TEACHING ADVANCEMENT AT UNIVERSITY (TAU) FELLOWSHIPS
PROGRAMME

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PROJECT TITLE: RESEARCH NEEDS NALYSIS FOR FUTURE
PROFESSIONAL DEVELOPMENT

ABSTRACT

Academics at Higher Learning Institutions are expected to do research and to publish their findings. Research has a direct impact on improvement of effectiveness of one's teaching. However, the challenging phenomena facing most institutions of higher learning in the world over in most cases newly appointed junior staff's focus, particularly in the former Technikons, is on teaching and conduct little or no research. This can be attributed to most academic staff being ill-equipped to do research, particularly junior staff and novice researchers. This called for needs analysis to determine the extent of the problem particularly at the Walter Sisulu University (WSU)-South Africa, as a case study.

The study is focused on analysing the needs among university lecturers in order to implement professional development on research in general and Scholarship of Teaching and Learning in particular. The findings of which will in turn inform the institution's staff-development policies and plans on training and support programmes.

The survey employed a two level approach in order to solicit and achieve optimum analysis of needs of the academic staff members. Questionnaires were distributed to 140 staff members, targeting novice researchers and junior lecturers. Just above 55 % of the number were returned.

-        Level one: the lecturers were requested to identify the areas where they required further education and training on in general and specifically on research. Thereby, the identified areas by the staff were translated into an 'annual operational plan' for training programmes and targets for professional development at the Learning and Teaching Development (LTD) Unit of the WSU in South Africa; linked to the above, on level two approach and for triangulation validation, staff were asked to give a narrative description on items related to research and scholarship of teaching and learning.

-        Level two: a Questionnaire with items relating to research and scholarship of teaching and learning needs and capacity that of, was also in the same manuscript, out of which a descriptive statistical and factor analysis were used to encapsulate the essence of the needs as stated in the staff responses. These too were translated to teacher training programmes, which will be a game changer for enhancing research activities and improve quality of teaching at the university.

It came through that, *inter alia* the listed needs and the descriptive responses, research capacity building and SoTL training programmes were required by academic staff.

Keywords: Professional development; needs analysis; enhancement of teaching & learning

Introduction

Higher learning institutions (HLI) are essentially dependent on their academic staff for efficient delivery of services in order to achieve their goals. Fundamentally, the key performance areas on which they are evaluated for effectiveness are teaching, research and community engagement. In order to enhance the work performance, improve their abilities on these aspects and hone their skills as well as advance their knowledge, it becomes imperative to consider training and development initiatives. Research in general, particularly Scholarship of Teaching and Learning-SoTL have direct impact on improvement of effectiveness of one's teaching and thus achievement of the HLI goals (Thornhill and Marrow, 2007). However, the challenging phenomena facing most institutions of higher learning in the world over is that little or no research on own teaching is happening (Gupta, Sleezer and Russ-Eft, 2007). This is partly because some academic staff are not well equipped to undertake research, they lack the capacity because some focused exclusively on teaching, especially those who were teaching in former Technikons. Furthermore, for others it is a variety of additional reasons, namely, work (teaching and research) demand becomes unbearable, women's triple burden (career work, community/societal demands and home responsibilities as a wife, woman, mother etc.), so the easiest thing to do is simply drop others and research becomes closest target. Another reason is just negligence, research is abandoned because of cumbersome work it comes with (a lot of reading, analytical applications, literature search, data collection, write-up, rejection of articles for publication etc). Thus, research capacity building and staff development were essential.

In this article, research needs of Walter Sisulu University (WSU)'s junior lecturers and novice researchers were assessed and analysed. The findings in turn, informed the institution's staff-development policies and the development plan and support programmes. Aspects of focus in this needs analysis project were: identification of the areas where staff required further education and training on; assessment of research knowledge by checking research outputs

and individual research activities; readiness to undertake capacity building on any research venture particularly that which will enhance teaching and learning. **Literature Review**

Literature on professional development and broadly on scholarly teaching were searched and reviewed to establish the important aspects of research capacity building, teaching and learning practices that we can cover in our scope. These aspects are receiving attention in institutions of higher learning, with the 'research for teaching and teach for research', 'scholarly teaching and scholarship of teaching and learning' terms dominating in the literature (Vajotzki, Savage, Martins, Borin and Kustra, 2011; Clark, Moran, Skolnik and Trick, 2009). In order to understand the relationships between professional development, and the academic staff engagement in research and the scholarship of teaching and its potential impact on teaching and learning, it is essential to assess the current abilities or assets and inadequacies.

