

SCHOLARSHIP OF TEACHING AND LEARNING IN THE CONTEXT OF A UNIVERSITY OF TECHNOLOGY: A CASE OF THE CENTRAL UNIVERSITY OF TECHNOLOGY, FREE STATE

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Abstract

This article describes the Scholarship of Teaching and Learning (SoTL) project at the Central University of Technology, Free State (CUT) to improve teaching and learning. Its focus is the genesis of the project, perceptions and perspectives of staff on SoTL, challenges facing SoTL, and the perceived significance and impact of the project. It is argued that SoTL has the potential of advancing teaching and learning generally and within one's disciplinary home. Thus, engagement in SoTL does not undermine one's disciplinary work, but rather enhances reflective practice and sharing practices with peers nationally and internationally. Quantitative data were collected by means of a questionnaire. The chi-squared test was applied and a p-value calculated for quantitative data of the survey. Only one area indicated significant frequency differences at the level of alpha (0.05). The qualitative data was elicited from written accounts by the participants and analysed in terms of emerging themes and issues. The article concludes that: engaging in SoTL encompasses scholarly teaching and meaningful learning; enhances scholars' contributions to their disciplines; involves a scholarly work not separated from everyday classroom practices; and that the teaching continuum, and perceived involvement, are critical aspects of improving one's practice at CUT and in specific disciplines.

Keywords: Scholarship of Teaching and Learning; Research; Scholarly Teaching; Reflective Practice; Rewards and Promotion

1. INTRODUCTION

In his seminal work, *Scholarship Reconsidered*, Boyer (1990) argues for the valuing of knowledge generation, which is the traditional definition of scholarship. He further argues that higher education institutions have the responsibility of the application of knowledge through faculty engagement in community-based research, teaching and service. Thus, community-engaged scholarship applies to teaching, including service-learning, research (community-based research), and service (community, outreach and activism promotion).

In this work, Boyer (1990) recommends that the recognition and reward of four types of scholarship: teaching, integration, application of knowledge and discovery should be the starting point in the discourse of recognising teaching in Higher Education for promotion purposes. He specifically argues for the greater integration of these identified forms of scholarship in university cultures (mission statements) and structures (policy documents). In particular, Boyer proposes that greater alignment between scholarship, inclusive of teaching and reward, would likely lead to shifts in tenure and promotion that currently privilege research.

The article is underpinned by Boyer's (1990) modified theoretical and conceptual framework to describe SoTL in Higher Education - and specifically the experiences of CUT as a university of technology with a unique context and culture of teaching and research shaped by the erstwhile technikon history. This framework assists in exploring the relationship between teaching, learning and research, perceived levels of involvement in scholarly teaching and scholarship of teaching and learning at CUT and in specific disciplines (McKinney 2007; Trigwell 2015).

Aspects of Boyer's expanded work that inform discussions in this article are (i) teaching, scholarly teaching and SoTL in the contexts of universities, universities of technology and, in particular, SoTL at CUT; (ii) staff's perceptions of SoTL and its relation to basic research at CUT; (iii) progress made to promote quality teaching and learning through a coordinated project of SoTL at CUT; (iv) the impact of involvement in SoTL in terms of encouraging reflective teaching by lecturers in discipline-specific contexts; and (v) challenges related to the CUT SoTL model.

One of the reasons for SoTL work being slow to flourish is the fact that it remains grounded in local classroom practices, with scholars rarely asking reflective questions about their own practices, and also rarely sharing their experiences with immediate colleagues in their departments, faculties, as well as national and intentional peers. In this sense teaching has become a private individual matter characterised by *noli me tangere* by immediate colleagues in the departments, heads of departments and senior members of faculties. This type of research, therefore, is seldom subjected to peer review by colleagues or open to public scrutiny and production of articles and books.

Leibowitz (2015: 11) mentions that academics engage in SoTL for the following three reasons:

- it is important in the context of the rapidly changing world of academia and the emerging and pressing need for epistemological access;
- it facilitates a shift in thinking where academic staff regards their teaching practice as an opportunity for research and scholarship and a solution for teaching-related problems; and

- it enables staff to contribute to the extension of knowledge on teaching in their various disciplines.

