Enhancing educational performance: relating the experiences of postgraduate support teaching students involved in a community service project

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Abstract

Driven by moral, political, environmental and financial factors, tertiary educational institutions are continually challenged to adapt existing teaching and research frameworks. In particular, the emphasis is on how the processes of developing curricula can be adapted to provide educational experiences that generate sensitivity, encourage social responsibility, provide a variety of educational experiences and create a performance culture among students. One method of achieving this is through community service-learning initiatives. This study focuses on the experiences of 53 postgraduate support teaching students, and the outcomes of a community-based research project involving learners with special educational needs in diverse school communities in the Free State Province. Hence, from a theoretical stance, this study is positioned within Dewey (1963) and Kolb's (1984) theories of experiential education. This empirical paper discusses research findings based on data that were gathered through the triangulation of the following research tools: questionnaires, focus group discussions, and an experimental intervention involving 302 learners with special educational needs in the intermediate phase.

Introduction

Tertiary education institutions in South Africa are being challenged to improve students' learning experiences. The current literature suggests that experiential learning should be a necessary component of formal instruction at tertiary level (Roos, Temane, Davis, Prinsloo, Kritzinger, Naudé and Wessels, 2005; Eyler, 2002). Given sufficient support and resources, universities have the capability to enhance their students' learning and their performances by engaging in community-based service-learning projects. These projects are the 'vehicles' through which students may become more fully engaged with academic material whilst concomitantly having the opportunity to apply theoretical knowledge in practice. Although service-learning may still be considered a relatively new pedagogical tool, it has quickly become an integral component of courses and programmes at tertiary institutions abroad (see Boyle-Baise, 2005; Bringle and Hatcher, 2002; 2005; Eyler, 2002) and in South Africa (see Waghid, 1999; Castle, Osman and Henstock, 2003; Pillay, 2003; Erasmus, 2005; Roos *et al.*, 2005; Osman and Castle, 2006; Osman and Attwood, 2007; Alperstein, 2007; Bender and Jordaan, 2007; Nduna, 2007). At its core, service-learning is both pedagogy and an activity in which students perform community service as part of their academic work (Gascoigne Lally, 2001). Service-learning pedagogy challenges faculties and universities to reconceptualise not only their curricula but also their disciplinary training and their roles as educators. Focussing on the present paper, the author draws on Silcox's (1995, p.25) working definition of service-learning:

- it implies a method of learning in which students learn and develop through active participation in thoughtfully organised service experiences that meet actual community needs;
- it is integrated into a student's academic curriculum or provides structured time for a student to think, talk or write about what he/she has observed, experienced and done during the service activity;
- it provides students with opportunities to use newly acquired skills and knowledge in 'real-life' situations in their own communities;
- service-learning activities enhance what is taught in lecture rooms by extending the students' learning beyond the classroom and into the community; and
- it helps to foster the development of a sense of caring for others it entails a reciprocal partnership where all role-players benefit.

From the discussion above, it is evident that service-learning as an epistemology and pedagogy 'de-centres' the university classroom by intentionally placing the community in the centre of the learning process (Heffernan, 2001). Although students can be exposed to community-based interventions in a variety of ways, researchers stress the importance of providing educational experiences that generate sensitivity, encourage social responsibility and provide a variety of educational experiences to different kinds of learners (Roos *et al.*, 2005). Moreover, the fact that such a large percentage of community-based projects involve activities with underserved children makes service-learning an especially effective 'vehicle' for diversity work across the curriculum (Zlotkowski, 2001).

In the present study, the author reconstructed an existing course (viz. Practical Procedures in Support Teaching) by including a service-learning component that revolved around service internships. Unlike traditional internships, service internships offer students regular and ongoing reflective opportunities (e.g. discussions, workshops, and journal entries) which afford them the chance to reflect on and learn from the service experience and "critically examine the larger picture and context in which the service is experienced" (Reeder, 1995, p.101). Moreover, researchers maintain that reflection forms the basis of experiential education. This implies that "learning from experience in an appropriate way achieves far more than theoretical or technical knowledge" (Bender and Jordaan, 2007, p.637). Hence, this article uses Kolb's (1984) Experiential Learning Model as the theoretical basis for applying learning style theory to the following settings: classroom instruction; workshop participation (group work and individual assignments); community engagement; individual problem solving, and assessment (group and individual assessments, including submitting a portfolio). In experiential theory, learning is considered to be a continuous process in which knowledge is created by transforming experiences into existing cognitive frameworks, thus changing the way people think and behave (Kolb, 1984). Building on Dewey's (1963) theoretical work which emphasised the link between the "process of learning and democratic citizenship" (i.e. social action and educational progress), Kolb postulates that learning involves a cycle of four processes - each of which must be present for learning to occur completely (Eyler, 2002, p.520). These four aspects are: concrete experience, reflective observation, abstract conceptualisation and active experimentation (Bender and Jordaan, 2007).

