

MOVING TO DEEP AND TRANSFORMATIVE LEARNING: PROFESSIONAL DEVELOPMENT PROGRAMMES AT THE NAMIBIA UNIVERSITY OF SCIENCE AND TECHNOLOGY (NUST)

Dr Katherine Carter, Michelle Maree, Geoffrey Shakwa⁷

ABSTRACT

Following the transformation from a polytechnic to a university of science and technology, NUST recently introduced a Postgraduate Certificate in Higher Education (PGCHE) as a transformative professional development programme both for its new and experienced lecturers to ensure excellence in teaching and learning. This article explores the views of the

⁷ **Dr Katherine** Carter has worked in higher education and development for over twenty years. She has lived in Africa for fourteen years (Cape Verde, Ethiopia, Namibia) teaching at the University of Cape Verde, Addis Ababa University and the Namibia University of Science and Technology. A recipient of an award from Sage/Pine Forge Teaching Innovations & Professional Development, she published and presented research in the US, Hungary, and Iraqi Kurdistan, including a book on the impact of globalization on Cape Verdean women's lives published by Palgrave Macmillan. She regularly offers professional development to university lecturers on topics including student-centered teaching, active learning techniques, enhancing student motivation, practices of effective teachers and utilising the flipped classroom approach. She was nominated for the "Brand Ambassador Award" in July 2016 at the Namibia University of Science and Technology. Currently, she is the Coordinator of the Postgraduate Certificate in Higher Education programme where she offers courses in Teaching, Learning, and Assessment; Curriculum Design and Development and Technology Integration in Teaching and Learning.

Michelle Maree is the Associate Dean of Teaching and Learning, Faculty of Human Sciences at the Namibia University of Science and Technology. She has lectured in the field of Public Management for 13 years at a University of Technology in South Africa, and was a Strategic Planner in the Public Service for 6 years. Michelle has a keen interest in Teaching and Learning and for the last ten years she was actively involved in this field as a Curriculum Offer and a Teaching and Learning Facilitator. Michelle is an advocate for the flipped classroom approach to teaching and learning. She presented papers in the discipline of Teaching and Learning and Public Management at various conferences, contributed to a number of journal articles and contributed a chapter on Policy Studies that are widely used at Universities in Africa.

Mr Geoffrey Shakwa is currently Head of Professional Development and Programme Director for the Post-Graduate Certificate in Higher Education (PGCHE) Program, at the Teaching and Learning Unit at Namibia University of Science and Technology (NUST). He holds a Master's Degree in Educational Leadership and Policy earned from the State University of New York (SUNY) at Buffalo with specialisation in Professional Development and Learning Organisations, among other qualifications he holds. Prior to joining NUST in 2015, Mr. Shakwa worked as a secondary school teacher and teacher educator in a secondary school and college of education in Namibia for 9 years, in addition to having served as Senior and Chief Education Officer for Professional Development in the Ministry of Education and Culture, subsequently for 12 years.

lecturers on the immediate impact of the PGCHE on their professional practice. Framed in the interpretive paradigm, the study adopted a qualitative approach. Data were collected through an open-ended qualitative questionnaire distributed to lecturers in the first four weeks of the programme and six months afterwards. The data were supported with an analysis of PGCHE participants' reflective reports. The findings reveal positive outcomes of the PGCHE including among others, lecturers' new insights gained on teaching and learning, the use of student-centred teaching, teaching students how to learn and reflective practice. Further, the PGCHE has broadened lecturers' conceptions of teaching and learning, challenged their roles and expanded their repertoire of innovative active learning teaching strategies. The conclusion drawn is that the PGCHE is a powerful tool which is transforming lecturers' conceptions about teaching and learning as well as their pedagogic skills to enhance their professional practice in robust ways that benefit student learning.

KEYWORDS: *transformative professional development, higher education, postgraduate certificate in higher education*¹.

INTRODUCTION

This article reports on research findings of a professional development programme for lecturers at the Namibia University of Science and Technology. The purpose of this research was to explore the experience of lecturers enrolled in the Postgraduate Certificate in Higher Education (PGCHE) and to consider whether the programme was having a positive impact on their classroom practice. Improving the quality of teaching has become a critical area in higher education (Knight, Tait, & Yorke, 2006). High quality professional development

interventions, therefore, play a fundamental role in improving education (Creemers, Kyriakides, & Panayiotis, 2013).