2. CONTEXT OF SoTL IN HIGHER EDUCATION

In the 1990s, growing tension between research and teaching in the tertiary sector led to discussions about what Baldwin (1990:160) refers to as “professor vitality”. This tension has seen scholarship being extended, adapted and used by other scholars such as Healey (2005), Hubball (2010), Ginsberg and Bernstein (2011) and Shulman (1996), to elevate the status of teaching as a worthy core function of a university, similar to research. Several descriptions of SoTL have emerged since Boyer's original thinking. Pitso (2013:198) describes SoTL as (i) “an activity that must be a systematic study of some aspects of teachers' teaching and learning, which means that such an activity is deliberate, planned, intentional, occurring over time and refined as necessary”. Furthermore, (ii) such an activity must be based on validated criteria of scholarship in lieu of weakly planned reflection on teachers' teaching or their students' learning, and some “ad hoc gathering of information”. An activity is considered an SoTL activity when (iii) its research efforts on teaching and learning are geared towards making transparent how teaching makes learning possible, and how it optimises students' learning. Finally, (iv) the outcomes of such an activity need to be made publicly available for purposes of undergoing refinement and being used by an appropriate community of scholars. An activity has to meet all four of these conditions in order to be considered an SoTL activity.

Potter and Kustra, paraphrased by Pitso (2013:199), describe scholarly teaching as “teaching grounded in critical reflection using systematically and strategically gathered evidence, related and explained by well-reasoned theory and philosophical understanding, the goal of maximising learning through effective teaching”. Pitso (2013:199) states that scholarly teaching involves the willingness and readiness to change as and when evidence suggests such necessity, and it is also about intentional and deliberate gathering of evidence that is grounded on SoTL literature.

Adcroft and Lockwood (2010:480) offer an alternative framework comprising three aspects that challenge descriptions of what constitutes SoTL and illuminates the term SoTL. They argue that (i) “there is more to it than simply what happens in a classroom setting and, similarly, SoTL goes beyond a theoretical understanding of teaching and learning; (ii) characteristic is that SoTL is more of a behavioural and cultural phenomenon than it is a departmental or managerial issue - scholarship is not something that can be imposed or manufactured; (iii) SoTL involves the nurturing of communities of practice in order to “keep the flames of scholarship alive” (ibid). Boyer (1990), quoted by Adcroft and Lockwood (2010:481), emphasises what Paulson (2001) describes as a need for sharing practice as much as examining and interpreting practice. In discussions about how SoTL can be developed,

Shulman (1986) alleges that serious investments must be made by individual academics and institutions to investigate teaching and learning, and in particular the interplay between research and educating students.

Much development in the field now focuses on the notion of knowledge about teaching and learning being the driving force behind scholarship. Two key elements are examining and interpreting practice. Knowledge of teaching and learning is the result of three different types of reflection. These are (i) “reflections on the content and what is taught; (ii) reflections on process and how things are taught; and (iii) reflections on premise and why things are done in a particular way” (Adcroft & Lockwood, 2010:480).

The line of conceptual debate and deliberation on the value of SoTL continues today and has “resulted in a rich literature about the defining features of SoTL, its difference from related kinds of pedagogical work, its methods and its underlying conceptual and theoretical bases” (Hutchings, 2010:64). The following three areas offer a useful framework for tracing how this “idea has taken shape, what has happened, and where things are headed” (Hutchings, 2010:65-67):

- Individual teaching practice: One measure of the trajectory of the SoTL has been its capacity to engage growing numbers of faculty from a broad range of settings;
- Developments in the scholarly and professional societies: scholars of teaching and learning are powerful recruiters of new talent, as they share their work in informal conversations on campus, at more formal campus events featuring local scholarship of teaching and learning, in presentations and workshops at national and international conferences, and on the worldwide web; and
- Campus culture: throughout the development of the SoTL movement, and woven through debates about definitions, methods, forms and formats, questions about the value and status of this work on campus have been a running subtext. Such work goes against the grain in many academic settings, and not only in those heavily tilted towards traditional research.

In a study by Pitso (2013:203) conducted at seven universities in South Africa, the culture of SoTL was explicitly espoused and supported at four of these universities - of which one was a university of technology - in that the scholarship of teaching was highlighted as one of the policy objectives in their key institutional documents. These institutions indicated the value of conducting research in teaching and learning in their policy statements. At two of the research-intensive universities, SoTL is used to encourage research in the areas of teaching and learning. Three of the seven universities (all research intensive) use various ways to encourage SoTL or its variant research in teaching and learning (Pitso, 2013:204).

