

McMillan, W. (2007). "Then you get a teacher" – Guidelines for excellence in teaching.
MEDICAL TEACHER, 29: 209-217



"Then you get a teacher"—Guidelines for excellence in teaching

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Abstract

Background: Current literature calls for the explicit teaching to health-science educators of the skills, knowledge and dispositions that are required for successful teaching in higher education.

Aims: This paper draws on evidence from an Oral Hygiene department at a South African university in order to illustrate these teaching-competency needs. Insights from the evidence are synthesised with current literature regarding best teaching practice, in support of an appropriate framework for the development of teaching competencies to health-science educators.

Description: A qualitative approach, using a case study, was adopted. The cohort comprised fifteen students in the first-year Oral Hygiene cohort class and the ten educators who taught their programme. Data was collected through semistructured interviews and open-ended questionnaires. The topics that emerged from the combined analysis of the interviews and the questionnaires were organised into a grid so that common themes could be identified. Current literature regarding teaching and learning was used as a framework for interpreting the empirical evidence, from which three categories emerged. The first category included suggestions from students regarding what to do to teach better. A review of the literature indicates that these competencies can be effectively learnt from self-help guides. The second category included requests for skills development. Literature review suggests that these might effectively be learnt from single-event workshops facilitated by more able peers. Responses in the final category highlighted the need for an underpinning theory of teaching and learning, and signalled the need for a more theoretically grounded and detailed approach to teacher development.

Conclusion: The framework developed from the empirical study and current literature makes it possible for individual clinical teachers, and staff developers, to construct teaching-competency development plans that are pertinent to individual teachers' needs, relevant and practical, educationally sound, and cost-effective in terms of time and effort.

Practice points

- Staff development with regard to the development of teaching competencies needs to be cost effective in terms of time and effort, pertinent to teacher's needs, relevant and practical, and educationally sound.
- Self-help guides are effective if educators require tips for effective teaching.
- Single event workshops assist educators to develop and practice the skills prerequisite for teaching.
- However, longer courses that are grounded in educational theory are necessary if educators are to develop flexible, empowered approaches to teaching.
- The model of three modes of staff development helps individual academics and staff developers select the most appropriate modes for individual and faculty needs.

Introduction

Recent empirical evidence has lent support to the notion that the learning environment in health-sciences education has a significant role to play in the development of intellectual and

professional skills in future health-science practitioners (Pimparyon et al. 2000; Gann 2001; Roff et al. 2001; Bassaw et al. 2003; Al-Hazimi et al. 2004; Mayya & Roff 2004; Dunne et al. 2006). Data have indicated the significance of the educator-learner relationship and the quality of teaching to the learning environment. However, few clinicians come to health-science faculties with any formal training in teaching theory and methodology. A growing body of literature is calling for the explicit teaching to health-science educators of the skills, knowledge and dispositions that are required for successful teaching in higher education (Clark 1998; Ho 2000; Ho et al. 2001; Gibbs & Coffey 2004).

This paper was conceived of in the South African context, where current trends include widening access to higher education for students from historically disadvantaged communities who may be underprepared for university, as well as those who are not fully competent in using the language of instruction for academic purposes.

These challenges are exacerbated by large class sizes and the current trend towards early clinical practice, which requires that clinician-academics meet the educational needs of first-year students in transition from schooling. This context is not unique to South Africa. Rapidly expanding access to higher education across the globe by students from 'non-traditional' constituencies (Ivanic 1998), as well as migration of people across continents (McLean 2004), provides similar challenges; as do international trends towards early clinical exposure (Field 1995; Canadian Dental Association 1998) and larger classes of students (Dilworth & Dacre 2006).

This paper will begin with a discussion of the study context and methodology. The rationale for a qualitative approach is outlined. The second section will review the literature on academic staff development with regard to teaching. Three modes of staff development are outlined—self-help guides, single-event workshops by more able peers, and longer staff development courses or postgraduate programmes. The body of the paper will draw on evidence from the empirical study to highlight the kinds of teaching competency development that is best delivered via each of the three modes. The paper will conclude with a brief model of staff development.

Methods

The methodological approach to the study was qualitative. To conduct qualitative research, one must begin by accepting that there is a range of different ways of making sense of the world. Qualitative research is concerned with discovering the meanings seen by those who are being researched and with understanding their view of the world (Denzin & Lincoln 1994). The paper draws on evidence from an Oral Hygiene department at a South African university in order to illustrate the teaching competency and learning environment needs of health-science educators and their students. Insights from the evidence are synthesised with current literature regarding best teaching practice, in support of an appropriate framework for the development of teaching competencies to health-science educators.

