Challenges in Developing and Implementing Strategies to Facilitate Completion of their Research by Postgraduate Students in the Discipline of Public Health Medicine

Myra Taylor
Prithashni Naidu

Abstract

Many students have successfully completed the required course work modules but not the research required for the Masters in Public Health (MPH) at the University of KwaZulu-Natal. The aim of this project was to support, mentor and motivate the students to complete the dissertation. This paper discusses and analyses a teaching and learning project to assist these students with academic writing skills. Using action research students were contacted to assess their academic needs through a questionnaire. Students were then contacted individually, mentored and assisted with administrative procedures. After further discussions with students and staff, a series of workshops were held on academic writing, data analysis, and writing manuscripts, and in the next phase, these were evaluated. Data indicates that MPH students appreciated the mentoring, encouragement and the workshops set up. Constraints included the challenge of accommodating students who work in different districts of KwaZulu-Natal and have to travel long distances to attend, and who also have to work and meet family commitments. The number of students completing their dissertations was less positive and indicated that despite interest expressed, and their participation and positive feedback in the workshops, few students completed their dissertations in 2012. A more structured process providing

both academic and peer support may be helpful and assist students to complete their dissertations and papers, facilitated by additional staff through a cohort-based programme.

Keywords: Masters in Public Health, Mature students, mentorship, skills training, supervision

Introduction

South Africa, similar to many other developing countries, experiences a shortage of qualified health personnel, and this is of particular concern due to the high prevalence of infectious and chronic diseases (Ijsselmulden, 2007). Currently, nurses form the backbone of the healthcare services and they provide the clinical and managerial support for the health system. There has also been an effort since the establishment of the democratic government in 1994 to recognise students' prior learning and experience and to also to offer career progression opportunities to personnel with other types of training in the health sciences, such as environmental health officers, pharmacists and physiotherapists. These health practitioners often lack expertise in a public health perspective, and require further training.

Recognising this need, the UKZN Graduate Programme in Public Health (GPPH) aims to produce health professionals who could possibly be change agents in the field of public health. This programme offers a number of qualifications (Postgraduate Diploma in Public Health, Master of Public Health, Master of Medical Science and PhD degrees). All offerings mentioned emphasise competence in and the application of public health skills and knowledge in the work place. Ultimately, this programme intends to contribute and improve the public health system in South Africa. Ijsselmuldien et al., (2013) emphasise the importance of enabling Africa to train its own leaders in public health. To achieve the enrolment target, the Department of Public Health Medicine, UKZN was awarded a grant to support students in the post graduate programme with their research, and in particular, to address the needs of students experiencing difficulty with the completion of their research report. To this end, a programme was

implemented in 2011/2012 which included individual support, group support and skills' training and development.

The challenge of offering the Master of Public Health (MPH) component of the GPPH is that it has had and continues to have insufficient full-time staff to focus both on the academic programme and the other needs of part-time mature students. The dearth of staff has to be considered in the light of research findings. For example, Brown and Holloway (2008) describe the transition to postgraduate studies as including challenges both at a personal-emotional level, at a social transition level where the availability of institutional support mechanisms are critical, and an academic transitional level, since many students have not studied for a while. Many universities, both local and international, have taken cognisance of such challenges and have developed strategies to address postgraduate students' needs (Hoffman and Julie, 2006). This is not unsurprising considering that universities are attempting to facilitate postgraduate studies to contribute to skills' building. A search of local websites of South African universities offering postgraduate public health training in different provinces indicates the efforts being made by South African institutions to build capacity within the existing health service.

Although there is emphasis on attracting students to public health study, less attention has been paid to date on analysing the reasons for students not completing their studies in this field. In his review of factors influencing student completion rates Martinez (2001) notes that students who do not complete are less satisfied than completing students with their institutional experiences. He suggests that student progress needs to be monitored and that under-performing students should receive additional support. Furthermore, he suggests that action research can play a useful role in identifying the needs of students.

