

**FACILITATING A CULTURE OF RESEARCH AMONG UNDERGRADUATES  
IN OCCUPATIONAL THERAPY AT THE UNIVERSITY OF THE FREE STATE**

by

Sanetta Henrietta Johanna du Toit

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Promoter: Prof. Dr A.C. Wilkinson

Co-promoter: Dr S.P. van Tonder

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.....  
Name

Student no: 1989143704

4. 12. 2007  
.....  
Date



*Dedicated to Loren Vercuil.*

*In his short life-time, his courageous spirit left no one untouched.*

*5 November 2005 – 26 April 2007*

*R.I.P.*

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|        |  |
|--------|--|
| ALAR   | Action Learning and Action Research  |
| BJOT   | British Journal of Occupational Therapy  |
| CPD    | Continuous Professional Development  |
| CSL    | Community Service Learning   |
| EBP    | Evidence-based Practice  |
| FARRA  | Framework for the promotion of the Appreciation of Research-Related Activities |
| HPCSA  | Health Professions Council of South Africa                                     |
| IBSS   | International Bibliography of Social Sciences                                  |
| ICF    | International Classification of Function                                       |
| MOHOST | Model of Human Occupation Screening Tool                                       |
| OT     | Occupational Therapy   |
| PICO   | Patient population, Intervention, Comparison and Outcomes                      |
| PAL    | Poole Activity Scale   |
| SA     | South Africa   |
| SAJOT  | South African Journal of Occupational Therapy                                  |
| SAQA   | South African Qualifications Authority   |
| UFS    | University of the Free State   |
| WFOT   | World Federation of Occupational Therapy                                       |

The overall theme of this study is the facilitation of a research culture at undergraduate level for occupational therapy (OT) students at the University of the Free State (UFS). The term "culture" in this regard depicts an ethos of traditions and customs (or roles, habits and values) that will mature with the OT student during the four years of training. Clinical practice, especially when mini-research projects are executed as part of the prerequisite of the training programme, provides an opportunity for acquiring roles, habits and values associated with a research ethos. Successive mini-research projects also have the potential to stimulate continuous research in the clinical context while simultaneously generating evidence for practice. The experience of engagement in mini-research projects by students, as well as the researcher's role in directing and coordinating these projects as supervising clinician, supported this study. An action learning and action research (ALAR) design, aimed at improving practice, guided the multi-method data collection. This data-driven process was dominated by a *plan, act, observe, and reflect* cyclical sequence. The three completed research cycles included various stakeholders. Direct stakeholders were predominantly the OT students from the UFS, as well as OT clinicians and academics. Indirect stakeholders were the residents of the dementia care ward at *Ons Tuiste*.

The research findings are presented in the format of five articles:

Article 1 identifies possible factors hampering the development of a research culture. These factors relate to understanding the position of South African occupational therapists (specifically those therapists trained at and involved with the UFS) regarding research and publication. Trends noted in literature were verified by consulting OT clinicians and academics in Bloemfontein. In conclusion, the idea is introduced that a succession of mini-research projects could facilitate an ethos of research for both clinical supervisors and students.

Article 2 addresses the question of how mini-research projects could be designed and structured so as to contribute to a meaningful learning experience for students on clinical placement. The ALAR approach was instrumental in the process of directing successive mini-research projects for students servicing a dementia care unit. A tree analogy is used to explain the design and structuring of the mini-research projects as well as additional aspects that nurtured the process. The article concludes with recommendations on how to structure and design mini-research projects that could be beneficial to other clinicians and final-year OT students in their areas of practice.



The predominant question answered in Article 3 relates to whether the ALAR approach, when utilised during clinical practice, could contribute positively to the professional development of undergraduate OT students. The researcher applied findings in an attempt to uncover how involvement in successive mini-research projects influenced students' attitudes and/or knowledge towards research. She also attempts to show how exposure to various forms of reflection not only impacted on the students' professional development, but could also contribute to facilitating a research culture at undergraduate level.

In Article 4 the researcher addresses the question of the potential impact of reflexive practice skills on student development. The researcher aims to demonstrate how specific meaningful learning qualities contributed to the personal development of undergraduate OT students. The discussion of the findings indicates that action learning and reflection are valuable components when considering clinical practice and community service learning (CSL). A visual portrayal of action learning, being instrumental in the learning process, summarises the characteristics identified within the mini-research projects and suggests that CSL could contribute to lifelong learning.

Article 5 specifically addresses what elements of a research development framework could utilise the potential of clinical practice in OT training. The construction of the Framework to promote an Appreciation for Research-Related Activities (FARRA) and its associated model is elucidated. Comments generated by a quantitative questionnaire to an expert panel are also discussed. Suggestions are then made as to what course of action could assist with refining and implementing the FARRA model aimed at laying the foundation for a lifelong inclination towards research.

Key words: Research culture, mini-research projects, action learning, action research, occupational therapy, research-informed practice, model



Die oorhoofse tema van hierdie studie is die fasilitering van 'n navorsingskultuur op voorgraadse vlak vir arbeidsterapie(AT)-studente aan die Universiteit van die Vrystaat (UV). Die term "kultuur" beskryf in hierdie verband 'n etos van tradisies en gebruike (of rolle, gewoontes en waardes) wat saam met die student ontwikkel gedurende die vier jaar voorgraadse opleiding. Praktiese opleiding bied 'n geleentheid om die rolle, gewoontes en waardes wat met 'n navorsingsetos verband hou, te bemeester, in die besonder wanneer mini-navorsingsprojekte uitgevoer word as 'n voorvereiste van die opleidingsprogram. Opeenvolgende mini-navorsingsprojekte bied ook die potensiaal om voortgesette navorsing in die kliniese konteks te stimuleer terwyl uitkomsgebaseerde praktykvoering ontwikkel word.

Die ondervindinge van studente tydens hul betrokkenheid by mini-navorsingsprojekte, asook die navorser se rol betreffende die bestuur en koördinering van hierdie projekte as kliniese toesighouer, ondersteun hierdie studie. 'n Aksienavorsing- en aksieleernavorsingsontwerp, gemik op verbeterde praktykvoering, het hierdie metode van meervoudige data-invordering gerig. Hierdie datagedrewe proses is oorheers en gekenmerk deur 'n sikliese orde van *beplan, aksie, observeer* en *reflekteer*. Die drie voltooide navorsingsiklusse het verskeie belanghebbendes as deelnemers betrek. Direkte belanghebbendes was hoofsaaklik AT-studente aan die UV, sowel as AT-klinici en akademië. Indirekte belanghebbendes was inwoners van 'n demensie-versorgingseenheid by *Ons Tuiste*.

Die navorsingsbevindinge word in 'n vyf-artikelformaat aangebied:

In Artikel 1 word moontlike faktore wat die ontwikkeling van 'n navorsingskultuur belemmer, geïdentifiseer. Hierdie faktore hou verband met 'n begrip van die posisie van Suid-Afrikaanse arbeidsterapeute (spesifiek daardie terapeute wat opgelei en betrokke is by die UV) wat betref navorsing en publikasie. Tendense in die literatuur is geverifieer deur AT-klinici en akademië in Bloemfontein te raadpleeg. Ten slotte word die konsep dat opeenvolgende mini-navorsingsprojekte 'n etos van navorsing vir beide kliniese toesighouers en studente kan bevorder, voorgehou.

Artikel 2 spreek die wyse aan waarop mini-navorsingsprojekte ontwerp en gestruktureer moet word, ten einde by te kan dra tot 'n betekenisvolle leerondervinding vir studente tydens praktiese opleiding. Die aksienavorsing- en aksieleerbenadering was instrumenteel in die proses om opeenvolgende mini-navorsingsprojekte vir studente tydens praktiese dienslewering in 'n demensie-versorgingseenheid te lei en te rig. 'n Boom-analogie word gebruik om die ontwerp en



struktuur van die mini-navorsingsprojekte te verduidelik, asook om addisionele aspekte wat die proses bevorder het, te identifiseer. Die artikel sluit af met aanbevelings oor hoe om mini-navorsingsprojekte te struktureer en te ontwikkel sodat dit kan dien tot voordeel van ander klinici en AT-studente in hul finale jaar.

Die belangrikste vraag wat in Artikel 3 beantwoord word, handel oor die kwessie of die aksieleer- en aksienavorsingsbenadering, wanneer dit tydens praktiese opleiding gebruik word, 'n positiewe bydrae tot die professionele ontwikkeling van voorgraadse AT-studente kan lewer. Die navorser het bevindinge aangewend in 'n poging om vas te stel hoe betrokkenheid in die opeenvolgende mini-navorsingsprojekte studente se ingesteldheid en/of kennis van navorsing beïnvloed het. Sy het ook gepoog om aan te dui hoe blootstelling aan verskeie vorme van refleksie, 'n impak kan hê op studente se professionele ontwikkeling en hoe dit kan bydra tot die fasilitering van 'n navorsingskultuur op voorgraadse vlak.

In Artikel 4 hanteer die navorser die kwessie rakende die potensiële impak van reflektiewe praktykvaardighede op studenteontwikkeling. Die navorser poog om te demonstree hoe *spesifieke* betekenisvolle leerkwaliteite tot die persoonlike ontwikkeling van voorgraadse AT-studente bygedra het. Die bespreking van die bevindinge dui aan dat aksieleer en refleksie waardevolle komponente van praktiese opleiding en samelewingsdiensleer is. 'n Visuele voorstelling van aksieleer, instrumenteel tot die leerproses, verskaf 'n opsomming van die kenmerke wat inherent aan die mini-navorsingsprojekte is, en stel dit dat samelewingsdiensleer tot lewenslange leer kan bydra.

Artikel 5 spreek spesifiek die soeke na elemente van 'n navorsingsontwikkelingsraamwerk aan, wat die potensiaal van praktiese opleiding in AT kan ontgin. Die konstruering van 'n raamwerk ter bevordering van die waardering van navorsingsverwante vaardighede (*Framework for the Appreciation of Research-Related Activities – FARRA*) en die gepaardgaande model word bespreek. Kommentaar op die raamwerk, verkry vanuit 'n kwantitatiewe vraelys aan 'n paneel van kundiges, word ook bespreek. Aanbevelings word dan gemaak oor watter werkswyse potensieel kan bydra tot die verfyning en implementering van die *FARRA*-model met die oog daarop dat dit as basis vir 'n lewenslange ingesteldheid tot navorsing kan dien.

Sleutelwoorde: navorsingskultuur, mini-navorsingsprojekte, aksieleer, aksienavorsing, arbeidsterapie, navorsingsingeligte praktykvoering, model

## **ORIENTATION TO THE STUDY**

### **1. INTRODUCTION**

The overall theme of this study is the facilitation of a research culture at undergraduate level for occupational therapy (OT) students at the University of the Free State. As such, the purpose of this section is to enlighten the reader regarding the study's purpose and necessity, the specific focus, the research design and methodology, its value, presentation of the articles and relevant concluding thoughts.

The thesis is presented in the format of five extended, publishable articles. Each article, even though autonomous in its own right, forms part of a larger purpose. Therefore, besides a clearly distinguishable link between the articles, there will also be an overlap of information to ensure that the focus in each article is logical and the information revealed comprehensive. These articles are therefore not ready for publication, but will have to be shortened and adapted according to the specifications of the selected journal.

For the purpose of this thesis all types of fieldwork education, practice education, community-based education and clinical education relating to practical experience of OT students on placement will be referred to as clinical practice. In further clarification of terminology, the fieldwork educator or clinician in charge of and coordinating student training at a specified area, will be referred to as the supervising clinician.



## 2. PURPOSE AND NECESSITY OF THE RESEARCH

*"The illiterate of the 21<sup>st</sup> century will not be those who cannot read and write, but those who cannot learn, unlearn and relearn".<sup>1</sup>*

Professionalism brings with it many responsibilities (Hagedorn 1995). The challenge of "*having great skill or experience in a particular field*" implies an educated accountability (Ilson 1988:1229). In South Africa (SA), the resilience of OT as a profession in the midst of social change and cultural transformation is key to addressing and ensuring a dynamic future for OT.

Three predominant problems however, influence the process of professionalism. Firstly, professional knowledge can be outdated in less than five years post-qualification (Ashton, cited by Alsop 1997). Secondly, many therapists admit that available research evidence is not applied in practice (Humpries, Littlejohns, Victor, O'Halloran & Peacock, cited by Atwal 2002). And thirdly, there are numerous obstacles to building research capacity and using that knowledge to ensure quality health care (Forsyth, Mann & Kielhofner 2005; Alsop 1997). In developing countries like South Africa - where a lack of resources and staff plague many sectors in public health - these factors are added to other identified obstacles such as workload pressures, lack of support, time, energy and skills (Alsop 1997; Forsyth *et al.* 2005).

Formal courses and workshops are often viewed as the only means for continuing professional development (CPD), as they provide the therapist with the opportunity to take some time out for personal advancement. The foundation for lifelong learning however, even though it is defined as "*post-initial education*", should be introduced well in advance (Gropee 1998). This preparation will ensure that therapists move beyond the reproduction of accumulated knowledge to become critical thinkers and reflective practitioners (Duncan 1999). Therefore, involvement of students on clinical placement in specific activities could be fundamental for future occupational therapists' commitment to lifelong learning. Training programmes should consciously

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<sup>1</sup> Alvin Toffler, [www.bemorecreative.com](http://www.bemorecreative.com)



draw upon the wealth and diversity of each student's experience, so that undergraduate education lays the foundation for reflective practice (Whiteford 1998).

Research is an integral part of training, as most undergraduate courses in OT include a research component in the students' final year. At the Department of Occupational Therapy, University of the Free State (UFS), the students' competence is assessed after each phase of clinical training in their third and fourth year. The supervising clinician could give the student either a case study or a mini-research project<sup>2</sup> to be assessed on. The latter option provides a unique opportunity for successive projects to be initiated and co-ordinated by the clinician in an attempt to address evidence-based practice (i.e. according to Alsop (1997), the principle of using the best available evidence to inform decision-making in practice). In this way therapists can engage indirectly in current and updated research, generating data to be applied to the "*well-being of service users*" (Alsop 1997:507), or to produce publications. Another advantage is that it would provide clinicians with a more satisfactory means for engaging in research, as it is documented that they are more positive about CPD, if it is either work-based or work-related (Alsop 1997). Moreover, it also involves students at an undergraduate level in an ongoing research process where they can reflect about their input and also experience output at different stages.

Tertiary training promotes intellectual development and theoretical knowledge, but clinical practice relies on practical abilities. The latter are the essence of clinical work. A variety of approaches (in other words, problem-based, resource-based and self-directed learning) could ensure that students are prepared and "*equipped as lifelong learners and are better able to cope with the rapidly changing world*" (Savin-Baden 1997:448). This will encourage future decisions to be based on the best evidence for practice rather than acting intuitively or following traditional ways, as many clinicians admit to doing (Alsop 1997).

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<sup>2</sup> UFS module guides and guidelines refer to the case study as a 'long case' and the mini-research project as a 'short case'.

The combined outcomes of ongoing research projects, as part of clinical experience, could therefore contribute to research informed/evidence-based practice. It is a cost-effective way to ensure development in the profession. Furthermore, students and therapists as co-investors and full participants in research, would be empowered by the first-hand experience they have and the impact of the change they suggest. This will certainly heed Gropee's (1998:116) warning that, "*while both formal and non-formal learning costs money, non-learning is more costly in terms of skill deficit to the individual and society ...*".

In this study the researcher investigated whether the reality of applied research could contribute to generating a culture of research among the occupational therapists of the future - an area that has not been explored before. The overall aim was to investigate how a culture of research could be facilitated at undergraduate level for OT students at the UFS, when utilising their engagement in clinical practice as the departure point. Action research was applied as a method as it focuses on both the change (action) as a result of the focus during clinical practice, as well as the understanding (research) thereof.

### **3. BACKGROUND ON THE CONTEXT OF THE STUDY**

The realities of OT practice in a developing country like SA are that needs outstrip resources. Owing to a lack of qualified professionals in the greater Bloemfontein area, various OT services have developed where a qualified practitioner acts as co-ordinator and director in a consulting capacity. *Ons Tuiste* residential care facility is an example of such a service. One or two final-year undergraduate OT students of the UFS, during a placement of up to six weeks, run this service. They are supervised by the researcher who acts as supervising OT clinician and who is also employed by the UFS as a part-time OT educator.