A case-study approach was selected. A case study is a specific instance designed to illustrate a general principle or provide a description and understanding of a situation or behaviour (Nisbet & Watt 1984; Pope & Mays 1995). Case study, as a sampling approach, makes possible a depth of insight not always achievable through numeric analysis (Cohen et al. 2000). Validity, for qualitative research, seeks to demonstrate that the explanation of a particular event, issue, or set of data that a research study presents can actually be supported

by the data (Cohen et al. 2000). Reporting in qualitative research is thus "thick" in description (Geertz 1973) as this serves as evidence for interpretive claims.

Ten lecturers were involved in teaching the modules to the students. Three of these lecturers were interviewed individually using a semistructured protocol. Open-ended questionnaires were distributed to, and collected from, the remaining seven lecturers (Appendix 1 and 4).

There were 26 students in the first-year Oral Hygiene cohort class. Six students were excluded from the study on the grounds that they were not 'typical' first-year students, as they had already completed a degree or diploma, or had completed their schooling more than 3 years previously. Five further students elected not to participate in the research. The cohort consisted of the remaining 15 students. Six were interviewed individually using a semistructured protocol and open-ended questionnaires were distributed to, and collected from, the remaining nine (Appendix 2 and 3).

Oral-hygiene students come into the 2-year diploma programme directly from school. The programme begins with basic science (e.g. oral anatomy and physiology) and clinical theory, and students commence clinical practice on patients after 6 months of study. The interview and questionnaire questions were aimed at understanding the teaching and learning context of these students and their teachers, as well as the challenges that they faced. Students were asked explicitly what lecturers did that made it easy or difficult for them to be academically successful. Questions posed to lecturers assessed perceptions about the nature of their responsibility regarding the development of academic competencies in students, and the extent to which they believed that they needed assistance as educators in the higher-education context.

The interviews were tape-recorded and transcribed; each took between 30 and 90 minutes. The transcripts were indexed numerically and analysed line by line, in order to identify important, recurring themes. This process was then repeated for the extended texts of the questionnaires. The themes that emerged from the combined analysis of the interviews and the questionnaires were recorded on the vertical axis of a grid with the transcript or questionnaire index on the horizontal axis, so that common themes could be identified. Strauss (1987) argues that this strategy allows for the authentic emergence of concerns of the research subjects, rather than those of the researcher.

While it is arguable that the sample in the current case study is too small for the results to be generally applicable, Mays & Pope (1995) suggest that the case study contributes to and fits in with a body of social theory and other empirical work. It is within this perspective that empirical evidence from the study is synthesised with current literature regarding best teaching and learning practice, to suggest an appropriate framework for the development of teaching competencies in health-science educators.

Literature review: developing lecturer competence

Much of the learning-environment literature argues that teacher competence and the learner-educator relationship are significant contributors to students' academic success, and to the way in which future clinicians work as members of a team and as caring professionals (Pimparyon et al. 2000; Genn 2001; Roff et al. 2001; Bassaw et al. 2003; Al-Hazimi et al. 2004; Mayya & Roff 2004; Dunne et al. 2006).

Assumptions regarding the relationship between appropriate teacher competence on the one hand, and effective learning on the other, has resulted in growing acknowledgement in the higher education field that teaching competencies need to be overtly developed in university lecturers (Carroll 1963; Dunkin 1983; Ramsden 1991; Ho 2000; Ho et al. 2001; Pololi et al. 2001; Chambers et al. 2004; Gibbs & Coffey 2004). There remains, however, some debate about how such teacher development might best be achieved (Levinson-Rose & Menges 1981; Dunkin 1990; Weimer & Lenze 1991; Norton et al. 2005). Many researchers believe that success is dependent on changing teachers' underlying conceptions of teaching and learning (Trigwell & Prosser 1996; Entwistle & Walker 2000; Kember & Kwan 2000; Norton et al. 2005). The best way to bring about such a change, however, has not been resolved. The pros and cons of the various options—self-help guides, short courses, postgraduate qualifications—are widely debated (Schon 1987; Ho 2000; Ho et al. 2001; Pololo et al. 2001; Pickering 2003; Gibbs & Coffey 2004; Steinert 2005).