Several studies have in particular explored the impact of professional development programmes on teaching practice (Black and Plowright, 2010; Lawless and Pellegrino, 2007) but no studies have explored the impact of professional development in higher education in Namibia. This article begins with the background to the study, followed by the review of the literature on professional development in higher education and its impact. The article continues with an outline of the PGCHE programme at NUST and then describes the methods used to collect data for this article. On the basis of the findings, we argue that the PGCHE is a powerful professional development intervention that allows for participants to reflect on their practice and acquire new pedagogic skills to improve their quality of teaching, learning and assessment.

Historical background and context of the study

Under the Bantu education system in Namibia, teachers were segregated and were limited to teacher education programmes in one of six training institutions. These ethnic divisions led to eleven different education systems and therefore there was no consistency between groups in regard to learner expectations and teacher education programmes. Scarce resources and conflicting teacher education programmes led to poor quality of teaching and poor student performance which was a “continuing trend in the majority of schools” (Swarts, 2003, p. 25). Teacher-centred instruction through the use of transmitting knowledge was the common approach in the classroom. In addition, students did not question course content nor question the teacher. Generations of Namibian students expected teachers to be the only source of wisdom and to therefore transfer that wisdom to their young minds. As these students became teachers themselves, the transmission model of education continued (de la Torre, 2006).

When Namibia gained independence in 1990, the country embarked on a number of reforms across various sectors, including education. In education the four major goals were: access, equity, quality and democracy. The philosophy of the country's education was based on "towards education for all" and it was well received and supported by the Ministry of Education.

The higher education landscape in Namibia has continued to change over the last few years. The transformation from the Polytechnic of Namibia to the Namibia University of Science and Technology, for example, holds a number of challenges as well as opportunities. One of these challenges is that a large percentage of lecturing staff do not have any form of educational training and many have been appointed to lecture at the institution directly from the private sector with a degree or postgraduate degree in their field of expertise.

The PGCHE has been developed as a response to the needs of academic staffs that are new to teaching and need to develop fundamental pedagogical skills in the classroom. The programme also caters for those lecturers who have years of experience in teaching but need to grow in specific areas. Hence, the programme strives to foster and advance the teaching skills of academic staff at NUST. Graduates of the programme will contribute to the improvement of the skills of students and render them professional learners with the attributes required in the 21st Century, and the achievement of national development goals of Namibia as laid out in NDP4, Harambee Prosperity Plan (HPP) and Vision 2030. Through information and experience sharing, engagement in international best practices and literature in the fields of teaching, learning and technology, participants in this programme will be able to put into practice recognised instructional approaches suited for learning at higher education.

Professional development in higher education

Academics who do not have a background in education typically teach the way that they were taught themselves, many decades ago. The danger of this approach is that it is resistant to change and development (Teräs, 2016). This is a common trend in universities as academic staffs, holding either a M.A. or Ph.D., are not required to have a qualification in education. In the last few decades, improving the quality of teaching in higher education institutions has become a priority for many universities worldwide (Knight et al., 2006). Professional developments of academic staffs have therefore become pressing and universities have made professional development a top priority (Teräs, 2016).

In South Africa, the movement for professional development was started in 2007, and since then all higher education institutions have established centres for higher education development (Tisani, 2009). Rhodes University was the first in South Africa to develop a course with the purpose to get lecturers to question their everyday practices, and to respond and adapt their practice to a style that is more in line with challenges including globalisation, larger and more diverse student populations, shrinking resources, increased demand for quality and greater public accountability (Tisani, 2009). The Postgraduate Certificate in Higher Education and Training (PGCHET) at Rhodes is one example of a professional development programme that prepares lecturers to fulfil their tasks in what Barnett (2000) describes as a world of super complexities. At Nottingham Trent University new academic staffs are expected to complete a required number of credits in a PGCHE programme. The final assessment includes an e-Portfolio that shows evidence of rich narratives and deep reflections. Fiedler and Valjataga (2013) argue that such an e-Portfolio can demonstrate a rich, networked, narrative description of personal learning. Similar programmes have been established at the University of Kent and the University of Oxford (2016).