Other factors associated with timely completion of studies relate to student competency and personal situation, the quality of supervision received by the student and availability of research infrastructure (Jiranek, 2010, Myers & Earthman, 1999). Almost two decades ago, Shannon (1995) emphasised the importance of communication between supervisor and student and the role of mentor that supervision entails, which still holds true in contemporary times as confirmed by Wong and Wong's study in 2010. They emphasised the need for support from the supervisor, as well as family

and friends, and the students' ability to access resources. They reported that factors hindering student progress included "difficult data related processes" and a lack of understanding about thesis writing.

The reasons for the urgent need for informed public health practitioners in the health sphere arise from the epidemics faced by the country from both infectious and chronic diseases. Beaglehole and Dai Poz (2003) highlight the challenges facing public health as a result of these epidemics in the 21st century. Further, the approach of 2015 and the achievement gap between South Africa's national goals and the Millenium Development Goals, also emphasise the vital role of public health and the need for adequately trained public health practitioners who can contribute to strategic thinking and improving the health of communities. The approach adopted by the Discipline of Public Health Medicine (DPHM), at UKZN to provide training to persons already employed by the health department offers opportunities to increase the influence of public health initiatives in the health sector.

To meet the needs of the students who are mostly working in full-time positions, and who also are often not resident in Durban where the medical school is situated, the MPH coursework programme is run on a modular basis. In addition to attendance at lectures over a five day period, students complete assignments, working both individually and in groups. There is, thus, a fair amount of flexibility to try and address the part-time adult students' realities in respect of time management. Since the initiation of the MPH, which offers a different kind of learning opportunity from the traditional lectures in medical training, many problems have been identified that prevent postgraduate students either completing their MPH degree, or of completing the degree within the required time period. The course work is usually undertaken over a two year period and it is expected that this should be completed prior to the initiation of the research component. To assist students, the building blocks that prepare them to implement their research are undertaken during the coursework training. These include two modules studying health measurement, and a module on research methods. During the latter-mentioned modules, the students receive training in developing research protocols and obtaining ethical clearance to conduct research. Despite offering these preparatory modules, many MPH students have not completed their dissertations, and the result is a high dropout rate. This has

also been the experience of other South African universities (Hoffman and Julie, 2012).

In 2010, in an attempt to address this difficulty, we applied for and received a grant to run an academic writing and research methods' training course based on students' needs. The broad objectives of the course were to improve the students' understanding of the research process, to support and develop research writing of peer reviewed manuscripts, to provide mentoring and supervision support, to encourage students to share experiences and to learn from fellow students, and to network with relevant people and resources.

This paper explores the challenges of implementing such a course in response to the difficulties articulated by the students of doing an academic research project, the response from the discipline of Public Health Medicine (DPHM) to address and support such students, and constraints on these efforts. The paper then discusses possible future strategies to facilitate students' timely completion of their degree.

Research Methods

Using a mixed methods descriptive design we engaged in action research which has been shown to be a useful methodology to obtain information about the practices and to identify and clarify the problems being experienced by students in order to contribute to their progress (Elliott, 1991). A mixed methods approach allows identification of common issues across the programmes and specific issue that individuals have. Likewise, it allowed an overall evaluation of the programme and individual experiences of the programme.

The target group for the study was a diverse group of students who participated in the MPH programme over a twelve year period. The range of backgrounds they came from was broad. In addition, with support from the National Department of Health the student included hospital managers from different provinces including KwaZulu-Natal, Eastern Cape and Mpumalanga. The MPH thus attracted mature students, many of whom were intent on furthering their careers in the Department of Health, which supported their training. The sample in the study was the masters' group that had not progressed well over the years in the DPHM. Many of these students

had a demanding work schedule as they were working in the public health sector and had completed most of their postgraduate coursework programmes some years ago.

In the first phase of the action research to plan the intervention programme, the initial task was to question those students who had not completed their degrees to identify the type of assistance they required. We generated a list of MPH students who had not graduated in the expected time period during the previous five years with the intention of making contact with them.

The first problem was the difficulty in making and then maintaining contact with inactive former students since the initial email (53 students) that was sent out explaining the programme found that over 50% were undelivered. This was followed by use of "sms" and phone calls to update the students' email addresses. There were many students who could not be contacted. During this process four students requested procedures for converting to the diploma programme.