However, not all academics must engage in the scholarship of teaching and learning. Some might choose (quite reasonably) to focus on work in the scholarships of discovery, integration and application, some on scholarly teaching, and yet others may focus on SoTL. “However, at the institutional level, and for the academy in general, a flourishing SoTL becomes critical” (Ginsberg & Bernstein, 2011:2). Many have described the reward-based challenges of facilitating SoTL in a research university as “the paradox of creating the conditions for SoTL without the incentives” (Wright, Finelli, Meizlish & Bergom 2011:51).

However, SoTL is rife with challenges, which are twofold. These challenges arise from (i) “academics' expectations for standards of research evidence”; and from (ii) “the discontinuities between different kinds of knowledge” (Woodhouse 2010:3). Woodhouse argues that it seems ironic that some of the strongest advocates for SoTL research have come to realise that teaching, which takes learning seriously, must also be recognised as substantive, intellectual work in more appropriate formats so that “colleagues can access and understand” the complexities of teaching, that intellectual credit for teaching efforts should be acknowledged, and that teaching should be rewarded in institutional policies and procedures. According to Woodhouse (2010:5), it is much more straightforward to argue that research on teaching and learning is a legitimate and important area of research in its own right.

Once research on teaching and learning is accepted as a field of research, it is no longer necessary to claim it as an attribute of the scholarship of teaching. It then becomes much more straightforward to argue that learning-centred teaching is a legitimate and important academic activity, which merits the accolade of scholarship in its own right. Accepting learning-centred teaching (i.e. teaching that promotes deep and transformative learning) as a valid form of scholarship is the starting point. We can enrich the educative potential of this model by encouraging students and scholars to enhance their learning and teaching through critical, collective reflection on what is, and what should be learned; and on how our institutions, social relationships and individual practices should be organised so that learning can be best encouraged, accomplished and assessed (Cruz, 2013; Woodhouse, 2010:6).

3. CONTEXTS OF SoTLAT CUT

The role and value of SoTL at universities in South Africa, including at CUT, are still at an infant stage. The philosophy and approaches to teaching and learning at CUT are captured in the CUT Teaching and Learning Plan: 2014-2020 (CUT, 2014). In recognition of teaching and learning as a core function of the University, and in committing its support and promotion of teaching and learning as an institutional and a national priority, CUT adopted a learning-centred approach as a philosophy that must underpin all teaching and learning, as well as practices aimed at moulding a CUT graduate.



In order to achieve this, the University continuously nurtures an environment that promotes this philosophy (CUT, 2014).

As a primarily teaching institution enrolling mainly undergraduate students, CUT has been committed to improve students' success and pass rates during the period 2010 to 2014. The past and current pass rates and projected targets for 2020 are indicated in Figure 1.

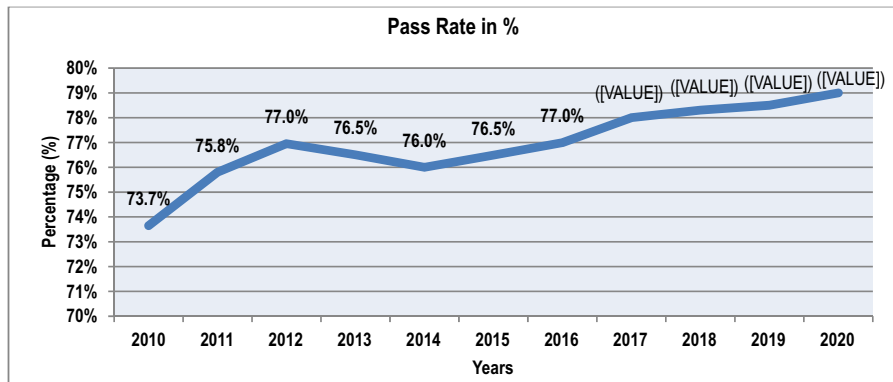


Figure 1: Projected student pass rate at CUT

In particular, CUT has set itself to improve its student success rate to 79 % in 2020 through various interventions, of which the SoTL project is one such major intervention. Focusing on the CUT values of integrity and innovation, while appreciating its diversity, the University strives to deliver quality service to students through excellent teaching.

By nurturing an engaged student, a scholarly academic and a rich learning environment, it is hoped to increase the throughput rates progressively, but more importantly, to graduate a well-rounded individual. Improvement of lecturers' qualifications and a supportive environment are critical to supporting this teaching and learning philosophy (CUT, 2014:6).