Impact of professional development

What happens after professional development programmes? What do participants take home and how do participants understand the impact on their teaching practice? Some studies suggest that isolated or once-off workshops often fail to create significant changes in teaching practice and student experience (Dede, Ketelhut, Whitehouse, Breit & McCloskey, 2009; Knight et al., 2006). Further, Gibbs (1995) argues that some professional development programmes lack a theoretical foundation and therefore fail to improve academics' pedagogical knowledge. If we turn to transformative professional development programmes, we see that fundamental changes must take place in the participants themselves. Teräs (2016) argues that "desired transformation requires changes in perceptions of educators, not merely learning new techniques. Reflective, collaborative long-term professional development that is integrated in the everyday activities of the educators has proven to be a promising approach..." (p. 258).

Further, Black and Plowright (2010) argue that the evidence of learning that takes place in professional development programmes should be well documented. For example, requiring participants to write down their thoughts using portfolios or journals and connecting this to their teaching practice is an important activity in reflection. In the following section, we describe the structure of the PGCHE programme.

Programmatic components of the PGCHE

The PGCHE was introduced at NUST in March 2016 after careful planning, collaboration and adherence to the institution's mandate of excellence in teaching and learning (Strategic Plan, PSP-4). The PGCHE is designed to provide participants with deeper insight and cognitive skills related to teaching, learning and assessment. Throughout the eighteen-month programme, participants will become

more skilled and confident in teaching within their disciplinary context.

The programme embraces a flipped classroom approach where pre-recorded lectures and reading materials are uploaded on the online platform before the face-to-face contact sessions, providing participants of the programme the opportunity to work through the materials at their own pace. This approach is appropriate as it forms part of the blended learning method which includes online discussion forums on pertinent topics for each week. Lecturers are then fully engaged in the contact sessions which are reserved for discussions, micro-teaching and feedback.

The course facilitators embrace and model student-centred teaching methods, including the use of case studies, group discussions, role play, small group work, problem solving and using writing in the classroom. The lecturers (the participants of the programme) then practice these skills by demonstrating the specific teaching method during the class session. Afterwards, constructive feedback is provided to the demonstrating lecturer. These activities form the backbone of experiential learning. Based on Kolb's experiential learning cycle, lecturers gain an understanding that most students learn by doing, students learn through experience, and students learn through reflecting on their experience.

The programme embraces several learning activities to meet the end objective of improving the quality of teaching. First, each lecturer creates a professional development plan (PDP), which serves as a roadmap to help lecturers plan their career, guide development and assess progress toward career goals. Included in the PDP is a teaching philosophy statement, which is a clear statement on their approach to teaching and learning. Second, participants observe an experienced lecturer in the classroom and then reflect on how they can implement those lessons learnt in their teaching. Lecturers also ask a colleague or "critical friend" to observe their teaching and

afterwards a reflective discussion takes place. Third, reflective practice is an important part of the programme. Each week, lecturers reflect on what they are learning and how they will use and implement this knowledge to move their teaching to the next level. Lecturers also reflect on the impact of their new teaching practice on student learning.

This represents the integration of work integrated learning (WIL) in the PGCHE. All written reflections and assignments are documented in an online e-portfolio which is one of the assessment methods. Fourth, deep learning strategies are modeled by the facilitators, such as stopping at relevant points during the contact sessions and asking lecturers to write about what they are learning (Roberts, 2011). In addition, the whole programme is systemically scaffolded so that deep learning can take place (Roberts, 2011). For example, the first out of three courses in the programme, Teaching, Learning and Assessment, is the foundation course. Relevant themes in higher education are learned: theories on student learning; deep learning based on Kolb's experiential learning cycle, principles and practice of effective teaching; planning for quality teaching; facilitating learning in large groups; aligning learning outcomes with assessment tasks based on Bloom's taxonomy and additional topics. In the second course, Curriculum Design and Development, lecturers design a curriculum in their discipline, with the teaching and learning principles from the first course serving as a guide. In the third course, Technology Integration in Teaching and Learning, lecturers implement applications of digital technologies in their course, based on the curriculum they designed in the second course. In other words, each course builds on the previous course. The next section explores the theory that frames the programme and frames this study.