Focussing on the present study, this paper highlights the educative experiences and reflections of postgraduate students of education (support teaching) who have enrolled for an optional practical module in support teaching. As has been mentioned before, this module includes a service-learning component in which the students are expected to complete a service internship at a school of their choice. This service-learning project originated as a response to community needs (i.e. meetings, discussions and questionnaire surveys) which emphasised parents' and educators' concerns for the high failure rates and literacy backlogs among Free State learners. Thus, the dual purpose of this project was to address the community's needs whilst concomitantly enhancing students' knowledge and performances by preparing them to deal with numerous challenges, both practical and theoretical, once they assume the role of student-educator and then educator.

The service-learning project

The lecturer collaborated with several facilitators: four contracted candidates working on an *ad hoc* basis at the university and educators in the various communities (for example a student doing a master's degree in Psychology of Education and identified support teaching and general classroom educators at the different sample schools). The lecturer co-facilitated, co-monitored and co-evaluated the efficacy of the service-learning project to ensure a level of sustainability. In addition, to ensure the effectiveness and success of this community service project the following key processes were identified to guide it, namely:

- establishing the objectives of this community service project;
- training students and developing a literacy intervention programme;
- performing a service; and
- analysing and reflecting upon the services provided.

The objectives of the study

The goals of this community service project were as follows:

- to make students aware of and teach the basic principles of service-learning;
- to develop a literacy intervention programme for learning-impaired learners in the intermediate phase;
- to augment curricular content by offering postgraduate support teaching students the opportunity to apply their theoretical knowledge practically in typical community social environments, for examples schools in their communities;
- to support learners with learning-impairments in diverse societies; and
- to foster social growth and mutual understanding amongst all roleplayers involved in this project, i.e. between students, facilitators, educators at schools and learners with special educational needs.

Student training and the development of a literacy programme

As part of the normal honours curriculum in support teaching, student training revolves around workshops that are conducted continually throughout the academic year (from early February to the end of October). Students who had registered for this practical module attended five one-day workshops (in February, March, May, September and October); a three-day workshop during the April holidays and a winter school for five successive days (during July). All the workshops were conducted either on the main campus and/or two identified satellite campuses of the university. During these workshops, students were specifically trained in the basic principles of support teaching and service-learning. Working together, the lecturer, facilitators and students developed a literacy intervention programme for intermediate phase learners with special educational needs. In developing this programme, the focus fell on Hoover and Gough's (1990) Simple View of Reading which highlights two important basic processes underlying reading performance, namely successful decoding skills and linguistic comprehension. For this reason the students incorporated direct multi-sensory instructional strategies (i.e. visual, spatial and kinaesthetic learning) to improve learners' word learning abilities and so attempt to address the learners' backlogs. They focused on sight word learning, fluent word identification and vocabulary instruction. In addition, learning-impaired learners were exposed to specific reading strategies to improve their reading fluency and reading comprehension, such as one-minute word naming exercises, 'bingo' games for fast word recognition, as well as the reciprocal questioning procedure (also known as the *ReQuest* reading method) (Manzo and Manzo, 1993).

Performing a service

Throughout this project, students were encouraged to connect their personal goals and values and what they were learning to 'real-world' situations. Researchers (Gibson, Sandenbergh and Swartz, 2001) stress the importance of students working under supervision, in an ongoing training, consultative and supportive role whilst they are involved in community projects. Hence, in the present study, support teaching students who were doing their internships at the school for learning-impaired learners worked under the supervision of one master's level postgraduate student and a support teacher; whilst students who were doing their service internships at mainstream schools worked under the supervision of four facilitators and were supported by classroom educators

(mentors) at their respective schools. Learners in both settings received small group assistance for 30–45 minutes per session, twice per week for a period of nine months. Teaching strategies that had been identified during the initial training sessions and workshops and that were intended to improve the learners' reading and spelling abilities were implemented during these intervention sessions. For the duration of the intervention period, facilitators arranged frequent reflection sessions (i.e. discussions and workshops) where students shared their key experiences and discussed problems that they had encountered in the implementation of the community service project.

