Using a Community Engagement Project to Prepare Economics Education Students for Culturally Diverse Learning Environments

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ABSTRACT Critics of teacher education have suggested that initial teacher training institutions have not done an adequate job in preparing student teachers to teach culturally diverse learners. This research paper aimed to explore Post Graduate Certificate of Education (PGCE) economics teaching methodology and students' views on how the Student Teams Achievement Division (STAD) project prepared them on how to teach culturally diverse learners in multicultural ecologies. This paper also aimed to identify issues and solutions to improve the STAD project for diversity. Surveys and interviews were conducted to analyse the data collected from students' responses. Findings revealed that the majority of students showed a greater awareness of the needs of diverse learners during the project. Suggestions were formulated to empower students with the knowledge, skills and dispositions to teach diverse learners.

INTRODUCTION

In the last decade these schools have seen a steadily increasing population of culturally diverse teachers and learners, particularly in urban areas. However, given our failure to provide successful school experiences for those student teachers, there is a critical need for teacher education programs to empower and equip teachers and student teachers with the knowledge and skills to teach and educate culturally diverse learners. Although multicultural education scholars suggest the infusion of multicultural education into all areas of teacher education (Gay 2000; McAllister and Irvine 2000; Cochran-Smith 2004) for better results, many teacher education programs continue to use stand-alone multicultural education courses. It is suggested that some strategies to prepare and support student teachers for teaching diverse learners be put in place.

Critics of teacher education have suggested that initial teacher training institutions have not done an adequate job in preparing student teachers to teach culturally diverse learners. This research paper aimed to explore Post Graduate Certificate of Education (PGCE) economics teaching methodology and students' views on how the Student Teams Achievement Division (STAD) project prepared them on how to teach culturally diverse learners in multicultural ecologies.

Emanating from the above, a culturally diverse conceptual framework for this paper is discussed.

Literature Review

A Conceptualised Culturally Diverse Framework

Te'llez (2007) posits that most teachers see a difference between academic content knowledge and learning strategies that create classroom equity. The researcher argues that it is difficult to foretell the exact strategies needed because each school and classroom has a unique makeup, but there are research-based strategies that can become part of the teacher candidates' knowledge base in a South African context. The Student Teams Achievement Divisions (Slavin

1978) is a critical community engaged project which was identified and is foregrounded by the Communities of Practice Theory (Lave and Wenger 1991), the Social Interdependence Theory (Johnson and Johnson 1987), the Sociocultural Theory (Vygotsky 1986) and the Practicing Equitable Pedagogy Theory (Baca and Cervantes 1984). These constructs will be discussed and re-aligned to the purpose of the paper (cf. Fig. 1).

Communities of Practice Theory

The notion, *community of practice,* was developed by Lave and Wenger (Lave and Wenger 1991; Wenger 2000) as the basis of a social theory of learning. A community of practice is a collection of people who engage on an ongoing basis in some common endeavour, in this case the Student Teams Achievement Divisions (STAD) community engagement project for economics education student teachers. The basic argument made by Lave and Wenger (1991) is that communities of practice are everywhere and that we are generally involved in a number of them – whether that is at work, school, home, or in our civic and leisure interests. Wenger (2000) was later to write:

Communities of practice are formed by people who engage in a process of collective learning in a shared domain of human endeavour: a tribe learning to survive, a band of artists seeking new forms of expression, a group of engineers working on similar problems, a clique of pupils defining their identity in the school, a network of surgeons exploring novel techniques, a gathering of first-time managers helping each other cope. In a nutshell: communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly (p. 27).

Social Interdependence Theory

Theorising on *social interdependence* began in the early 1900s. Lewin (1946) refined Koffka's (1922) notions while stating that (1) the essence of a group is the interdependence among members (created by common goals), which results in the group being a "dynamic whole", so that a change in the state of any member or sub-group changes the state of any other member or sub-group; and (2) an intrinsic state of tension within group members motivates movement toward the accomplishment of the desired common goals. In the late 1940s, one of Lewin's graduate students, Morton Deutsch extended Lewin's reasoning about social interdependence and formulated a theory of cooperation and competition. Deutsch's theory has served as a major conceptual structure for this area of inquiry for the past 45 years. Deutsch's theory was extended and applied to education by the authors at the University of Minnesota (Johnson and Johnson 1987). *Social interdependence* exists when individuals share common goals and each individual's outcomes are affected by the actions of the others (Johnson and Johnson 1989). It may be differentiated from *social dependence* (that is, the outcomes of one person are affected by the actions of a second person but not vice versa) and *social independence* (that is, individuals' outcomes are unaffected by each other's actions). There are two types of social interdependence: cooperative and competitive. The absence of social interdependence and dependence results in individualistic efforts.

Sociocultural Theory

Vygotsky (1986) designed and develop this conceptual framework, which believes that parents, caregivers, peers and the culture at large were responsible for the development of higher order functions. According to Vygotsky (1986), "Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (interpsychological) and then inside the child (intrapsychological). Current conceptualisations of the sociocultural theory draw heavily on the work of Vygotsky (1986). Tharp and Gallimore (1988) posit that "This view [the sociocultural perspective] has profound implications for teaching, schooling, and education." Emanating from this view, STAD as a community engagement project, which was implemented for this paper, focuses not only on how it influenced individual and collective learning, but also on how cultural beliefs and attitudes impact on how instruction and learning take place by other members.