However, there are contradictory views among academic leaders - some of whom still view research outputs of SoTL as not being at the same level and of the same status as the outputs from research of researchers' primary disciplines. Consequently, difference of opinions still exists as to whether outputs followed from SoTL research work should be recognised for promotion of academic staff. The SoTL project at CUT will be discussed in the next section.

4. DESCRIPTION OF THE CUT SoTL PROJECT

During 2014, CUT aligned all research entities with its newly developed Policy on Research Centres, Units and Groups. An outcome of this process was the approval of the Scholarship of Teaching and Learning Research Unit, situated in the Learning and Teaching Section, by Senate. The University was successful in obtaining funding from the Department of Higher Education and Training (DHET)'s Teaching Development Grant for a three-year period to establish a research unit in the field of SoTL, and to promote research in this field. The purpose of this project is four-fold:

- to enhance the quality of teaching and learning at the University;
- to improve the student success rate and throughput;
- to provide spaces for good teachers who do not see themselves as researchers, to become active participants in research in a field wherein they feel confident; and
- to increase the University's research outputs.

A leading rated scientist in this field heads the SoTL Research Unit, with 13 appointed mentors who are leading researchers in various fields of study. The SoTL mentors adopted four to six novice researchers/academics, each from faculties or academic sections, to mentor and develop as researchers into their practice for purposes of enhancing and improving teaching and learning at the institution (CUT), for a three-year period. A total of fifty-nine (59) mentors and mentees were appointed during 2015. In this project, a grant is allocated to each mentor and each mentee for research development, fieldwork, conference attendance, presentation and publication of papers. The SoTL research project at CUT is illustrated in Figure 2:

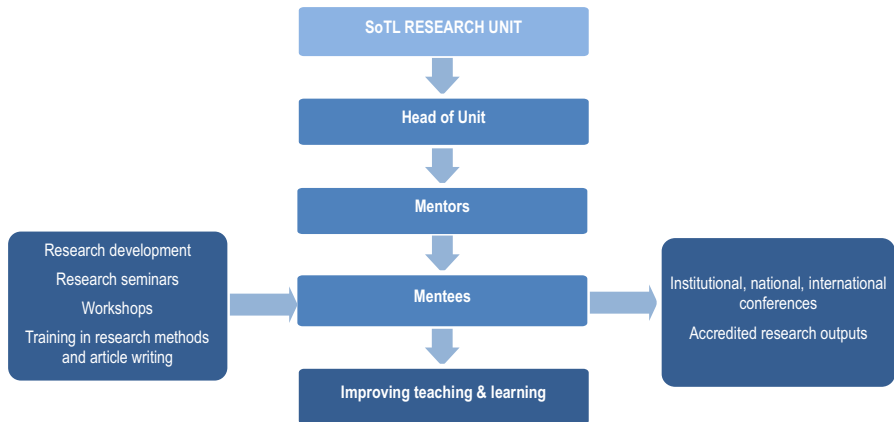


Figure 2: SoTL research project at CUT

During the time of this survey in 2015, the research outputs by the SoTL Research Unit included 37 research outputs of papers presented at conferences nationally and internationally, 29 conference proceedings and peer-reviewed articles, three papers published in accredited journals, and six papers submitted to accredited journals.

Despite the successful outputs listed above, some challenges experienced in the SoTL project at CUT include the following: (i) a general low regard for teaching and learning in Higher Education; (ii) conflation of research on SoTL and general research on the one hand, and undue and unhelpful polarity between SoTL research and general research on the other; (iii) the dominance of both a traditional teaching and learning culture, and traditional teaching and learning methods at CUT; (iv) mentors and mentees joining at different times during the duration of the project; (v) insufficient nuances of the teaching continuum, viewing teaching as an individual enterprise totally divorced from scholarly teaching and SoTL; and (vi) corresponding levels of involvement in SoTL by staff (Trigwell, 2015).

5. RESEARCH METHODOLOGY

The paper is primarily embedded in an empirical inquiry and a quantitative methodology in the form of a structured questionnaire to elicit perceptions from senior academic staff members, the SoTL mentors and mentees at CUT. The questionnaire was disseminated electronically to the participants through the institution's online Learning and Management System, Blackboard. Two other instruments used to collect data were document analysis of CUT's teaching and learning policy, and literature on SoTL. Accordingly, the data derived through methods of reflection and discursive analysis (conceptual and philosophical) and content analysis of the text.