An analysis of the services provided and a reflection on them

According to Eyler (2002), in community projects the emphasis should be on reflective service-learning. This means that students develop their capacity to become thoughtful and effective citizens by being actively involved in analysing and solving problems in the community by means of community projects, and by being given the opportunity to reflect on their experiences. Whilst engaging in this service-learning project, each student was expected to keep a journal for the duration of the service-learning project and, in addition, he or she had to submit a learner's file for each learner that was part of this community project.

Ethical aspects

Permission to conduct this research and to publish the research findings was obtained in writing from the Free State Department of Education, as well as from the parents/guardians of the participating learners. Assurance was given that all the participants' anonymity would be strictly protected. Students voluntarily participated in this community-based research project.

Research design and methodology

Two complementary approaches were implemented in this study, namely a qualitative and a quantitative research design. To begin, this paper draws on data collected by means of a self-administered questionnaire. The questionnaire consisted of three sections:

- Section one: demographic information;
- Section two: students' experiences prior to and after engaging in this community service project; and
- Section three: students' suggestions on how to improve this serviceleaning component (open-ended question).

A five-point Likert scale was used to measure the responses to the items on the questionnaire in Section 2. In addition to questionnaires, the efficacy of the experimental study followed a quasi-experimental, pre-test/post-test design, with matched experimental (N = 151) and control groups (N = 151). The control group was formed in such a way that the dependent variables resembled those of the experimental group before the experimental investigation, as closely as possible. Finally, focus group discussions were conducted with the student participants to illustrate in greater detail how they (i.e. postgraduate students in support teaching) perceived their participation in this service-learning project. Focus group discussions were conducted between August and October 2009 and questionnaires were administered in September 2009.

Sampling, settings, and procedure

This research involved postgraduate students in support teaching as well as intermediate phase learning-impaired learners from different schools in the Motheo district of the Free State province. In the present study, fifty-three postgraduate students (50 females and 3 males) in support teaching who had enrolled for the practical component of this qualification were recruited to participate in this community-based research project. A total of 302 learners participated. Learner participants were drawn from a specialised school setting (n = 36 learners), as well as from different mainstream classes in diverse communities (n=266 learners). An attempt was made to match the experimental (N=151) and control groups (N=151) by pairing the learners according to age and pre-test scores (reading and spelling outcome variables). To balance for gender, 77 boys and 74 girls were assigned to the experimental group, and 73 boys and 78 girls to the control group. The average chronological age of learners in the experimental group was 136.5 months (SD=15.56) and in the control group it was 138.06 months (SD=15.7). Group comparison using non-parametric tests (Mann-Whitney U-test) revealed no significant differences between groups with respect to chronological age

 $(U=11\ 795.5, p=0.60)$, word recognition $(U=12\ 576.5, p=0.12)$ and spelling performance $(U=11\ 752.5, p=0.64)$. These learners received educational support from 53 postgraduate students in support teaching twice per week for a period of nine months. Learners in the control group continued with their daily literacy curriculum for the same period of nine months.

Validity and reliability

Prior to this investigation the author had conducted an extensive literature review on service-learning, focusing not only on its theoretical and pedagogical underpinnings, but also reviewing past and current service-learning initiatives and findings both abroad and in South Africa. A provisional draft of the questionnaire was also reviewed by five experts in the fields of psychology and education (for example, a research psychologist, a senior lecturer in educational psychology, a support teaching specialist and two learning facilitators). With regard to reliability, acceptable internal consistency was demonstrated with the present sample (Cronbach alpha coefficient = 0.89). Moreover, in an attempt to enhance the trustworthiness of findings in the present study, various triangulation methods were employed, for example:

- multiple methods (e.g. questionnaires, focus group discussions, standardised instruments to evaluate the efficacy of the intervention strategies);
- multiple sources (a variety of student and learner participants from different communities); and finally
- multiple investigators (the lecturer, a postgraduate master's student, four facilitators and 53 student participants employing the intervention strategies).

Data analysis

The Statistical Package for Social Sciences (SPSS Incorporated, 2001) was used in the analysis of the quantitative data (descriptive and inferential statistics). Since some doubt existed about the assumption of normality, nonparametric tests were used for the data analysis of the experimental intervention. Information gathered from focus group discussions was compiled, tape recordings were transcribed and main and sub-themes were identified. Participant verification was sought by giving the students an opportunity to react to the facilitator's summarised version of their responses and to correct any inconsistencies.