There are a great number of publications in the 'teaching skills' self-help genre (Ramsden 1992; Wright et al. 1995; Taylor 1997; Brockbank & McGill 1998; Prosser & Trigwell 1999; Makoni 2000; Light & Cox 2001; Laudrillard 2002; Biggs 2003); as well as a number of publications that specifically target clinical academics (Newble & Cannon 1986; Cannon & Newble 2000). These self-help resources provide educators and staff developers with a variety of practical strategies for effective teaching. However, Ramsden (1992) and Cannon & Newble (2000) sound a warning regarding publications and workshops that highlight only teaching skills—the 'bag of tricks' that may extend a lecturer's repertoire of techniques rather than change his or her understanding. While the skills for creating effective lecture PowerPoint® presentations, for example, might be appropriately learnt from a book, those who critique self-help guides argue that effective teaching—and hence effective learning—might not be merely about 'good' PowerPoint® presentations.

There is also criticism levelled at staff-development activities—usually single-event workshops—that are largely concerned with teaching skills and methods, and that provide little theoretical background (Biggs 1989; Ramsden 1992; Gibbs 1995; Trigwell 1995; Ho 2000; Ho et al. 2001). The problem (Ho 2000) suggests, is the assumption implicit in such training that providing university academics with "prescribed skills and teaching recipes" will result in better teachers. Research by Gibbs (1995) and Trigwell (1995) challenges these assumptions—participants queried the feasibility of the new methods, defended the methods that they were currently using or used new methods mechanically, and were unable to extend the new ideas into other situations. Ramsden (1991), Clark (1998) and Cannon & Newble (2000) explain this phenomenon. They argue that workshops that teach only teaching skills may merely extend a lecturer's repertoire of techniques rather than change his or her understanding. Since these interventions seldom make explicit the theoretical underpinnings of a particular skill, the 'recipes' given in these interventions can only be applied mechanically (Ramsden 1991; Clark 1998; Cannon & Newble 2000).

The literature indicates that genuine improvement in teaching practice has to begin with a change in the way in which university teachers think about teaching and learning (Ho et al. 2001). Ho (2000), Ho et al. (2001), Pololo et al. (2001), Pickering (2003) and Gibbs & Coffey (2004) all argue that staff development should create opportunities for academics to develop the ability to be "independent, flexible decision-makers about teaching" Ho (2000). Providing a theory of teaching and learning empowers educators to develop their own theory of practice, and facilitates a flexible, empowered approach to teaching (Clark 1998; Ramsden 1992; Ho 2000; Ho et al. 2001; Pickering 2003). Canon & Newble (2000) note that teachers

in higher education have to be able to choose and adapt approaches to suit their particular areas and subjects. This flexibility, they argue, is only possible with a grounded theory of teaching and learning.

Changing existing conceptions in the education context is not a process that occurs overnight. Sufficient time, with opportunities for reflection, is necessary for change to occur (Earwaker 1992; Davidson 2003). Health-science educators, however, have limited time to invest in learning about teaching, and have competing demands on their time (e.g. clinical obligations). The most effective way to achieve staff development with regard to teaching and learning, therefore, will be to make the best possible use of the educator's time. While the highly efficient design of PowerPoint® slides may need little theoretical scaffolding, and can be effectively—and quickly—learnt from a self-help guide or a single-event workshop, other types of learning may require time and would be better suited to longer staff-development courses or postgraduate programmes.

The discussion that follows draws on insider accounts of the first-year Oral Hygiene students and their teachers. Their voices will be used to highlight the kinds of development needs that academics have with regard to teaching. The argument outlined above will be used to suggest the most educationally appropriate and cost-effective, way to achieve this learning.

Discussion

Three categories of potential staff development have been extrapolated from the data. Roughly they might be referred to as 'what', 'how to', and 'why' categories. In the first category are suggestions from students about 'what' to do to teach better. These 'tips for teaching' are strategies that can be learnt effectively from a self-help guide. The second category includes requests for skills development—the 'how to' of teaching, and deals with those skills that require some level of demonstration from someone with expertise. The final category suggests development with regard to the 'why' at the heart of any teaching philosophy. The emphasis is on assistance to 'develop the teacher', and deals with teaching philosophy and the way in which decisions about teaching strategies are related to educational theories.