Specifically, the aim was to obtain the staff members' opinions on the importance of research into teaching and learning across faculties, and the inherent connection between research and teaching and learning in the different disciplines. The primary population targeted comprised the mentors and mentees involved in the mentorship programme of the SoTL project, as well as academic developers participating as mentors or mentees in the project. The primary population targeted and sampled for the research was 13 mentors who are all experienced researchers (doctors and professors), and 46 mentees, who are all CUT staff members.

The questionnaire had two components, namely demographics of the respondents, and a Likert scale with various items on SoTL, to which the participants responded. The questionnaire was disseminated among 59 SoTL staff members participating in the SoTL project at CUT. A total of 38 out of 59 questionnaires were received, and therefore presented and analysed below. This represented a response rate of 64,4 %. In addition, an opportunity in the questionnaire was provided to elicit the qualitative type of data on SoTL at

CUT for participants to articulate their personal views on some aspects of SoTL. The qualitative data in the last part of the questionnaire focused on three themes of SoTL comprising (i) strengthening the programme; (ii) weaknesses of the programme; and (iii) how to improve the SoTL research project at CUT. Items in the questionnaire and the three themes in the questionnaire were developed from the chosen theoretical and conceptual frames, the literature - including different descriptions and interpretations of SoTL, the contexts on SoTL in the Higher Education context, and analysis of documents on teaching and learning at CUT.

The chi-squared test for uniformity of response within each question was applied to each of the questions, and a p-value was calculated. If this p-value is less than 0.05, the finding – in this case of non-uniformity or an uneven distribution of observations across the Likert or other scale – is significant at the 5 % level. In practice, a very strong proclivity of agreement or disagreement has been manifested to that particular question. The areas, which did not yield a neutral result, are as follows: The only area that indicated significant differences between the frequencies, at the level of $\alpha=0.05$, was the discourse on SoTL being anti-intellectual. The following areas indicated significant differences between the frequencies, at the level of $\alpha=0.01$ or 1 % (also referred to as at the 99% confidence level):

- teaching is research-based;
- mentorship programme is effective in changing teaching and learning practice;
- CUT prefers research in disciplines vs SoTL, for academic advancement;
- much research on SoTL is context dependent;
- research in teaching and learning diminishes knowledge in disciplines;
- SoTL enhances my research capacity;
- establish category for promotion to associate professor in SoTL; and
- SoTL is relevant in Engineering and Health Sciences disciplines.

6. FINDINGS AND DISCUSSIONS

6.1 Findings

Section A: Demographic information of the participants (gender, age and qualifications)

A fair balance of participants regarding gender responded to the survey. The participants were mainly from the 30 to 50-year age group, presenting a range of experience. The race proportion was predominantly Black, which was expected, given the bigger number of Black staff members in the SoTL project at CUT.



The respondents holding Master's and Doctoral degrees were similar in number, and represented a group that is usually regarded as more experienced in Higher Education.

Section B: Conceptualisation of SoTL

In terms of the SoTL conceptualisation, according to Figure 3, the respondents' rated teaching and learning as (> 90%) high and, therefore, regard it as an important component of their teaching.

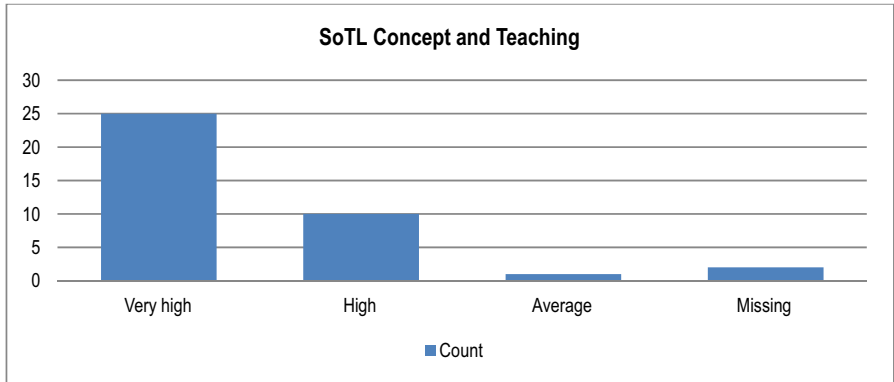


Figure 3: Conceptualisation of SoTL concept and teaching

Figure 4 carries a large weight, emphasising learning as core business at CUT. Thus, the high percentage accorded to teaching in this figure supports responses in Figure 3, as both figures reflect the general inclination towards teaching and learning as one of the pillars of a university in general, and a core pillars of a university of technology, in particular.