Practicing Equitable Pedagogy

Culturally relevant teaching is a term created by Ladson-Billings (1992) to describe "a pedagogy that empowers students intellectually, so-

cially, emotionally and politically by using cultural referents to impart knowledge, skills, and attitudes". Participating in culturally relevant teaching essentially means that teachers create a bridge between students' home and school lives, while still meeting the expectations of the district and state curricular requirements. Culturally relevant teaching utilises the backgrounds, knowledge and experiences of the students to back up the teacher's lessons and methodology. According to literature, equitable classroom practices are put in place to make sure that the classroom experience is similar for all students. They give teachers a guideline for making sure their own preferences and emotions don't interfere with any student's education. Through this paper the STAD as a community engaged team building project helps student teachers come together as a cohesive whole for the betterment of all of them. The relationship between the lecturer (researcher) and economics education student teachers is important as their interaction is essential for successful teaching practice. These student teachers' teaching practice experiences in the lecture room, at different classrooms and in informal settings lets them understand the delicate balance of first establishing high expectations for their praxis. This happens by informing them of acceptable classroom practices and creating an environment that encourages student teachers to express their ideas about observations during

teaching practices throughout the STAD project. The underlying theme that resonates through this way of teaching is respect and humanity. Respect between the teacher (researcher) and student teachers is necessary for success in the economics education classroom and in the project as a whole.

Emanating from the above conceptual framework for this paper, STAD as a community engagement project is explained to prepare student teachers and to empower them to teach diversity. This research paper will help the researcher have a better understanding of the project's challenges and strengths. It will prompt a redesign of the project to better prepare student teachers to feel competent to teach any student.

STAD-Community Engagement Project

The STAD project provides a collaborative and cooperative learning environment in which student teachers jointly achieve project outcomes. Figure 1 depicted such a project for economics education student teachers.

STAD is based on the principles of individual accountability, positive interdependence, and group processing and goal achievement. This project provides a cooperative and collaborative learning environment in which student teachers jointly focus on a group goal and mutual cooperation. It seems that STAD is a coop-
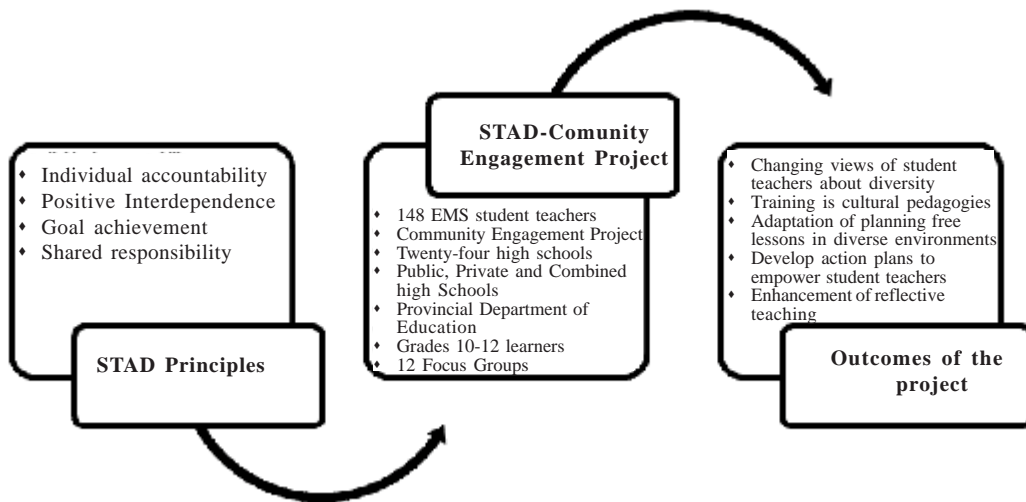