Results and discussion

The questionnaire survey comprised twelve different questions relating to students' needs, their key experiences and their recommendations on how the content of this module could be improved. Statements and items were placed on a five-point Likert scale with prompts such as: 'very negative', 'negative', 'average'; 'positive'; 'very positive'. In addition to the closed items, the student participants had to respond to an open-ended question and provide constructive suggestions on how they would improve the service-learning component of this practical module. The quantitative results obtained from the students' responses to the questionnaire will be reflected and discussed first.

Postgraduate students' experiences of the module/community service

The first two questions focused on students' experiences and perceptions prior to their engagement in the community-based research project:

- Have you ever engaged in community service before?
- How confident were you to assist learners with special educational needs (prior to the intervention)?

The following questions/statements focused on the student participants' experiences after the completion of the community-based project, namely:

- Did this practical service-learning module empower you sufficiently to make you confident enough to support learners with special educational needs?
- Did this service-learning project contribute to your personal development as an educator?
- Having completed this practical service-learning module, do you feel confident enough to serve on the site-based support team at your school or community?

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- Did this module and community project provide you with adequate opportunities to practically apply your theoretical knowledge?
- Did you develop life-long problem solving skills?
- In your opinion were this module and the community project too demanding?
- This module is currently optional. Do you think it should be made compulsory?
- How did you experience the performances of the learners that took part in this community service project?
- In your opinion, did the service-learning component (included in this module) make a contribution to the community at large?
- Make suggestions for improving the service-learning component of this module (open-ended question).

The results of these questions are reflected in Table 1 and will be discussed with emphasis on the following themes: students' needs, their key experiences and their recommendations to improve the content of this module. In addition, through the method of triangulation, students' personal reflection was obtained through focus group discussions.

Statements	1 %	2 %	3%	4 %	5 %
Prior experience in community service	14	22	16	1	0
	26.4%	41.5%	30.2%	1.9%	0%
Confidence helping learners prior to project	13	28	12	0	0
	24.5%	52.8%	22.6%	0%	0%
Level of confidence to support learners after the project	0	0	1	9	43
	0%	0%	1.9%	17%	81.1%
Contributed to personal development as educator	0	0	1	11	41
	0%	0%	1.9%	20.8%	77.4%
Confident enough to serve on the site-	0	0	2	16	35
based support team	0%	0%	3.8%	30.2%	66%
Practical application of theoretical knowledge	0	0	1	15	37
	0%	0%	1.9%	28.3%	69.8%
Development of life-long problem solving skills	0	0	0	20	33
	0%	0%	0%	37.7%	62.3%
Project/module too demanding	14	10	18	11	0
	26.4%	18.9%	34%	20.8%	0%
Compulsory module	0	0	0	13	40
	0%	0%	0%	24.5%	75.5%
Learners' progress	0	0	13	18	22
	0 %	0%	24.5%	34%	41.5%
Contribution to larger community	0	0	0	20	33
	0%	0%	0%	37.7%	62.3%

Table 1:Postgraduate students' experiences of service learning
(N = 53)

The results of the questionnaire were recorded as: negative (1-2); neutral (3) or positive items (4–5). The most important findings from the questionnaire and the qualitative responses of the study are provided under the following themes: student, learner and community empowerment; and recommendations for a future training programme for support teaching students which would integrate community service.

Empowerment of role-players participating in the service-learning project

When both the quantitative and qualitative responses of the students are reviewed, the three main themes arising from students' enrolment for this module, including their community engagement, revolved around empowerment, vis-à-vis students, learners and the community.

Student empowerment

Although most literature and empirical support for service-learning initiatives emanate from the United States (USA), more recently the number of servicelearning literature and projects (empirical investigations) has increased in South Africa (Alperstein, 2007; Erasmus, 2005). For example, Osman and Castle (2006, pp.67–68), conclude that "coupling school experience with community service" (as in the case of the School Wide Enrichment Project initiated by the University of the Witwatersrand) has been successful in providing the structured context and support in which students could develop their "pastoral roles as educators" within the classroom as well as in the community. These results demonstrated that community service enhances student performance (i.e. student empowerment) and cultivates a sense of civic responsibility.