Questionnaires were sent to students requesting information about their progress and the areas where assistance was needed in order for them to complete their research and dissertation. Each student was emailed by the course facilitator, whom the students knew from their previous contact with the DPHM, and this was followed by a personal telephone call using a semi-structured interview schedule by the same course facilitator if there was no reply, or if further clarification was required.

The student questionnaire explored the needs of the MPH students with regard to a range of topics including mentorship, administrative issues concerning registration, ethical clearance, implementation of the research process, computer skills, and English writing skills and whether they would participate in facilitated workshops. The questionnaire also asked students to list their problems and identify topics where further tuition would assist them to complete their dissertations. To obtain the required information, both open and closed questions were used and students were asked to explain the areas of the research process where they experienced challenges. Students were informed that the purpose was to address their needs and that their responses were confidential.

For phase 2 a programme was developed and dates scheduled for seminars, workshops and small group discussions as requested by the

students. Students were contacted to confirm that the arrangements (date, time, content) of the proposed programme were suitable and in accordance with their requests for assistance and support. In addition the course facilitator offered mentorship and where administrative problems were reported by the students, she attempted to address these. Based on the information obtained from staff, the feedback from students and the objectives of the grant proposal, a work plan was developed (see Table 1).

Ethical Issues

The information provided in this paper is anonymous and the confidentiality of respondents has been maintained. The potential benefits to students of improving the support offered through the MPH programme may be considered to be in accordance with the ethical principle of beneficence.

Findings

The results of our attempts to address the needs of MPH students who had completed their coursework but not their dissertation are presented. The focus in this paper has been on MPH students since there are fewer M Med Sci and PhD students and the findings were based on the triangulated results of Phase 1 (questionnaires, telephonic interviews with students and discussions with staff).

Findings from the Questionnaire

The survey highlighted a range of concerns and students' perceptions of the impediments that hindered their academic progress. Students identified their areas of difficulty which comprised personal issues, supervision and mentorship and research infrastructure issues. Constraints identified included the fact that many students worked in different districts of KwaZulu-Natal and had long distances to travel to attend lectures and seminars, with the added burdens of work and family commitments. Regarding personal skills, students emphasised their need for academic writing skills and many older

students lacked proficiency in the technical skills required for computer use. They also highlighted the challenges that they had experienced with the administrative procedures of re-registering and their difficulties in engaging with the university bureaucracy from a distance since most of them worked in different parts of the province. The semi-structured telephone interviews following up on the questionnaires highlighted the need for mentoring and support, and their frustration with the bureaucratic processes. Many students were not in regular contact with the supervisors who had been appointed. Students reported variable progress with their research and were pleased to discuss their situation. The discussions with staff confirmed the relevance of a focus on academic writing skills, and suggested topics for workshops for supervisors. Based on these results, a programme was developed as described below.

Phase Two: Programme Development, Implementation and Evaluation

The students were divided into different cohort groups as follows:

a) About 31 students who registered for their research project for the MPH between 2006 and 2009, the Masters 1 Group. (Students from 2010 were completing their course work and did not participate). Many students within this Masters 1 Group had made poor progress over the previous two years. As students within this group were at different stages of the research process, interventions were planned on an individual or group basis (students who were at a similar level of progress were grouped together). One-on-one or group sessions were held accordingly with facilitators from the DPHM. Students from this cohort were also invited to attend the workshops as described below.

b) Publication cohort – this comprised ten of the students who had graduated with either a MPH or M Med Sci degree but had not published a paper based on their project.

c) In addition to these two student cohorts, based on the discussions with academic staff in the discipline supervisor groups were planned to offer supervisors the support they needed to provide the students with competent supervision.