Fig. 1. STAD as a Community Engagement Project

erative learning (CL)-learner centredness instructional technique that could help meet this challenge in South African school classrooms. STAD restructures conventional instructional strategies to place the student teacher and learner at the forefront of the learning process by transforming the student teacher into a facilitator who probes and challenges learners toward constructing knowledge (Van Boxtel et al. 2000; Johnson 2003; Emerson and Taylor 2007). Only economics subject didactics student teachers (n=148) participated in the STAD project. Sampling comprises 60 males (n=60) and 88 females (n=88). These students comprised accounting education, business studies education and economics education students who were registered for the Post Graduate Certificate in Education (PGCE) at an Open and Distance Learning (ODL) institution in South Africa. Furthermore, they comprised 80 percent students of colour (59% African, 9% coloured, 12% Asian), and 20 percent white students. The researcher personally invited and negotiated with schools and the purpose of the paper was explained to school principals and subject teachers. The identified secondary schools (n=24) agreed to and supported the idea that students be exposed to real classroom settings and agreed to accommodate these students in their projects at their respective schools. The rationale behind this project was to increase culturally diverse learners, particularly in urban areas, given our failure to provide successful school experiences for those student teachers. There seems to be a critical need for initial and in-service teacher education programs to equip student teachers and teachers with the knowledge and skills to teach culturally diverse learners in a South African context. The STAD project describes as a part of community engagement initiative for the PGCE-Economics education (module SDEC00N) students. The objective of this project is preparing subject didactics student teachers to work with the increasingly diverse learner population in urban and rural settings. Each team comprised six members per subject didactics module whereby they were compelled to identify a project, plan, implement and report back on the specific project as part of their continuous assessment (CASS) marks for SDEC00N modules at their respective schools. The STAD project is grounded on the assumption that student teachers must be able to make complex decisions based on their beliefs, knowledge and understanding of cultural diversity. The project focuses on four levels of student teacher development to facilitate appropriate decisions about teaching culturally diverse students: (a) awareness, (b) knowledge, (c) acquisition and maintenance of skills, and (d) reflection. The project was implemented during the second and third school terms (March to October 2012). Student teachers visited the agreed schools for their projects to be implemented. Subject teachers and students agreed on set times and days per week of visitation to subject teachers, planning lessons sessions, lesson observations, reflection of lesson presentations and constructive feedback sessions of their projects. Student groups were responsible for their respective projects. Student groups met regularly to reflect on their specific projects during and after the researchers' contact class sessions at the university. Students kept a reflective teaching journal and wrote reflective notes on lesson presentations. The reflective journal was submitted to the researcher (lecturer) for assessment and research purposes.

Purpose of the Paper

The aim this paper is to explore STAD as a community engagement initiative by empowering PGCE economics education student teachers to teach diverse learners. For the purpose of conducting this paper, the following objectives were formulated:

- To explore Economics education students' views on how the Student Teams Achievement Division (STAD) project prepared them to teach with consideration for culture, equity and diversity.
- To identify strategies to improve the STAD project for diversity for future explorations.

RESEARCH METHODOLOGY

Research Design

A mixed method approach for conducting this paper was used. This is an exploratory human ecology perspective paper which was used to investigate PGCE economics education students' views on how the STAD project prepared them to teach with consideration for culture, equity and diversity (Cohen et al. 2009; Teddlie and Tashakkori 2009; Creswell 2009).

Sampling

Only 148 economics education students (n=148) at an institution of higher learning participated in this project. A purposive sample of participative secondary schools, which teach economics education as a school subject, was selected. Only economics education student teachers (n=148) participated in the STAD project. Sixty were male (n=60) and eighty eight were female (n=88). Twenty-four participative secondary schools consisted of ten public high schools, four private high schools and ten combined schools (grades 1-12). There were 88 females and 60 males, ranging in age from 18 to 35 (mean age = 21.23, SD = 3.2). This sample reported the following ethnicities: 78 percent black (learners of colour) and 22 percent white. These students were enrolled in the PGCE program, and they were engaged in the STAD community engagement project for one year.

Data Collection Instruments

Pohlan and Aguilar's (1999) Professional Beliefs About Diversity Scale (PBADS) was used for the purpose of collecting data. The PBADS presented a set of two scales designed to measure attitudes toward and beliefs about diversity, specifically in the context of this paper. The first scale focuses on personal beliefs, and the second focuses on professional beliefs about diversity. This second scale is the one used in the teacher candidate screening process and thus in this paper. This 25-item scale is the product of a multi-step development process spanning diversity in the school setting. Cronbach's alpha coefficient for the PBADS was calculated (α = 0.80).

Focus Group Semi-structured Interviews

Only economics subject method students (n=12) were purposefully selected because they represent a particular social class, ethnicity, race and cultural grouping in this paper. Focus group interviews lasted one hour. The recorded data were transcribed, categorised and thematically analysed. Specific themes and student teachers' extracts were used under each theme. The researcher was really surprised by the stance of the groups (heterogeneous) who did not want to be anonymised. They regarded their "critical voices" as public testimony and stated that they were looking forward to seeing their personal discourses as part of this research paper (Clandinin and Connelly 2000). The names of student teachers were purposely omitted and pseudonyms were used.

Ethical Considerations

Before the researcher could begin with the paper, STAD was registered as a community research project and permission was granted by the Quality Assurance unit of the provincial education department. After received permission, the researcher wrote a permission letter to conduct the study by including the official permission letter to 24 identified secondary schools. In the letter to these schools, the purpose of the paper, the confidentiality clause and the consent of participants (teachers and learners) who participated in this paper, were provided. Schools that teach economics as a subject in the provincial department of education were selected. After receiving permission from the provincial education department, school principals and subject teachers, a meeting was convened and an agreement was signed for student teacher placements.

RESULTS

Findings revealed that the majority of students showed a stronger awareness of the needs of diverse learners during the project. Correlational results are presented in Table 1. As can be seen, the PBADS correlated positively with the Openness to Experience broad domain (r =.39, p = .004), but not with any of the other domains. On the facet level, significant positive correlations were found with O2-Aesthetics/Artistic Interests (r = .29, p = .034), O3-Feelings/Emotionality (r =.34, p =.011), O6-Values/Liberalism (r = .47, p = .000), and A6-Tender-mindedness/Sympathy (r = .39, p = .004). Table 1 also includes means and standard deviations for each scale. It is noted that Cronbach's alpha for the PBADS was .74; consistent with other reports regarding this scale.