The service at *Ons Tuiste* was established in January 2005. The consulting role of the researcher led her to understand that a lack of continuous experienced input, in an area without a full-time therapist, could be detrimental to the development and quality



of a new service. As an educator however, the situation encouraged a careful look at how the challenges could be addressed. Successive mini-research projects could provide the opportunity to stimulate continuous research in the clinical context, while simultaneously generating evidence for practice. The possibility of combining research with action has significant potential advantages when time constraints dictate service priorities.

#### **4. FOCUS OF THE RESEARCH**

This study finds a home in the interdisciplinary field of higher education studies. With reference to the four typical areas of higher education research identified by Teichler (1996:441), the study can be categorised under his *person and process-related aspects of higher education* ("process" mainly referring to teaching and research). Education and Psychology are key disciplines addressing this domain. The theme or main issues the study touches upon can also be categorised as an interplay between four of the eight key themes in higher education studies identified by Tight (2003:7), namely *academic work, teaching and learning, the student experience, and course design*. However, a fifth issue, *quality*, can never be neglected in any search for improvement in university practice. In the final instance OT provides the overarching disciplinary setting in which the study was executed.

Within the above context, the main research question focused on how a culture of research could be facilitated when utilising the opportunities provided by clinical practice. Five subsidiary questions directed this study in pursuit of supporting the overall aim. These were:

- What factors dissuade South African occupational therapists from embracing opportunities for research and publication?
- How could mini-research projects be designed and structured to contribute to a meaningful learning experience for students on clinical placement?
- Could the action learning and action research (ALAR) approach through mini-research projects contribute positively to the professional development of undergraduate OT students?



- Could involvement in mini-research projects focusing on a specific community contribute to the personal development of students?
- Could the potential of mini-research projects in OT clinical practice be utilised to compile a model that would facilitate undergraduate research development?

This study endeavours to answer these questions, with findings presented in five related articles (see section 8 for an outline of each article).

## **5. RESEARCH DESIGN AND METHODOLOGY**

### **5.1 The action learning action research design**

The ALAR design encouraged meaningful learning experiences for both the researcher as supervising clinician and the OT students as participants in the study. There are various perspectives on ALAR inquiry as it denotes an orientation to research rather than a methodology as such (*Action Research* 2006). Tripp (2003) describes this participatory democratic process for developing practical knowledge as a blanket term that could involve reflective practice, action learning, action research and researched action. According to Dick (2000) the advantage of action research is that change can be facilitated while gaining an understanding at the same time.

The outcome of both action research and action learning is focused on improving practice (Dick 1997). Zuber-Skerritt (2005:50) defines action learning as the opportunity to "*learn from each other, from action and concrete experience, as well as taking action as a result of this learning*". Acting as the facilitator, the researcher relied on the cooperation and teamwork of the students as the key to the research process (Carr & Kemmis, cited by Zuber-Skerritt 2005). It was especially the qualitative nature of the research design and its strong focus on communicativeness that promoted situational interaction and communication between researcher and participants (Zuber-Skerritt 2005). This emancipatory nature of ALAR had a specific appeal to the researcher. Zuber-Skerritt (2001, based on the work of Carr and Kemmis) emphasises that the process of ALAR encourages participation and reflection

of the participants. The inherent ethical principle of respect for persons underlying action research is reflected by Dick who refers to participants as *stakeholders* and who emphasises that "*ultimately stakeholders are **persons***" (Dick 2002:4, emphasis added by researcher).

When focusing on the attributes of action research specifically, Altrichter, Kemmis, McTaggart and Zuber-Skerritt (2002a:128) specify that:

- "*Action research is about people reflecting upon and improving their own practice;*
- *by tightly inter-linking their reflection and action; and*
- *making their experiences public to other people concerned by and interested in the respective practice*".

The process of action research therefore strives to combine action, reflection, theory and practice enhancing individuals and their communities' ability to thrive (Reason & Bardbury 2001, cited by Erasmus 2005).

Mini-research projects undertaken during clinical practice in a dementia care unit allowed students to make a contribution to, while interacting with, the community served. This approach prepared students to acknowledge their responsibility towards the community as well as their own personal and professional development. The researcher consequently applied action research to introduce change to the benefit of the community served and for advancing student learning.

The first two cycles of this study focused on how and why the design and structure of the successive mini-research projects evolved as they did. The third cycle scrutinised the data and interpretations generated previously.

## **5.2 Population and sampling**

The study involved a variety of people with varying levels of participation. Dick's (2002) conceptualisation of stakeholders and participation was applied to clarify the



positions of persons involved in the study. *Ons Tuiste* was seen as the principal client. An agreement with the Nursing Director enabled student placements and research in the dementia care unit to be instituted from the outset. Support from management included supplying stock for treatment interventions and assistance with the development of therapeutic treatment areas.

Direct stakeholders in the study could be divided into two groups. The primary group of direct stakeholders consisted of selected undergraduate OT students of UFS. As all students on clinical placement at *Ons Tuiste* Residential Care Facility were involved in the action learning and action research process, the sample was comprehensive.

The secondary group of direct stakeholders were the occupational therapists and OT academics practising in Bloemfontein. As professional clinicians in the field of OT (and potentially involved with supervising students on placement), this group provided the researcher with expert knowledge. Convenience sampling was used in preliminary and concluding parts of the study to explore therapists' opinions regarding specific issues and recommendations. In the preliminary part, for example, occupational therapists in Bloemfontein were consulted as to why they did not engage in research and publication. Similarly in the concluding part of the study, OT academics on local, national and international level were involved in a survey to give feedback on the proposed components of a model aimed at promoting an appreciation of research-related activities. A critical friend was also involved throughout the study to assist with focus in the study.

The indirect stakeholders were the residents in the dementia care unit. The research study would not have been possible without recipients of an OT service. Purposeful sampling allowed residents to be selected for students to ensure optimal learning experiences. The ALAR design benefited the residents as it encouraged improved practice during the design of person-specific interventions.

Ethical approval for the research was obtained from the UFS, *Ons Tuiste* (the facility), guardians of the 13 residents involved, as well as from each of the secondary group of stakeholders (in other words, OT students, academics and clinicians) separately.

### 5.3 Data collection and analysis

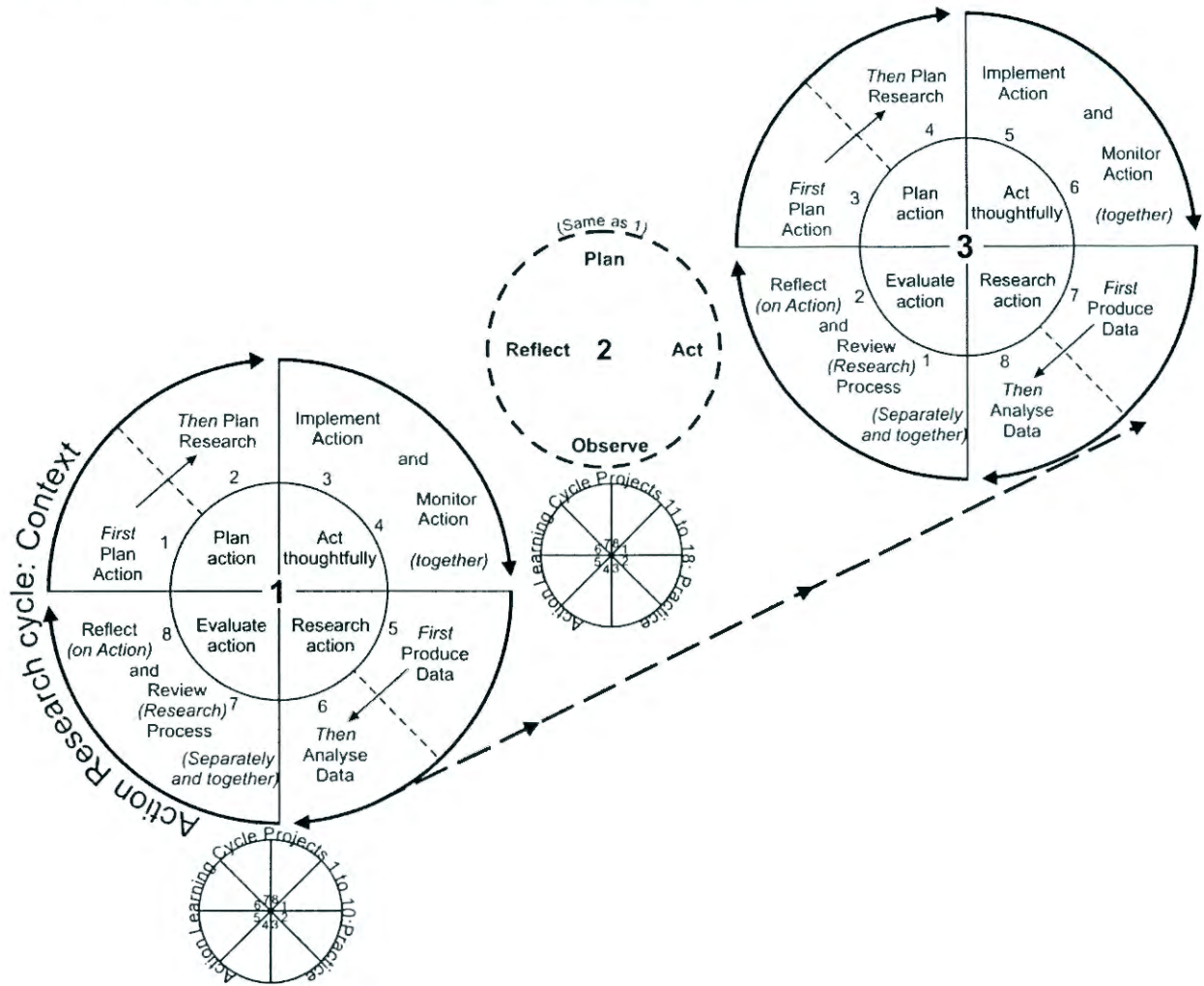
Data collection was multi-faceted. Multiple methodologies and various sources of information were applied and analysed critically during various stages of the first three research cycles. The researcher engaged in a process that was cyclical in nature to attempt addressing improved practice. This cyclical process is advocated as an integral part of the ALAR approach by numerous authors (e.g. Tripp 2003; Dick 2000; Zuber-Skerritt 2002a; McNiff & Whitehead 2006).

As illustrated in Figure 1, the researcher engaged in a continuous *plan, act, describe, review* cycle that encouraged a disciplined, systematic process to investigate her own practice and to find ways to live more fully in the direction of her values as a practitioner / educator. Taking advantage of both the figure-eight model and action research spirals designed by Zuber-Skerritt (2001; 2002b), each cycle involved is illustrated by an initial stage of exploring the context of the identified problem prior to describing the associated practice areas in the associated action research process. Each cycle is part of an advancing spiral that indicates insight gained. McNiff and Whitehead (2006:8) explain the facets of the ALAR process within this cyclical process as to how the researcher goes about:

- *"taking stock of what is going on;*
- *identifying a concern;*
- *thinking of a possible way forward;*
- *trying it out;*
- *monitoring the action by gathering data to show what is happening; and*
- *evaluating progress by establishing procedures for making judgements about what is happening".*



Figure 1: The process directing the design and management of the investigation



During the initial phase of the first cycle, data collection focused on discovering what possible factors hampered the development of a research culture. A focus group and follow-up quantitative questionnaires (for example, baseline information on previous exposure to research, as well as attitudes towards future research and possible publications) were applied. Data were also collected from the academic staff. This verified how many articles have been published in the past five years by staff from the UFS Department of Occupational Therapy and how they felt about the process of submitting articles for publication.

During both the first and second cycle, data collection focused on developing the structure and design of the mini-research projects. Observation grids for assessment

situations were developed and implemented. Group discussions using the nominal group technique were used to obtain input from students engaging in the action learning process. Furthermore, a variety of methods that were applied to encourage purposeful reflection of the students (for example, learning agreements, critical personal reflections and structured reflections after presentation of mini-projects) were analysed. These analyses were supplemented by disseminating information from feedback forms (completed by both the participating students and the external examiners) that are used to encourage reflection on learning experiences. Lastly, a critical analysis of each project by the researcher was incorporated after it had been presented for marks.

The third cycle focused primarily on reviewing data and the interpretations thereof generated previously. A validation process, involving both a validation group and a questionnaire to an expert panel, was conducted for substantiating the contents of the proposed model in this phase. The researcher also kept a reflective journal throughout all three ALAR cycles. The use of multiple methodologies and various sources of information specifically encourage both a thick description of findings as well as rigour in the research process (Dick 1999).

#### **5.4 Reporting of findings**

Findings of this research study are communicated in the form of five successive articles. (See section 8 for an outline of each article's contents.) Consideration is given to the validity and reliability of findings as discussed specifically within the context of each article. Although the norm for each article is that it could potentially be considered for publication, the length might exceed what is usually required. The researcher (in consultation with her promoter) decided that for the purposes of her thesis, an extended review would be more insightful. Adaptations according to guidelines from specific journals, relating to expected format and readership, would be considered at the time of preparing a potential submission for publication.



## 6. VALUE OF THE RESEARCH

The reality of the survival and progress of health care professionals in SA, operating in a “*cash-strapped developing country*” where basic needs in the work environment are barely addressed, needs consideration (Duncan 1999:7). Every practitioner should take self-development seriously and have a personal responsibility for clinical effectiveness by becoming an effective research consumer and contributor (Duncan 1999). The link between CPD and lifelong learning that begins at student level has not yet been explored in depth (Metcalf 2004). First-hand experience and participation in research during fieldwork experience could impact on students’ attitudes and perceptions towards the applied value of research findings. Furthermore, clinical research can provide a unique opportunity for client-centred evidence-based practice that would support the viability and potential expansion of existing services.

A possible key to an evidence-based future is to begin at undergraduate level. This implies that students need to develop the skills needed for critiquing current theory and research (Jones & Higgins 1995, as cited by Forsyth *et al.* 2005). A potential way to jump-start this process is by allowing students to participate in consecutive mini-projects as part of their clinical practice. The supervising clinician can then assist and guide them to interpret and reflect on their peers’ and their own participation in research.

A model is proposed to suggest how mini-research projects, in conjunction with other research-related activities, could be applied to promote an appreciation of research at undergraduate level for OT students at the UFS. This model is presented as a point of departure for debate, application, and further refinement – not only in health sciences, but in all fields endeavouring to develop a culture of research among undergraduates.

## **7. PRESENTATION OF THE THESIS**

As indicated before, findings of this research study are communicated in the form of five successive articles. A brief introduction to each article is presented here.

### **7.1 Article 1: Research and publication in occupational therapy: current position and potential opportunities**

In this article the researcher attempts to answer the first question by identifying possible factors hampering the development of a culture that appears committed to promoting research. These factors relate to understanding the position of South African occupational therapists (specifically those therapists trained at and involved with the UFS) regarding research and publication.

In an attempt to verify whether trends noted in literature resonated experiences of occupational therapists in Bloemfontein, a series of inquiries were employed. Data collection and analysis included a structured questionnaire, focus group and individual interviews with OT clinicians and OT academics. A document analysis and comparative study of literature gave further insights.

Finally a recommendation as to how to stimulate an appreciation of research, taking into consideration what factors hamper engagement in research and publication, is put forward. The idea that a succession of mini-research projects could facilitate an ethos of research for both clinical supervisors and students connected with the academic environment is introduced.

### **7.2 Article 2: Mini-research projects in undergraduate occupational therapy training: fertile soil for promoting a culture of research**

Article 2 addresses the question of how mini-research projects could be designed and structured so as to contribute to a meaningful learning experience for students on clinical placement. The ALAR approach was instrumental in the process of directing



successive mini-research projects for students servicing a dementia care unit. The researcher aims at guiding the reader as to how the projects evolved. The process of developing person-specific programmes was disseminated indicating how student involvement and a research component both promoted the ideals of research-informed practice in this service.

The ALAR approach was enriched with reflexive data from the researcher's journal, as well as critical analyses she conducted after the presentation of each mini-project, and by analysing the observation grids used for assessment purposes. Additionally information generated by two sessions with students (the direct stakeholders in the study) where the nominal group technique was applied, was utilised. A tree analogy is used to explain the design and structuring of the mini-research projects as well as additional aspects that nurtured the process. The article concludes with recommendations on how to structure and design mini-research projects that could be beneficial to other clinicians and final year OT students in their areas of practice.