While there are claims that the total of certain academic discipline-knowledge is multiplying exponentially every five to ten years (Feilden, 1998), nonetheless, no one individual can keep abreast knowledge sufficiently. It is for that reason that both partners in education (employers and employees) should make a conscious effort to invest in staff capacity building and self-upgrade respectively. In addition to this view, Gupta, Sleezer and Russ-Eft (2007) echo this from the senior management point of view in HLIs, that it is important for them to understand the importance of training and development. Human resource management should be able to identify training needs and place great emphasis on what competences are necessary for the type of work staff do. Furthermore, the Deans of faculties should underscore the newer techniques that will enhance both teaching and research, such as the Scholarship of teaching and learning (SoTL). Identification of needs will assist appropriate training and honing of relevant employee knowledge, skills and ability (KSA) (Lewis, Millmore, Saunders, et al., 2007). Moreover, there is a belief among management that development of KSA leads to work performance improvement and achievement of organizational goals (Lewis, Millmore, Saunders, et al., 2007).

Rothwell (2001), stated that academic staff confront a set of challenges in their teaching role. They have to conduct research in order to achieve quality teaching while also they have to

include new methods and technologies in their teaching with the less resources at their disposal. The SoTL projects can be the most effective options to accomplish such, as they target both research capacity building and enhance effective teaching and learning. They have to be well equipped for these demands in order to achieve quality in the midst of that. But, in order to ascertain their developmental needs and their endowments to fulfil these roles, a needs review and assessment for each individual has to be conducted.

Modern-day higher education institutes need to place much emphasis on development of their staff not only to compete on the global arena but to enhance and improve work performance in teaching to ensure achievement of the strategic goals. Millmore, Lewis, Saunders, Thornhill and Marrow (2007) observed that a majority of institutions are beginning to introduce policies that promote equipping and training of staff members with necessary competencies. However, Goldstein and Ford, (2002) asserted that in order to target improvement of research and scholarship of teaching, institutions should evaluate training and development policies and practices for effectiveness and achievement of needs of the institutions. Nonetheless, empowered staff would impart quality teaching to their learners if they were capacitated in research. Institutions of higher learning have to invest on the quality of their staff mainly academic staff in order to effectively deliver on their mandate. The World Bank supports the view in its recognition that excellence is a product of high quality, well-motivated teaching staff and a supportive professional culture (World Bank, 1994). Thus, institutions have to provide an enabling environment which supports development especially for those that are willing.

The study focused on conducting a needs analysis on research capacity among university lecturers in order to implement professional development. The findings of which used to inform the institution's staff-development policies and plans on training and support programmes.

Why & what constitute professional development

The fast evolving societal needs have placed Higher Education systems under a tremendous pressure to produce graduates who will sought to respond to the needs. Academic staff, as a key mediating agency between the graduate and the society have to be well equipped to navigate that role (Delannoy, 2000). The providers of professional development and training

(the key area of policy intervention), have to be mindful of that as they assist lecturers improve teaching and learning methods and changing the curricula to fit community developmental needs. The Department of Higher Education and Training in South Africa (HESA) requires that academic staff are grounded in teaching and empowered with a blend of broader Higher Education understanding, sound pedagogical skills, disciplinary knowledge as well as research abilities (SKA) in order to navigate through the HESA expectations (Education White Paper No.3, 1997).

According to Komba and Nkumbi (2008), professional development provides academic staff with opportunities to enrich their thinking, to explore new roles, they become parents and counsellors, to develop new teaching techniques, teaching and learning practices enhanced and generally, enlarge their scope both in their career and as individuals. While Zakaria and Daud (2009), asserts that best teachers constitute continuous upgrading of their skills and knowledge and institutions which invest time and financial resources in staff development lay a good foundation. Therefore, understanding of the scope and implementation of professional development should not be superficial but go deeper than it is currently occurring.

Skills development- and Human resource-agencies have to move away from the bureaucratic traditional, behavouristic practices and scientific paradigms of professional development, which implement a carefully specified curriculum and teaching methods that produced a 'standard product-student', to a broader one. A teacher education that advocates for utilisation of a wide variety of teaching techniques-which in turn will enable students to construct their own new knowledge. That which supports personal research, encourages acquisition of critical and independent thinking skills, reinforces 21st century skills and underpins fresh knowledge and bolster attitudes and values (Zakaria & Daud, 2009). However, professional development has to be well planned and broad to ensure that content is not short-changed for an ephemeral pursuit of contemporary skills (Silva, 2008), because the latest wave is towards technology use without relevant content.