Results in Table 1 reveal a pattern of statistically significant and conceptually meaningful relationships between beliefs about diversity and core personality traits of general open-mindedness, liberalism, sensitivity and sympathy of student teachers in economics education. There

Table 1: Means, SDs and correlations with PBADS for all scales

PBADS Scale	Mean	SD	Correlation with PBADS
Extraversion	3.79	0.42	.03
E1 Friendliness	4.23	0.56	.09
E2 Gregariousness	3.71	0.70	.01
E3 Assertiveness	3.75	0.63	** .33
E4 Activity Level	3.35	0.46	.12
E5 Excitement-seeking	3.43	0.60	-.06
E6 Cheerfulness	4.28	0.48	-.05
Agreeableness	3.89	0.34	.22
A1 Trust	3.80	0.57	.15
A2 Morality	4.19	0.44	.19
A3 Altruism	4.40	0.42	.14
A4 Cooperation	3.89	0.57	.04
A5 Modesty	3.30	0.44	.00
A6 Sympathy	3.78	0.52	** .49
Conscientiousness	3.88	0.48	.05
C1 Self-efficacy	4.13	0.56	** .39
C2 Orderliness	3.72	0.59	** .40
C3 Dutifulness	4.38	0.40	.02
C4 Achievement striving	4.12	0.56	** .44
C5 Self-discipline	0.80	0.80	.02
C6 Cautiousness	3.23	0.62	.03
Neuroticism	2.47	0.60	.09
N1 Anxiety	2.78 0.68 .10		.10
N2 Anger	2.27	0.79	.08
N3 Depression	1.99	0.73	.14
N4 Self-consciousness	2.54	0.70	* .27
N5 Immoderation	2.82	0.62	.09
N6 Vulnerability	2.40	0.72	.04
Openness	3.59	0.40	** .47
O1 Imagination	3.66	0.52	.22
O2 Artistic Interests	4.28	0.57	* .29
O3 Emotionality	3.64	0.56	* .35
O4 Adventurousness	3.67	0.60	.16
O5 Intellect	3.75	0.71	.15
O6 Liberalism	2.56	0.59	** .49
PBADS (Total Raw Score)	91.28	9.25	

Note: bold * = *p*<.05; bold ** = *p*<.01

is strong correlation between the PBADS and the Openness broad domain which provides convergent validation for the PBADS, and convergent as well as discriminant validation for the instrument. Student teachers who are dispositionally more open-minded, socio-politically liberal and more sympathetic toward other people exhibit more positive beliefs about themselves and others.

Discussion of Focus Group Interviews

The following themes emerged from the interviews:

Theme #1: Awareness of Diverse Learners' Needs

Scholars on teacher education programs argue that most teachers face the challenge not only of recruiting candidates of diverse backgrounds, but also of preparing these candidates to be effective teachers (Larke 1990; Lenski et al. 2004). These scholars argued that student teachers must reconsider their own assumptions and work towards a better understanding of values and practices of families and cultures different from their own. *This paper looks at the influence of cultural identity (ethnicity, social class and community membership) on the learning of pre-service teachers.* The majority of participants mentioned that awareness of the needs of the diverse learners they taught impacted them as well as others in the classroom. This made them aware of differences and poverty, which come into play on all aspects of teaching learning in a diverse classroom setting (Bradshaw 2007). They also believe that a deeper understanding regarding learners' cultures is important to teach in such an environment. Some members of focus groups indicated that: *"We are aware of the different needs of these learners in our classes. We must be sensitive because we must understand other learners' cultures and the effect it brings to the classroom."* What surfaced throughout the interviews was an important factor which influences teaching and learning, and that is the aspect of poor role models in the community as often mentioned by some learners. One particular Focus Group D member said: *"In our placement school [this is a rural school] there are poor role models in the community because of gangsters. These groups always fight over weekends. So the youth of this school are doing drugs, alcohol abuse and other immoral things."* Boven and Chapman (1996) reported that they investigated how the community influences youth. The findings of their study suggested that the adaptation of youth is influenced more by the availability of social support, especially from parents, than that of their reports and perceptions of neighborhood danger. Another member referred to poverty which *"… is rife in our township. The community lacks good sporting facilities for the youth. Many of our township youth are unemployed. A lot of social evils persisted in our community and that is why I chose to become a teacher – to change*

learners' lives in our community." It seems from the interviews that this particular community is plagued by unemployment, social evils and single parent households, which impacted on the community at large, but in particular on the school. It was evident that poverty is a huge challenge and problem in these schools. On the other hand, Garcia-Reid et al. (2005) conducted a study which tested a path model predicting school engagement that included neighbourhood and school environment variables. The results of the study revealed that neighbourhood youth behaviour and neighbourhood safety is influenced by school engagement indirectly through its effect on social support systems. A similar activity of school engagement was established by Focus Group B. This is what a female student teacher said: *"Most of us are from privileged communities. We were placed in this school not only to learn how to teach diverse learners but to get involved in this school community. We debated and decided to get involved in the school community by starting a soup kitchen with the school parents. Every Fridays we (four student teachers) cooked and provided learners with warm soup and bread. This is a small contribution to six hundred learners. We are now more sensitive and caring to learners in this school."*