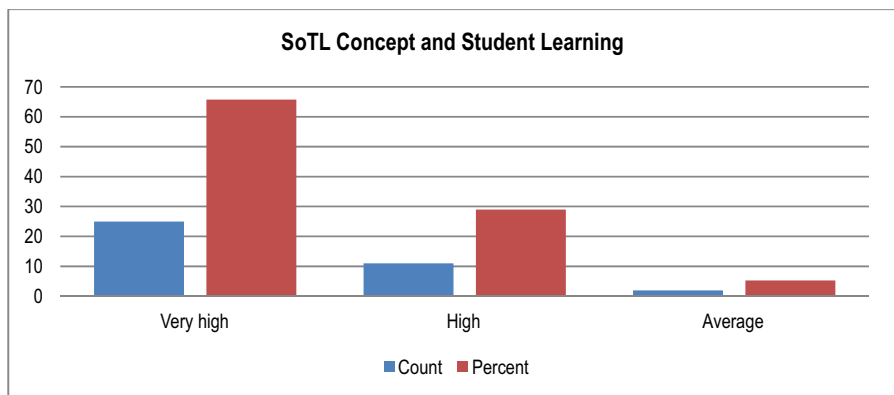


Figure 4: Student learning in SoTL

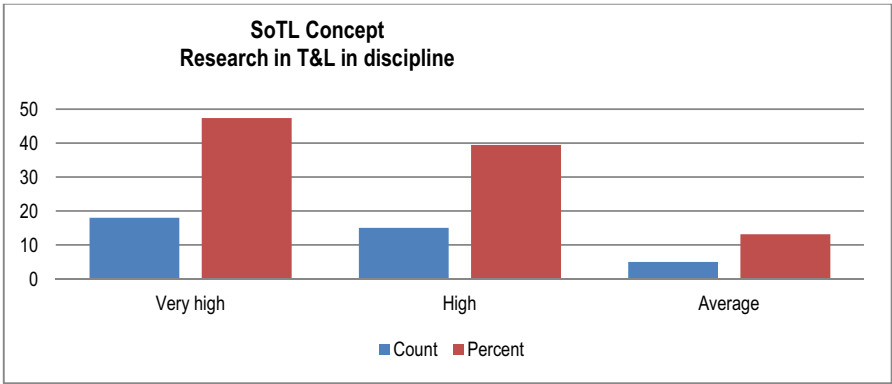


Figure 5: Research in SoTL in relation to discipline

Approximately 88% of the respondents consider directed research in teaching and learning as critical (very high or high) to the pedagogy of the different fields of practice (disciplines). This finding therefore contrasts the general belief that teaching diverts academics from developing their own disciplines. The respondents also argued that their teaching is 13.2% completely research-based, and 44.7% partially research-based. However, the results show split opinions on whether the respondents strongly agree (10.5%) and agree (23.3%) that they preferred research in disciplines more than in teaching in learning, but 28.9% disagreed, and 18.4% strongly disagreed on the same matter. Furthermore, 39.5% of the respondents strongly agreed, and 36.8% agreed on the relevance of teaching and learning in the Health and Environmental Sciences and Engineering disciplines.

Respondents reacted as follows on the statement whether research in teaching and learning diminishes knowledge in disciplines: 2.6% strongly disagreed; 13.2% agreed; 44.7% disagreed; and 31.6% strongly disagreed. On whether SoTL enhances research capacity, 57.9% of respondents strongly agreed, while 23.7% agreed. These responses corroborate the statement that research into teaching and learning does not diminish knowledge of disciplines.

While 28.9% of the respondents pointed out that teaching is recognised for promotion purposes; 28.9% indicated that teaching is not recognised for promotion purposes; 13% stated that it is highly recognised; whilst 15.8% responded that teaching is not recognised at all for promotion purposes. Similarly, 36.8% of the respondents felt that successful student learning is recognised towards promotion, while 23.7% pointed out that student learning is not recognised towards promotion.

