sense of feeling appreciated. Sibi was touched by the drawing the children gave to him and their singing. Sandy and Dudu also conveyed a sense of appreciation that they were asked to help the learners with projects that required research. This request convinced them that the learners viewed Sandy and Dudu as experts. Sibo and Thami described being touched by learners, who sang, recited poetry and addressed them respectfully.

In all three cases, the students conveyed positive sentiments about their experiences, in terms of feeling needed and appreciated, as well as being perceived as knowledgeable. Although the students displayed different levels of engagement in the project, the initial negative views of some students changed to viewing the experience as a learning opportunity.

5.1.2 Links between education training and CSL experience In all three cases, the students were able to make links between their educational training and CSL experience, in various ways. First, they recognised that specific aspects of their teacher roles were developed. Sandy and Dudu were of the opinion that they developed their teacher roles as researchers and managers.

Secondly, the students taught in areas in which they were not specialists. The students had to rely on their previous learning experiences to face the new pedagogic challenges that emerged. Sibo and Thami wrote about having to draw upon previous high-school knowledge in order to help the learners. These students also taught learners from the Foundation Phase to Secondary level in diverse topics. All the students were forced to apply their skills to new situations, and this experience led to them furthering their learning. This finding is in contrast with Stears' study (2009), which revealed that the students' benefits were mainly perceived as a personal and not an academic form of development. The students' responses also revealed that the CSL project advanced their interdisciplinary skills. They had to use knowledge gained

during their schooling together with their academic knowledge to meet the needs of the community they were serving. All the students were required to teach subjects in which they were not specialists and their experience supports O'Brien's (*s a*) assertion that CSL has the potential to advance inter- and transdisciplinary scholarship.

5.1.3 Learning to deal with real-life dilemmas as part of the CSL experience

A particular opportunity offered by the CSL experience was that of dealing with real-life situations. The traditional ways of teaching students at university in a sterile environment with variables strictly controlled may not prepare them for the realities and dilemmas they face in the real world. Issues such as classroom management or even teaching practice are dealt with in a simulated manner in a university lecture room. Even during teaching practice, the mentor teacher is at hand to help students deal with learners. In this instance, the students had to resolve dilemmas such as time constraints versus teaching for understanding: working with space limitations versus interactions with individual learners; multigrade teaching versus teaching of specific concepts to individuals, and teaching various subjects versus teaching their specialist subjects. Some students were more flexible than others. Sibo and Thami's comment that "... what we have been doing was real learning and experience of real life situations" is particularly pertinent to this theme. Lampert (2002) suggests that the work of teaching involves dilemma management. Classroom situations present contradictory aims and teachers have to choose ways in which to manage tensions arising from the contradictory aims. The resolution of their dissonance cannot always be simply and neatly devised. Teachers then become dilemma managers, where they construct ways to manage the tension arising from the elements of the dilemma without necessarily resolving it. This CSL experience has provided the students with a hands-on experience of being a dilemma manager in a manner that they would not have encountered in their teaching practice experiences.

5.2 Democratic community and social service

This section examines the aspect of learning as participation in a democratic community. All the students acknowledged that they had learnt and grown in different ways, as a result of their participation in the drop-in centres.

Sibo and Thami described their learning as follows: "We have learned that there is much that all of us can do and contribute no matter how small". This shows how their participation has made them realise that people can make a difference. Sibo and Thami articulated a strong statement about their role in their community: "... before we are students, we are members of the community". Their CSL experience had a strong impact on their lives because of the relationship they forged with the caregiver, which allowed them to consider her perspective and to learn more about the learners' backgrounds which, in turn, made them more involved.

Sibi was also quite moved by his CSL experience. He stated that it helped him to make a difference in the community and that it allowed him to grow both inward and outward as a teacher.

By contrast, Sandy and Dudu did not form a strong relationship with the caregivers and maintained a degree of separation from the organisation of the centre. However, they did admit that the CSL experience had a positive effect on them. They commented on the positive benefits of enhancing the image of the youths in the community, and made an interesting point that the students can serve as positive role models to the disadvantaged learners at the drop-in centres.