### **7.3 Article 3: Reflection and research: impact on the professional development of undergraduate occupational therapy students**

The predominant question answered by this article related to whether the ALAR approach when utilised during clinical practice could contribute positively to the professional development of undergraduate OT students. Final-year OT students doing their clinical practice in a dementia care unit were involved in the study. The focus throughout the article was on what insights the researcher gained from facilitating learning for students through engagement in aspects of research. Specific attention was also given to the role of reflection for creating meaningful learning opportunities.

The ALAR approach encouraged a variety of methods to be employed for generating and interpreting data generated during the two initial action research cycles. These focus on data generated by the students in the form of documents (therefore executing a content analysis) and applying the nominal group technique to unify

viewpoints on directed questions. Additionally, accounts from the researcher's reflective journal assisted her with the interpretation of findings. The researcher applied findings in an attempt to uncover how involvement in successive mini-research projects influenced students' attitudes and/or knowledge towards research. She also attempts to show how exposure to various forms of reflection impacted on the students' professional development and could contribute to facilitating a research culture at undergraduate level.

#### **7.4 Article 4: Embracing the value of experience: personal growth of undergraduate occupational therapy students during clinical practice**

In article 4 the researcher addresses the question of the potential impact of reflexive practice skills on student development. Specific attention is given to the meaningful learning qualities provided by community service learning (CSL) in a dementia care unit when OT students engage in successive mini-research projects. The researcher aims to demonstrate how these meaningful learning qualities contributed to the personal development of undergraduate OT students.

The ALAR design employed ensured that a range of information was available for analysis. This included data from sessions where the nominal group technique was utilised, and semi-structured questionnaires with the students involved in the initial two research cycles. Furthermore, inscriptions in the researcher's reflective journal and a visual portrayal developed by an individual student, were analysed. Therefore, a global analysis of data was pursued to produce an integrated view of all the findings. Themes and patterns associated with professionalism, CSL and how these two factors related to the role of students' personal attributes in practice, were connected.

The discussion of the findings indicates that action learning and reflection were valuable components when considering clinical practice and CSL. A visual portrayal of action learning, as instrumental in the learning process, summarises the characteristics identified within the mini-research projects and suggests that CSL could contribute to lifelong learning.



## **7.5 Article 5: A model for promoting a research ethos among undergraduate occupational therapy students at the University of the Free State**

The researcher addresses the overall aim of her prolonged investigation in this article by focusing on how a culture of research could be facilitated when utilising the opportunities provided by clinical practice. Article 5 addresses specifically what elements of a research development framework could utilise the potential of clinical practice in OT training.

The ALAR approach employed encouraged the researcher to combine the experience from all three action research cycles, in conjunction with the literature reviewed in a model. The model is based on a Framework for promoting an Appreciation of Research-Related Activities (FARRA). The construction of the FARRA model is elucidated and comments generated by a quantitative questionnaire to an expert panel, discussed. Clinicians, ex-students and OT academics contributed towards the scrutiny of the proposed framework. Suggestions were also made as to what course of action could assist with refining and implementing the framework aimed at laying the foundation for a lifelong inclination towards research.

## **7.6 Final Reflection**

In addition to the orientation, the researcher engages in an opportunity to consider the overall impact of the investigation during a final reflection. Both the orientation and final reflection are not typical first and last chapters of a thesis, although there is a resemblance.

## **8. APPENDICES**

Also included as part of the thesis are documentation and study material developed during the course of the study by the researcher which may provide important background to the reader. These appendices are:

- Appendix A: Example of assignment set for students and critical feedback.
- Appendix B: Tabled findings from questionnaires used with participants at the end of the first and second cycles.
- Appendix C: Examples of reflection forms used at *Ons Tuiste*.
- Appendix D: Original evaluation form for project presentation and assessment.
- Appendix E: Adapted evaluation form for project presentation and assessment.
- Appendix F: Example of questionnaire to expert panel.
- Appendix G: Example of consent forms.
- Appendix H: Statement to confirm appropriate and correct translations of stakeholder input.

## 9. CONCLUDING THOUGHTS

Involvement in an action inquiry process is a very enriching and rewarding experience. There are, however, so many dimensions for producing and analysing the data involved, that it was a challenge to select, organise and structure information. The skills for conveying findings are not necessarily only in choosing *what* to say, but decidedly also in *how* it should be said.

The researcher endeavoured to portray insight into her personal growth as a supervising clinician and researcher, as well as the personal and professional development of the students involved. However, she had to recognise that the traditional positivist criteria, still advocated by the medical environment in which OT operates, affected her during the research process she engaged in. She therefore attempted to do justice to the empowering nature of the action research design.



## 10. REFERENCES

*Action Research*. 2006. Resource page.

<<http://www.sagepub.co.uk/resources/actionresearch.htm>>

Downloaded on 08/03/2006.

Alsop, A. 1997. Evidence-based practice and continuing professional development. *British Journal of Occupational Therapy* 60(11): 503 – 508.

Altrichter, H., Kemmis, S., McTaggart, R. & Zuber-Skerritt, O. 2002. The Concept of Action Research. *The Learning Organisation* 9(3): 125 – 131.

Atwal, A. 2002. Getting evidence into practice: the challenges and successes of action research. *British Journal of Occupational Therapy* 65(7): 335 – 340.

Dick, B. 1997. *Action learning and action research*

<<http://www.scu.edu.au/schools/gmc/ar/arp/actlearn.html>>

Downloaded on 3/5/2007.

Dick, B. 1999. *Sources of rigour in action research: addressing the issues of trustworthiness and rigour*. A paper presented at the association for qualitative research conference "Issues of rigour in qualitative research" at the Duxton Hotel, Melbourne, Victoria, 6 – 10 July 1999

<<http://www.scu.edu.au/schools/gmc/ar/arp/rigour3.html>>

Downloaded on 10/4/2007.

Dick, B. 2000. *The change process and action research*. Session 2 of Aerol – action research and evaluation online.

<<http://www.scu.edu.au/schools/gmc/ar/areol/areol-session02.html>>

Downloaded on 10/03/2007.

Dick, B. 2002. *Stakeholders and participation*. Session 4 of AREOL – action research and evaluation online.

<<http://www.scu.edu.au/schools/gmc/ar/areol/areol-session04.html>>

Downloaded on 02/04/2007.

Duncan, M. 1999. Our bit in the calabash. thoughts on occupational therapy transformation in South Africa. *South African Journal of Occupational Therapy* 29(2): 2 – 9.

Erasmus, M. 2005. Community service learning and the South African Research Agenda. *Acta Academia* 2005(3): 1 – 23.

Forsyth, K., Mann, L.S. & Kielhofner, G. 2005. Scholarship of practice: making occupation-focused, theory driven, evidence-based practice a reality. *British Journal of Occupational Therapy* 68(6): 260 – 267.

Gropee, N. 1998. Lifelong learning in health care: who will pay? *British Journal of Therapy and Rehabilitation* 5(3): 116 – 117.

Hagedorn, R. 1995. *Occupational therapy perspectives and processes*. Edinburgh: Churchill Livingstone.

Ilsou, R. (Ed.). 1988. *Reader's Digest Universal Dictionary*. London: Reader's Digest Association Limited.

Jones, M. & Higgans, J. 1995 *Future directions in clinical reasoning in the health professions*. Oxford: Butterworth Heinemann.

McNiff, J. & Whitehead, J. 2006. *All you need to know about action research*. London: SAGE Publications.



- Metcalfe, C. 2004. Reflective practice and CPD for students. *Occupational Therapy News* 12(8): 27.
- Savin-Baden, M. 1997. Problem-based learning, part 1: an innovation whose time has come? *British Journal of Occupational Therapy* 60(10): 447 – 530.
- Teichler, U. 1996. Comparative Higher Education: potentials and limits. *Higher Education* 32(4): 431-465.
- Tight, M. 2003. *Researching higher education*. Berkshire: Society for Research in Higher Education & Open University Press.
- Tripp, D. 2003. *Action Inquiry, Action research e-reports, 017*.  
<[www.fhs.usyd.edu.au/arow/arer/017.htm](http://www.fhs.usyd.edu.au/arow/arer/017.htm)>  
Downloaded on 14/06/05
- Whiteford, G.E. 1998. Intercultural OT: learning, reflecting and transformation. *British Journal of Therapy and Rehabilitation* 5(6): 299 – 305.
- Zuber-Skerritt, O. 2001. Action learning, action research: paradigm, praxis and programs. In S. Sankaran, B. Dick & R. Passfield (Eds). *Concepts, perspectives and applications*. Lismore: Southern Cross University. 1 – 20.
- Zuber-Skerritt, O. 2002a. The concept of action learning. *the learning organisation* 9(3): 114 – 124.
- Zuber-Skerritt, O. 2002b. A model for designing action learning and action research programs. *The Learning Organisation* 9(4): 143 – 149.
- Zuber-Skerritt, O. 2005. A model of values and actions for personal knowledge management. *Journal of Workplace Learning* 17(1/2): 49 – 64.

## RESEARCH AND PUBLICATION IN OCCUPATIONAL THERAPY: CURRENT POSITION AND POTENTIAL OPPORTUNITIES

### ABSTRACT

Most undergraduate courses in occupational therapy include a research component in the student's final year. In developing countries such as South Africa, where a lack of staff and supportive resources plague many sectors in public health, occupational therapists seldom have the opportunity to advance to further publications and/or research activities after this initial taste of professional development.

This article deals with the investigation and argumentation the researcher followed to identify possible factors hampering the development of a lifelong research culture among occupational therapists. Utilising the action research and action learning approach, a variety of data sources highlight the importance of updated theory and evidence-based practice for everyday practice in South Africa. In conclusion, the potential of a knowledge-creating partnership between clinicians and students on clinical practical placement is discussed.

**Keywords:** evidence-based practice, lifelong learning, research

### 1. INTRODUCTION

In adherence to the World Federation of Occupational Therapy minimum training standards, undergraduate occupational therapy (OT) students are expected to be actively involved in research (WFOT 2002). In South Africa (SA), however, it appears as if this initial stage of research seldom advances to further research and/or publications as part of continuing professional development (CPD) for most clinicians and, to some degree, academics. This observation is substantiated by the fact that there is only one OT scientific journal in SA, and that this journal is currently published only twice a year, with a maximum of five articles per issue. It could be assumed that the scarcity of publications in the field of OT in SA coexists either with a



sparseness of research or with a lack of publishing endeavours, or both. The question is therefore raised as to why more occupational therapists are not persuaded to embrace a lifelong inclination towards research.

In this article, possible factors dissuading research development are therefore presented and discussed. The researcher aims to gain an understanding of the position South African occupational therapists (specifically those therapists trained at and involved with the University of the Free State, UFS) find themselves in regarding research and publication. In relation to this, the researcher also aims to determine what factors deter clinicians from engaging in research.

The attitude of a clinician towards research encompasses the concept of aligning practice with updated theory which ought ethically to be an underlying point of departure for a practicing clinician. OT involves an inherent cycle of gaining, applying and testing new knowledge for the benefit of the therapist and her clients. Therefore it is deemed necessary to point out whether or not occupational therapists are aligning practice with updated theory. While keeping in mind the difficulties that occupational therapists may experience regarding the implementation of research, the researcher through this article endeavours to offer an alternative means through which a culture of research may be facilitated.

## **2. PERSPECTIVES ON UPDATED THEORY AND ITS RELEVANT LINK TO PRACTICE**

The link between the concepts of updated theory, evidence-based practice (EBP), CPD and lifelong learning are firstly considered. Secondly, the potential role of these concepts in promoting research development is also considered.

EBP is an international buzzword in OT circles and is defined by Rosenberg and Donald (cited by Alsop 1997: 503) as "*using the best available evidence (moderated by an individual's circumstances and preferences) to inform decision making in practice and ultimately to improve the quality of clinical judgement*". The concept

received its first official attention in SA through a thought-provoking and challenging critique in the September 2005 issue of the *South African Journal of Occupational Therapy (SAJOT)* (Joubert 2005). This initiated another article in the November 2005 issue urging therapists to make their practice evidence-based (Watson & Buchanan 2005). The question arises whether these two viewpoints are contradictory? Could it be that occupational therapists still find it difficult to explain what they do and dare not contemplate the implications of providing proof of their profession's effectiveness? Conversely, is the crux of the matter the fact that research and publication activities associated with EBP, remain alien to the responsibilities of the OT clinician?

There is no escape from the fact that professionalism brings with it many responsibilities (Hagedorn 1995). The challenge of "*having great skill or experience in a particular field*" implies an educated accountability (Ilson 1988:1229). In SA, the resilience of OT as a profession in the midst of social change and cultural transformation relies on effective re-orientation of its knowledge base (Duncan 1999). Therefore, generating and using research remains the key to addressing and ensuring a dynamic future for OT.

In practice, however, it appears as if available research evidence is seldom applied (Humpries, Littlejohns, Victor, O'Halloran & Peacock cited by Atwal 2002). Not only do OT clinicians admit to not employing research findings, but they specify numerous obstacles to building research capacity and thus ensuring quality health care (Forsyth, Mann & Kielhofner 2005; Alsop 1997). Such obstacles include workload pressures and lack of support, time, energy and skills (Alsop 1997; Forsyth *et al.* 2005). In developing countries such as SA, these obstacles are further exacerbated by a lack of resources and staff in many sectors of public health. Furthermore, Alsop (1997:504), found that many decisions in practice seem to be made intuitively, "*based on opinion rather than on evidence of best practise... believing traditional practice... held them in good stead and that custom and practise is the only evidence required*". Forsyth *et al.* (2005) attributed one of the most overlooked factors for clinicians, namely omitting theory in practice, to the academic-practice gap: the way in which academics generate and present knowledge.



Despite the obvious effort associated with producing current evidence, resources available in the public health sector of SA are also not aiding access to available research literature. Besides the fact that the OT practitioner is hardly able to address the unmet needs in urban and rural communities, most evidence is Eurocentric and not specific to third-world circumstances (Joubert 2005). For example, when considering priorities in relation to manpower and means, applying for example, the PICO model (patient population, intervention, comparison and outcomes) as condoned by the EBP paradigm (Grandi & Franco 2005) may not be the most appropriate process to follow. In SA, "*looking for evidence to determine if what one is doing is correct or not*" (Joubert 2005:10), after four years of undergraduate training may be perceived as a luxury. This is especially true when Third-World circumstances could raise questions as to the compatibility of published data.

An international trend however, listed by numerous authors, indicates restrictions to accessing, using and generating research (Atwal 2002; Alsop 1997; Forsyth *et al.* 2005). Additionally, when considering the overwhelming stress South African occupational therapists face in the public health sector, the invitation of Ilott, Taylor and Bolanos (2005) to spawn a global approach to evidence-based OT could be an added burden. It might be unfair to expect the same from therapists who are from historically marginalised, developing, disadvantaged third-world systems, as from those who operate in developed and advantaged first world set-ups. Therapists who provide semi-rural and rural services to historically disadvantaged African people, for example, operate in a structure where the ratio of therapist to patient is demoralising and where access to resources such as libraries and the Internet is practically non-existent (Joubert 2005). In the researcher's experience, merely photocopying material is a challenge for many of these therapists. Typed reports are often only a reality where there is a personal computer or where there is access to the administrative staff's equipment.

When considering all these factors that could dissuade OT practitioners from accessing, using or conducting research, it is important to consider why updated

theory should be used in practice. Forsyth *et al.* (2005) provide the following three reasons:

- Without systematically applying current knowledge to practice, practice is of a lower quality and has fewer benefits for clients (supported by Roberts 2002).
- The absence of established knowledge may result in therapists being guided merely by practical experience and technical skills – a *modus operandi* uncharacteristic of that of a profession.
- Both factors mentioned above may subsequently result in affecting the status of OT and the slow destruction of this profession's public support.

It is because of the duty to share updated theory that CPD deserves attention. CPD directly relates to the ethical code of conduct expected of occupational therapists (Occupational Therapy Association of South Africa 2005; American Occupational Therapy Association 2005; College of Occupational Therapists 2005). Manifestations of this conduct would include accountability for quality of work and the employment of the best available evidence. Both these aspects can be adhered to by participation in research and sharing that research through, for example, publication or participation in OT conferences.