Theme #2: Different Ways To Teach Learners In Diverse Settings

Most of the focus groups believe that teaching must be the same for every child. They said that during teaching these diverse learners, the incorporation of home culture is very important for effective teaching. Teachers need to provide and implement various resources by integrating technology into teaching and learning. These learners are the M-generation – the "digital natives". They are the Millennials (a.k.a. NextGen, GenY, C Generation, M Generation and Echo Boomers). McLoughlin (1999) and Spradley et al. (1984) conducted a study on culturally responsive technology use in an online community of learners. The results revealed that it is vitally important to adapt to online delivery by incorporating culture specific values, styles of learning and cognitive preferences, and tasks that were designed to go beyond surface level comprehension to achieve deep learning. The researcher content that we must prepare for

these diverse learners' needs in multicultural settings is achieved by applying strategies and e-learning tools such as social media networked learning and Web 2.0 technologies to motivate and accommodate them. On the other hand, Mathes et al. (1998) conducted a study by using Peer-Assisted Learning Strategies for First-Grade Readers (First-Grade PALS) as a tool for enhancing the reading achievement of different learner types. Results indicate that all learner types were positively affected by participation in First-Grade PALS, with the greatest gains indicated in low-achieving students. Moreover, Mahan (1982) reported on the findings of a study which focused on the effect of community involvement components in culturally oriented teacher preparation. Some Focus Group F members reaffirmed the findings of the latter study by alluding to the planning and preparation for diversity: *"Lessons planning and preparations for a diverse class setting is a total different ball game. We must teach the same for everyone irrespective of race, culture or class. Treat everybody the same and be fair in the classroom."* Another group replied to this question: *"At our school there was a lack of resources and teaching aids. We must incorporating home culture and more diverse resources in our class practices."*

Theme #3: Practicing and Reflecting Culturally Responsive Teaching

It seems from the focus group interviews that the respondents believe that to teach diverse learners one must be more conscious of different ways to teach them. They also mentioned that planning lessons for different types of settings is extremely important for the success of achieving objectives. A female student [Focus Group A] indicated: *"Every Friday we reflect on our classroom activities which are strengthening our repertoire for teaching diverse classes. We also discuss topics on diversity in the classroom, planning, designing and preparing for resources on diversity, accommodation of learners in such classes and how to assess these classes successfully."* Lenski et al. (2004) designed *The Beyond Awareness Research Project* to develop more effective ways to address culture and cultural differences in the preparation of pre-service teachers, in-service teachers, and university faculties. This project was aimed to adequately prepared educators for working in

high-need schools by assisting them in the development of habits of mind that incorporate an understanding and valuing of students' cultures and recognition of the need to consider those cultures in teaching practices.

Theme #4: Preparing Economics Education Students for Culturally Diverse Learning Environments

The STAD project was initiated as a community engagement project for empowering and preparing student teachers to teach culturally diverse learners in the subject. This project provides a collaborative and cooperative learning environment which student teachers jointly strive for the same project outcomes (cf. Fig. 1). During the STAD project, most of the student teachers refer to teaching for social justice and integration of diverse activities into the teaching and learning of these diverse learners as very important skills to be fully achieved in the classroom. A female student teacher [Focus Group C] alluded to teaching culturally diversity. She said: *"It was a huge honour to teach for the first time a multicultural class. I used music in one of my classes on the topic of unemployment. I explained the words of the song by playing music to explain the theme of the lesson. The learners really enjoyed the topic under discussion and were very cooperative in my class."* Au and Blake (2003) conducted a case study on cultural identity and learning to teach a diverse community. The findings of that particular paper suggest that pre-service teachers who differ in terms of cultural identity may gain different benefits from participation in a program designed to prepare them to teach in a diverse community. Emanating from the latter, this STAD project achieved the opposite results by demonstrating different results as pertaining to what this female respondent alluded to: *"We can make a difference in the life of these learners! Yes, I am "white", but felt confident to take on this challenge. This project supported and empowered me to teach culturally diverse learners in my subject. I am more conscious as a "white person" about different ways to teach diverse learners, meaning other races."* Throughout this project, the researcher and student teachers came together on a regular basis to reflect and plan applicable classroom activities to teach multicultural classes. Another member of Focus Group G alluded

to lessons planning: *"We also received sessions on how to teach for social justice and integration of diverse activities in our economics lessons."* Moreover Ferguson et al. (2003) reported in a similar paper how they developed a specific *Culturally Competent Community Faculty Program* for their academics and personnel to teach, support and empower their diverse student population in the undergraduate courses.