MPH Student Support Programme

The MPH Support programme that was developed aimed to address the needs of students at different stages in their research comprised the following as listed in Table 1:

Table 1. Components of the 2011/2012 MPH Student Support Programme for students who had registered but had not graduated

PERSONAL ISSUES	**Administrative assistance**	Assisting with problems with registration / re-registration
	Computer training	Basic and Intermediate Word
	Academic Writing Skills	Seminars were held to address difficulties in scientific writing and common errors in writing English
	Writing for peer reviewed publication	One day workshops were held to encourage students who had completed dissertations to publish these results
	Mentorship	Regular contact to monitor progress Workshops were planned to bring supervisors from different disciplines together to discuss roles and responsibilities
RESEARCH	**Protocol development**	Students offered assistance / communication with supervisors established
	Ethical clearance	Following up on the receipt of Ethical Clearance and Re-certification
	Data analysis and interpretation	Students were assisted: a) Training in SPSS Statistical package b) To meet with the UKZN statisticians
SUPER-VISION	**Supervisor workshops**	Personal telephone calls to monitor progress

The topics that comprised the content of the planned programme are described in more detail below and the rationale for their inclusion is explained as well. Initiation of the implementation of the MPH student support programme was delayed due to difficulties at the medical school to access the funding. Once that hurdle was partially overcome, the programme was initiated as described below.

Academic Writing Skills

Many students were not first language English speakers, and as mature students had not been engaged in academic writing for many years. They appreciated guidance in developing the format for protocols, reports and their theses, and in developing their style and avoiding common grammatical mistakes. The 'Research Writing and Structuring' workshops were well attended and students completed a post-workshop written evaluation and found these to be most useful. The sessions were structured to ensure that individual as well as group needs were met. Students attended all three full-day Saturday sessions and found this useful and requested that this be ongoing.

Drafting a Manuscript for a Peer Reviewed Journal

Students had progressed at different rates over the years and some students who had completed a dissertation and graduated had yet to publish their results. The one-day workshop developed by an experienced lecturer provided a format for the development of a manuscript using their thesis as the foundation. Students were enthused and three of the ten students who attended subsequently submitted articles, two of which have, to date, been published.

Administration

Ongoing individual email or telephonic contact with all students resulted in various administrative queries concerning registration and financial issues being corrected during this process. From the questionnaire many students

(11) needed assistance with the bureaucratic challenges. Some had forgotten to reregister as they had not received a reminder. Others were engaged in corrections to their protocols, or were having difficulties with the process of obtaining ethical clearance. The UKZN administration had been restructured and dealing with new personnel, now situated in different offices/buildings and campuses had proved a formidable challenge for many students,. Students did not know who to contact for assistance since their emails and phone calls were unanswered due to the new structures being implemented. They all complained about the lack of clarity with respect to the procedures due to the restructuring at UKZN (anecdotal follow-up after the questionnaire phase). The new contact details and procedures were then sent out to all the students, and they were offered assistance in moving forward. Students needing new supervisors were also assisted as were those who needed to re-register.

Mentorship

Regular phone calls to students to enquire about their progress were found to be a more important component than originally predicted. Students expressed feelings of isolation and perceived disinterest on the part of the university. Since the completion of the coursework, they claimed that there had been no follow-up from DPHM and /or their supervisors. They were, therefore, very appreciative of the contact and being able to obtain advice and to discuss their progress and how they could engage with this new initiative. An ongoing relationship was established between the facilitator and students who commented on how good it was to have someone who understood and cared about them and their studies. The role of the supervisor in this regard did not appear to suffice. The importance of this aspect was not originally considered and the evidence was not documented systematically and is thus anecdotal.

Protocol Development

Although students had previously developed a protocol as part of the "Research Methods" module, when their circumstances changed as a result

of a new job or portfolio, the envisaged research project was no longer feasible, and they had lacked support to embark on the changes that were required (this information was obtained from the workshop attendance). Furthermore, their supervisors had been selected for that specific project, and for their expertise in that content matter and they were often not from DPHM and were not able to assist with a different topic. A new supervisor thus needed to be appointed, and the initiation of a new protocol was required. The activities for the Masters 1 group included assisting students with clearly conceptualizing their new research topic. Sessions were held with students on an individual basis and the students thus assisted completed their protocols and submitted these to their supervisors for marking, so that they could be corrected and submitted to the UKZN postgraduate office.

Three full day group sessions were held with a group of ten students, all from the class of 2007 and at a similar stage in their research process, who had not completed their dissertations. The activities included strategic planning, time management, a recap of the research process, and discussing their progress to date on an individual basis and planning a way forward.