What to do: tips for teaching

The teaching competencies clustered in this section are the basic skills required for effective communication. At their most simple, the suggestions focused on the nature of teaching delivery. Students reported that lecturers who made it easy for them to learn were "well prepared for their lectures". These lecturers did not "just read off a piece of paper". Effective lecturers, students explained, "speak clearly" and make eye contact with learners. One student made clear the consequence to effective learning when lecturers employ poor communication strategies: "The one lecturer kept his back to us, spoke for an hour, switched the overhead off and left. I did not understand what was going on."

Linked to effective communication was whether a student felt that a lecturer was approachable, encouraged questions of clarification, and desired student interaction. Such teacher habits were associated with effective learning. Thus, effective lecturers

"allow you to interrupt during their lecture to ask questions—not questions, but to explain again. They make time available after hours for, not consultation, but maybe just to repeat work and. . . they are willing to help you. . . It also makes it easier to study that subject. . . you understand it."

Students associated these lecturer behaviours with the ability of academics to motivate students to learn and be successful:

"She was so positive with everything and she influenced us in such a way that you want to impress her. You... want to do well... The way she gives class... you understand. If you don't understand, she won't embarrass you in class... That really made it easy for me and I could see that in my results as well."

Many of the students, especially those for whom English, the language of instruction, was a second language, described how they struggled with the triple challenge of listening to a lecture, understanding the content, and simultaneously taking notes. Students suggested a number of teaching strategies that they argued would alleviate some of these difficulties. Firstly, they explained that some lecturers did not leave overhead transparencies and board notes up for sufficient time. They described the negative impact that this action had on learning:

"Sometimes when you are busy writing something from the board... they take it down too quickly. And then we don't get all the information that we need or the page that is going to be important for your studies."

Students suggested a number of ways in which lecturers might help students to organise and understand new subject matter. For example, lecturers might share outcomes for each session at the beginning of the class. One student described how this had been done effectively: "She came into class and she told us, 'This is what I want you to know, and we are going to focus on that' ". Other students suggested that being given notes for a class was helpful since it helped to 'scaffold' their learning: "we need notes ...for understanding." Being given notes seemed to help students to focus on the new learning: "I want to concentrate on one thing and not write and again listen. Sometimes they speak fast... you miss an important sentence."

Lecturers are often against giving students notes, arguing that it leads to passivity in class. Student testimony challenged this perception. Students argued that being given notes helped them to pay attention in class and to take effective notes: "I think it is best for me if I make my own notes and I just compare to the lecturer's notes... You have to make notes for yourself and just study her notes and your notes together." Access to the notes prior to the lectures appeared to help learning even further: "Because you already know what the lecture is all about. So if he gives a lecture I know about that thing so I can just make notes on the side about what he is saying."

This feedback from students indicates that effective communication is of primary importance to effective learning. This was broadly interpreted to include the following:

- teacher familiarity with the subject knowledge;
- speaking clearly enough for all students to be able to hear;
- making eye contact with individuals in the class;
- being approachable, including being available outside set class times;
- encouraging clarifying questions;
- providing students with key notes prior to the class; and
- sharing learning outcomes with students at the beginning of the class.

Many self-help guides spell out exactly how these teaching competencies might be achieved and refined (McKeachie & Svinicki 2006).

Some of the aspects (e.g. receiving notes before a class) may be of particular importance to the learning and learning strategies of students in the transition from school to university. It is arguable that these learners are new to many of the accepted university practices—like taking notes. However, as will be argued later, each new subject or discipline presents fresh challenges to even the experienced university learner, and effective communication strategies have the potential to ease students into new disciplines in a way that promotes effective learning.

How to do it: skills development

The second category for teaching competence development includes those skills that might easily and effectively be taught in a short workshop session by a peer or expert who is already competent in the skill. Two skills of this sort were indicated by students and academics—how to set assessment questions that are clear and unambiguous, and how to implement learner-centred activities in the context of a large class.

Both students and academic staff echoed current literature regarding the value of small-group teaching. This strategy is assumed to be a more effective teaching strategy because students are actively involved (Cox & Ewan 1982; Cannon & Newble 2000). As one academic put it: "Having students work in groups and really for their benefit. . . Have them all involved that is beneficial to them, which is a learning experience to them." Students perceived an added benefit to small-group work, in that it increased their confidence to ask questions: "Individual attention would have been more useful because sometimes we don't understand. . . There are some of us who are shy in front of the lecturers to put up our hands." Staff explicitly asked for development in this regard: "I need help with facilitation of group teaching" and "skills in having students work in groups".