Theoretical framework

Based on the constructivist approach to teaching and learning, the PGCHE encourages lecturers to carefully examine and evaluate their

beliefs and practices in teaching in order to come to their own understanding of the teaching and learning process. The programme acknowledges the diversity of experiences the lecturers bring with them to the classroom. Following the constructivist theories of John Dewey, Jean Piaget, Jerome Bruner and David Kolb, the course facilitators model teaching methods that put the learner at the very centre, making the learner an active participant in the learning process. Further, the programme centres on active learning methods to encourage deep learning (Biggs 1979, 1987). Transformative learning theory (Mezirow, 1991) also directs the programme. This theory states that transformation takes place when there are changes in understanding the self, changes in beliefs and changes in behaviour. For learners to change their beliefs and attitudes, “they must engage in critical reflection on their experiences, which in turn leads to a perspective transformation” (Mezirow, p. 167).

METHODOLOGY

A qualitative research approach was utilized in the research study. Purposeful sampling technique was used as the study targeted only participants enrolled in the PGCHE. The primary research questions that the study sought to answer were: what is the experience of the participants enrolled in the programme and what are the immediate impacts of the programme on their teaching practice? Additional secondary research questions included the following: Can you see a difference in the way you teach, in the way your students learn, in the way your students perform? Qualitative questionnaires were distributed to lecturers during the first four weeks of the programme (March 2016) and a second time six months later (September 2016). We asked participants to write brief responses to prompts. They wrote about their experience with several issues related to teaching in higher education. The purpose of this was two-fold. First, we wanted to ensure the course was meeting the needs of lecturers and they were

satisfied with the organization and delivery of the course. Second, their feedback became a data source for our research.

Participants in the study were informed of our research intentions as well as their rights to refuse their written responses to be included in our results. Table 1 summarizes information in regard to the lecturer’s academic department and length of time working in higher education. All names are pseudonyms. Twenty-five lecturers formed the first cohort of the PGCHE programme and of these twenty-five lecturers, only three hold a teacher’s qualification. One lecturer holds a Bachelor of Science in Education degree, and another a National Higher Certificate in Technical and Vocational Education. Another lecturer holds a Basic Teaching Diploma and a Higher Further Diploma in Education.

Table 1: Participants in our study

<i>Men Participants</i>	<i>Academic Department</i>	<i>Number years’ experience in Higher Education</i>
David	Social Sciences	10 years
Festus	Engineering	3 years
Martin	Hospitality and Tourism	4 years
Viktor	Marketing and Logistics	3 years
Adriann	Computer Science	4 years
Benjamin	Agriculture and Natural Resources Science	6 years
Matheus	Accounting, Economics and Finance	5 years
Kallie	Geospatial Science and Technology	6 years
Immanuel	Geospatial Science and Technology	10 years
Adriaan	Computer Science	5 years
John	Health Sciences	

<i>Women participants</i>	<i>Academic Department</i>	<i>Number years' experience in Higher Education</i>
Klaudia	Computer Science	4 years
Sonia	Biomedical Sciences	6 months
Emilia	Emergency Medical Care	3 years
Christophina	Health Sciences	3 years
Naomi	Marketing and Logistics	3 years
Saara	Human Resources Management	3 years
Gabi	Social Sciences	5 years
Sylvia	Informatics	4 years
Emma	Informatics	2 years
Pauline	Cooperative Education Unit	5 years
Veronica	Land and Property Sciences	2 years

RESULTS AN DISCUSSION

We assembled the comments written by the participants and began to analyse the comments by creating thematic summary words to describe the responses and developing themes.

Based on the findings, below we share the insights participants described that they had gained at the beginning of the programme, and the specific concepts or techniques lecturers expressed that they planned to implement in their teaching practice. Six months after the initial data collection, we asked lecturers to describe the impacts of the programme.