Over and above the dominant models of formal workshops, research capacity building and seminars, professional development could also be about helping to set up professional interactions that promote and underpin networks of interest groups and communities of practice (CoPs). Other forms of informal personal learning not recognised for lecturer training nonetheless, effective on teaching and can impact on learning have a place in professional

development. The examples of such are reflective portfolio writing, proposal writing, collective activities on projects, peer observation, writing for publication, etc., (Silva, 2008) According to Silva (2008), these activities could be considered as part of a broader spectrum of staff learning opportunities.

Research Methods

The study employed a case study research design and utilised a two level approach in order to solicit and achieve optimum analysis of needs of the academic staff members. Questions were developed and charted around professional development training needs of their choice. They were required to identify whatever they regarded as professional development and were also supplied with a list of further education and training needs to prioritise in order of importance for them. The aspects ranged from research capacity (RC), to facilitation methods (FM) or teaching techniques (TT), assessment methods (AM), scholarship of teaching and learning (SoTL), to technology aided teaching (TAT), case study method (CSM).

Questionnaires were distributed via e-mails to 140 staff members, targeting novice researchers and junior lecturers. Two faculties, namely, Science, Engineering and Technology (FSET) and Business Management Sciences (BMS) were piloted. Completed and returned responses were initially 63, although they continued to trickle in, increasing the number of returns to 79 even after I had started the analysis-a response rate of just above 55%. Analysis were carried out on the sample as was believed to be a fair representative of the distribution of the academic staff in the four campuses of the two faculties.

Level one approach: the lecturers were requested to identify the areas where they required further education and training on. Thereby, the identified areas by the staff were translated into an 'annual operational plan' and training programmes for professional development at the Learning and Teaching Development (LTD) Unit of WSU in South Africa. Connected to the above was level two approach where the variables based on research and SoTL were provided in order for respondents to describe precisely what aspects of research they required training on. Level two was also included for triangulation validation, staff were asked to give a narrative description on items related to research and scholarship of teaching and learning that of.

Level two approach: a Questionnaire with inquiry on items relating to research and scholarship of teaching and learning needs and capacity that of, was also in the same manuscript, out of which a descriptive statistical and factor analysis were used to encapsulate the essence of the needs as stated in the staff responses. These too were translated to teacher training programmes, a game changer for enhancing research activities and improve quality of teaching at the university.

There were additional questions on whether staff received training on any of the professional development listed on second approach. This was to ascertain whether participants had heard about scholarly teaching and had been in some training of any kind of research and new techniques of teaching and learning. One cannot venture into any new teaching technique without doing some kind of research in my view.

Data Analysis

Out of the survey responses, indices were created from the collated responses as follows:

Level One Approach: these were the most frequently itemized: Research Capacity (RC), Better Assessment Techniques (BAT), Teaching Methods (TM), Facilitation Methods (FM), assistance for Research when doing post graduate studies-research (PGR), Professional interaction and networking (PIN)

From Level Two Approach: There was a choice and staff had to describe selected items from a given list, from Research Capacity (RC), Scholarship of Teaching and Learning (SoTL), Assessment Methods (AM), Facilitation Methods (FM), Scholarship of Teaching (SoT) to Technology Aided Teaching (TAT), Professional interaction for research collaboration (CoPs), Participation in teaching and learning workshop/ conference (PTLW), to complete a qualification in teaching development (PGCE). All these had to be accompanied with description

Results

Frequency Distribution

Based on the indices, sub-groups identified in the score distribution for these indices were: RC- (*n*=22), BAT-(*n*=33), TM-(n=62), FM-(n=47), PGR-(n=7), PIN-(n=1). SoTL did not feature anywhere at this level but from the directories below.

Research capacity (RC), was overwhelmingly selected from the listed items (n=70); SoTL seemed not to be known or popular but was selected by few individuals-(*n*=8); AM-(n=73); FM-(n=79); TAT-(n=70); CoPs-(n=34); PTLW-(n=12); PGCE-(n=43)

The above distribution revealed that research capacity was one of the most required/chosen item by the participants and the vote rises overwhelmingly on the second supplied list, close to the total of the returned responses (70). Clearly, the significant rise show how staff members want to be developed in this area. SoTL, was the least selected, noticeably revealing that it was a new concept at the institution, particularly for the respondents. It was not quite known and people do not want to venture into unknown phenomena, while still struggling with the teaching load and the almost compulsory research.

The distribution does not demonstrate that respondents understood a relationship between research and SoTL, they always selected them as if there was no relationship the association was rather with teaching than SoTL. Furthermore, respondents were rather more interested in teaching related developmental aspects, facilitation (79), assessment methods (73), technology teaching (70) and PGCE (43) all show high scores. While research scored high (n=70) in the second level approach, however, scored lower (22) in the first level approach. This incongruity could mean only a few would do it on choice but if the university develops them then they were more willing.