These reflections on student empowerment were also evident in the quantitative (see Table 1) and qualitative responses of education students in the present study. The majority of support teaching students (67.9%) had very little experience with community service-learning prior to this community service project and reported that they did not feel confident (empowered enough) to support learners with special educational needs prior to this service-learning project. The core theme emerging from their responses to the question: *Why did you decide to enrol for this module*? concerned student empowerment. In addition, the following sub-themes emerged from the focus group discussions: a lack of knowledge and inadequate training; the need for an opportunity to link theory to practice, personal and career development. The students responded as follows:

I realised that learners with problems are ignored by educators – we do not have the knowledge to help them. . . (A frican female student)

To help learners with special educational needs practically – the other modules are too theoretical – in order to assist learners you need to engage with communities and get hands-on practical experience. (white female student)

...to empower myself and help those learners to overcome their problems, because many times it is us teachers who fail them... we ought to be blamed. (African female student)

As depicted in Table 1, nearly all the participants (98.1%) maintained that, having done this practical module in support teaching, they felt much more empowered to assist learners with special educational needs. Furthermore, 98.2% indicated that community engagement made a positive contribution to their personal development as educators and 96.2% felt empowered enough to

play a leading role in future as members of site-based support teams at schools. The general feeling among students (98.1%) was that this module provided an opportunity for the practical application of theoretical knowledge and the development of life-long problem-solving skills (agree: 37.7%; strongly agree: 62.3%). In addition, the results revealed that, despite students being divided on their opinions on how 'demanding' this project/module was (demanding: 20.8%; average: 34%; not demanding: 45.3%), all of them (agree: 24.5%; strongly agree: 75.5%) asserted that this module should be made compulsory in order to obtain an honours qualification in support teaching. These empowering experiences were also corroborated by the focus group discussions, with the identification of the following themes and sub-themes: performance enhancement, personal development, empathy, gratitude, disillusionment, the awareness of civic responsibility and camaraderie. The students' own words best describe their new perceptions:

. . .it has enhanced my performance as student-educator . . . if you do not apply your theoretical knowledge; your qualification is worth nothing. (African female student)

... as a result I developed empathy for learners with special educational needs. (African male student)

... it made me realise how fortunate we are ... some learners did not even have books... classrooms were cold. . .not conducive for teaching and learning. . . (white female student)

... besides assisting learners with impairments, it made me aware that all of us has [sic] a role to play in the future of our country. (white female student)

... in breaking down barriers to learning, it is imperative that we have to stand and work together across boundaries, in all communities. (African female student)

Learner empowerment

The National Department of Education's commitment to the provision of educational support for learners with special educational needs is clearly delineated in White Paper 6 on Special Needs Education (National Department of Education, 2001, p.7):

... we acknowledge that the learners who are most vulnerable to barriers to learning and exclusion in South Africa are learners with disabilities and impairments . . . increased vulnerability has arisen largely because of the historical nature and extent of the educational support provided.

Moreover, this policy document stresses the collaborative role of the whole spectrum of educators, including those in tertiary education institutions in training and supporting educators in order to develop specialised competencies and skills to support these learners. The qualitative information from the focus group discussions yielded positive perspectives with regard to students' roles and viewpoints on addressing the learning barriers of special needs learners within an inclusive education environment. Although some students (\pm 20%) were concerned about learners who still had not received adequate support, the responses of the vast majority of students (more than 80%) suggested that they were enthusiastic and dedicated to support learners with special educational needs. Students' responses also highlighted the positive progress of learners who had been included in this service-learning initiative. The students' enthusiasm and dedication shine though their words:

Because there are pupils who have problems who do not get help when they need it . . .now I want to be one of those people who can help them. (African female student)

...and I am in a position to meet the needs of struggling learners... through this module and community project I have learned ways to improvise, devise and apply different teaching strategies catering for the needs of diverse learners... (African female student)

Most of the learners could not read or write at all . . . after nine months they could read and even construct simple sentences. . . and their self-confidence improved tremendously. (white female student)

Researchers argue that, in addition to qualitative methodologies for programme evaluation, quantitative measures need to be considered. This is one of the reasons why it was decided to further the investigation of the effect of this community service project on the progress of learners. The quantitative data for this study were gathered firstly by means of a questionnaire where the students indicated the learners' levels of progress on the Likert scale; and secondly, by employing a pre-test/post-test design in which a battery of standardised tests were administered prior to and after the community service intervention that extended for a period of nine months. In this way an evaluation of the efficacy of the project was attempted.