Insights gained from PGCHE

In March 2016, we asked lecturers to articulate what they had gained so far from the PGCHE. They described the importance of allowing students to have more ownership over their learning as well as

teaching students how to learn. Others spoke about characteristics of effective teachers Student ownership. Viktor shares a practical example in getting students involved in their learning. *“I like the idea where students are more involved in their own learning. They do the research on topics to be covered and present to the class on what they have learned. The student learns and the lecturer also learns from the students”* (Viktor).

Learning how to learn Sonia touched on the importance of letting go of some of the control in the classroom. She wants to give more responsibility to the students but must first take steps to teach students how to be independent learners: *“Something I learned from the [PGCHE] is that, ‘an ineffective lecturer does all the work.’ I need to take several steps back and encourage students to develop the skills to acquire knowledge”* (Sonia).

Effective Teaching: interpersonal characteristics

Benjamin, Gabi and Christophina all point to the significance of a teacher’s interpersonal characteristics to create effective teaching in the classroom.

Confidence, communication and compassion

“For the teacher to be effective, there are many elements one has to put into perspective. Content-knowledge alone without confidence, communication and compassion does not qualify one to be a good and effective teacher” (Benjamin).

Enthusiasm

The lecturer needs to be enthusiastic in order to motivate and encourage students to learn until the deep level of learning” (Gabi).

Patient and reflective

“Being a patient and reflective teacher is something I value and try to bring into my class” (Christophina).

Implementing the insights gained

We asked lecturers what they wanted to implement in their classrooms in light of what they had learned from the programme thus far. They articulated the importance of creating independent learners, using a variety of teaching methods, giving students a voice and the importance of exchanging ideas. Sonia mentioned the importance of allowing students to struggle, learn from their mistakes and then develop themselves. Saara also pointed to the importance of releasing control in the classroom.

I do less, students do more

“Do less and encourage students to do more. I need to step back, let them struggle and then grow” (Sonia).

Creating independent learners

“I plan to encourage and teach students to seek knowledge rather than awaiting and depending on me to give them all that they need to know” (Saara).

Using diverse teaching methods

“I really need to focus on using a lot of different teaching methods in order to stimulate all areas in the brain and to ensure deep learning takes place” (Martin).

Giving students a voice

“I need to remember that students come with their own experience into a classroom – and to listen to students” (Christophina).

Exchanging ideas

Sonia specifically notes the high level of interaction in the PGCHE that she hopes to replicate in her classroom.

“There was interesting exchange of ideas/experiences among participants in our course that I hope to do in my class” (Sonia).

Immediate impacts of the PGCHE

A second questionnaire was distributed six months after the completion of the first questionnaire. We asked lecturers to describe specific innovations to their teaching introduced as a result of the programme. This served as the second data set for the research study.

Reflective practice

Reflective practice appears to have the biggest impact on the lecturers. Lecturers continue to engage in reflective practice to improve their teaching as Immanuel and Emilia describe: *“PGCHE courses have empowered me when it comes to doing a self-reflection on how I teach and conduct my lectures. The knowledge that I have learned provides me with a rubric to use for self-evaluation” (Immanuel).*

“Another aspect that has improved my teaching greatly is using reflective teaching, this was done (and still done) with the critical friend (my critical friend is still my go to person for advice as well) and by implementing feedback sessions from the students via anonymous online feedback questionnaires. This helps me as well as my colleagues to reflect on whether we are adequately reaching the students and engaging the students with the material” (Emilia).

Students are now reflecting

Students are also engaged in reflection. It is used to not only allow the students (of the lecturers) to improve their course content knowledge but also to improve their writing skills. John, Adriaan and Sonia clearly

describe the significance of bringing reflections to their classrooms. *“I have introduced reflections for my students. I have already noticed that they are very powerful and they allow students to think of what they have done and to comment on it. It improves their understanding of the subject and writing skills”* (John).

“The activity of reflection which we do in the classes for the PGCHE made me appreciate the relevance of doing such. I have literally passed the same culture to my class where I ask my students to reflect on the theory lecture and I have noticed that the inputs they give through such reflections helps me to improve each session. I have noticed how much my students now appreciate the importance of improving on their soft skills as they reflect on what they are learning and what skills they are building through that reflection” (Adriaan).