Section C: Enhancing the CUT operating SoTL model

A further objective of this research objective was to determine how to enhance the conceptual operating model of the SoTL project at CUT. This section of the questionnaire elicited participants' opinions on what they considered to be the strengths and weaknesses of the SoTL project, and how the project could be improved. The comments by the participants on the issues raised collaborated some of the views expressed in the literature, the theoretical and conceptual framework and empirical data collected through a questionnaire. Three themes derived from written responses of the SoTL mentors and mentees are: integration in discipline research; research into teaching-specific disciplines: reflection and critique of one's practice; and continuous professional development into one's pedagogy.

Regarding integration of discipline research and research into teaching, the majority of the participants argued that they did not see any conflict between the two, although some participants felt that the focus should be brought back from discipline-research to the core business of teaching and learning. Some participants argued that the SoTL project encourages them to reflect on their teaching practice by becoming more critical of what they are doing in their practices, while others indicated that the project has improved their teaching skills, and has therefore encouraged them to engage in research-based teaching by continuously reviewing their approach to teaching and learning. Some argued that the SoTL Research Project at CUT is empowering them as mentees to pay attention to their students, and to adjust their teaching methods to better respond to students' learning needs. For some, SoTL engenders debate on issues concerning teaching and learning, and further stimulates discourses that value teaching and learning.

Relating to research into teaching-specific disciplines, the majority of participants were aware that specific disciplines shape the pedagogy of their fields, and therefore did not consider involvement in SoTL as an additional burden to their work. Thus, the participants understood the value of SoTL for their development as scholars and as good teachers who must continuously research their practice. Furthermore, they see the SoTL as a sound avenue for enhancing their research publications. The participants also felt that the SoTL project results in a culture change among CUT academics.

However, the participants indicated that some challenges exist, and that these need to be addressed to make SoTL more effective in changing the practices of academic staff. Some of the weaknesses identified by the participants, both mentors and mentees, are that some mentors are absorbed in self-enhancement and enrichment, and that they tend to concentrate on developing themselves by writing papers for conferences and articles for publication purposes, instead of supporting their mentees.

Some of the participants felt that lecturers are unable to fully participate in SoTL since they are not fully supported; information from SoTL discussions is not disseminated to all lecturers; and heads of department (HoDs) and deans do not participate in SoTL. All participants felt that the buy-in from faculties regarding the acknowledgement of research in teaching and learning as a promotion criterion is critical.

The final section of the questionnaire requested the participants to provide suggestions on how to improve the SoTL project at CUT. The recommendations from the participants on how the project could be improved included the following: (i) some participants argued that awareness about the significance of involvement in SoTL should be increased, and that this should be accompanied by making SoTL compulsory for all staff members to research the effectiveness of their teaching; (ii) every faculty should raise matters of concern with the SoTL Head to ensure that their specific problems are addressed; and (iii) interaction between the project and line management was recommended to motivate SoTL research for promotion.

6.2 Discussion

It is argued in this paper that, although Boyer's original theory on SoTL was developed within a particular United States context, the framework still provides a useful base to analyse SoTL in different contexts - including SoTL at CUT. Accordingly, various but overlapping descriptions and definitions of SoTL and the components and aspects of SoTL articulated in the literature are extensions and adaptations of Boyer's original idea. It is, however, necessary to locate SoTL within the context of Higher Education in different contexts, including the contexts of Higher Education in South Africa, a university of technology and disciplinary contexts.

The findings and discussions in the paper suggest that academic staff participating in the research on SoTL rarely ask reflective questions about their own practices, and are generally reluctant to share their classroom experiences with colleagues in their departments, faculties as well as with their national and intentional peers. Consequently, participants who rated teaching and learning the highest (at 99%) used pass rate as a criterion to judge the quality of teaching and learning.

It also emerged from the discussion that some academic leaders still view research outputs of SoTL as not being at the same level and of the same status as the outputs from research of researchers' primary disciplines. Consequently, differences of opinions still exist as to whether outputs followed from SoTL research work should be recognised for the promotion of academic staff.

Notably, participants in the SoTL project at CUT at the time of this research were not differentiating between individual good teaching in the sense of

assisting students to pass their courses; scholarly teaching where individuals reflect on their individual practices and provide justification for what they are doing in terms of pedagogy of their disciplines; and SoTL which involves going beyond good and scholarly teaching and extending to researching one practice, and sharing such a practice with peers, both nationally and internationally.

Emerging from literature and theoretical frames, the authors argue that three types of reflections are important in promoting quality teaching and meaningful learning. These are (i) reflections on the content and what is taught; (ii) reflections on process and how things are taught; and (iii) reflections premised on why things are done in a particular way.