From the questionnaire responses depicted in Table 1, it is evident that 24.5% of the students in the service-learning project reported an average improvement in learner performance, 34% indicated an above-average improvement, whilst 41.5% of the students believed that learners who participated in the literacy intervention programme showed excellent progress. In addition, further statistical analyses were carried out to evaluate whether the literacy intervention strategies had indeed yielded statistical significant results. At the start of the study, the pre-test scores for the experimental group and the control group were similar, which are demonstrated by the means, standard deviations, and pre-test scores in Tables 2 and 3. Thus, after nine months of

intervention, the learners' reading and spelling abilities were re-tested. The results of the post-test scores (see Tables 2 and 3) demonstrated that there was a considerable improvement in the reading and spelling performances of learning-impaired learners in the experimental group, whilst the control group showed very little improvement. The Mann Whitney test was conducted to determine whether this improvement was statistically significant. In order to investigate the results, the 5% level (= 0.05) of significance was used. Researchers (see Cohen, 1988) argue that apart from reporting results on statistical significance, effect size measures have to be calculated to determine the practical significance of research findings. Accordingly this was also done in the present study. The results for both reading (U = 4591.0; z = 8.99; p < 0.0001, r = 0.73) and spelling performance ($U = 6\ 869.0; z = 5.98$; p < 0.0001, r = 0.34) yielded significant results. In addition, the calculated effect size for reading (r = 0.73) was of high practical significance; whilst for spelling (r = 0.34), it indicated a medium effect. These results not only demonstrated the conceptual and practical significance of this community literacy project but emphasised the importance of direct teaching strategies to improve sight word learning, word recognition and expand learners' vocabulary knowledge, with the ultimate goal of improving reading comprehension.

Table 2: Average pre- and post-test scores for word recognition of learnersin the experimental and control groups(N = 302)

Groups	Word recognition					
	Pre-tests		Post-tests			
	\overline{X}^{-}	sd	- X	sd		
Experimental	28.07	(16.20)	40.02**	(16.15)		
Control	30.58	(15.89)	31.37	(16.13)		
U - values	12576.5		4591.0			
Z - statistic	1.55		8.99			
r (effect sizes)	0.73					

* *p* < 0.05

** p < 0.01

Table 3:Average pre- and post-test scores for spelling performance
of learners in the experimental and control groups
(N = 302)

Groups	Spelling Performance					
	Pre-tests		Post-tests			
		sd		sd		
Experimental	18.99	(9.53)	28.92**	(7.48)		
Control	18.40	(9.44)	19.55	(8.55)		
U - values	11 752.5		6 869.0			
Z - statistic	0.46		5.98			
r (effect sizes)	0.34					

* *p* < 0.05

** *p* < 0.01

Community empowerment

Community engagement is recognised as one of the core functions of Higher Education and Training in South Africa (Council on Higher Education, 2004), along with teaching, learning and research (Bender and Jordaan, 2007). According to Roos et al. (2005), community-based interventions constitute an exemplary classroom where students are given the opportunity to accept the challenge of co-creating environments that promote the well-being within communities in South Africa. The results presented in Table 1 suggest that a notable percentage of the student participants (strongly agree: 62.3%; agree: 37.2%) indicated that the community at large benefited from this project. When one reflects on the qualitative discussions, it is evident that this project has created an awareness of the different needs of different communities and, in addition, it has enabled students to recognise that they can play an important supportive role in the lives of all human beings. The following themes and sub-themes emerged: the development of an awareness of community needs; societal responsibility; reciprocal learning conditions; feelings of belonging, collaboration and communality. Some of the students' comments are quoted below:

I have realised the importance of collaboration that is built on mutual respect for each other . . . working together to address community needs added value to my future career as support teacher. (A frican female student)

... in the end we did much more, besides being involved in the literacy project, we helped during breaks to prepare meals for the children who were part of the school's feeding scheme and we assisted the educators with netball coaching in the afternoons. (white female student)

 \dots I have gained a lot and the educators at the school and the children were so appreciative of everything we did \dots and we also learned a lot from them. \dots (African female student)

The above findings also support the viewpoints of several researchers who assert that community service-learning initiatives can benefit both the provider and the recipient of the service by focusing equally on the service being provided and the learning that will take place (Eyler, 2002; Roos *et al.*, 2005; Osman and Castle, 2006; Bender and Jordaan, 2007).