The demographic analysis

Table 1. Gender distribution

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	41	.0	.0	.0
	Female	22	.0	.0	100.0
	Total	63	100.0	100.0	

Table 2. Age distribution

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21-30	1	1.7	1.7	1.7
	31-40	23	0.0	0.0	
	41-50	25	41.7	41.7	73.3
	51-60	14	23.3	23.3	96.7
	61-65	2	3.3	3.3	100.0
	Total	63	100.0	100.0	

In this demographic analysis, a peculiar phenomenon is that more males responded than females and the majority of respondents were younger than 50 years of age. This informs us that more than half are in their early years, only a few are at their latter part of a teaching career at the university. There is an opportunity for further training and development in the career for the younger ones. To the same degree, the gender incident, has always been the case-males have been the ones with interest to pursue their career, but in the 21st century that has been gradually changing.

Table 3a. What Institute of higher education did you obtain your qualification from

	Frequency	Percent	Valid Percent	Cumulative Percent
Technikon	30	48.0	48.0	48.0
University	25	40.0	40.0	88.0
Specialised Institute	4	6.0	6.0	94.0
University of Technology	4	6.0	6.0	100.0
Total	63	100.0	100.0	

Table 3b. Highest qualification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diploma	5	8.0	8.0	8.0
	Degree/Btech	37	59.0	59.0	67.0
	Masters	19	30.0	30.0	97.0
	Doctorate	2	3.0	3.0	100.0
	Total	63	100.0	100.0	

Tables 3a & b, were included so as to assess whether the respondents had studied to a postgraduate level where research was part of the curricula or the respondents have diploma qualifications. Usually, universities offer research from the honours level so if a staff member had diploma level qualification, certainly, require professional development not only for teaching but in order to create interest for further study. While, Technikons focused on teaching and more teaching with less research. These tables show that the majority of respondents were at the level of an undergraduate qualifications, which suggest that professional development initiatives were required. Respondents at the postgraduate (PGR) levels also indicated that research assistance was required for success (see frequency distribution above).

Table 4. Workshops Attended had research on teaching component

Attended		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	14.0	14.0	14.0
	No	51	86.0	86.0	100.0
	Total	63	100.0	100.0	
Research Teaching Component	Strongly agree	4	6.0	6.0	6.0
	Strongly disagree	56	94.0	94.0	100.0
Component of Research & Teaching	Total	63	100.0	100.0	

Table 5. Research on Teaching

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	38	60.0	60.0	60.0
	No	25	40.0	40.0	100.0
	Total	63	100.0	100.0	

Table 5, revealed that some lecturers applied research in teaching, in the description provided, marketing and entrepreneur students are sent to retailers for consumer behaviour and behavioural studies undertaken. It was not 'significant' research where reports can be published.

Table 4 and the figure 1 below, show that only nine out of 60 respondents had often attended professional development workshops at some stage of their career, of the nine only four had combined research and teaching components, however, it does not state whether it was SoTL or how the workshops were designed.

The majority of the lecturers even complained on the questionnaire responses that for approximately two years respondents had never been invited to a training and development programmes, particularly research and teaching development training, but only workshops informing people about available research grants.

Figure 1. Professional Development

Workshops Attended

■ Yes
■ No
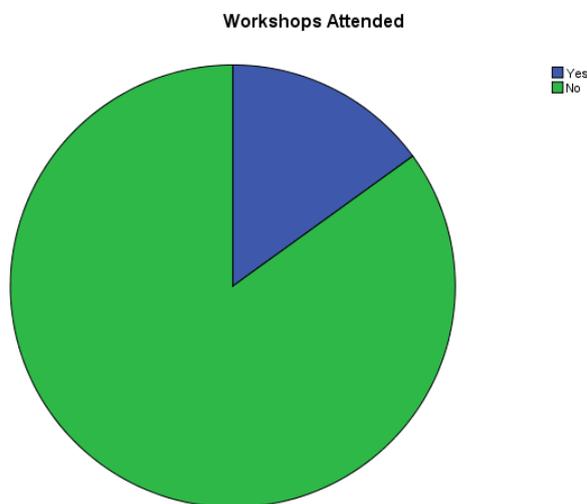
The question asked was for respondents to list 'Professional Development workshops' on research and it shows that the majority did not attend the workshops.