DISCUSSION

The aim this paper was achieved using the STAD-community engagement initiative by empowering PGCE economics education student teachers to teach diverse learners. The project was used as a community engagement project for empowering and preparing student teachers to teach culturally diverse learners in the subject. Emanating from this STAD project, Kea and Trend (2013) conducted a similar project and reported culturally responsive teaching (CRT) in a field-based and student teaching experiences initiative. Findings from this paper reveal that multiple opportunities to design and deliver CRT are needed since most pre-service teacher candidates have not had this experience in their K-12 schooling. In so doing, teacher education programs must reposition "culture" at the centre of all teacher preparation (Mills and Ballantyne 2010; Harding 2011). It is extremely important for teacher education programs to empower, prepare and support student teachers for the task lying ahead and beyond. Additionally, Hernandez et al. (2013) developed a model of culturally responsive science and mathematics teaching. The model is an inclusive and comprehensive model to guide the preparation and assessment of teacher candidates for culturally responsive teaching. Moreover, empowering student teachers for culturally responsive teaching in increasingly diverse contexts remains a substantive challenge especially in a South African education context. What may be called for are new approaches and models for working with pre-service teachers around issues of cultural awareness and diversity. These approaches and models will need to synthesise opportunities for reflective self-analysis and inquiry within a classroom setting and encourage field observations and interactions in diverse communities. Some researchers have begun to articulate such approaches. STAD as a community engaged

project was one effective way to empower student teachers to create learning climates and expectations where self-reflection and cultural critical consciousness are part of the routine, normative demands of student teachers. In our lecture rooms student teachers are informed from the very beginning that they are expected to "think deeply and analytically," and to "check themselves" regarding the topics they are studying; to carefully examine their feelings about what they experience; and to work diligently at translating the knowledge they are learning into instructional possibilities for use with the diverse learners they will teach. During contact sessions at the university, student teachers can dramatise, through role-playing and simulation, different ethnic perspectives on multicultural education, cultural diversity and social justice issues, and then critiqued the adequacy of others' performances. They can also think about both the personal and professional ramifications of their newly acquired knowledge – how it impacts them as human beings and as future classroom teachers. Another technique that works well is helping fellow student teachers develop critical racial and cultural consciousness through modelling the process in their praxis. We also convey to student teachers beliefs that the person who performs the role of teacher, and understanding the cultural contexts in which they teach, are as crucial to instructional effectiveness with diverse learners as the mastery of content knowledge and pedagogical techniques. By exposing student teachers to diversity it is transforming the heart, creating a changed view of "oneself" to the "otherness". The STAD project also supported and strengthened the planning of lessons to be more conscious about different ways to teach diverse learners. These suggested strategies give the student teacher an edge in learning about and responding to the diverse classroom. Researchers have suggested other specific pedagogical strategies to more effectively prepare teacher candidates to educate diverse learners: autobiography (Clark and Medina 2000; Xu 2000), simulation (Frykholm 1997), debating cultural responsive teaching (Larke 1990; Marshall 1998), participative action research (Buck and Cordes 2005), integration of technology (Schrum et al. 2007); community-based service-learning (Burant and Kirby 2002); field experience in a school and community setting where student populations were racially, linguistically,

culturally diverse, or in urban settings (Canning 1995; Howell and Anington 2008). Using various approaches, researchers and teacher educators have attempted to describe and examine the effectiveness of developing teacher candidates' knowledge, attitude and skills. Teacher educators hope to impact teacher candidates' attitude toward diversity (Wasonga 2005; Cicchelli and Cho 2007); impact through examining prejudice reduction (Larke 1990; Greenman and Kimmel 1995; Cockrell et al. 1999; Causey et al. 2000); and develop the ability to engage in equity pedagogy (Greenleaf et al. 1994). Some studies, such as impact on prejudice reduction, have mixed results, but other studies have shown positive but short-term improvement in teacher candidates' understanding and practice in educating diverse learners (Greenman and Kimmel 1995; Cockrell et al. 1999; Causey et al. 2000). Another suggested way of preparing teacher candidates for diverse students and environments would be partnerships between schools and universities. In order to have better outcomes for preparing teacher candidates, teacher education programs should implement more integrated and comprehensive approaches (Van Wyk 2010; Zeichner and Melnick 1998). Lastly, to develop future teachers' and practicing teachers' competence to work with diverse learners and to provide all students opportunities to achieve academic excellence, a collaborative approach which built noticeable school university partnerships, aims to prepare highly qualified teachers, to provide professional development for in-service teachers, to use research and inquiry as an instructional approach, and to improve students' school experiences (Burant and Kirby 2002).

CONCLUSION

Scholars on teacher education programs argue that most faculties face the challenge of not only recruiting candidates of diverse backgrounds, but of preparing these candidates to be effective teachers. This paper describes a STAD project that focuses on both the content and process of training PGCE economics education student teachers to teach culturally diverse learners in diverse ecologies. The selected sample of student teachers for this paper, although from diverse race and cultural groupings, was exposed to several multicultural ecologies dur-

ing the project. The STAD project had a meaningful effect on relationships between views, beliefs and conceptions of participants about diversity (multicultural education) and core personality traits of general open-mindedness, liberalism, sensitivity and sympathy. The results from the survey revealed that a strong correlation between the PBADS and the Openness broad domain existed (correlates), which provides convergent validation for the PBADS by student teachers. Student teachers who are dispositionally more open-minded, sociopolitically liberal and more sympathetic toward other people exhibit more positive beliefs about diversity in the school setting. It can be concluded that from the interviews that PGCE student teachers indicated that STAD created an awareness of needs of diverse learners and prepared them for different ways to teach learners in poverty. The participants said they were forced to prepare and plan well in advance for diverse learners' needs in the multicultural classes by applying strategies to motivate them. They also responded that by practicing and reflecting on these diverse learning environments, it strengthened their ability to prepare for future culturally responsive teaching situations successfully.