The 'meaning of test and exam questions' emerged as a second theme - as one academic expressed it, "I am not always sure the way I ask questions that students understand". Students also reported that the wording of assessment activities was an aspect where students and their lecturers struggled to share meaning:

"Like some of the subjects I can study very hard and the questions will just come in a different way, but not knowing that this is the answer (but) . . . it is the right question . . . Because you write the answer and then she (the lecturer) wants it in another way, but it is right, but she wants it in another way—so that means you are wrong."

As there is literature that indicates a relationship between the wording of an assessment question and issues of validity and reliability (for example, National Board of Medical Examiners 2002), it is arguable that unambiguous wording of assessment questions is an educational priority. This is certainly a skill that can be, and is, taught by more able peers through the workshop process (for example, South African Association of Health Educationalists Journal Club 29 March 2007).

The literature and empirical evidence cited above suggest that there are some aspects of teaching competence that can be appropriately taught through single-event workshops—those that focus on the 'how'. Such competences would be skills-based, suitable for demonstration by a more able or experienced peer, and in a context where theoretical underpinnings are either not essential, or not required. Examples include test-writing skills, small-group facilitation skills, and how to write outcomes.

Why you do it: developing the teacher

However, where it is desired that academic teachers have more than mechanical skills—where teaching practice would benefit from changes in the way in which the educator conceptualises his or her work as a teacher—then a more detailed approach to teacher education is required. Such teacher development is theoretically grounded, so that the practitioner can develop his or her own theory of practice. The development is grounded in the 'why' of teaching, giving practitioners the opportunity to develop flexible, empowered approaches to teaching. Such development takes place over time so practitioners have opportunities to change existing perceptions. At the heart of this approach is the development of a 'teacher' identity. A student from the cohort expressed this idea succinctly:

"And for one thing, you get lecturers and then you get teachers and I think it is so much better to work with teachers . . . because lecturers, they are just there, 'Oh, what the hell. This is my lecture . . . carry on'. Then you get the teacher—they are there to mould you . . . in the field that you are going into."

From the empirical evidence, a desire was evident on the part of many university clinicians to take on the identity of the 'teacher', and a willingness to develop the appropriate competencies—as one academic put it, "Teaching is important. I like to teach people . . . I want to be part of the process". This evidence also signalled the aspects of teacher development that would best be served by incorporating a theory of teaching and learning. While the themes that emerged indicated the challenges that teachers and learners were experiencing, and there were seldom direct requests for particular kinds of staff development, the staff-development opportunities were implied. In the section that follows, three emerging themes will be examined. In the discussion at the end of this section, ways of addressing the staff-development needs will be elaborated.

Seeing the big picture: conceptual linkages

Many students indicated that they struggled to make sense of what they were learning. They struggled to see where and how various bits of the curriculum, or content within a subject, fitted together. They suggested ways in which lecturers might make these linkages more overt. For some students, this was at the level of explaining where particular subjects related to the students' development as oral-health practitioners: "Explain about the subjects. What is the aim of doing that particular subject." Indeed, this particular student had such a poor understanding of how the programme worked as a whole that she perceived some subjects as irrelevant: "because some of the subjects are not even related to the course."

Some students suggested that they needed a closer relationship between theory and clinical application in order to really understand what they were being taught: "seeing things that is being discussed." Students described how contextual experience might lead to real understanding: "There are some things that you need to see in the clinical area, and we just don't see it. We don't have a clue what they are talking about—what it looks like, or anything."

Current theories of learning drawn from constructivism argue that learners do not passively receive knowledge handed down to them from teachers (Graham 1996; Biggs 2003; MacLellan 2005). Rather, students draw on existing knowledge and previous experiences to construct new knowledge and understanding. This theory suggests that existing knowledge must be activated before students can engage with new learning. A repertoire of such theories will equip health-science educators to develop their own theory of practice, and will facilitate

a flexible, empowered approach to teaching, in which teachers can adapt teaching tools in the light of current and educationally appropriate theoretical positions.

Understanding the language: making university-type knowledge overt

Many students expressed difficulty with the new terminology of their field of study, oral hygiene:

"words that I have never heard in my life and you must understand what that word means before you can go on"

"the vocabulary and the terminology because there are some high words that are used that you don't have any understanding of and that means that at the end of the day you don't have any understanding of the key issues of that subject."