“I have introduced reflective essays. These essays include reflecting on the content of the module and how it links with other modules, explaining their favourite topics, and highlighting what they don’t quite understand. Reflective essays are uploaded on a discussion forum and students read each other’s essays and provide constructive feedback. A student can gain understanding from the way a peer explains their favourite topic in their essay. I also interact with the students and ask questions and answer their questions and I am really enjoying this” (Sonia).

Professional Development Plan

Lecturers mention the importance of how the professional development plan and teaching philosophy statement has changed their teaching practice as Christophina and Kallie describe.

“The professional development plan and teaching philosophy statement was something very new to me. This has allowed me to constantly reflect on what type of teacher I am and how I have changed in my

approach and thinking from the first course until now. From a teaching perspective, I have been allowed to explore deeper into how I communicate and facilitate learning in the classroom” (Christophina).

“The professional development plan is now acting as my compass. It is guiding me towards those areas I feel I need to improve as an educator. Developing it has shown me how I need to change in order to engage more with my students” (Kallie).

Flipped classroom

Pauline has adopted the flipped classroom approach, which encourages students to be more independent and offers more opportunity for discussion.

“I also realise that the flipped classroom that is used in the PGCHE is a good method and I have started introducing it gradually by giving students self-reading assignments and supporting them with power point presentation which is not so much detailed” (Pauline).

Deep learning

Adriaan speaks to the importance of deep learning and meeting students’ needs and expectations. *“A remarkable difference is indeed visible in the way that I am tailoring my classes and the differences are clearly immediate. Firstly, the way I prepare my lecture is very much influenced by the desire to meet student expectations rather than just teaching for the sake of completing the syllabus. Activities are designed to engage students and challenge them to think critically and learn deeply” (Adriaan).*

Student-centred teaching

Since starting the PGCHE, Kallie has moved away from chalk and talk in his class. *“Based on what I have learned so far in the PGCHE courses, I have moved away from traditional lecturing where I speak and the student listens. I now divide my one hour lecture into four*

activities. That way, I am able to maintain the student's attention throughout the hour" (Kallie).

Emilia's students now recognize that they have an important contribution to make. *"I think the greatest impact on my class thus far is improving class interactions, making it a more student-centred classroom. I started off with the impression, due to lack of knowledge and experience, that the lecturer must do all the teaching. I have found that interactions have increased and students have the feeling that they can provide valuable contributions to class"* (Emilia).

RESULTS AND DISCUSSION

Biggs in Laurillard et al (2011) states that to achieve a genuine lasting change in what teachers do, an impact has to be made in the way that teachers think about what they do.

The findings presented describe a gradual transformation in the way lecturers' think about what they do in their classroom. At the start of the programme, lecturers articulate their conception of how students learn best through student-centred teaching methods and shifting more responsibility for learning to the students. Lecturers describe effective teaching does not relate only to subject matter knowledge. Effective teaching is also dependent upon the lecturer's level of compassion, confidence, enthusiasm and patience. Lecturers also recognize areas in their teaching they wished to change in light of the theory and experience from the programme. Critical issues were identified such as ensuring deep learning is taking place and giving students a voice. Six months into the programme, the findings show that transformative learning has been implemented in the practice of the lecturers. Lecturers continue to reflect on and evaluate their pedagogical methods through self-assessment and peer assessment. Students of the lecturers also participate in reflection to document their learning. Students reflect on course content as well as how content

connects to prior learning. Lecturers have shifted away from teaching in a manner that leads to surface learning. Instead of teaching content that “ticks off the boxes,” teaching is designed to engage and challenge students. Lecturers have moved toward student-centred instruction where students of the lecturers recognize that they have valuable contribution to make.

Through the Professional Development Plan, lecturers reflect on their professional learning needs. They identify strengths as well as areas where improvement is required. Through the teaching philosophy statement, lecturers express deeply how and why they view teaching and learning in the manner that they do. Based on the findings, deep and transformative learning is evident in the teaching practice of the lecturers.