RECOMMENDATIONS

Currently, teacher education programs, in particular economics education, do need to infuse multicultural education. Student teachers have opportunities to develop their knowledge and skills to respond to learners' cultures, races, and ethnicities so that their future learners have an equitable opportunity to learn quality economics. One major question for future research has to do with the malleability of diversity beliefs and attitudes of student teachers in a South African context. The present data, framed in the context of the five factors of basic endogenous tendencies, suggests that student teachers who have lower levels of Openness may not benefit from diversity-related educational efforts. Future studies should focus on pre- and post-measures of diversity attitudes, as a function of explicit diversity curriculum and experiences in the research design.

It is important to restructuring learning programs, curriculum revisions, and integrating culturally responsive principles to frame and guide the implementation of a culturally responsive

teaching approach throughout the teacher education curriculum.

REFERENCES

Au HK, Blake KM 2003. Cultural identity and learning to teach in a diverse community: Findings from a collective case paper. *Journal of Teacher Education,* 54(3): 192-205.

Baca LM, Cervantes HT 1984. *The Bilingual Special Education Interface.* St. Louis: Times Mirror/ Mosby College Publishing.

Bradshaw TK 2007. Theories of poverty and anti-poverty programs in community development. *Journal of the Community Development Society*, 38(1): 231-239.

Boven GY, Chapman MI 1996. Poverty, neighborhood danger, social support, and the individual adaptation among at-risk youth in urban areas. *Journal of Family*, 17(5): 641-666.

Buck G, Cordes J 2005. An action research project on preparing teachers to meet the needs of underserved student populations. *Journal of Science Teacher Education,* 16(1): 43-64.

Burant TJ, Kirby D 2002. Beyond classroom-based early field experiences: Understanding an "educative practicum" in an urban school community. *Teaching and Teacher Education,* 18(1): 561-575.

Canning C 1995. Getting from the outside in: Teaching Mexican Americans when you are an "Anglo." *The High School Journal*, 78(4): 195-205.

Cicchelli T, Cho S 2007. Teacher multicultural attitudes. *Education and Urban Society,* 39(3): 370-381.

Clandinin DJ, Connelly FM 2000. *Narrative Inquiry: Experience and Story in Qualitative Research.* San Francisco, CA: Jossey-Bass.

Clark C, Medina C 2000. How reading and writing literacy narratives affect pre-service teachers' understandings of literacy, pedagogy, and multiculturalism. *Journal of Teacher Education,* 51(1): 63-76.

Cochran-Smith M 2004. *Walking the Road: Race, Diversity, and Social Justice in Teacher Education.* New York: Teachers College Press.

Causey VE, Thomas CD, Armento BJ 2000. Cultural diversity is basically a foreign term to me: The challenges of diversity for pre-service teacher education. *Teaching and Teacher Education,* 16(1): 33-45.

Cockrell KS, Placier PL, Cockrell DH, Middleton JN 1999. Coming to terms with "diversity" and "multiculturalism" in teacher education: Learning about our students, changing our practice. *Teaching and Teacher Education,* 15(4): 351-366.

Cohen L, Manion L, Morrison K 2009. *Research Methods in Education*. 6th Edition. London: Routledge Farmer.

Creswell JW 2009. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches.* 3rd Edition. SAGE: Los Angeles.

Department of Education (DoE) 2010. Curriculum and Assessment Policy Statement (CAPS). Economic Management and Science. *Final Draft 2010*. Government Press: Pretoria.

Deutsch M 1983. The prevention of World War III: A psychological perspective. *Political Psychology,* 4: 3–32.

Emerson TLN, Taylor BA 2007. Interactions between personality type and the experimental methodology. *Journal of Economic Education*, 38(1): 19-35.

Frykholm JA 1997. A stacked deck: Addressing issues of equity with pre-service teachers. *Equity and Excellence in Education,* 30(2): 50-58.

Ferguson WJ, Keller DM, Haley H, Quirk M 2003. Developing culturally competent community faculty: A model program. *Academic Medicine,* 78(12): 1221-1228.

Garcia-Reid P, Reid, RJ, Peterson NA 2005. School engagement among Latino youth in an urban middle school context valuing the role of social support. *Education and Urban Society,* 37(3): 257-275.

Gay G 2000. *Culturally Responsive Teaching: Theory, Research, and Practice*. New York: Teachers College Press.

Greenleaf C, Hull G, Reilly B 1994. Learning from our diverse students: Helping teachers rethink problematic teaching and learning situations. *Teaching and Teacher Education,* 10(5): 521-541.

Greenman NP, Kimmel EB 1995. The road to multicultural education: Potholes of resistance. *Journal of Teacher Education,* 46(5): 360-368.

Harding DJ 2011. Rethinking the cultural context of schooling decisions in disadvantaged neighborhoods: From deviant subculture to cultural heterogeneity. *Sociology of Education,* 8(4): 322-334.