Ethical Clearance for Students' Research

The Biomedical Research Ethics' Committee (BREC) at UKZN relies on the voluntary contributions of reviewers and the Chairperson of BREC also works on a part-time basis. The procedure of submission to BREC has changed over the past decade in order to improve efficiency, but the data showed that students had experienced difficulties in the process of obtaining ethical clearance, and they needed assistance overcome these impediments.

Data Analysis and Interpretation

Students undertaking the MPH have a varied history but few are well versed in statistical analysis, and although there is training during the MPH, students expresseda need to hone their skills. Formal training in the use of computer packages such as SPSS to undertake the analysis was also requested. Workshops on SPSS were thus arranged initially to introduce the students to the package, but it was found that several days were required for

students to learn how to use the package. The students explained that aspects such as accessing the computer packages which they required and to which as students they were entitled, were also difficult because of their lack of computer skills (as identified by the questionnaire responses). Thus a series of workshops was held to address these needs.

Requests Fulfilled for Additional Training

Students attending these workshops requested additional training and the following sessions were arranged.

- Methodology planning and writing
- How to structure a master's report
- Computer training - basic and intermediate word
- Publication search and Endnote

Supervisors' Workshops

The student support programme envisaged workshops where supervisors could come together to discuss strategies to optimize throughput of students and to identify the gaps in students' skills that further specific training could address. The supervisors selected for the students were from a range of disciplines as explained above and finding a convenient time was difficult. Further, the supervisors from other disciplines did not consider this a priority, as they had their own workload. Thus despite students' requests we were unable to bring supervisors together to agree on a common strategy.

The student workshops that were held on the topics described above in Table 1 were well attended (number of students attending averaged 10-15) and from the students' evaluation were found to be very useful. Most sessions were held over the weekend usually on a Saturday. Telephonic contact was maintained with a further ten students since the plan was to have some form of contact with all; this was an on-going process. However, students who lived in distant rural areas experienced difficulties in travelling to the workshops.

Unmet Needs

There were however, many other topics that had been suggested and which were not provided for. This is the list of topics identified and unmet in the programme from the staff and student questionnaires:

- Research writing / English writing
- Skype connection
- Intermediate word
- Using Drop Box
- Tracking – use and function
- Referencing / electronic referencing /data searches
- Statistics / data analysis
- Moodle site for research project

Evaluation of the Process

This was not a formal evaluation but followed Phases 1 and 2 (the student completion of the questionnaires, the telephonic interviews, discussions with staff and the student workshop evaluations). The GPPH lacks sufficient staff and this intervention highlighted the importance of regular contact with the part-time students. We were surprised at the extent of the positive responses from students and how much they appreciated the individual contact and concern about their progress. The time frame that we used with most activities in the second semester was not optimal, and this support, the data shows, needs to be better structured throughout the year. This intervention project was managed on a part-time basis and indicates the need for a more sustained process to address the needs of students.

Completion Rate

The outcomes of the MPH Mentorship and support programme to date have been disappointing with just a few additional graduates. However, the programme has encouraged some students to work on the different stages of their research. Ten students, who had registered many years ago, are currently engaged in registering their protocols, collecting data and writing

up the results. Four students have submitted their dissertations to be examined and as noted above a further two are now the authors of peer reviewed and published manuscripts. Many students (11) who expressed interest and mentioned that the mentoring was appreciated, have not done anything about their research citing pressures of work and family commitments.

Discussion

Improving the student throughput and successful completion of their degrees is of academic and institutional concern. This action research provided information on the challenges experienced by MPH students who have completed their course work but not the dissertation necessary for a Master's degree. In the first phase of this project these students confirmed the results of other studies that have identified contributory factors as comprising students' personal issues, supervision and tuition and the availability of infrastructure to support their research (Jiranek, 2010).

As reported in other studies personal issues affected students' progress and this study confirmed Myers and Earthman's account (1999) of barriers to completion, which found that time, professional obligations and personal reasons and not financial issues influenced non-completion. Most of the MPH students were from KwaZulu-Natal and worked in the different health districts where they intended to undertake their research. Many held senior positions and in these areas there was no academic support, supervision or encouragement to complete their studies. Additionally, the daily pressures of work overtook their research plans.