"Some of them, they use terminology. There is a term there, and there is a term in the sentence next to, following the term. And you don't know if it is the right answer or what because (of) the term."

Dison & Rule (1996) suggest that these students are struggling with more than mastering vocabulary. They suggest that each discipline is a subculture made up of codes, conventions, concepts, values, canons, and skills—and that it is this whole 'package' that students are being asked to master when they enter a new discipline, or in this case, a field of professional training. This understanding was echoed by a lecturer from the cohort. Speaking specifically of students who did not have English as a first language, he argued that learning the language of any discipline within the field of oral hygiene was "like three new languages they must learn": that of the discipline, that of the field, and that of the language of instruction.

Dison & Rule (1996), Hutchings (1998), Moore (1998), Moore et al. (1998) and Shay & Moore (2002) all highlight as important the fact that university knowledge differs from school knowledge and that many students in transition from school do not recognise or understand the difference. Many students in the cohort came from schooling systems that conceived of knowledge as unitary. They struggled to move away from the idea of a single truth as espoused in textbook accounts and to position themselves within academic debates about contesting truths—as one student put it: "You confuse the students. . . The one lecturer wants it that way, the other one wants it that way. Where do you go about what is right and what is wrong?" Dison & Rule (1996), Hutchings (1998), Moore (1998), Moore et al. (1998) and Shay & Moore (2002) argue that when students understand how knowledge is constructed and operates in the university context, they are better positioned to engage with it actively and to integrate it into their existing knowledge. While understanding how university knowledge operates and becoming familiar with field specific language may be a particular challenge to students entering a new professional field, it remains a challenge each time the language of a new discipline is introduced into a professional course.

The skills the lecturers would need in order to be able to aid students' learning in this way is embedded in particular theoretical understandings of literacy and academic development. Opportunities to engage with such theory could be provided during longer staff-development courses or postgraduate programmes, and would further increase the theoretical repertoire of the practitioner.

Learning: helping students' self-study

The third theme that emerged highlighted various aspects about learning. University academics expected certain academic skills to be in place: "how to study"; "time management skills"; "how to find relevant information"; "how to summarise articles"; and "taking notes". Many students clearly did not have these competencies in place, and found the instructions and advice of lecturers unhelpful:

"I mean, for them to tell you 'go read up', that for me is just throwing us further away . . . you will still not understand if you—okay, yes go read up, you will read up, maybe get a bit of background of what is going on, but I mean, if they give you the course—what to focus on."

At one level, such comments may indicate that students need help with making conceptual linkages as indicated in an earlier section. However, these comments suggest rather that students did not struggle to see where something fitted into their training programme; rather, they struggled to see at what depth a particular aspect should be understood—what was core and what was background.

The inability to distinguish between core and background information was also indicated in students' requests for model answers: "Lecturers should tell students or give examples—what they expect for answers." It appeared from the context of this response that the student was not asking to be spoon-fed. Rather, she was asking for examples of how the codes, conventions, concepts, values, canons, and skills worked in practice (Dison & Rule 1996). For example, how questions in the particular discipline might be answered, what correct answers in the particular discipline look like, what is the relationship between questions and correct answers, and how to use the codes, conventions, concepts, values, canons, and skills of that particular discipline correctly.

Biggs (2003) argues that university teachers can no longer assume that students come to higher education with the traditional academic skills in place: "the expansion, restructuring and refinancing of the tertiary sector that began in the 1990s has meant that classes are not only larger but quite diversified in terms of student ability, motivation and cultural background". Taylor (1997) holds that lecturers have an obligation to be more actively involved in the academic support of all their learners: "[as] educators we have an ethical if not a contractual obligation to help students learn effectively". Implicit in such statements is the assumption that lecturers need to, and need to be empowered to, support the learning of all their students.

While a stand-alone course that teaches academic literacy skills to students (e.g. critical reading or academic writing) might help them recognise the skills of academic competency, Moore (1998) argues that it is only through practicing these skills in the context of specific disciplines that students will gain true academic insight and academic competence. Thus, it becomes the responsibility of the teacher of a specific discipline to embed the mastery of relevant academic literacy skills within the knowledge, skills, and dispositions of that field. In order for such activities to be effective, the teacher will need to understand not only the key principles of his or her discipline, but also have access to a theory of learning—what it is, how it happens, and how it is best facilitated.