Suggestions to improve the service-learning component of this module

Service-learning projects have become increasingly prevalent among tertiary educations in South Africa, especially during the last decade. However, compared to counties abroad (see Bringle and Hatcher, 2002; 2005; Eyler, 2002) community service-learning in South Africa is still in its infancy and little subject-specific research has been done (Bender and Jordaan (2007). A review of South African service-learning literature yielded limited empirical findings that were based on 'real-life' (concrete) experiences of students whilst performing community service (see Alperstein, 2007; Roos et al. 2005). Other South African case-studies involving pilot and larger scale community literacy intervention projects (not directly linked to service-learning) have demonstrated positive outcomes of community-based research initiatives. Examples of these projects are a language and literacy pilot intervention programme for learners with foetal alcohol spectrum disorders (Adnams, Sorour, Kalberg, Kodituwakku, Perold, Kotze, September, Castle, Gossage and May, 2007); the implementation of a spelling mastery programme for deaf foundation phase learners (Van Staden and Le Roux, 2010); and the Concentrated Language Encounter (CLE) literacy development programme in the Western Cape (Donald, Condi and Forrester, 2003).

When considering the reciprocal partnerships and benefits associated with service-learning, it is imperative to consider both the students' and the community's feedback in order to assess the projects' efficacy. Otherwise, service-learning and its associated "promise of reciprocity and mutual benefit run the risk of becoming rhetorical promises at the level of national policy and institutional practice" (Osman and Castle, 2006, p.69). In the present study, the participating students' suggestions to improve the service-learning component of this module are reflected in the following themes/sub-themes:

- more practical opportunities to apply theoretical knowledge;
- more workshops for student empowerment;

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- exposure to cross-cultural service-learning projects;
- workshops to empower 'established' educators at schools;
- specialised training; and
- 'response' to intervention.

The need for more practical opportunities to apply theoretical knowledge has been discussed earlier in this article (see 'student empowerment'); however, it was again identified as one of the key recommendations to improve servicelearning programmes. Student participants made the following recommendations with regard to enhancing concrete and practical learning experiences:

I hope more time can be allocated for this module and be compulsory as all schools have learners with different learning problems and those learners could be supported to become leaders in the future. (white female student)

During practical workshops, learners can be brought into the classes – with some students observing whilst other students are helping the learners – video recordings can even be discussed afterwards. (African female student)

More than 80 per cent of the participants indicated that the training should focus on prevention rather than on how to address backlogs and learning problems (i.e. 'response' to intervention) – especially in previously underserved communities where most of the learners still experience exclusion. In addition, needs for more specialised training was also identified. This is supported by statements such as the following:

Many educators out there do not know how to teach . . . universities, in collaboration with the education department, must conduct workshops for general classroom teachers and empower them with skills and strategies to teach reading and writing, so that learners do not fall behind and develop severe learning problems as a consequence of bad teaching methods. (African female student)

...educators in general, need workshops on how to help hearing- physically-, and mentallyimpaired learners; also hyperactive learners and those with dyslexia, because in most of the schools you find them in mainstream classes and teachers simply do not know how to help them – even if you refer them, most of them will still end up in your class or school and be your responsibility. (white female student)

The majority of student participants ($\pm 60\%$) indicated that the training of support teachers should be more holistic. Since this practical module focused more on addressing scholastic barriers, some of them expressed the need to receive additional training in dealing with a wider range of social issues such as rendering support to HIV/AIDS infected and affected learners, victims of

rape and abuse and addressing violent behaviour among youth. Currently, some of these wider social issues are addressed in other honours modules; however, raising these concerns and needs re-emphasises that this honours course in support teaching is too theoretical and needs some major reworking to make it more practical.

In addition, the need for exposure to diverse teaching communities and crosscultural service-learning experiences emerged as a constant theme among the students participants during focus group discussions (more than 60%). Although many of the participants (approximately 40%) did get this exposure, not all of them had the opportunity to work in culturally diverse communities. Students' needs were expressed in comments such as the following:

...and then what about social issues such as poverty reduction, child-headed families because of AIDS; alcohol and drug abuse, community and school violence, gender inequalities and teenage pregnancies, to name but a few – these module mainly addressed issues on learning problems ... teachers need more training workshops in order to develop skills to address these social issues, because there are simply not enough psychologists and social workers to deal with these social problems. (African female student)

...universities need to train students for a diverse society with diverse needs – students need to be exposed to previously disadvantaged communities, in the end you must be able to teach in city schools or townships schools. (white female student)

. . .cross-cultural teaching experiences will empower us all, irrespective of who we are . . .working together we get to know and learn to respect each other's culture. (A frican male student)

The above-mentioned statements confirm the positive outcomes of servicelearning initiatives as noted by researchers both in South Africa (Osman and Castle, 2006; Roos *et al.*, 2005; Castle and Osman, 2003) and abroad (Bringle and Hatcher 2005). Both the WITS students in Osman and Castle's investigation (2006) and the students involved in the Roos *et al.* study (2005) acknowledged that they had become more sensitised to cultural diversity and that the service-learning experience brought a 'deeper' understanding of complex social issues, whilst they also gained insight into their own value systems.