With the concepts of updated theory and CPD explored, the relationship of these concepts to EBP and lifelong learning should also be considered. "*EBP activities involve creating, finding and appraising evidence required to answer defined clinical and related questions*" (Watson & Buchanan 2005: 14). Lifelong learning on the other hand, is an umbrella term encompassing all activities associated with post-initial education; this would include formal (for example, university courses), non-formal (e.g. journal groups) and informal education (for example, reflection on day-to-day experiences) (Gropee 1998). In SA, CPD is viewed as so important by the Health Professions Council that a system encouraging practitioners to accumulate continuing education units in order to maintain registration, is being developed. Within this system formal learning, research and publication are activities for which occupational therapists can earn the most continuing educational units (Beukes 2007).



Besides the evident importance of CPD and lifelong learning, the general trend indicated by the literature reviewed is not encouraging. It appears as if reasonable conduct for South African OT practitioners would be not to embrace research associated activities. There are however, also many encouraging elements. One of these is that the guiding beliefs, standards and ideals that encompass the ethos of OT as a profession are universal and "*captures its character, conveys its genius, and manifests its spirit*" (Peloquin 2005: 612). The researcher feels that another point of encouragement is the resourcefulness of South African occupational therapists. Their ingenuity and determination could drive them to meet the challenge of the appeal by Ilott *et al.* (2005: 40) to strive towards the guiding principal of global EBP, namely "*one world, one profession and many evidences*".

The aim of this investigation was therefore twofold. Firstly, the focus was on determining the attitude of occupational therapists in the Free State towards gaining new information from the literature (that is, updated theory and EBP) or from activities associated with CPD. Secondly, the researcher endeavoured to determine the obstacles preventing the current practice of these clinicians to be supported by evidence from research and experience (that is, their own or that of other occupational therapists).

### **3. RESEARCH DESIGN AND METHODOLOGY**

This article portrays the investigation followed by the researcher at the beginning of the initial action research cycle. There are various perspectives on action inquiry as it denotes an orientation to research, rather than a methodology as such (*Action Research* 2006). Tripp (2003) describes this participatory democratic process for developing practical knowledge as a blanket term that may involve reflective practice, action learning, action research and researched action.

Figure 1: The process directing the design and management of the investigation



The focus here was on illuminating the underlying context that could promote or deter the researcher's vision of developing a research culture for undergraduate OT students at the UFS. From the illuminated context the potential use of successive mini-research projects in clinical practice can be reviewed. Figure 1 (based on the figure-eight model developed by Zuber-Skerritt 2002) is a visual explanation of the process followed. McNiff and Whitehead (2006: 8) explain this process as how to:

- *"take stock of what is going on;*
- *identify a concern;*
- *think of a possible way forward;*
- *try it out;*



- *monitor the action by gathering data to show what is happening; and*
- *evaluate progress by establishing procedures for making judgements about what is happening”.*

It is especially the emancipatory nature of action inquiry that had a specific appeal to the researcher. Zuber-Skerritt (2001, based on the work of Carr and Kemmis), emphasises that the process of action inquiry encourages the participation and reflection of the participants. The inherent ethical principle of respect for persons which underlies action research is reflected by Dick, who refers to participants as *stakeholders* and who emphasises that "*ultimately stakeholders are persons*" (Dick 2002: 4, emphasis added by researcher).

At the outset of the study a series of both quantitative and qualitative inquiries were undertaken in an attempt to verify whether trends noted in the literature resonated experiences of fellow OT clinicians in Bloemfontein. These inquiries were commenced during a planned focus group and during an informal survey at a journal club meeting hosted by the Free State Occupational Therapy Association of South Africa in September 2005. Informed consent was obtained from the 17 participants. A structured, quantitative questionnaire was used as an introduction to the discussion. Eight questions were asked. The main focus was on whether participants had participated in research and publication and if so, how they felt about these experiences. Two questions focused specifically on what they perceived as the main obstacles to engagement in research and what their preference would be for CDP activities. A discussion, based on these eight questions followed upon completion of the individual questionnaires. Three participants volunteered to make notes on comments during the discussion. These were acknowledged during the data interpretation from this session in combination with the field notes from the researcher's reflective journal.

Furthermore, data were generated through structured interviews with the researcher's academic colleagues at the UFS Department of OT. Nine staff members consented to conceptualise their experiences around publication. Numerical data generated here

were compared with an expert opinion of the *SAJOT* editorial staff. In combination, these data contribute to a full descriptive picture of perceived issues regarding publication.

The third variation in data collection was a comparative study contrasting existing statistics from an unpublished study by the University of KwaZulu-Natal with information from a document survey by the researcher of the 2005 publications of *SAJOT*. An indication of prevalent research themes for the best part of the last 53 years was investigated and linked to the focus of the discussion.

In addition to the above, three variations in the method of data collection were followed, and the trustworthiness of the findings further promoted by collecting data from different informants (for example, groups, unpublished research, newsletter articles and expert opinions). The triangulation of data contributed to a variety of angles from which to interpret data. Therefore, an attempted "*thick description*" of these findings, as advocated by Henning (2005) is documented in the next section.

#### **4. FINDINGS AND DISCUSSION**

In this section opinions on involvement (and potential involvement) in research and publication by occupational therapists in the Free State are stated and discussed. Initially, findings are presented around the themes generated by the quantitative questionnaire to the journal club members. Publications in and perceptions of the *SAJOT* are then reviewed. The section concludes with a discussion on a possible way in which opportunities for research and publication could be encouraged.

##### **4.1 Involvement in research and publication**

Numerical data generated by the members of the journal club indicated little activity in both areas of research and publication. None of the participants had ever published an article and only two (11.8%) had submitted work to be considered for publication. The latter two belonged to a group of three of the occupational



therapists (17.7%) who had been practising the longest. It is quite significant that representation in the group was dominated by therapists who had been in practice fewer than two years (refer to Table 1 for details). Only five of the 17 participants had been practising longer than five years. With reference to attendance only, it appeared that the 12 novice practitioners valued updated theory and therefore attended journal club meetings.

*Table 1: Work experience of journal club members*

| (N=17)                   |               |                       |
|--------------------------|---------------|-----------------------|
| <b>Period Practicing</b> | <b>Number</b> | <b>Percentage (%)</b> |
| Less than 2 years        | 10            | 58.8                  |
| 2 – 5 years              | 2             | 11.8                  |
| 6 – 10 years             | 1             | 5.9                   |
| 11 – 15 years            | 1             | 5.9                   |
| More than 15 years       | 3             | 17.7                  |

The majority (14, or 82.3%) were involved in research as part of their under-graduate training programme. It was interesting to note that the only two (11.8%) participants who rated this experience as very negative and uninspiring belonged to a group of four participants who were not at all interested in publishing scientific material. These two who had experienced research very negatively would, however, both be interested in engaging in some form of research.

#### **4.2 Obstacles dissuading research and publication**

Table 2 summarises the main obstacles preventing participants from engaging in research. Insufficient time (76.5%) and regarding themselves as incompetent to conduct research (52.9%) were the predominant factors prohibiting research.

*Table 2: Obstacles identified by journal club members*

| (N=17)  |               |                       |
|---|---------------|-----------------------|
| <b>Identified Obstacles</b>                             | <b>Number</b> | <b>Percentage (%)</b> |
| Insufficient time                                       | 13            | 76.5                  |
| Lack of knowledge and skill                             | 9             | 52.9                  |
| Isolation – don't want to work alone                    | 8             | 47.7                  |
| Lack of support from management                         | 3             | 17.7                  |
| Find the local university unapproachable & inaccessible | 1             | 5.9                   |
| No interest   | 1             | 5.9                   |

These findings are supported by the literature. Excerpt 1 and Excerpt 2 from the *FOCUS Newsletter* are commentaries of occupational therapists on their community year and give insight into some of the challenges occupational therapists in the public sector of SA face. Excerpt 2 sketches the experiences of a therapist based at a small 100 bed hospital in a remote, rural area in the Eastern Cape during her community service year.

**Excerpt 1:**

*"No room, no office, no stationery or chair, no therapeutic equipment – nothing! ... Rehabilitation services were available at the hospital for two days of the week and the other three days were spent in vehicles travelling over 240 kilometres, visiting approximately 14 clinics and many care centres... But travelling was only possible if a vehicle was allocated to us on that day. This proved to be a problem. The previous transport officer seemed to have organised hi-jackings (knowing exactly the comings and goings of all vehicles) for extra income... To tell you the truth, I did not actually get to do much OT. Instead, I found myself acting as financial advisor, nutritional consultant, physical therapist, driver, social counsellor, home affairs expert, IT specialist and wheelchair technician... One of the scarier moments that I won't elaborate on here, was when we were hi-jacked en route to one of the clinics... Although I did not learn anything new as an occupational therapist, I gained invaluable knowledge in human relations, new cultures, politics and the huge need for therapy in our country."*

(Saunders 2005:3)

Excerpt 2 portrays the view of another community year occupational therapist who, two years later, worked in Soweto and indicated that similar obstacles were still prevalent.

**Excerpt 2:**

*"Along with January came the anticipation of the unknown: putting four years of theory and practical into everyday treatment; the adjustment of having a few hours a day per patient as a student, to having 45 minutes a month; adjusting from oodles of space, OB help arms, suspension and plinths, microwaves and an abundance of resources, to having a solitary plinth and gym balls as a means of effective treatment and, most importantly, no longer having the comfort of 'constant looking over my shoulder' supervision".*

(Barnes 2007:15)

In addition to the numerical data generated by the members of the journal club, the researcher made a significant observation. Reflecting on participation by the group,



the researcher found that the questionnaire was completed enthusiastically. However, it was very difficult to instigate a general conversation as participants were reluctant to express their opinions. The situation was perfectly expressed by one young therapist who stated that she did not want to say something that could be perceived as wrong or that could show her up in a bad light. Even a senior therapist present commented after the session that it provoked a lot of thought but that she needed time to contemplate before expressing her judgment.

This phenomenon of not being able to express one's opinion freely may be interpreted in different ways. Colleagues who interact with one another on a daily basis are usually more comfortable with sharing their opinions. Occasional interaction with fellow practitioners from various areas of expertise could be more challenging. In the Free State there is only one university that trains OT students and many CPD activities would therefore feature direct or indirect involvement of academic staff. There are also only four journal club meetings annually. A lack of opportunity for sharing opinions and ideas, in addition to the perceived presence of academic experts, may have hindered participation during the focus group. It is significant that at a one-day conference in England, the conclusion after a debating session and discussions was that occupational therapists face a challenge with the *articulation* of clinical thinking (Melton 2005). The conference attendees, like the members of the local journal club, could not reach consensus because they experienced difficulty in expressing their viewpoints.

### **4.3 Preferred continuous professional development activities**

Table 3 specifies the agreed format for CPD preferred by the participants. Formal activities (64.7%) and a preference for work-based activities (52.9%) correlated with the identified lack of time for engagement in research. Careful consideration should therefore be given to the format of research before adding to the workload of therapists. In most instances it would be unrealistic to expect OT clinicians to cope with direct engagement in research activities.

Table 3: CPD activities preferred by journal club members

| (N=17)  |        |                |
|---|--------|----------------|
| Preferred CPD Activities                              | Number | Percentage (%) |
| CPD – Formal Courses                                  | 11     | 64.7           |
| CPD - Speciality Days                                 | 11     | 64.7           |
| Has to be part of daily responsibilities (work-based) | 9      | 52.9           |
| Mini-research projects in groups                      | 9      | 52.9           |
| Directing student research                            | 3      | 17.7           |
| Audit or utilising prior statistics                   | 2      | 11.8           |

The journal club members' preference for input to update theory is not an isolated incident. Findings show a significant correspondence with patterns and attitudes towards research from a much larger research population. Members of the American OT Association agreed that their primary sources of knowledge for practice are CPD-activities and mentoring clinicians (Philibert, Snyder, Judd & Windsor 2003). Although they viewed research in journals as generally helpful to practice, it was certainly not the most frequently used source of knowledge.

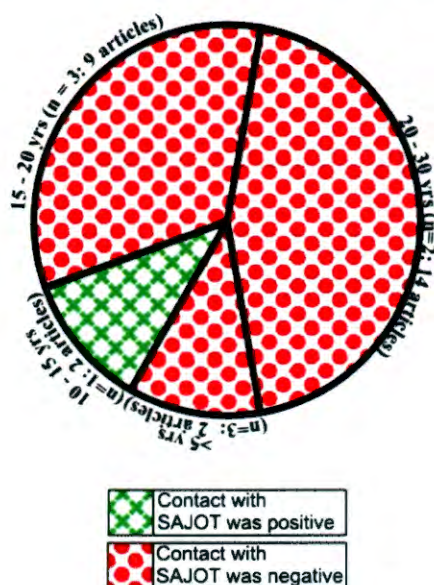
#### 4.4 Attitudes towards publication in the SAJOT

Findings thus far have indicated that besides a lack of engagement in research and publication, OT clinicians appear reluctant to access research published in journals. In an effort to compare the situation in the clinical setting with that of the academic domain of OT in the Free State, the Department of OT at the UFS was approached. The experience of persons involved in under- and postgraduate research training as part of their job description, and their opinion on involvement in publication, was investigated. The pie chart (see Figure 2) indicates the direct link between the periods employed as an OT academic with the amount of material submitted for publication. The current nine staff members had 26 publications for the period up to February 2006. From the interviews it appeared as if workload once again, was the most significant obstacle to engaging in publication. Staff at the UFS specifically found lecturing in parallel medium very time consuming as all classes need to be repeated and all material duplicated in both languages of instruction. Only three of these 26 publications (16,7%) were in *SAJOT*. Eight of the nine staff members who had submitted articles for publication in the *SAJOT* agreed that reviewers' comments



were devoid of positive criticism, causing them to perceive feedback as negative rather than constructive.

Figure 2: Comparison between period of employment and material submitted for publication



Therefore, contrary to an “*engagement-in-and-sharing-of-research*” philosophy promoted by the ethical practice of CPD and EBP, occupational therapists appear not to communicate their findings in *SAJOT* – the one journal readily available to South African occupational therapists. An expert view from *SAJOT* editorial staff supported the opinions voiced by both the Journal Club and the academic staff of the UFS. While acknowledging that they did not have conclusive information, their beliefs were<sup>1</sup>:

- *After working hard on their theses occupational therapists do not have the energy to publish.*
- *Occupational therapists that submit articles may be put off by the reviewers’ comments. It is hard when you have worked hard on something to hear that it needs changing. Some people have commented that reviewers are very “harsh”.*
- *Universities didn’t push for publication from staff members but this is getting better.*

<sup>1</sup> Personal communication from editor S. Homer via e-mail on 23 March 2006 (emphasis added by researcher)

- Clinicians don't think they have anything to say that is of importance.
- Clinicians do not read articles and therefore don't think to write articles/ clinicians think the journal is for "academics".
- Clinician's are too busy caring to spend time writing.
- Writing is hard work.

Besides these identified obstacles dissuading occupational therapists from publishing, articles in the *SAJOT* were examined in an attempt to analyse the perceived nature of OT research in SA. A research project undertaken by a group of undergraduate OT students from the University of KwaZulu-Natal in 2000, investigated publication in the *SAJOT* for the period of 1953 to 1999 (Stewart, Bhagwanjee & Kamadu 1999).

During this period of 46 years, 71 journals were published and 55% of these issues comprised between four and six articles. In comparison, a document survey of the *SAJOT* published in 2005 revealed that three issues were published in that year with an average of two articles per issue. Stewart *et al.* (1999) found that 75% of the articles were quantitative in nature and for the period 1982 to 1999, 83.8% of the articles were published by academics. In contrast, 71.4% (five out of seven) articles of the 2005 issues were from a medical positivistic paradigm and 100% of the authors<sup>2</sup> were part of an academic institution. When comparing a study by Stewart *et al.* with the analysis of the 2005 issues, the results are respectively as follows: authors with postgraduate qualifications could be divided into 20.9% versus 71.4% with master's degrees and 5.8% versus 14.2% with doctorate degrees.

There was therefore a noted prevalence of publications by academics and a predominant focus on quantitative data. This trend might dissuade novice researchers and even established practitioners from considering publication. Besides the perceived limited variation of method employed by researchers, articles were predominantly limited to scholarly papers. Although instructions to authors did not specify categories for submission (*SAJOT* 2007), practice evaluations (including

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<sup>2</sup> Only first authors were taken into consideration



critically appraised papers) were not specifically encouraged as by, for example, the *British Journal of Occupational Therapy* (BJOT 2003).