CONCLUSION

The PGCHE is built on the premise of deep and transformative learning with reflective practice as the tool through which the participants discover their growth and improve their professional practice. From this study, it can be concluded that the PGCHE has impacted the lecturers' conceptualisation of their teaching practices leading to the broadening of their thinking about the formulation their philosophy of teaching which directs their teaching practice. Further, we conclude that the acquisition of key concepts around teaching and learning empowers lecturers to have a voice which they use to further engage in the innovation of teaching and learning development activities.

Also, the study concludes that the use of the professional development plan (PDP) places lecturers in a position where they direct their own career development. Through the PDP, lecturers identify areas of learning, determine appropriate continuing professional development and monitor the attainment of their professional goals.

Finally, we conclude that the PGCHE is a powerful professional development intervention that allows for participants to reflect on their practice and acquire new pedagogic skills to improve the quality of teaching, learning and assessment. The PGCHE has had a tremendous immediate impact on many areas of the lecturers' professional practice, such as engaging in reflective practice, creating a conducive learning environment where all students learn, and the realisation by the PGCHE participants that teaching should be an academic act that involves gathering evidence about what works and what does not work resulting in the adoption of promising best practices.

REFERENCES

- Barnett, R. (2000). *Realising the university*. Buckingham: SRHE and Open University Press.
- Biggs, J.B. (1987). *Student approaches to learning and studying*. Hawthorn: Australian Council for Education Research.
- Biggs, J.B. (1979). Individual differences in study processes and the quality of learning outcomes. *Higher Education*, 8, 381-94.
- Black, P. & Plowright, D. (2010). A multi-dimensional model of reflective learning for professional development. *Reflective Practice*, 11 (2), 245-258.
- Creemers, B., Kyriakides, L. & Panayiotis, A. (2013). *Teacher professional development for improving quality of teaching*. Dordrecht: Springer.
- Dede, C., Ketelhut, D.J., Whitehouse, P., Breit L. & McCloskey, E. (2009). A research agenda for online teacher professional development. *Journal of teacher education*, 60 (1), 8-19.
- de la Torre, J. (2006). *Teacher education in Namibia: Reform efforts aimed at improving educational quality* (Unpublished manuscript). Harvard University Graduate School of Education, Boston.
- Fiedler, S. H. D., & Valjataga, T. (2013). Networked narrative accounts of personal learning projects: an instrument for systemic intervention research in higher education. Paper presented at the X World Conference in Computers in Education, Torun.

- Gibbs, G. (1995). Changing lecturers' conceptions of teaching and learning through action research. In A. Brew (Ed.), *Directions in staff development* (pp. 21-35). Buckingham, UK: Open University Press.
- Knight, P., Tait, J. & Yourke, M. (2006). The professional learning of teachers in higher education. *Studies in higher education*, 31 (3), 319-339.
- Laurillard, D., Charlton, P., Craft, B., Dimakopoulos, D., Ljubojevic, D., Magoulas, G., Masterman, E., Pujadas, R., Whitley, E.A. and Whittelstone, K. (2011). A constructionist learning environment for teachers to model learning designs. *Journal of Computer Assisted Learning*, 10 (1111), 1-15.
- Lawless, K.A. & Pellegrino. J.W. 2007. Professional development in integrating technology into teaching and learning: knowns, unknowns, and ways to pursue better questions and answers. *Review of educational research*, 77 (4), 575-614.
- Mezirow, J. (1991). *Transformative Dimensions of Adult Learning*. San Francisco: Jossey-Bass.
- Oxford Learning Institute. (2016, August 22). Retrieved from <http://www.learning.ox.ac.uk/support/teaching/programmes/diploma>
- Roberts, K.A. (2011). Imagine Deep Learning. *Michigan Sociological Review*, 25, 1-18.
- Swarts, P.S. (2003). *The transformation of teacher education in Namibia: the development of reflective practice*. Windhoek: Gamsberg Macmillan.

Teräs, H. (2016). Collaborative online professional development for teachers in higher education. *Professional Development in Education*, 42 (2), 258-275.

Tisani, T. (2012). Postgraduate Learning: pushing the boundaries through Academic Development (AD). *Paradigms: CPUT Journal for Teaching and Learning in Higher Education*, (17), 57-63.

University of Kent. (2016, August 22). Retrieved from <http://www.kent.ac.uk/teaching/qualifications/pgche>