Hernandez CM, Morales AR, Shroyer MG 2013. The development of a model of culturally responsive science and mathematics teaching. *Cultural Studies in Science Education*, 8: 803-820. DOI 10.1007/s11422-013-9544-1

Howell P, Anington J 2008. Negotiating differences: Early field experiences in a diverse middle school. *Middle Grades Research*, 3(1): 35-63.

Johnson DW, Johnson RT 1987. *Learning Together and Alone: Cooperative, Competitive, and Individualistic*. Englewood Cliffs, NJ: Prentice Hall.

Johnson DW 2003. *Reaching Out: Interpersonal Effectiveness and Self-actualization.* 7th Edition. Boston: Allyn & Bacon.

Kea CD, Trend SC 2013. Providing culturally responsive teaching in field-based and student teaching experiences: A case paper. *Interdisciplinary Journal of Teaching and Learning*, 3(2): 82-101.

Koffka K 1922. Perception and introduction to the *Gestalt-theorie. Psychological Bulletin*, 19: 531-585.

Ladson-Billings G 1992. Culturally relevant teaching: the key to making multicultural education work. In: CA Grant (Ed.): *Research and Multicultural Education.* London: Falmer Press, pp.106-121.

Larke PJ 1990. Cultural diversity awareness inventory: Assessing the sensitivity of pre-service teachers. *Action in Teacher Education*, 12(3): 23-30.

Lave J, Wenger E 1991. *Situated Learning: Legitimate Peripheral Participation*. Cambridge, Cambridge University Press.

Lenski SD, Crumpler TP, Stallworth C, Crawford KM 2004. Beyond awareness: Preparing culturally responsive pre-service teachers. *Teacher Education Quarterly,* 12: 85-100.

Lewin K 1946. Frontiers in group dynamics concept, method and reality in social science; Social equilibria and social change. *Human Relations*, 1(6): 1 5-41.

Mahan J 1982. Community involvement components in culturally oriented teacher preparation. *Education,* 103(2):163-172.

Marshall PL 1998. Toward developmental multicultural education: Case paper of the issues exchange activity. *Journal of Teacher Education,* 49(1): 57-65.

Mathes PG, Howard JK, Allen SH, Fuchs D 1998. Peer-assisted learning strategies for first-grade readers. *Responding to the Needs of Diverse Learners,* 33(1): 62-94.

McAllister G, Irvine J 2000. Cross cultural competency and multicultural teacher education. *Review of Educational Research,* 70(1): 3-24.

McLoughlin C 1999. Culturally responsive technology use: Developing an on-line community of learners. *British Journal of Educational Technology,* 30(3): 231-243.

Mills C, Ballantyne J 2010. Pre-service teachers' dispositions towards diversity: Arguing for a developmental hierarchy of change. *Teaching and Teacher Education*, 26(3): 447-454.

Pohan C, Aguilar T 1999. *The Beliefs About Diversity Scale: User Manual and Scoring Guide.* Department of Educational Psychology and the Center for Curriculum and Instruction.Lincoln: University of Nebraska-Lincoln.

Schrum L, Burbank M, Capps R 2007. Preparing future teachers for diverse schools in an online learning community: Perceptions and practice. *Internet and Higher Education,* 10(3): 204-211.

Slavin R 1978. *Student Teams Achievement Divisions.* Baltimore: John Hopkins University.

Spradley BA, McCurdy DW 1984. Culture and the contemporary world. In: P Spradley, DW McCurdy (Eds.): *Conformity and Conflict: Readings in Cultural.* Boston: Little Brown, pp. 1-13.

Teddlie C, Tashakkori A 2009. *Foundations of Mixed Methods Research: Integrating Quantitative and Qualitative Approaches in the Social and Behavioral Sciences*. California: SAGE.

Te'llez K 2007. Have conceptual reforms (and one anti-reform) in pre-service teacher education improved the education of multicultural, multilingual children and youth? *Teachers and Teaching: Theory and Practice,* 13(6): 543-564.

Tharp RG, Gallimore R 1988. *Rousing Minds to Life: Teaching, Learning, and Schooling in the Social Context.* Cambridge, England: Cambridge University Press.

Tjosvold D 1986. The dynamics of interdependence in organizations. *Human Relations,* 39(2): 514-540.

Van Boxtel C, Van der Linden JL, Kanselaar G 2000. The use of textbooks as a tool during collaborative physics learning. *Journal of Experimental Education,* 69(1): 57-76.

Van Wyk MM 2010. Didactical principles for the teaching of Economics: An exploratory factor analysis. *Journal of Social Science,* 23(2): 83-89.

Vygotsky L 1986. *Thought and Language.* Cambridge, MA: The MIT Press.

Wasonga T 2005. Multicultural education knowledge-base, attitudes and preparedness for diversity. *International Journal of Educational Management,* 19(1): 67-74.

Wenger E 2000. *Communities of Practice*. New York: Cambridge University Press.

Xu H 2000. Pre-service teachers integrate understandings of diversity into literacy instruction: An adaptation of the ABC's model. *Journal of Teacher Education*, 51: 135-142.

Zeichner K, Melnick S 1998. Teacher educator's responsibility to address diversity issues: Enhancing institutional capacity. *Theory into Practice,* 37(2): 88-95.