From the discussions above it is clear that service-learning projects can be relevant to the South African context. Service-learning presents us with opportunities to integrate teaching, learning, research and outreach to diverse South African communities, whilst concomitantly intensifying the social purpose of higher education (Castle and Osman, 2003). Reviewing the literature on service-learning indicates that these research initiatives draw mainly on Dewey's (1963) philosophy of democratic (social) education and

Kolb's (1984) experiential learning theory as theoretical underpinnings. The present study is no different:

- by creating opportunities for 'real-life' learning experiences postgraduate students were given an opportunity to apply their theoretical knowledge practically in a variety of learning contexts;
- secondly, they reflected on these experiences;
- thirdly, reflective discussions provided them with the opportunity to consolidate their learning they enabled students to draw conclusions, to monitor their progress, and to identify questions and unresolved issues (abstract conceptualisation); and
- fourthly, the conclusions, insights and experiences they gained through their service-learning experiences guided and influenced their actions, leading to 'new' concrete experiences (active experimentation). In other words, in the aforementioned words of Bender and Jordaan (2007, p.637), that "learning from experience in an appropriate way achieves far more than theoretical or technical knowledge," service-learning teaches a student what a university cannot.

Concluding remarks

One of the crucial changes and challenges that the post-apartheid South African democracy faces is to "reconstruct a society and an education system that will create excellent conditions for teaching and learning" (Masitsa, 1995, p.111). These challenges are clearly delineated in White Paper 6 on inclusive education (National Department of Education, 2001). This policy document underlines the vital role of all role-players in education to reconstruct and develop a culture of teaching and life-long learning within South Africa. Moreover, higher institutions world-wide are being held more accountable for the effectiveness and relevance of their activities, and have to show their social responsibility and commitment, by making expertise and infrastructure available for community service programmes (Castle and Osman, 2003).

Although some disagreements exist on how service-learning should be defined and implemented and what criteria should be used to assess its effect and impact, there seems to be consensus in terms of the major components of service-learning, namely: "active participation, thoughtfully organised experiences, focusing on community needs, academic curriculum integration, structured time for reflection, opportunities for application of skills and knowledge, extended learning opportunities and the development of a sense of caring for others" (Bhaerman, as cited in Osman and Attwood, 2007, p.16). Thus, we, the members of institutions of higher learning are challenged to reconsider the training we offer to our undergraduate and postgraduate students, and ask these questions:

- Are we educating students solely for a career? or
- Are we educating them to become responsible citizens?

In an attempt to answer these questions, one has to reflect upon and interrogate current teaching and training practices still being employed at some institutions of higher learning in South Africa:

- Are we creating artificial educational experiences by exposing students to experimental classes on campus?
- Similarly, are we creating artificial educational experiences by exposing them to affluent ex-module C schools only? or
- Is it time to take a new view and become actively involved in community engagement by creating a variety of valuable teaching and learning experiences, especially in previously underserved communities?

Tertiary institutions have the advantage of access to valuable resources and thus have the capacity to create a variety of experiential learning opportunities such as internships (as was the case in the present study), which are a valuable educational and developmental tool for all communities. The present study revealed that the students, the university and the community had benefited.

Positive results were demonstrated by quantitative and qualitative measures that evolved from the empowerment of the students, the community and the learners in this community project. Not only did this project enhance students' performance, but it also contributed to their personal development as educators. They developed a repertoire of skills to support learning-impaired learners and deepened their own understanding of complex social issues and community needs within a diverse South African environment. Moreover, the results of the experiential learning experience demonstrated that giving students the opportunity to apply their theoretical knowledge in practice benefited not only the students themselves but also the learning-impaired learners. After nine months of exposure to literacy intervention strategies, post-test results indicated that learning-impaired learners' reading and spelling performances had improved significantly. Finally, working in close collaboration with different communities, we also realised that there was a great need for educators' capacity building to cater for the diverse needs of learners with special educational needs in their classrooms. Thus, in an attempt to strengthen our reciprocal partnership with the community, the department of Psychology of Education (in close collaboration with the Free State Department of Education) identified and undertook a variety of initiatives to empower educators to address the needs of learners with special educational needs in the Free State Province.

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