Prior to this action research approach, we had not prioritised the importance of mentorship but the students highlighted both in the telephonic conversations and when they attended the workshops, how much they appreciated the personal interest. The students live and work in outlying areas most of which lack academic input and this may have also increased their feelings of isolation. The students' lack of progress and lack of contact with their supervisors indicated that a more formal, structured process is required, where a minimum number of supervisory sessions are planned and implemented and that more regular monitoring reports on the students'

progress are undertaken followed by quick action to address relevant concerns.

Many of the students were based in health institutions which should have assisted them to develop research questions and facilitate the research process. Further, the advances in technology and the upgrading of the UKZN web-based facility offered students access to scientific literature and information to complete the dissertations. Not completing means that in some way students were not prepared for working on research once they left campus or how to recognise research interests that emerge in the workplace.

In the second phase of this project to meet their identified needs a programme of workshops and individual facilitation was developed, implemented and evaluated. The workshops that we initiated to encourage students were well attended and found to be beneficial by the students. The need to support students through the research process was once again highlighted. Providing them with basic skills was deemed very useful by the students in their evaluation.

In our action research students complained about the difficult administrative procedures at the institution. Martinez (2001) explains that we need to understand what causes students to complete or withdraw, what makes the difference and what institutions should do to make improvements. He explains that student satisfaction is an important factor affecting completion rates and from our action research there is thus a need to streamline the administrative requirements to assist students.

Wong and Wong (2010) reported the difficulties students experience in undertaking the research and the importance of support regarding their problems with scientific writing. These concerns were also identified by the MPH students in our study.

To date both the Postgraduate Diploma and Masters' Degree have been offered. The timetable is also student centred, in that students can engage in distance learning and complete assignments at home to limit the contact time that they are obliged to spend at university and away from work. This has the advantage that the time frame is more feasible for adult learners, but also has the disadvantage that without a structured follow-up programme it is easy for students to fall behind. Ijsellmulden et al. (2013), emphasise that training in Africa in the field of public health is undertaken by small units at universities, and they comment that such approaches lack the

capacity to develop the critical mass of public health experts required both in South Africa and the continent. In comparison a developing country such as Brazil has adopted a very different approach to the training of public health practitioners and this has paid dividends in their health outcomes (Rowe et al., 2005). Their large public health sector has a powerful voice in society and Brazil was one of the first countries to manufacture its own antiretroviral drugs and to provide this treatment to patients in need (Galvao, 2002). Ijsselmulden et al also comment on the progress that is being made in increasing the availability of public health training, and this is the rationale behind our efforts to assist our students to achieve their public health qualification. A more qualified health workforce trained in public health can make a significant contribution to the many challenges faced by South Africa and the rest of Africa. An example is the recent decrease in transmission of HIV from mother to child in KwaZulu-Natal which has been reduced from over 21 percent in 2009 to 3.5 percent as at September 2012 (KZN DoH, 2012). This was achieved by improving the systems employed onsite to ensure that all pregnant women were tested for HIV, and that they then received antiretroviral medication if found to be HIV positive.

It is thus important to develop strategies to improve the competencies of health officials through postgraduate training in order to improve health outcomes in South Africa. It is, however, not only a local but also a national concern. Hoffman and Julie (2012) explain in their study of masters' students at the University of the Western Cape, that despite increasing enrolments in postgraduate studies, the transition from undergraduate to postgraduate education is proving a challenge in that many post graduate students fail to graduate. It is an ongoing concern – in 2001 the South African government through The National Plan for Higher Education South Africa (NPHESA) aimed to provide institutions with the support required to increase the rate of graduation (DoE, 2001), but progress has been slow.

The challenges are thus both those faced by universities throughout the world in engaging with postgraduate students, but also very local problems relating to the educational background and skills of the current workforce from whom we need to draw our students. At the local level our programme identified a strong need for additional training, mentorship and support. This has been recognized by other institutions and, for example, the University of Witwatersrand has a Postgraduate Student Mentorship

programme (University of Witwatersrand). The University of Melbourne offers "10 tips for mature age learners" which includes time management, a topic that was addressed in our communication with the MPH students, and found to be helpful. It is not usually included as part of the MPH programme, but learning from the students' experiences we need to adapt the MPH to include such topics to assist students (University of Melbourne). Another tip from the University of Melbourne is to embrace technology and we need to ensure that our students improve their skills in this regard, since many of our older students lack competence in using the available information technology.