It therefore appears as if evaluative-interpretive research may not be viewed as esteemed as its positivist partner. This sketches a somewhat bleak future if current *SAJOT* publications, featuring three to four articles at most, cannot introduce their readers to a variety of research genres. A variety of approaches in which to communicate updated theory could inspire and stimulate clinicians to pursue issues relevant to their areas of expertise. A case study documenting how a very challenging case was addressed successfully could be just as informative to readers as comprehensive numerically-rich studies.

Perhaps it is time to venture beyond these traditional OT journals, as information available on intranet at the UFS indicates that there were 3 262 accredited journals on the *International Bibliography of Social Sciences* (IBSS) to choose from. One of these, *Systematic Practice and Action Research*, actually stipulates in its description that reviewing is distinguished by its mentoring nature. Here, there is a "process whereby referees engage in a dialogue with contributors rather than simply accept or reject submissions... provides material, writing assistance, constructive criticism, and insight into the problems with the article" (*Systematic Practice and Action Research* 2006). The cross-cultural scholarship encouraged by this journal, as well as others such as the *Qualitative Inquiry*, encourage lively dialogue that "transcends disciplinary, racial, ethnic, gender, national and paradigmatic boundaries" (*Qualitative Inquiry* 2006).

Although limited research exposure and lack of skills for engagement in research predominantly restricts clinicians in their participation in research, it is time that every occupational therapist rendering a quality service is encouraged to share information for the common good of the profession. It is specifically the lack of resources and the high case-load of therapists in community practice that force them to be innovative and creative. The evidence guiding decisions made and supporting successful outcomes in treatment, should be shared.

## 5. POSSIBLE WAYS FORWARD

The researcher therefore speculates on how occupational therapists are expected to embrace the fullest potential of the evidence-based practice agenda without first-hand experience thereof. This question, echoed by Whitcombe and Westcott (2006), is also considered by Forsyth *et al.* (2005). They cite two publications that corroborate their contention that graduates are the key to an EBP future and that they should be prepared by engaging in research and by developing skills for critiquing current theory and research (Scottish Executive 2002; Jones & Higgans 1995). These skills are part of a professional's lifelong learning process and should not be seen as a quick-fix application of a set of rules (Candy & Crebart, cited by Forsyth *et al.* 2005). Reflexivity, problem solving, active and experiential learning, as well as action research are ways in which to encourage an emancipatory generation of knowledge (Steward 1996; Roberts 2002).

These non-traditional ways of generating knowledge are encouraged by participatory action research (Kielhofner 2005). Kielhofner (2005) identifies this knowledge-creating scheme as an engaged scholarship process which implies that knowledge (Kielhofner 2005: 233 – 234):

- *"is judged for its practical utility;*
- *values a range of knowledge forms in real life contexts including theory, experiential knowledge, practical know-how; and*
- *is a collaborative model in which researcher and practitioner share power and control in shaping the research process"*.

Engaged scholarship therefore, encourages generating knowledge. In forming a partnership, the OT clinician/academic and the student are both stakeholders and part of a process that unfolds as evidence is generated. Therefore, practice innovations will be shaped by current events and created information. Forsyth *et al.* (2005) state that such a course of action ensures that the knowledge will be applied by those who assist in generating it. Experiencing the impact of research by implementing findings and adapting the way in which things in clinical settings are



done, could be the first step towards generating a research culture among undergraduate OT students.

It is unrealistic and impractical to expect that engagement in a single research project during the final year of undergraduate training can ignite the full potential of engaged scholarship. Other opportunities will have to be identified. One of these is offered by the Department of OT, UFS, as student competence after each phase of clinical training in the fourth year is assessed by either giving the student a case study or a mini-research project. Development in skills for both modes of assessment is a prerequisite to graduation as each fourth-year student is assessed in both a case study and mini-project during her final clinical examination.

Mini-projects provide a unique opportunity for successive research projects to be initiated and co-ordinated by the clinician. The student as such, may become part of an existing research community as advocated by Forsyth *et al.* (2005). This experience does not only allow the student to actively engage in research, but also to experience the outcomes of previous projects that have been implemented, as well as gauge what the current project's effort can establish and how it could be expanded.

Furthermore, the clinician could develop her role as researcher while fulfilling her obligations as clinical supervisor. In developing an aspect of her responsibilities there is no added pressure, but the opportunity to generate data that could support current best practice in the area and may even be utilised for publication. Besides specific guidelines from the University relating to the format and procedures that should be followed when engaging in a mini-project, university staff is an accessible resource to clinicians. Therefore, the potential to develop reflective practice into a recognised research procedure for monitoring and recording innovative action is a reality. The incorporation of action research and action learning specifically, as part of undergraduate fieldwork education, allows a partnership between supervising clinicians and students on placement.

## 6. CONCLUSION

This investigation highlighted the need for follow-up research to investigate the implementation and evaluation of an action inquiry approach when a partnership between a clinician and students on clinical practice placement is formed to implement research-informed practice.

In order for OT as a profession to survive, we need to have proof that we are doing the *right things right* (Holm 2000). Ilot *et al.* (2006) challenge developing countries to construct relevant evidence for their settings. They advocate the appreciation of home-generated knowledge and the documentation thereof, while also acknowledging the needs and cultures of clients in relation to those resources available to therapists.

In the second issue of the *SAJOT* in 2005, Joubert (2005:10) emphatically states that "*South African occupational therapists are particularly bad at producing research*". Despite and because of this fact occupational therapists in SA, in this case specifically in the Free State, should embrace new approaches to address this problem. Directed, consecutive mini-research projects could encourage continued learning for both clinicians and fourth-year OT students at the UFS.

A mini-research project as part of clinical training of undergraduate OT students at the UFS is one way in which the research environment ethos, embodied by the University, may manifest itself in the local community. Though limited in number, these projects could encourage accessing previous, and/or producing current, research. Therefore, if encounters with updated theory could be nurturing in nature, they may pave the way for future and current clinicians to embrace a lifelong inclination towards research.



## 7. REFERENCES

*Action Research*. 2006. Resource page.

<<http://www.sagepub.co.uk/resources/actionresearch.htm>>

Downloaded on 08/03/2006.

Alsop, A. 1997. Evidence-based practice and continuing professional development. *British Journal of Occupational Therapy* 60(11): 503 – 508.

American Occupational Therapy Association. 2005. Occupational therapy code of ethics. *The American Journal of Occupational Therapy* 59(6): 639 – 642.

Atwal, A. 2002. Getting evidence into practice: the challenges and successes of action research. *British Journal of Occupational Therapy* 65(7): 335 – 340.

Barnes, K. 2007. Community service. *FOCUS* (August 2007): 2.

Beukes, S. 2007. Accumulation of CEUs through publication or using *SAJOT* to accumulate CEUs. *South African Journal of Occupational Therapy* 37(1): 17.

*British Journal of Occupational Therapy*. 2003. Guidelines for authors. <<http://www.cot.org.uk>>

Downloaded on 03/03/2007.

College of Occupational Therapists. 2005. College of Occupational Therapists: Code of ethics and professional conduct. *British Journal of Occupational Therapy* 68(11): 527 – 532.

Dick, B. 2002. *Stakeholders and participation*. Session 4 of AEROL – action research and evaluation online.

<<http://www.scu.edu.au/schools/gcm/ar/aerol/areol-sessio04.html>>

Downloaded on 04/02/2007.

- Duncan, M. 1999. Our bit in the calabash. Thoughts on occupational therapy transformation in South Africa. *South African Journal of Occupational Therapy* 29(2): 2 – 9.
- Forsyth, K., Mann, L.S. & Kielhofner, G. 2005. Scholarship of practice: making occupation-focused, theory driven, evidence-based practice a reality. *British Journal of Occupational Therapy* 68(6): 260 – 267.
- Gropee, N. 1998. Lifelong learning in health care: who will pay? *British Journal of Therapy and Rehabilitation* 5(3): 16 – 17.
- Grandi, P. & Franco, G. 2005. Practicing evidence-based occupational health in workers' groups: how to prevent sickness absence caused by influenza. *Occupational Medicine* 55(1): 7 - 9.
- Hagedorn, R. 1995. *Occupational therapy perspectives and processes*. Edinburgh: Churchill Livingstone.
- Henning, E. 2005. *Finding your way in qualitative research*. Pretoria: Van Schaik Publishers.
- Holm, M.B. 2000. Our mandate for the new millennium: evidence-based practice. *American Journal of Occupational Therapy* 54(6): 575 – 585.
- Ison, R. (Ed.). 1988 *Reader's Digest Universal Dictionary*. London: Reader's Digest Association Limited.
- Ilott, I., Taylor, M.C. & Bolanos, C. 2005. Evidence-based occupational therapy: it's time to take a global approach. *British Journal of Occupational Therapy* 69(1): 38 – 41.



Jones, M. & Higgs, J. 1995. *Future directions in clinical reasoning in the health professions*. Oxford: Butterworth Heinemann.

Joubert, R. 2005. Evidence-based practice: a critique based on occupational therapy within the SA context. *South African Journal of Occupational Therapy* 35(2), 7 – 13.

Kielhofner, G. 2005. Scholarship and practice: bridging the divide. *American Journal of Occupational Therapy* 59 (2): 231 – 239.

McNiff, J. & Whitehead, J. 2006. *All you need to know about action research*. London, SAGE Publications.

Melton, J. 2005. Developing reasoning: how to think in practice. *Occupational Therapy News* 13(12): 27.

OTASA (Occupational Therapy Association of South Africa). 2005. Code of ethics and professional conduct. (Revised July 2005). Pretoria: OTASA.

Peloquin, S.M. 2005. Embracing our ethos, reclaiming our heart. *American Journal of Occupational Therapy* 59(6): 611 – 625.

Philibert, D.B., Snyder, P., Judd, D. & Windsor, M.M. 2003. Practitioners' reading patterns, attitudes and use of research reported in occupational therapy journals. *American Journal of Occupational Therapy* 57(4): 450 – 458.

Qualitative Inquiry. 2006.

<<http://www.sagepub.co.uk/journal.aspx?pid>>

Downloaded on 08/03/2006.

Roberts, A.K.E. 2002. Advancing practice through continuing professional education: the case for reflection. *British Journal of Occupational Therapy* 65(5): 237 – 240.

Saunders, E. 2005. Serving the Community. *FOCUS* (March 2005): 3

Scottish Executive. 2002. *Building on success: future directions for allied health professions in Scotland*. Edinburgh: Scottish Executive.

South African Journal of Occupational Therapy. 2007. Instructions for authors. *South African Journal of Occupational Therapy* 37(1): 20.

Steward, B. 1996. The theory/practice divide: bridging the gap in occupational therapy. *British Journal of Occupational Therapy* 59(6): 264 – 268.

Stewart, R., Bhagwanjee, A.M. & Kamadu, A. 1999. Unpublished report: *A content analysis of the South African Journal of Occupational Therapy*. Durban.

Systematic Practice and Action Research. 2006. Description.

<<http://www.springer.com/sgw/cda/frontpage>>

Downloaded on 08/03/2006.

Tripp, D. 2003. *Action Inquiry, Action research e-reports, 017*.

<[www.fhs.usyd.edu.au/arow/arer/017.htm](http://www.fhs.usyd.edu.au/arow/arer/017.htm)>

Downloaded on 14/06/05.

Watson, R. & Buchanan, H. 2005. Making our practice evidence-based. *South African Journal of Occupational Therapy* 35(3): 14 – 19.

Whitcombe, S.W. & Westcott, L. 2006. A Global Evidence-based Approach. *British Journal of Occupational Therapy* 69(2): 94.

Zuber-Skerritt, O. 2001. Action learning, action research: paradigm, praxis and programs. In: S. Sankaran, B. Dick & R. Passfield. (Eds). *Concepts, perspectives and applications*. Lismore: Southern Cross University. 1 – 20.



Zuber-Skerritt, O. 2002. A model for designing action learning and action research programs. *The Learning Organization* 9(4): 143 – 149.

World Federation of Occupational Therapists. 2002. *Overview of the WFOT minimum standards for the education of occupational therapists 2002*. PowerPoint presentation and narrative text on CD. Sponsored by REED Health.

## **MINI-RESEARCH PROJECTS IN UNDERGRADUATE OCCUPATIONAL THERAPY TRAINING: FERTILE SOIL FOR PROMOTING A CULTURE OF RESEARCH**

### **ABSTRACT**

In this article the author reports on an enriching experience provided by action research and an action learning (ALAR) approach when undergraduate occupational therapy students participated in successive mini-research projects. The investigation was based on the assumption that ALAR may contribute to meaningful learning experiences (for both the students and clinical supervisor involved), when designing and conducting mini-research projects.

Project engagement during clinical practice provided the fertile soil for these meaningful learning experiences. Findings strongly suggest that occupational therapy students are encouraged to make a contribution to, while interacting with, the community when engaging in mini-research projects. As the projects grew, a service evolved in which it appears as if research-focused intervention may flourish. The cultivation process associated with the successive project development is portrayed by a tree analogy. This tree analogy is used to explain the design and structuring of the mini-research projects, as well as additional aspects that nurtured the process.

**Keywords:** occupational therapy, action research and action learning approach, mini-research projects, clinical practice

### **1. INTRODUCTION AND BACKGROUND**

The researcher embarked on a journey as an action researcher in an attempt to consolidate the values underpinning her work as a part-time academic at the University of the Free State (UFS) with that of being Consultant Occupational Therapist at *Ons Tuiste* (a residential care facility for elderly persons). *Ons Tuiste* provides a role emerging placement for occupational therapy students in their fourth



year of training, as it is a placement “*where there is not an established occupational therapy service*” (Martin 2007:24). In November 2004, *Ons Tuiste* and the OT Department at the UFS agreed on the involvement of final year OT students to initiate an activity programme in the twenty-person multi-cultural dementia high-care unit. This service is therefore currently run by one or two fourth-year OT students, per placement of five to six weeks, with the researcher acting as their clinical supervisor.

The researcher is involved for five hours of consultation per week. Therefore, the predominant challenge she faced in developing and coordinating the service area at *Ons Tuiste*, was that a lack of her continuous input could be detrimental to the progress and quality of input. The endeavour to improve both the quality of life of the residents in the dementia care unit, as well as the students’ learning experience, prompted a closer look at how research could inform practice.

For the researcher, an opportunity has presented itself in the activities students are expected to engage in during their final year. At the Department of OT at the UFS, students’ competence is assessed after each phase of clinical training in their third and fourth years. The supervising clinician may either give the student a case study or a mini-research project on which to be assessed. The latter option provided the researcher with a unique opportunity to initiate and evaluate the design, structure and development of the successive mini-research projects she co-ordinated. Subsequently, the deliberate use of a “*plan, act, describe, review*” cycle stimulated a continuous evaluation of the effects and effectiveness of change in practice. The researcher decided on incorporating recognised action research procedures instead of merely putting in thought and action, when evaluating the processes and actions followed to develop the service (as advocated by Tripp 2003). In this way, the practical use of action research was encouraged in the clinical context, while simultaneously generating evidence for practice.

Therefore, the natural progression during service expansion resulted in an evolving learning process for both the researcher (as an academic and clinical supervisor), as

well as for the students involved. The next section focuses on the ALAR approach for directing the investigation.