These students' comments reveal the impact of the service learning project on their view about participation in the community and their civic responsibilities. Thus, the CSL experience has helped concretise one of the goals of the White Paper (DoE 1997): the promotion and development of social responsibility and awareness among students.

5.3 Reflective enquiry

This section examines the students' reflections about their experiences that were used as a tool to link theory with practice, and identifies ways in which it influenced their professional growth.

The students' reflections formed a crucial aspect of the CSL experience, and offered insights into their own perspectives and growth. Sibo and Thami's comments indicate that they found pedagogic theories in their everyday interactions with the learners important. For instance, they wanted to learn more about specific difficulties that learners had in order to help them deal with their misconceptions and errors. Sibi also displayed his insight when he spoke about considering learners' background when teaching. He emphasised that the teacher's job is to find out more about learners' previous knowledge and experiences on which to build their lessons. This enabled them to link abstract (contructivist) theories to their own analysis and experience. This showed that they wanted to put their theories of learning into practice, thereby creating meaning from their own experiences. These actions strengthen their identities as teachers, because they are viewing the situation through the lens of their teacher role.

From the above discussion, it is clear that the students were involved in reflective enquiry, in ways that allowed them to improve their understanding of the abstract theories by linking them to their practice. This CSL experience thus offered them the opportunity to experience the learning theories *in situ*, providing a valuable opportunity to deepen their own understanding of the practice of teaching.

6. Concluding remarks

This article described the CSL component of a Physical Science Education module taken by third- and fourth-year pre-service teachers. Overall, we found that all the students were positive about the experience. They felt appreciated and would have welcomed a longer period of time to engage with the CSL experience. Unlike Stears' study (2009) that revealed that student's benefits

were mainly about personal and not academic development, this study shows that students benefited personally, academically and professionally. In terms of their learning by experience, the CSL experience provided an opportunity to deal with the complexities of a real-life situation; it also gave them the opportunity to practise dilemma management as a facet of teaching. The students also revealed that the experience contributed to their interdisciplinary knowledge. This CSL experience offered them insight into the needs of some of the most deprived children in our country - those who have lost their parents and are part of child-headed households. The stories, problems and dilemmas they encountered were thus different from those they would have experienced during their organised teaching practice. However, we found that some students were more empathetic than others about the learners' situations and the needs of the community. Some students willingly changed their plans and spent long hours travelling so that they could meet the learners, while others complained about the inconvenience.

In terms of learning as participation in a democratic community, the study revealed that the experience of working with poor orphans and community workers helped to promote and develop an awareness of social responsibility among the students. The experience helped them understand that they had a responsibility to the community; some students perceived themselves as role models to the disadvantaged learners. It is worth noting that, although reflection was done only at the insistence of the lecturer, the students' reflective practice contributed to their personal growth, and strengthened their identities. They were also able to reflect on the theory-practice relationship, thus deepening their own understanding of the practice of teaching.

Although there have been numerous studies on CSL, this study showed the value of using community centres that are not well established and designed for teaching. The study also added to knowledge about specific ways in which the experience contributed to the students' personal, academic and professional growth. Because the students were involved in resolving

dilemmas caused by extremes, they experienced greater learning. Their CSL experiences are different from the ones they would encounter as student teachers in a teaching practice situation. The immediacy of the situation was such that they had to think and plan innovatively, andto make sure that they made the most out of every teaching opportunity. The experience also made them more responsible. The learners needed them and they had to find ways to meet their needs. In return, they found the experience heart-warming and were pleased with the learners' appreciation and gratitude.

In conclusion, although the use of these community centres was risky because of the informal nature of the centres, the experience afforded by such community organisations is richer than if the students had visited well-established centres. Although it was a short stint, the experience took the students out of their comfort zones, and those who were prepared to get more involved, experienced more rewards than those who stood on the periphery. As teacher educators, we may not be able to plan how much students get out of such experiences; we can only provide the opportunity and allow them as individuals to determine the level of satisfaction and growth they experience.