In this paper, empirical evidence has been used to highlight aspects of teaching that might be improved if grounded in theory. Three themes were used to illustrate the value of a theoretical basis on which to make decisions about best teaching practice. Grounding teaching in a theory of learning allows teachers the opportunity to develop flexible,

empowered approaches to teaching, where decisions about best practice can be made in the light of current theory, rather than by relying on 'recipes' that might only be effective in the context for which they were initially designed.

Conclusion

This paper began with the observation that there exists a growing body of literature calling for the explicit teaching to health-science educators of the skills, knowledge, and dispositions that are required for successful teaching in higher education. The discussion, drawing on current literature and the empirical evidence from a case study, has highlighted a variety of aspects that might thus be developed. It has been argued that these aspects might most effectively be categorised into those that could be learnt from self-help guides, those that could be learnt in a workshop from a more able peer, and those that should be grounded in educational theory.

The rationale for the allocation of the various competencies to these three groupings is not arbitrary. Competencies have been grouped in a way that makes their mastery most cost-effective in terms of time and effort. Steinert (2005) motivates for individual staff-development plans that are pertinent to the teacher's needs, are relevant and practical, and are educationally sound. It is arguable that this development should be achieved in a way that is most cost-effective for the busy practitioner. The foregoing discussion contributes to such planning in two ways. It provides individual clinical teachers with a framework for developing their own staff-development plans. Perceived needs can be categorised and effective learning opportunities sought. The framework also allows staff to formulate individual-development and faculty-development plans that are educationally sound, have the potential to be perceived by clinicians as relevant, and make the best possible use of available time and resources.

Acknowledgements

I would like to thank all those Oral Hygiene students and teachers who so willingly and honestly shared their views and perspectives on teaching and learning. I would also like to thank the reviewers of an earlier draft of the manuscript for their constructive feedback.

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Appendix 1: Interview Protocol for Lecturers

Assumptions/Expectations

- (1) Describe a typical first-year Oral Hygiene student.
- (2) What problems would you expect them to have at university?
- (3) What skills (academic and life) would you assume that they bring to university?
- (4) What do you view as unacceptable academic writing?

Whose responsibility?

- (1) How do you understand your role as an OH educator?
- (2) To what extent do you think it is your responsibility to develop the academic skills of first-year students?
 - a. If you assume it is your responsibility, how do you do it?
 - b. If you don't assume it is your responsibility, why not?
- (3) To what extent do you think it is your responsibility to develop the life skills of first year students?
- (4) If you assume that it is your responsibility, how do you do it?
- (5) If you don't assume it is your responsibility, why not?

Current cohort of students

What have you noticed are the academic strengths and weaknesses of the current group of first year Oral Hygiene students?

Assessment/Test design

- (1) What criteria do you use when designing tests/ assignments/exams?
- (2) What criteria do you use when marking tests/ assignments/exams?

Staff development

What help would you like with the development of your own teaching skills?

Appendix 2: Interview Protocol for Students

School experience/preparation

- (1) What school did you go to?
- (2) What were the most important learning skills that you were taught at school?
- (3) What were the kinds of tasks/activities/assessments that you were given at school?
 - a. Which ones did you find easy? Why?
 - b. Which ones did you find difficult? Why?
- (4) When you were at school, how did you prepare for a test?
 - a. How did you prepare for an exam?
 - b. How did you prepare for an essay?
- (5) How well did you do at school?

Coming to University

- (1) What was nice about coming to university? What was difficult? Why?
- (2) What have you tried to do about it?

Experience of lecturers

- (1) What do lecturers do that make it easy for you to learn at university?
- (2) What do lecturers do that make it difficult for you to learn at university?

University academic performance

- (1) How well do you think you are doing at university?
 - a. Why do you think that is so?
- (2) What skills would you like to be taught?
- (3) What skills do you think you need to do better at university?

Appendix 3: Student Questionnaire

Name:

- 1. What school did you go to?
- 2. Do you think your school prepared you for university? Explain your answer

- 3. How could universities and lecturers help first-year students to be more academically successful?

Appendix 4: Lecturer Questionnaire

Name:

1. What academic skills should first-year students have in place when they come to university?

2. What are common academic problems that first-year students have at university?

3. What help do you need to teach better?