## 2. RESEARCH DESIGN AND METHODOLOGY

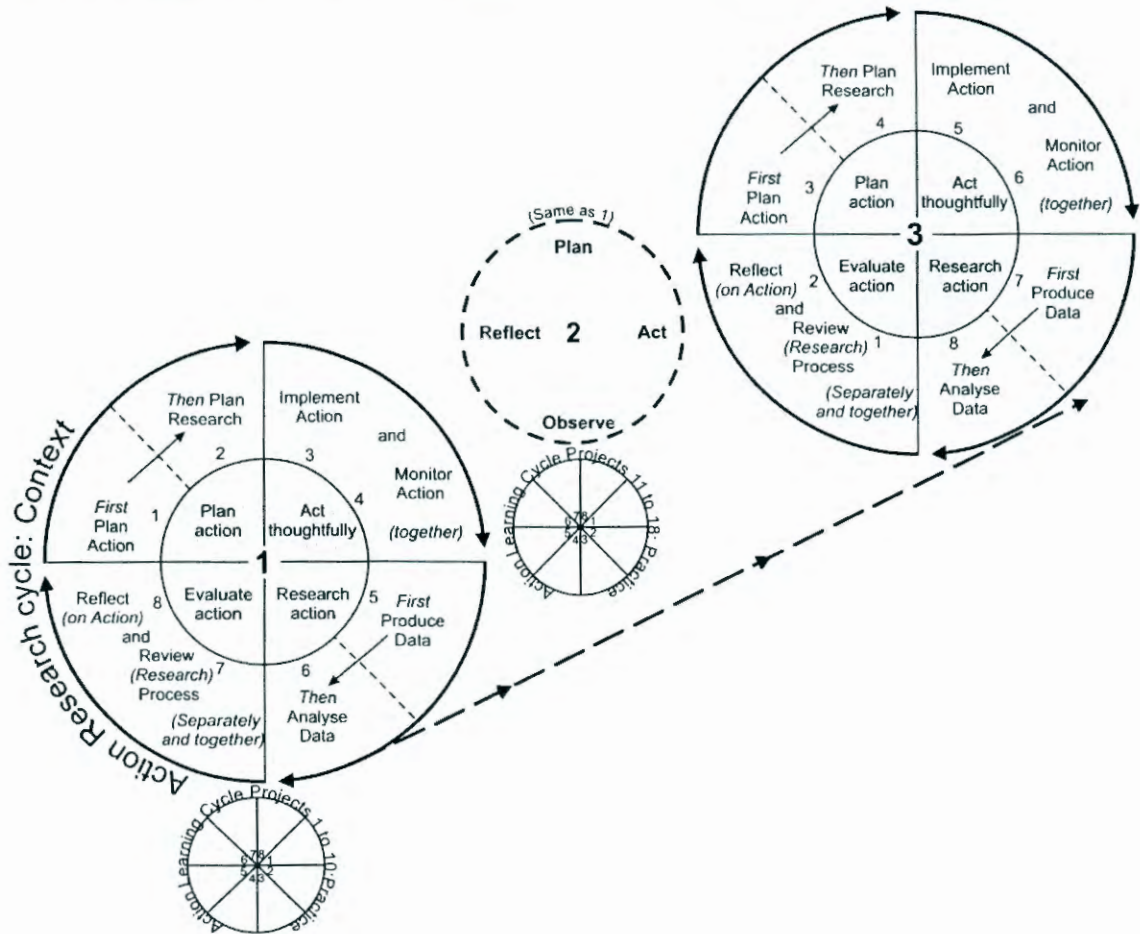
This investigation specifically focused on uncovering factors that contribute to the development of mini-research projects. The researcher sought to understand the evolving process that simultaneously deals with the expansion of the OT service, as well as the training requirements of OT students. This interdependence between theory and practice, research and development, thought and action, may be conceptualised as a dialectical relationship between action learning and action research (ALAR) (Zuber-Skerritt 2001).

Zuber-Skerritt (2005a:50) defines action learning as the opportunity to "*learn from each other, from action and concrete experience, as well as taking action as a result of this learning*". Action research however, is interpreted differently by different persons. The researcher finds it to be more than a technique, but rather a philosophy, methodology and theory of learning (as advocated by Zuber-Skerritt 1995a). The outcome of these research methodologies are the dual pursuit of action and research (Dick 2002).

With this approach, the researcher directed the mini-projects (and the students involved in executing the projects) flexibly and systematically so that conceptualised learning from experience could take place (Zuber-Skerritt 2002a). This learning is embedded in a process wherein each cycle, after initial problem identification, feeds into action planning, implementation, evaluation and reflection as illustrated in Figure 1 (Zuber-Skerritt 2001). Taking advantage of both the figure-eight model and action research spirals designed by Zuber-Skerritt (2002b), the focus of this article is on the first two cycles in Figure 1. Each cycle involved is illustrated by an initial stage of exploring the context of the identified problem prior to describing the associated practice areas during an action research process.



Figure 1: Engagement in the ALAR process during first three cycles of inquiry



The ALAR process therefore encourages reflexivity, problem solving, active and experiential learning and in this way promotes an emancipatory engineering of knowledge (Steward 1996; Roberts 2002). A practical inquiry was conducted most of the time, as the researcher encouraged students to participate and reflect (Karr & Kemmis, cited by Zuber-Skerritt 2001).

In order to fully utilise the research situation, a data-driven approach (as advocated by Dick 2002), where the results of one mini-research project fed into the development of the succeeding project, was followed. Self-reflection encouraged the researcher to be flexible and responsive in taking a fresh look at each mini-research project during execution and after completion of the 18 projects.

The research population consisted of 14 students who participated in the initial two action research cycles. They consented to their contributions being included in the study, with further ethical approval for the study being obtained from the UFS.

Data generation was predominantly reliant on students executing individual mini-research projects. The ALAR paradigm of research in this case, promoted an illuminative evaluation. Zuber-Skerritt (1992) explains that the focus is therefore on the learning milieu. Different techniques as appropriate may be applied to fit the total circumstances within the teaching-learning environment. These techniques focus primarily on the evaluation and reflection components of the ALAR process.

Rigour and relevance was promoted by incorporating a critical analysis of each project after its presentation for marks. Firstly, the researcher documented strengths and weaknesses observed during each student's project presentation. Secondly, these remarks were filed with the completed project documentation for future students who would be conducting successive projects. Thirdly, the researcher recorded both the project development and the maturation of her coordination skills in a reflective journal. All of this data were then considered when compiling the assignment for the next mini-research project.

Data collection, although predominantly qualitative in nature, was also quantitatively enhanced by different surveys (for example, questionnaires) to further the triangulation of information. One questionnaire was used as a structured feedback form for students to reflect on, after their mini-project presentation. It guided the students to reflect on their overall experience; what they enjoyed the most and the least; what they found difficult and if they would do anything differently if they had had another opportunity.

Surveys were also used as an introduction to sessions where the nominal group technique was used. These surveys assisted in focusing the participants on the group. The nominal group technique was employed at the end of the first two research cycles. These research cycles were approximately 12 months each, which



allowed time for the progression of the investigation. The nominal group technique was therefore applied to affirm what the researcher uncovered as part of the action research process – that is, what she learned from her reflexive experiences. The content of these modes of inquiry is illuminated in the findings section.

As data were collected over an extended period of time and in various ways, serious consideration was given to the trustworthiness of the findings. Documentation, for example the KAB409 module guide and the 2006 external examiner's report on the clinical exam, were utilised as expert references to echo the researcher's opinions. Finlay's guidelines (2006) of clarity, credibility, contribution, communicative resonance and caring were also considered to promote rigour and relevance during the sharing of the findings. Moreover, a critical friend was involved to scrutinise progress in an attempt to enhance the credibility of the study (McNiff 2002).

Therefore, as explained in the next section, a global analysis of data contributed to an integrated view of all findings. The discussion aims to establish meaning by themes and patterns that connect, rather than merely categorising and coding segments of data (Henning 2005). The findings and discussion section is combined to capture the evolving process that emerged during the project development.

### **3. MINI-RESEARCH PROJECT DESIGN – THE TREE ANALOGY**

This section firstly elucidates the thriving project design associated with the development of the successive mini-research projects. A tree analogy is used to convey how the process evolved (see Figure 1). Secondly, fertile conditions for tree growth (linked to clinical practice experiences) are viewed as horizontal soil layers. The findings relating to the design of the mini-research projects are therefore sustained by investigating the necessary supportive structure. Starr and Taggart (1989) identified six layers of soil and these will be used as a guide to portray the various aspects of the support structure.

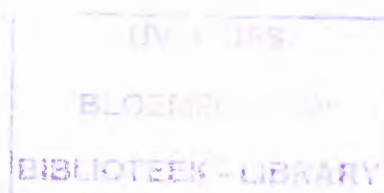
### 3.1 A thriving project design

#### 3.1.1 The projects

Eighteen projects were implemented by 14 students. Table 1 summarises the themes for these projects. Four of the students also had a second opportunity to engage in the process during year-end clinical exams. As mentioned before, progression of the projects was data driven and related to how a completed project supported the assignment of its successor. Therefore, the general approach was a practical one that allowed a logical succession. In an attempt to orientate the reader to the contents of these projects, a rationale as to the selection of themes for successive projects, is firstly discussed.

*Table 1: Summary of mini-research project assignments at Ons Tuiste*

| Chronological order | Project Title   |
|---------------------|---|
| 1                   | Design of a multi-sensory room (involving the community).                                     |
| 2                   | Compilation of indicators of selected residents' current functional abilities.                |
| 3                   | Critical comparison of standardised assessment with compiled list of indicators.              |
| 4                   | Critical evaluation of Projects 2 and 3 – adapt and apply form.                               |
| 5                   | Design of a multi-sensory outside area in designated space.                                   |
| 6                   | Critical evaluation of Projects 2 and 3 – adapt and apply form.                               |
| 7                   | Critical evaluation of two previous funding submissions and suggestions for adaptations.      |
| 8                   | Critical evaluation of updated submission and addition of an outside area.                    |
| 9                   | Design of multi-sensory passage with reminiscence theme (involving local artists).            |
| 10                  | Critically evaluation of documentation for sponsors and compilation of a DVD to accompany it. |
| 11                  | Selection of 10 residents to evaluate according to M.O.H.O.S.T. and observation grid.         |
| 12                  | Evaluation of selected residents with PAL and compilation of background questionnaire.        |
| 13                  | Processing of data generated by Project 11 and comparison with findings from Project 12.      |
| 14                  | Compilation of four person-specific treatment programmes.                                     |
| 15                  | Evaluation of reflective practice process encouraged as to increase research.                 |
| 16                  | Investigation of potential of duplication programme at Mooihawe as part of CSL.               |
| 17                  | Application of ICF to evaluate effectiveness of person-specific programmes.                   |
| 18                  | Investigation of action learning by implementing a reflective journal.                        |





Project 1 (designing a multi-sensory room) was instigated to explore the viability of establishing a unique service at *Ons Tuiste* prior to student placements there. In anticipation of an area that would function predominantly on input from students, periods for attending lectures and holidays would terminate certain aspects of the programme temporarily. The idea was to take advantage of OT expertise and establish resources that could alternatively be accessed by family members, staff and volunteers for the benefit of the residents. Project 1 was subsequently succeeded by the designing of a multi-sensory garden (Project 5) as well as groundwork (Projects 8 and 9), leading to the establishment of these multi-sensory areas early in 2006.

A unique opportunity for monitoring outcomes during the development of the service presented itself in the fact that there had been no OT programme in the unit for the past 12 years. A separate branch of projects focused on this aspect of service development. Project 2 resulted in compiling a base-line profile of the residents' current activity performance level prior to OT input. This aspect was refined and developed with an observation grid as the outcome of Projects 3, 4 and 6. Project 11 then continued this process by implementing both the grid and a formal assessment tool (the M.O.H.O.S.T<sup>1</sup>) as part of the base-line profile for ten selected residents. These data were expanded by observing the same ten residents while administering an additional formal assessment tool (the PAL<sup>2</sup>), so as to compile a comprehensive questionnaire for background information on residents during Project 12. Project 13 evaluated and compared information generated by both Projects 11 and 12. Useful data as to what tools would be the most helpful for evaluating future input were generated at this stage.

Continuity in the preparation process for recording the impact of an OT programme on the functioning of residents was interrupted by the quest to secure funds (Projects 7, 8 and 10). In order to expand the multi-sensory areas the daunting task of submitting proposals for funding, evaluating why previous submissions were unsuccessful and refining submissions, were undertaken.

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<sup>1</sup> Model of Human Occupation Screening Tool, University of Illinois, by Parkinson, Forsyth and Kielhofner (revised January 2006)

<sup>2</sup> Pool Activity Level, Jessica Kingsley Publishers, 1999



Up until this stage limited manpower delayed the actual implementation of a treatment programme in the dementia unit. The progress of establishing person-specific treatment programmes for residents were advanced when all the data generated up to Project 13 were utilised in a formal group research project conducted by six final year OT students from UFS. *Ons Tuiste* and the guardians of 13 residents gave informed consent for the exposure of these residents to four different treatment situations, so as to determine which activities each individual preferred. These situations involved sensory stimulation during hand-washing and eating activities, as well as exposure to a multi-sensory room and garden. Mini-research projects then continued by establishing person-specific treatment-programmes for four residents (Project 14). These programmes selected activities for which residents indicated a preference during the group research project. Three more programmes were developed for an additional three residents before identifying an outcome measure (the ICF<sup>3</sup>) to evaluate the effectiveness of these programmes (Project 17).

Contrary to the previous projects (which focussed on developing the service), Projects 15 and 18 focused on student development, specifically reflexivity in practice. Project 16 as such, was a spin-off from the evolving project development process. The duplication of the process followed at *Ons Tuiste* blossomed into an investigation at another area where the viability of community service learning projects was explored.

Figure 2 is a visual portrayal that summarises the development of the project over the past two-and-a-half years. There were five main areas in which the mini-projects relating to this specific investigation thrived, namely:

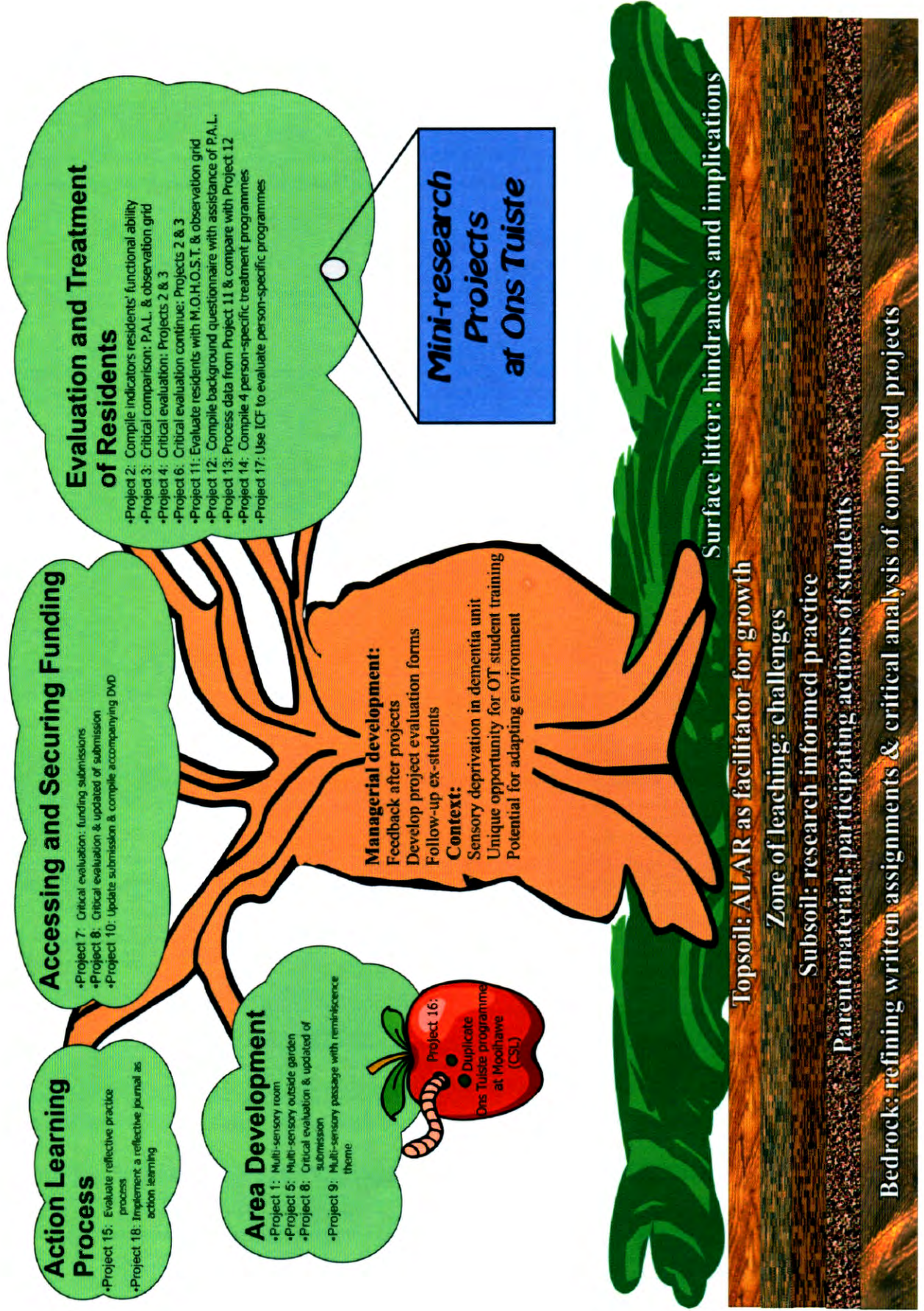
1. Multi-sensory recreational area development (Projects: 1,5,8,9).
2. Evaluation and treatment of residents (Projects: 2,3,4,6,11,12,13,14, 17).
3. Accessing and securing funding for projects (Projects: 7,8,10).
4. Promotion of the action learning process for students (Projects: 8,15).
5. Spin-off (Similar project piloted in another care facility) (Project: 16).