Mentorship may assist in facilitating students' progress but a study noted the difficulties in maintaining contact between mentors and mentees, and in their study this difficulty was expressed by both parties (Butterworth, Hates and Zimmerman, 2011). It may be more practical in our MPH to have course mentors from the Discipline of Public Health Medicine who can assist students, identify needs and facilitate access to the additional academic support that is required. This is not to denigrate the critical role of the supervisor. James and Baldwin (1999) describe the "Eleven practices of effective postgraduate supervision" and emphasised that the partnership needs to be right for the project and that regular contact and feedback is essential. However, our experience is that students need a link with someone who can facilitate contact between the student and supervisor and monitor the extent of the supervision that occurs. With the proposed increase in the number of MPH students that is envisaged by UKZN these are important considerations. The University of St Andrews on their website explain to students the procedure if they feel that that they are not receiving adequate supervision (University of St Andrews, accessed 4 January 2013), and this is another possible strategy to follow.

Trigwell & Dunbar-Goddet (2005) in their report on the postgraduate research environment experienced by students at the University of Oxford list the requirements of postgraduate research programmes as defined by The Quality Assurance Agency for Higher Education, 2004. These are an "environment where high quality research is occurring, clear and equitable admissions systems, effective supervision, progress, review, feedback and complaints and appeals mechanisms, opportunities for students to develop research and other skills, and clear, fair and accessible assessment criteria".

(Trigwell & Dunbar-Goddet, 2005). Our survey of MPH students' needs did not evaluate many of these aspects, but as the information obtained in our survey from MPH students does indicate, there are many aspects that need to be addressed, including a more structured approach to supervision, focused attention on student training needs, improved administrative procedures and additional mentorship and support . Mentorship and the workshops that were arranged make a contribution but more of these activities need to be built into the MPH programme.

Another suggestion is to encourage a cohort system of student researchers so that they can assist and support one another (Samuel and Vithal, 2013). The UKZN School of Education has been active in developing a "collaborative cohort model" as compared to the "apprentice master model" and this appears to encourage collaborative learning and improve throughput (Govender & Dhunpath, 2013).

Limitations of the Study

Although it was only five years later since students left the university, we were unable to contact many of the targeted students who had registered for an MPH but not completed their dissertation. The data collected and the workshop evaluations were thus from the more limited number of students who participated. It is not known whether these students had similar issues to those who could not be contacted.

Validity

Credibility is the validity construct for this study. The data sources were triangulated and included the questionnaires, semi-structured telephone interviews, staff discussions, and workshop evaluations. At each stage of the process the authors (staff member and facilitator) reflected on the data collected and reviewed the reliability of the information.

Conclusion

Assisting postgraduate students to complete their research has proved

challenging. Our experiences these past two years has improved our understanding of students' needs and will require innovative and continuing approaches to assist them meet their goals. This action research has provided a better understanding about students' personal and administrative problems, and their difficulties with supervision and implementation of their research. A more structured process providing both academic and peer support may be helpful and assist students to complete their dissertations and papers, facilitated by additional staff through a cohort-based programme.

References

Beaglehole, R & MR Dai Posz 2003. Public Health Workforce: Challenges and Policy Issues *Human Resources for Health* 1:4. doi:10.1186/1478-4491:1-4. Available at: http://www.human-resources-health.com/content/1/1/4. (Accessed on 3 January 2013.)

Brown, L & I Holloway 2008. The Adjustment Journey of International Students at an English University. *Journal of Research in International Education* 7,2: 232 - 249. Available at: http://dx.doi.org/10.117/1475240908091306.

Butterworth, K, B Haves & M Zimmerman 2011. Remote and Rural: Do Mentors Enhance the Value of Distance Learning Continuing Medical Education? *Education for Health* 1,1:539. Available at: http://www.educationforhealth.net.

Department of Education 2001. *National Plan for Higher Education.* Pretoria: National Department of Education.

Department of Health 2003. *National Health Plan.* Pretoria: National Department of Health.

Elliott, J 1991. *Action Research for Educational Change.* Buckingham: Open University Press.