Discussion

The purposes of this study were to: (i) analyse the training and developmental needs of the staff members as well as interest in engaging in SoTL projects and any research activities at WSU; (ii) assess which training needs can be prioritized according to staff members' requirements (iii) examine interest in research and SoTL and determine if the perceived value placed on teaching has an effect on engagement in research and SoTL. Some aspects of the results have addressed the purposes of the study, as they indicate that the assessed training needs came out, as the indices show there is interest in pursuing training in the examined aspects. The paper discusses the view of the researcher on the case at hand and the significance of training and professional development and some aspects as highlighted in the aims of the study.

Needs analysis and focus on research at WSU

Institutions of Higher Learning emphasise on research productivity for all academics. WSU too is no exception to this 'rule'. Hence, the purpose of this inquiry was to determine the research needs which would assist the institution build capacity and introduce the research that will not only increase output, but also enhance teaching and learning, SoTL as well as encourage the culture of professional development in these areas of research. Identification of training and professional development needs have to be conducted often for all academic staff members, this could be done by the individual or the academic leaders or managers including the institutional human resource department. Presently the institution does not perform adequately in providing opportunities for staff development according to the respondents of the needs analysis and this does not augur well for student learning and success. Certain individuals stated in the descriptive level that they identified the workshops provided by entities outside the institution from various media such as, internet or heard from a friend about development events and applied. Otherwise, the institution provided training on an ad hoc basis mainly responding to student concerns about the course or individual lecturer's deficient performance. Therefore, it is done on a reactive basis.

Occasionally, academic staff have to make requests to attend development workshops, colloquia or conferences especially for those requiring substantial financial support. While

staff development should be informed by the needs approach (Boughey, 2010), however, those who require relatively long study periods, such as postgraduate studies (PGCE, Masters or Doctoral studies), should be supported on a request basis. Becher (1996), defined professional development as synonymous with formal courses such as the year-long PGCE and the duration may take longer for some. Sometimes, it could be proceedings or events that provide some form of 'training' (Becher, 1996). Such training often takes place from a minimum of a day to three.

The new and inexperienced academic staff are in a vulnerable position, they have to be identified and considered first in pedagogical upgrade as they cannot expose their incompetency by requesting training. Importantly, it is very critical that newly appointed lecturers and novice researchers undergo pedagogical and research training, often they are recruited direct from university or industry, the majority have little teaching or research background or both.

Boughey, (2010) advised that, the strategic direction institutions can take for staff development to be applied uniformly across, should be to link it with the institutional academic staff development goals. Teaching and learning enhancement development needs which are not so familiar or time consuming or even viewed as 'challenging', such as research, scholarship of teaching and learning or scholarship of teaching might end up not being the first choice for staff members if not enforced. Staff development has to be regulated and organised from the office of power so that it does not end up being fragmented and relegated and neglected. As Trigwell and Posser, (1997) said:

Too often institutions invest in a laundry list of actions, one disconnected from another. The result is an uncoordinated patchwork of actions whose sum impact on student retention is less than it could or should be

The purpose and the philosophy upon which professional development should be based, is equipping academics with pedagogical knowledge within the constructivist theoretical framework (Badat, 2010). This means that the institutions should actively coordinate work-based learning, while it is the responsibility of the staff member to actively conceptualise the knowledge through reflection on current practices of teaching and research. Thereby, influencing changes on teaching or research approaches which in turn impact on student

learning, what Zakaria & Daud (2009) describe as 'shifting from behaviouristic towards constructivist approach'.

Conclusion and future direction

The fast evolving societal needs have placed Higher Education systems under pressure to produce graduates who sought to respond to the needs. Academic staff, as a key mediating agency between the graduate and the society have to be well equipped to navigate this role. Therefore, understanding of the scope and implementation of professional development should not be superficial but go deeper than it is currently occurring. It is very critical that newly appointed lecturers and novice researchers undergo pedagogical and research training, often, they are recruited direct from university or industry and the majority have little teaching or research background, experience or both.

There is a grave need that institutions of Higher Learning should actively coordinate work-based learning, while it is the responsibility of the staff member to actively conceptualise the knowledge through reflection on current practices of teaching and research. Thereby, influencing changes on teaching or research approaches which in turn impact on student learning.

Recommendation

It is hoped that the recommendations arising out of the needs analysis report will assist this institution to effectively address the issue of research capacity building and Scholarship of Teaching and Learning in particular and professional development in general. The outcomes of the analysis gives the institution a mandate to support new appointees (junior and novice researchers) and when there are new teaching techniques to introduce them in order to help build capacity in research and enhance teaching and learning through Scholarship of teaching and learning respectively.

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