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<sup>3</sup> International Classification of Function: [www.who.int/classification/icf](http://www.who.int/classification/icf) accessed on 7/11/2006



Figure 2: Project theme development during first two action research cycles





### **3.1.2 The research process**

The processes engaged in by the researcher that led to the evolvement of the projects are reflected well by Tripp's (2003) interpretation of the action research cycle. It was necessary for the researcher to first consider her ideas involved in setting up a new student-run community service (in other words, *plan action*), before contemplating how research could contribute to this process (in other words, *plan research*). During the first cycle of the research, projects 1 to 10 were executed prior to the first nominal group process. All the data generated by the ten mini-projects, the subsequent nominal group, surveys and structured reflections were then used to *review* the cycle and *reflect* on the researcher's actions during this time. This allowed *planning actions* and *research* for the second action research cycle. The same process was followed during the second cycle.

When considering her *thoughtful actions* (Tripp 2003), the researcher had to monitor the mini-projects' development by evaluating the outcome of each project and determining its value. A crucial aspect here was to consider whether data could be applied in that format by successive students or whether another look at the same data from a fresh perspective was necessary for a more appropriate focus. Project 13 for example, critically evaluated the findings of Project 11 (data generated by the observation grids and MOHOST tool) and compared it to data generated by the PAL (Project 12).

Additionally, the researcher had to be practical in her approach and priorities, as the successful progression of the mini-research projects had to be weighed up against the pressing demands of the service area. It was therefore quite natural that the action research process flowed into a reflective practice cycle at times. This may be best explained by the development of three additional person-specific programmes between Projects 14 and 16. These additional programmes were compiled from the previous results available. The data were subsequently used to describe intended activities and their appropriateness reflected on; there was no research component inherent to this process.



As indicated, the natural progression for development of this new OT service is clearly visible in the first four areas (branches) of Figure 1. These areas focused on multi-sensory area development, investigating the target population and looking at funding issues. An obvious deviation to this flow was Projects 15 and 18. The guidelines in Table 2 assisted the students with their focus and in adapting an orderly work procedure when executing the assignment. In addition, instruction for the presentation (poster format), time duration and practical demonstration contents, were also specified in the KAB408 clinical guidelines. However, engagement in procedures stipulated for executing projects, appeared not to encourage a focus on the students' personal growth during action learning. Therefore, two mini-projects were specifically focused on the role of reflection during the execution of the assignment. In this way, the students' attention on the action learning component inherent to new learning situations was purposefully focused on during clinical practice.

Following the introduction of the design for the established tree, the structure that contributed to benign conditions for growth and development can now be presented and discussed. A bottom-up approach is followed. The foundation (bedrock) of the projects is presented first. The next four successive layers are then identified and discussed. The section is concluded by identifying potential hindrances, but also those factors which would enrich the process (such as surface litter) and discussing how these could contribute to the structure of the successive projects.

Table 2: Guidelines for recording mini-projects

1. **Identify outcomes:** Therapist/lecturer and student discuss the question to be answered or problem to be solved. Management components are incorporated here.
2. **Written assignment/problem:** Therapist puts the assignment in writing and hands this to the student, for example: Design a home programme for female RA patients in Mangaung, between the ages of twenty and forty; conduct a survey of needs in the Heidedal community in order to ascertain the number of elderly who would visit a *kuierhoekie*; establish whether the current training received by caregivers in the baby room is adequate to meet the stimulatory needs of babies. The demonstration aspect must be given to the student in writing, for example demonstrate how you would explain the home programme to the patient.
3. **Description of the assignment/problem:** Brief background information on the problem is provided, for example approximately four patients with RA, between the ages of twenty and forty are treated monthly at Pelonomi Hospital. They are generally discharged quite quickly, with the result that treatment can seldom be completed on an in-patient basis. Most of these patients have children to be cared for. The need for a home programme has arisen.
4. **Goal formulation:** Student personally formulates goals as he/she sees fit. It may be similar to the written assignment/problem or a refined version of it, for example to design a home programme for female RA patients in Mangaung.
5. **Plan of action:** All that must be done or has been done to achieve the goal.
  - 5.1. **Collecting information:** for example literature, interviews, questionnaires, observation  
and/or
  - 5.2. **Other actions in order to achieve the goal for example** Compilation and completion of questionnaires, drawing up a home programme, evaluation of effectiveness of a programme, implementation of a programme, etc.
6. **Results:** Example: Describe the results revealed by the questionnaires; what information had been obtained from the interviews that the home programme had handed out to the patients, etc.
7. **Conclusion:** Example: Indicate the conclusion that could be deduced from the questionnaires/observation, for example if a home programme had to be designed, this heading may be omitted. What the implications of the handing out of the home programme had been.
8. **Recommendation/implications:** The recommendations that could be made from the conclusions, for example Occupational Therapy Association of South Africa. 2005 Code of Ethics and Professional Conduct. (Revised July 2005).

Source: KAB409 Module Guide – Clinical Practical Work in Occupational Therapy 2007

## 3.2 Structural focus to encourage prolific project development

### 3.2.1 Bedrock: the foundation

Orientation towards the structural focus for designing the mini-research projects originated with the set format of guidelines provided to fourth-year OT students by



the UFS OT department (refer to Table I). Two principal actions that dominated the researcher's conduct while developing the structural format for the mini-projects were:

- refining the written format for the mini-project assignment; and
- incorporating a critical analysis of each project after it was presented for marks.

First drafts of the assignments focused on background information (explaining the rationale for its request), stipulating the task/s and the demonstration components involved, as well as listing potential resources. In some cases, specific suggestions for consideration were included. As time passed, it also became necessary to add the aim of the action research project and a detailed account of the successive mini-research projects' developments to date, for a more comprehensive orientation.

Towards the end of the first action research cycle a more practical approach was employed which included two procedures. This approach encouraged a written format for the assignments to assist in the clarity, comprehensiveness and specificity with which successive mini-research projects were conducted. Firstly, the researcher formulated the next assignment directly after the presentation of the current student's presentation. Then, both the current student, as well as the university examiner (who was present at the presentation) received copies and were asked for comments. This ensured that the focus of the assignment was clear (which is very important from the student's perspective) and that the execution of the projects comprised a research component (a prerequisite that the external examiner, as an OT academic, valued). (Refer to Appendix A for an example of a written assignment.)

The eighteen projects that were generated may be regarded as evidence of the fruitfulness of the ALAR approach. The two cycles during which the structure and design for mini-projects evolved, however, also provided the opportunity to trial the established process. The students' experience of the process was subsequently evaluated.

### **3.2.2 Parent material: Participants' actions contributing to the structure**

Within the ALAR approach, the researcher needed to understand whether she had developed system-orientated, holistic solutions for the practical training setting at *Ons Tuiste* (Zuber-Skerrit 2001). The key to the research process here was the cooperation and teamwork of the students (Carr & Kemmis, cited by Zuber-Skerritt, 2005b). Their personal views of the projects as vehicle for professional growth provided the foundation to the subsoil for the tree's roots. Therefore, a nominal group technique was administered to test insight into the potential of successive mini-research projects, as well as to verify strengths and weaknesses for the participants involved in the ALAR approach.

After the first cycle, five students were involved in a nominal group technique and consensus was reached on three questions. The questions were:

- What is the potential of ongoing mini-research projects as part of clinical training in the fourth year of the occupational therapy undergraduate course?
- What are the most positive aspects about being part of an action research process at *Ons Tuiste*?
- What are the most negative aspects about being part of an action research process at *Ons Tuiste*?

By the end of the second cycle, another group of nine students had participated in the project. As part of data triangulation, these nine students completed a questionnaire asking the same three questions on which consensus was researched after the first cycle, but listing as a choice of answers all the ideas generated during the first nominal group. After studying these answers, participants individually prioritised those three options provided that they agreed with most for each question. (A summary of the tabled findings from this questionnaire is available in Appendix B.)

#### **3.2.2.1 Identifying the potential of ongoing mini-research projects**

In order to portray how findings from the first nominal group resonated with data from the second group, these are discussed consecutively.



The five prioritised answers to:

“What is the potential of ongoing mini-research projects as part of clinical training in the fourth year of the OT undergraduate course?” were:

*There is an ultimate goal; it is not only for the purpose of the case study and then later rendered worthless (because it is not implemented). [1]*

*Work towards a defined outcome with an understanding of what is to be accomplished and how it should be done. [2]*

*Skills of the student are developed, specifically in management. [3]*

*Skills expected of an occupational therapy practitioner are developed and these contribute to one's future. [4]*

*Promotion of both the profession, as well as the specific area of work. [5]*

When considering the responses which focused on the advantages of successive mini-research projects, the purposefulness (or application value) of the projects appeared to be of utmost importance. Students who engaged their time, energy and effort into producing research wanted the project's outcome to be useful.

At the end of the second cycle, the next group of nine students added the same value to three of the five concepts identified by the group (of five participants) after the first cycle. The fact that the second [2] perception (focusing on skills development, specifically on the managerial level) did not receive priority, may be because it could be integrated with the third concept. This third [3] concept may be assumed to include most skills associated with being a future professional.

For students involved in the first cycle, the idea of establishing and developing a new service area at *Ons Tuiste* appeared to be a profound reality. That may be why students selected the fifth [5] insight as a priority; they needed to promote the service to the residents, as well as the staff, while they were actually developing it.

students selected the fifth [5] insight as a priority; they needed to promote the service to the residents, as well as the staff, while they were actually developing it. When the researcher considered the findings from all fourteen students, it was evident that nearly all the participants agreed on the importance of:

- reflection on other participants' contributions (78%),
- practice being evidence-based (89%), and
- acknowledgement of the role of the literature (100%).

Interestingly, aspects (such as reflection) that linked directly with the action learning component of the research were not listed as priorities by either of groups during the nominal technique process. This trend correlated with the researcher's impression that reflections were often very superficial and not done for their intrinsic value. It appeared as if reflections were only completed simply because it was an action required by the supervising clinician during certain stages of the students' clinical placement.

### 3.2.2.2 *Identified positive experiences*

Besides the value of mini-projects for participants, the second question pinpointed what were considered the most positive aspects about being part of an action research process at *Ons Tuiste* at the end of the first research cycle. The predominant insights listed were:

*Experience growth as a student – gaining confidence, as well as a positive attitude towards research projects. [1]*

*Work towards a defined outcome with an understanding of what is to be accomplished and how it should be done. [2]*

Students from the second cycle identified on their questionnaire that they agreed with the first group in prioritising the first [1] insight. The questionnaires completed by these nine students indicated as a second priority that positive experiences of involvement in action research appeared linked to the enthusiastic input and support provided by the supervising clinician (in this case the researcher):

*Enthusiasm of the occupational therapist.*



A recent study by Mullholland, Derald and Roy (2006) supports this finding and stresses that students value a clinical supervisor who creates a positive learning environment, strives to be a role model and facilitates learning.

With specific reference to the ALAR approach, the students may be categorised as direct stakeholders in the research process (Dick 2002). This approach encouraged the supervising clinician to honour the involvement and contributions of the participating students and this might have added to the students' experience of feeling valued.

Furthermore, although not listed as a priority, findings indicated that all the students valued the availability of assignments, projects findings and project evaluations. This information was kept in a miniature filing system, affectionately referred to as 'the purple satchel'. Zuber-Skerritt (2005b) identifies this as a quasi-historical approach that potentially, may have contributed to the trustworthiness of the researcher's investigation.

### 3.2.2.3 *Identified negative experiences*

True insight into the experience could only be gained if negative aspects relating to involvement in an action research process were elucidated. The group prioritised their negative experiences after the first action research cycle as:

*A lack of fulfilment as completion of the whole project would not be experienced.* [1]

*Staff do not appreciate the value of the ongoing study.* [2]

*External factors as part of the research that are beyond students' control (for example, waiting for quotations).* [3]

The questionnaire confirmed the above three decisions. Overall, it appeared as if the predominant negative experiences identified were not at all related to the research process itself. Students viewed external factors beyond their control, especially

staffing issues (for example, an understaffed situation and lack of training for auxiliary nurses), very negatively. These issues would, in the long term, negatively affect the implementation of their research findings and might result in hard work not being put into practice.

These issues were realistic in the South African context where finances often restrain programme development. Due to the staffing issues identified (for example, in project 18), canvassing for and training of volunteers to become involved in the 24-hour care ward was incorporated into the process as the project progressed.

These findings therefore indicate that the students, as direct stakeholders in the research process, valued being involved in mini-research projects, as it contributed to their professional growth. Clinical practice as the fertile soil for action learning however, related to gains for both the students and the clinical supervisor.

The next section focuses on what the clinical supervisor/researcher perceived as gains that contributed to the evolvement of the projects.

### ***3.2.3 Subsoil: Research-informed practice***

At the onset of this investigation, the researcher wanted to address the quality of her practice by applying continuous research that could generate evidence for practice. The endeavour was to establish a service which would provide "*the best clinical choices for client and therapist alike*" (Nicholson 2006:14). This approach allowed the researcher to expose students to an experience that would enhance their understanding of the evidence-based practice (EBP) agenda.

An obstacle to overcome as part of this process was to identify an appropriate outcome measure for persons with severe dementia. In chronic disorders, such as dementia, the difficulty of measuring quality of life, improvements, slowing down, or the maintenance of skills, are well documented (Schofield 2006; Baillon, Van Diepen, Prettyman, Rooke, Redman & Campbell 2005). Students experienced how the same activity, where for example sensory stimulation was used as a technique to enhance



the residents' participation in a hand washing activity, resulted in different forms of engagement (Project 14). This, for example, manifested in such a way that a Sesotho-speaking resident who mothered six children would focus on this activity and be prompted to wash garments. Another example was an Afrikaans-speaking resident who used to be a nurse. She focused on the hygienic component when engaged in hand washing. Both, however, appeared satisfied with the result of the engagement and were able to focus and complete the washing activity.

Addressing different cultural backgrounds successfully aspires to meet the challenge advocated by Ilot, Taylor and Bolanos (2006). They advocate that developing countries should construct relevant evidence for their specific settings. The search for an appropriate outcome-measure tool (Project 17) revealed that such a tool should address the needs and cultures of clients, while also considering the resources available to therapists. What appeared to be a straight-forward application of a tool to verify if impact of the OT person-specific programmes could be numerically demonstrated, resulted in greater understanding. The student who was involved in Project 17 during her project presentation, suggested some qualifying characteristics of tools to measure outcomes within long-term care.

Above and beyond outcome measures, it is apparent that the ALAR approach followed here, allowed a first-hand encounter with EBP principles. Although research is only one way in which to encourage EBP, Forsyth, Mann and Kielhofner (2005) cite two publications supporting their view that graduates are the key to an EBP future and that they should be prepared by both engagement in research and development of skills for critiquing current theory and research (Scottish Executive 2002; Jones & Higgans 1995). Training therefore, should provide emerging practitioners with the skills, support and encouragement to become critical consumers of research (Nicholson 2006) as these projects attempted to do.

What OT students know/learn, how they behave and the ways in which they demonstrate their accountability (Bossers, Kernaghan, Hodgins, Merla, O'Connor & Van Kessel 1999), link very closely with their ability to integrate research into practice

(Bennett, Townsend, Mancini & Taylor 2006). The mini-research projects were therefore an ideal way to introduce accessing, applying and/or generating research on a small scale to undergraduate OT students.

The actions associated with accessing, applying or generating research did not necessarily guarantee insight into a potential researcher role for the students. Often the researcher observed that it was actions (in other words, being overly focused on doing) that deterred students from deep thinking. A useful explanation taken from the tree metaphor was that sometimes not enough humus or water was allowed to move through the zone of leaching to feed the subsoil.