Drawing on theoretical and conceptual frames, the authors argue that this distinction is necessary in that it allows different categories of academic teaching staff to operate at different levels in their teaching journeys. Significantly, the first level accommodates a group of junior lecturers who need to be encouraged to examine and reflect their individual classroom practices. The results of this individual reflection would be to inform one's self on how one could do things better. The second group accommodates the teaching staff who wish to operate at a second level (scholarly teaching), where they not only reflect on their individual practices, but also share their practices with peers in their own disciplines, departments and faculties (Trigwell, 2015). Through scholarly teaching, the group raises scholarly questions about what they are doing in their own teaching, why they are doing things the way they do, and improves their practices through reflection. The third group might wish to get involved at the third level which is SoTL, including publishing in the field and sharing findings of their practices with national and international peers.

However, institutions that emphasise teaching or discipline-based research have much to gain from involvement with the scholarship of teaching and learning movement, but a culture shift becomes vital. The SoTL emanates from the idea that teaching is a serious scholarly work, rather than work that academics do separate from their scholarship.

The assumption that research into teaching does not diminish knowledge of disciplines has been corroborated by the respondents from all faculties who considered research into teaching and learning as critical (very high or high) to the pedagogy of the different fields of practice (disciplines). However, it is acknowledged that academic teaching staff were divided when it comes to the issue of whether their teaching is informed by research, or not. It was interesting that 39.5 % of the respondents endorsed the relevance of teaching and learning in the Health and Environmental Sciences and Engineering disciplines.

Lastly, the research confirmed the problem raised in the literature of promoting reflection in SoTL and research within the teaching continuum and at different levels of involvement in SoTL, when research into SoTL is not recognised for promotion purposes (McKinney 2007; Trigwell 2015).

7. CONCLUSION

The authors argue that SoTL teaching is serious scholarly work, rather than work that academics do separate from their scholarship. Thus, at institutional level, and for the academia in general, a flourishing SoTL becomes critical at any university. The findings from this research endorsed two epistemic challenges for SoTL, namely that (i) researchers have come to realise that teaching that takes learning seriously must also be recognised as “substantive, intellectual work”, bringing about an understanding for the complexities of teaching; (ii) that intellectual credit for teaching efforts should be acknowledged, and (iii) that teaching should be rewarded in institutional policies and procedures.

Drawing on Boyer's original theoretical framework and related literature and the research findings, it is firstly argued that SoTL should be recognised as part of research practice, and that the value of SoTL-based research to improve teaching and learning practices should not be underestimated. Secondly, SoTL has the potential to advance teaching and learning, and to focus these advancements within the specific primary disciplines of lecturing staff. Thus, engaging in SoTL does not mean trading in one's disciplinary work, but it rather encourages academics to subject their practice to research, and to disseminate their research to peers for review. Thirdly, engaging in research into SoTL encompasses scholarly teaching, and the scholarship of learning and teaching, and therefore enhances a scholar's contribution to his or her discipline.

The authors, in line with Ginsberg and Bernstein's (2011:3) thinking, conclude that the work drawing on Boyer's modified thesis has the potential not only to advance teaching and learning generally, but also to focus these advancements within one's disciplinary home. Engaging in SoTL does not mean turning one's back on disciplinary work. Ideally, work in SoTL enhances a scholar's contribution to his or her discipline, albeit in a non-traditional fashion. While some staff members still find it difficult to reconcile research in teaching with disciplinary research, some SoTL members have since become engaged in this practice.

Furthermore, it is argued that an ideal framework for SoTL is one that includes local research in local classrooms alongside international collaborative SoTL work that reaches beyond local classrooms to include international dimensions. It is concluded that this framework assists in exploring nuanced issues of relationship between teaching, learning and research, perceived levels of involvement in scholarly teaching and scholarship of

teaching and learning at CUT, and in specific disciplines (Trigwell, 2015).

Finally, drawing from the CUT Teaching and Learning Plan, it becomes much more straightforward to argue that learning-centred teaching is a legitimate and important academic activity, which merits the accolade of scholarship in its own right. Accepting learning-centred teaching (i.e. teaching that promotes deep and transformative learning) as a valid form of scholarship is the starting point. The educative potential of this model can be enriched by encouraging students and scholars to enhance their learning and teaching through critical, collective reflection on what is taught, and what should be learned; and on how our institutions, social relationships and individual practices should be organised so that learning can be best encouraged, accomplished and assessed.

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