Designing and implementing CSL components in university courses offer particular challenges, in particular when there is no institutionalised support available in terms of travel costs or recognition in workload of the additional time spent on such courses. In this study, some of the challenges were costs associated with transport and cellular phone usage to keep in touch with the community organisation. The lecturer also had to shoulder greater responsibilities such as contacting centres, and finding the location of the centres, or accompanying the students on their first visits to ensure that they could find the centres. In the process, in this particular instance, the lecturer's car landed in the mud. HEIs that have formalised CSL components as part of the curriculum demonstrated that they have recognised the importance and value of such experiences. Such formalisation eases the responsibilities shouldered by the individual lecturers who try to implement CSL.

Bibliography

BENDER G

2008. Community engagement in higher institutions in South Africa. Weber (ed) 2008: 205-25.

Bringle R G & J A Hatcher 1995. Implementing servicelearning in higher education. *Journal of Higher Education* 67(2): 1-17.

DENZIN N K & Y S LINCOLN (eds) 2008. Strategies of qualitative inquiry, Thousand Oaks, CA: Sage.

Department of Education (DoE) 1997. Education White paper 3. A Programme for Higher Education Transformation. Government Gazette No 18207. Pretoria: Government Printer.

EYLER J, D E GILES & Z J BRAXTON 1997. The impact of servicelearning on college students. *Michigan Journal of Community Service-Learning* 4: 5-15.

HATCH J A & R WISNIEWSKI (eds) 1995. *Life history as narrative*. London: Falmer.

HIGHER EDUCATION QUALITY COM-MITTEE (HEQC)

2006. Service-learning in the curriculum: a resource for higher education institutions. Pretoria: Council for Higher Education.

LAMPERT M

1985. How do teachers manage to teach? Perspectives on problems in practice. *Harvard Education Review* 55: 178-94.

Lampert M (ed)

2001. Teaching problems and the problems of teaching. New Haven, NJ: Yale University Press.

Lazarus J

2007. Embedding service learning in South African higher education: the catalytic role of the CHESP initiative. *Education as Change* 11(3): 91-107.

Marcus G B, J P F Howard & D C King

1993. Notes: integrating community service and classroom enhances learning: results from an experiment. *Education Evaluation* and *Policy Analysis* 15(4): 410-19.

McKay V C & P D Rozee 2004. Characteristics of faculty who adopt community service learning pedagogy. *Michigan Journal of Community Service Learning* 10(2):1-9.

MITCHELL C & S RAUTENBACH 2005. Questioning service learning in South Africa: problematising partnerships in the South African context. A case study from the University of KwaZulu-Natal. South African Journal of Higher Education 19(1): 101-12.

Bansilal & Mthembu/The impact of a community service learning project

MOUTON J & L WILDSCHUT 2005. Service learning in South Africa: lessons learnt through systematic evaluation. *Acta*Academica Supplementum 3: 116-50.

Nduna N J

2007. The community voice on service-learning: a good practice guide for higher education. *Education as Change* 11(3): 69-78.

O'BRIEN F

2005. Grounding service learning in South Africa. *Acta Academica Supplementum* 3: 64-98.

[s a] Grounding scholarship on Africa through engagement. School of Community Development and Adult Learning, Howard College, UKZN.

O'BRIEN F, C BRUZAS & V MKHIZE 1999. The operational context of higher institutions. Unpubl presentation at CHESP Assignment, UKZN.

POLKINGHORNE D E

1995. Narrative configuration in qualitative analysis. Hatch & Wisniewski (eds) 1995: 5-23.

Saltmarsh J E

1996. Education for critical citizenship. *Michigan Journal of Community Service Learning* 3: 13-21.

STEARS M

2009. Incorporating service-learning in science education: the impact on students and teachers. *South African Journal of Higher Education* 23(2): 386-97.

Weber R (ed)

2008. Educational change in South Africa: reflections on local realities, practices, and reforms Rotterdam: Sense Publishers.

YIN R K (ed)

2009. Case study research: design and methods. Beverley Hills, CA: Sage.