Galvao, J 2002. Access to Antiretroviral Drugs in Brazil. *The Lancet* 260:1862 - 1865.

Govender, K & R Dhunpath 2013. Student Experiences of the PhD Cohort. Working within or without Communities of Practice. Available at: http://www.ukzn/utlo_ student experiences of_the_PhD_cohort_model; working_within_or_outsisde_communities_of_practice.

Hoffman, JC & H Julie 2012. The Academic Transitional Experiences of Masters Students at the University of the Western Cape. *Curationis* 35,1, Art 833, 8 pages. Available at: http://dx.doi.org/10.4102/curationis, v3511.33.

Ijsselmulden, C 2007. Human Resources for Health Research. *Medicus MundiBulletin* 104:22 - 27. Available at: http://www.medicusmundi.ch/mms/services/bulletin/bulletin104_2007/chapter0705168999/bulletinarticle0705164414.html.

Ijsselmulden, CB, TC Nchinda, S Duale, NM Tumwesigye & D Serwadda 2013. Mapping Africa's Advanced Public Health Education Capacity: The Afrihealth Project. *Bulletin of the World Health Organization.* Available at: http://www.who.int/bulletin/volumes/85/12/07-045526/en/index.html.

James, R & G Baldwin 1999. *Eleven Practices of Effective Postgraduate Supervision.* Melbourne: Centre for the Study of Higher Education and the School of Graduate Studies, the University of Melbourne.

KwaZulu-Natal Department of Health 2012. District Health Statistics. September 2012. Pietermaritzburg.

Martinez, P 2001. Improving Student Retention and Achievement. Learning and Skills Development Agency. Available at: http:// dera.ioe.ac.uk/4007/1/Improving%2520student%2520retention%2520and%2520achievement.pdf.

Myers, LH & G Earthman 1999. Barriers to Completion of the Doctoral Degree in Educational Administration. Available at: http://scholar.lib.vt.edu/theses/available/etd-041699-125349/unrestricted/LHMyers.PDF.

Rowe, AK, D de Savigny, CF Lanata & CG Victora 2005. How can we Achieve and Maintain High-quality Performance of Health Workers in Low-resource Settings? *The Lancet* 566: 1026 - 1035.

Samuel, M & R Vithal 2013. Emergent Frameworks of Research Teaching and Learning in a Cohort-based Doctoral Programme. University of KwaZulu-Natal. Available at: http://utlo.ukzn.ac.za/aboutheuniversity teachinglearningoffice/Post-Graduate-Teaching.

Trigwell, K & H Dunbar-Goddet 2005.*The Research Experience of Postgraduate Students at the University of Oxford.* Oxford: Institute for the Advancement of University Learning, University of Oxford.

University of Cape Town 2013. Available at: www.publichealth.uct.ac.za/students/students_pg_dhm.php.

University of KwaZulu-Natal 2012 *Handbook for 2012* College of Health Sciences. Durban: UKZN.

University of Melbourne 2013. Returning to Learning - 10 Tips for Mature Age Learners. Available at: http://services.unimelb.edu.au/llsu/.

University of St Andrews 2013. Research Postgraduate Issues. Available at: http://st-andrews.ac.uk/students/advice/academic/researchpostgraduate issues/.

University of Witwatersrand 2012 Postgraduate Student Mentorship Programme. Available at: http://www.wits.ac/za/academic/humanities/gsh/8729/postgraduate_student_mentosh.

University of the Western Cape Handbook 2013. Available at: www.uwc.ac.za/Faculties/CHS/soph/ .

Wong, LCJ & TP Wong 2010. What Helps and What Hinders Thesis Completion: A Critical Incident Study. *International Journal of Existential Psychology and Psychotherapy* 3.2. Available at: http://journal.existentialpsychology.org/index.php?journal=ExPsy&page=article&op=viewArticle&path%5B%5D=159&path%5B%5D=ho-html.

Myra Taylor
School of Nursing and Public Health Medicine
University of KwaZulu-Natal
TAYLOR@ukzn.ac.za

Prithashni Naidu
Health Sciences
University of KwaZulu-Natal
Naidup2@ukzn.ac.za