The next section therefore, looks at challenges that need to be addressed in order to ensure optimal development.

#### ***3.2.4 Zone of leaching: identified challenges***

It was evident that successive mini-projects were instrumental in developing the service in the dementia care unit. As the action research process evolved however, the amount of archived material from previous projects accumulated. Students in the second action research cycle found the vast amounts of information available to be a burden rather than a comfort.

The effort put into each mini-project, as well as the material produced by individual end-products, complicated the selection for presentation purposes and deterred students from keeping to the specified time limit. A report by the 2006 external examiner for the final year students' November exams confirmed that mini-research projects might be too extensive, as these projects are merely a subsection of KAB409 that account for only a third of the 112 credits. Van der Ryden (2007) in her report states:

*"The research component now introduced is excellent although it places considerable stress on the student.*

*A concern is that the projects that each student needed to undertake were perhaps too extensive; it is recommended that this be reviewed..."*



Besides getting lost in data accessed and generated, the relationship between the supervising clinician and the students should also be considered. As mentioned before, the students were direct stakeholders in this ALAR process. The researcher therefore should acknowledge potential researcher and participant biases: for example, the researcher seeing what she wants to see and students saying what they think she wants to hear.

In a direct attempt to reduce participant bias, the students in their orientation were informed only of the mini-projects as part of an ongoing process to set up person-specific programmes in the dementia unit. Only at the end of each action research cycle were the students confronted with the potential impact of the researcher's study in addition to their project involvement. In the two groups where the nominal group technique was applied for data generation, the researcher introduced the ALAR concept and the action learning approach directing her investigation. This additional background was given to encourage wider and deeper reflections from the students. The nominal discussion groups took place outside the clinical setting. The students could therefore embrace their role as collaborators to evaluate the action research process followed, without the fear that they might be penalised for their views in a pending clinical assessment. (Data in Section 2.1 attested to the collaborated effort in the groups.)

The researcher therefore fulfilled a more Socratic role during the execution of each mini-project where she encouraged the students to participate and reflect. In the nominal group technique she performed rather the role of an emancipator. These dual roles enabled the researcher to gain information that the students did not reveal or consider while they were involved in the projects. Being consumed with action during the execution of their assignments often deterred students from realising the important role of the research process. Insight into this aspect surfaced only after the completion of their projects.

Information overload and a constant awareness of being investigated, may have deterred the development of the successive mini-research projects and hindered

meaningful learning experiences. The ALAR approach however, provided the clinical supervisor, as a researcher, with the advantage of changing her role to best fit the circumstances and promote the teaching process.

Other strengths inherent to ALAR are identified in the next section.

### ***3.2.5 Topsoil: ALAR as facilitator for growth***

Topsoil is the most fertile of all layers and encourages rapid growth. In an attempt to qualify the merits associated with the ALAR approach followed, the researcher felt encouraged that all the core values identified by Zuber-Skerritt (2005b) were adhered to. These are:

- *Collaboration and team spirit:* The cooperation of all 14 students involved thus far, resulted in the production of meaningful, successive mini-research projects.
- *Synergy:* The current person-specific programmes utilised in the dementia unit are the result of a combined effort. A direct result of these programmes was the establishment of a design and structure that could be continued in developing further successive mini-research projects.
- *Openness:* The meaningful learning core of this approach encouraged the researcher to find different ways for feedback, ensuring that the design and structure of the mini-research projects were improved with every new assignment given.
- *Focus on learning process:* Each phase of the action research cycle as advocated by Tripp (2003) refined the researcher's understanding and advanced her knowledge through reflection and critical evaluation.
- *Symmetrical communication and trust:* Comprehending the value of each student's contribution to the success of the programme ensured the building of trust, which in turn encouraged communicativeness. As a clinical supervisor, the researcher could assist students in the learning process associated with executing the projects. As primary stakeholders, the students collaborated to ensure that the researcher, as clinical supervisor, gained insight into the structure and design of the projects.



- *Honesty:* Identifying areas for skills development was vital, so as to ensure that the researcher's weaknesses did not continue to hamper the development of the design and structuring of the mini-research projects. Opportunities for feedback outside formal assessments encouraged open communication.
- *Flexibility:* Various methods were applied to monitor and direct the ALAR process at *Ons Tuiste*. Each mini-project was different and was executed by a unique individual. The researcher found that both these factors were acknowledged within the eclectic methodology of the ALAR approach.

In addition to the strengths identified, it was often the minuscule obstacles that impeded progress and these should be viewed from a different angle. Just as freshly fallen leaves under a tree may be deemed unsightly, they could however fulfil a useful function if allowed to decompose and nurture the soil.

On a more practical note, the next section will summarise insights that were initially perceived as obstacles.

### ***3.2.6 Surface litter: Overcoming practical hindrances and other implications***

The students' participation in the consecutive mini-research projects at *Ons Tuiste* revealed some insights that could be useful in other clinical areas. Data was derived from notes in the researcher's reflective journal about the first two action research cycles. These insights related directly to the design and structure of the assignments given to the students and attested to this investigation's contribution and clarity. The researcher recommends that any student receiving an assignment for a mini-research project should be aware of:

- Identifying the verbs in the assignment, so as to focus the direction of her actions.
- Applying the information generated – share all aspects of the findings, not just the outcome.
- Being practical in approach – know what is realistically possible for the area where the findings will be implemented.

- Defining and specifying research actions involved in generating data, instead of merely listing actions.
- Focusing on the requirements of the demonstration aspect of the mini-research project. Although the focal point of the investigation relates to the structure and design of the mini-research projects; additionally, a practical recommendation on the assessment situation surfaced from the researcher's reflections. In contrast to the rest of the project, which focuses on the actions of gathering and analysing information, the demonstration aspect should convey the practical OT skills of an emerging practitioner.

These very practical lessons learnt were just a beginning for a service that endeavoured to embrace the learning milieu encouraged by action research. The established learning-teaching environment contributed to perpetuate the evolving process of implementing projects for improved future practice. The ALAR design in the early stages of the project development process appeared to contribute to emancipate the students (as they were valued stakeholders), to make unique contributions from their own lived experience during clinical practice.

#### **4. CONCLUSION**

In this article the researcher systematically explained the findings that contributed to the evolving design and structure of successive mini-research projects. The combination of the current structure and guidelines provided by the OT department at the UFS and an ALAR approach encouraged action and concrete experience for a meaningful learning opportunity. Like a flourishing tree in fertile soil, this approach should be considered for introduction into the OT profession at undergraduate level in order to access, apply and/or generate research on a small scale, thus promoting research to inform practice, as a consequence.

The ALAR approach, directing successive mini-research projects, provided a unique opportunity for UFS OT students to become part of an existing research community as advocated by Forsyth *et al.* (2005). This experience firstly allowed students to actively engage in research. Secondly, they could also experience the outcomes of



previous projects that have been implemented. Thirdly, it permitted the students to envisage what their involvement and effort in the current projects would establish and how that could be expanded in future. Forsyth *et al.* (2005) describe one of the primary benefits of such a course of action, that the knowledge can be applied by those who assist in generating it. This practical experience of research impacting on a clinical setting could be the first step towards generating a research culture among undergraduate OT students.

## 5. REFERENCES

Baillon, S., Van Diepen, E., Prettyman, R., Rooke, N., Redman, J. & Campbell, R. 2005. Variability in response of older people with dementia to both Snoezelen and Reminiscence. *British Journal of Occupational Therapy* 68(8): 367 –374.

Bennett, S., Townsend, L., Mancini, M. & Taylor, C. 2006. Evidence-based practice in occupational therapy: international initiatives. *World Federation of Occupational Therapists Bulletin* 53 (May 2006): 6 – 12.

Bossers, A., Kernaghan, J., Hodgins, L., Merla, L., O'Connor, C. & Van Kessel, M. 1999. Defining and developing professionalism. *Canadian Journal of Occupational Therapy* 66(3): 116 – 121.

Dick, B. 2002. Postgraduate programmes using action research. *The Learning Organisation* 9(4): 159 – 170.

Finlay, L. 2006. Rigour, ethical integrity or artistry? Reflexively reviewing criteria for evaluating qualitative research. *British Journal of Occupational Therapy* 69(7): 319 – 326.

Forsyth, K., Mann, L.S. & Kielhofner, G. 2005. Scholarship of practice: making occupation-focused, theory driven, evidence-based practice a reality. *British Journal of Occupational Therapy* 68(6): 260 – 267.

Henning, E. 2005. *Finding your way in qualitative research*. Pretoria: Van Schaik Publishers.

Ilott, I., Taylor, M.C. & Bolanos, C. 2006 Evidence-based occupational therapy. *British Journal of Occupational Therapy* 69(3): 144 – 145.



Jones, M. & Higgans, J. 1995. *Future directions in clinical reasoning in the health professions*. Oxford: Butterworth Heinemann.

Martin, H. 2007. Role emerging placements: a success story in a climate of cutbacks. *Occupational Therapy News* 15(2): 24.

McNiff, J. 2002. *Action research for professional development. Concise advice for new action researcher*.

<<http://www.jeanmcniff.com/booklet1.html>>

Downloaded on 17/03/2006.

Mullholland, S., Derdall, M. & Roy, B. 2006. The student's perspective on what makes an exceptional practice placement educator. *British Journal of Occupational Therapy* 69 (12): 567 – 571.

Nicholson, E. 2006. Getting the evidence into occupational therapy practice: a review of the process and progress in encouraging evidence-based practice in New Zealand. *World Federation of Occupational Therapy Bulletin* 53(May): 13 – 19.

Roberts, A.E.K. 2002. Advancing Practice through Continuing Professional Education: the Case for Reflection. *British Journal of Occupational Therapy* 65(5): 237 – 240.

Schofield, P. 2006. Measuring outcome in psychiatric rehabilitation. *British Journal of Occupational Therapy* 69(10): 481 – 483.

Scottish Executive. 2002. *Building on success: future directions for allied health professions in Scotland*. Edinburgh: Scottish Executive.

Starr, C. & Taggart, R. 1989. *Biology. the unity and diversity of life*. Belmont: Wadsworth Publishing Company.

Steward, B. 1996. The theory/practice divide: bridging the gap in occupational therapy. *British Journal of Occupational Therapy* 59(6): 264 – 268.

Tripp, D. 2003. *Action Inquiry, Action research e-reports, 017.*

<[www.fhs.usyd.edu.au/arow/arer/017.htm](http://www.fhs.usyd.edu.au/arow/arer/017.htm)>

Downloaded on 14/06/05.

Van der Reyden, D. 2007. Unpublished Report: *Examination report to the Department of Occupational Therapy, University of the Free State.* (Date 19 February 2007.) Durban: UKN.

Zuber-Skerritt, O. 1992. Educational research methodology (Chapter 7). In: *Professional development in higher education: a theoretical framework for action research.* London: Kogan Page. 142 – 142.

Zuber-Skerritt, O. 1995. Models for action research. In: Pinchen, S. & Passfield, R. (Eds). *Moving on – creative applications of action learning and action research.* Brisbane: ALARPM, 2 – 29.

Zuber-Skerritt, O. 2001. Action learning, action research: Paradigm, praxis and programs. In: S. Sankaran, B. Dick & R. Passfield. (Eds). *Concepts, perspectives and applications.* Lismore: Southern Cross University. 1 – 20.

Zuber-Skerritt, O. 2002a. A model for designing action learning and action research programs. *The Learning Organization* 9(4): 143 – 149.

Zuber-Skerritt, O. 2002b. A model of values and actions for personal knowledge management. *Journal of Workplace Learning* 17(1/2): 49 – 64.

Zuber-Skerritt, O. 2005a. Models for Action Research. In: S. Pinchen & R. Passfield. (Eds.): *Moving on: creative applications of action learning and action research.* Brisbane: Action Learning, Action Research and Process Management Assn, Inc. 3 – 29.

Zuber-Skerritt, O. 2005b. Workshop manual: Introduction to action research. Bloemfontein: UFS. (Conducted on 25 April 2005).



## REFLECTION AND RESEARCH: ITS POSSIBLE IMPACT ON THE PROFESSIONAL DEVELOPMENT OF UNDERGRADUATE OCCUPATIONAL THERAPY STUDENTS

### ABSTRACT

In this article the researcher argues that an action learning and action research (ALAR) approach during clinical practice contribute to undergraduate occupational therapy (OT) students' professional development. The clinical setting provides a powerful environment through which research, in combination with opportunities for reflection, could nurture skills needed by a future occupational therapy practitioner. The investigation reported here focuses on the engagement of OT students in the ALAR process through directed mini-research projects as part of their clinical practice in a dementia care unit. Indications for professional development due to the ALAR process are relayed in terms of the parameters, behaviours and responsibilities associated with professionalism.

**Keywords:** action learning, action research, clinical practice, reflection, professional development

### 1. INTRODUCTION

The difficult transition from occupational therapy (OT) student to OT practitioner is well-documented. Morely, Rugg and Drew (2007), Toal-Sullivan (2006), as well as Adamson, Cant and Hummell (2001), all attest to challenges faced by the nurtured student when evolving into an independent practitioner. Besides struggling with adapting to the new role as an independent professional, very high demands are placed on newly qualified OT professionals. It appears to be the reality within the South African situation. In South Africa (SA), contrary to most western countries, the Health Profession Council now requires a community year from newly qualified occupational therapists prior to confirming their professional registration. This implies that after graduating, these students usually emerge six weeks later as novice

professionals in the community. Placements for this year are often in very remote, rural areas of the country where support and supervision by a senior occupational therapist is a luxury rather than a given (Saunders 2005; Barnes 2007). Therefore, well-established professional parameters, professional behaviours and professional responsibility to guide what these novice professionals know and do, as well as how their accountability, are of the utmost importance (Bossers, Kernaghan, Hodgins, Merla, O'Connor & Van Kessel 1999).

In this article the researcher reports on an investigation of the potential contribution of certain learning situations within undergraduate clinical practice as preparation for future professional conduct. The depth and diversity of students' learning opportunities in clinical settings were scrutinised by the researcher while students were involved in successive mini-research projects. These projects presented a vehicle for involving students in an action learning action research (ALAR) approach. This investigation consequently was based on the argument that the ALAR approach contributed to meaningful learning experiences in the clinical practice environment which could serve as important preparation for professional development.

In order to investigate how professional development was encouraged by this approach, the students were the researcher's main source of information. Their viewpoints on concepts such as experiential learning, research engagement and reflective practice were seminal to the investigation.

Prior to focusing specifically on the students' contributions, the next section will consider various other interpretations of these concepts.

## **2. PROFESSIONAL DEVELOPMENT AND ALAR**

The literature was consulted to determine possible links between professional development and an ALAR perspective. In its essence, professional development implies gaining knowledge in order to grow as a professional, with ALAR focusing on experiential learning associated with action and research. An important consideration



would therefore be to identify what is (and contributes to) meaningful learning experiences. At this point the two different learner-groups, namely the researcher and the students, should be acknowledged. These two groups were co-dependent as their learning depended on each other. The ALAR design therefore appeared to be the best point of departure to address this dialectical relationship (Zuber-Skerritt 2005a).

Dick (1997) advocates that the basis of ALAR is experiential learning which focuses on learning from experience. Reflection is an acknowledged part of experiential learning (Kolb 1984, cited by Alsop & Ryan 2001). During the process of clinical practice the student has concrete experiences on which to reflect. This reflection leads to an abstract conceptualisation so as to develop an understanding of what happened. This understanding then encourages new ideas to be experimented on in future. The core concept here is the action involved.

Zuber-Skerritt (2001) indicates that action learning involves either learning through doing or during reflection. She defines action learning as the opportunity to "*learn from each other, from action and concrete experience, as well as taking action as a result of this learning*" (Zuber-Skerritt 2005:50c). Therefore, the ALAR approach provides the opportunity for personal experience in reflective practice. Kinsella (2000) views the conscious act of utilising reflective practice as a professional development strategy.

Making research every OT practitioner's business is, however, not so easily done. Besides a limited research history and infrastructure in OT, the challenge is to integrate research into practice as this action requires considerable skill (Bennett & Townsend 2006). Therefore, the most viable key seems to be to begin at undergraduate level. This implies that students need to develop the skills needed for critiquing current theory and research (Forsyth *et al.* 2005). As indicated, a potential way to jump-start this process is by allowing students to participate in successive mini-research projects. The supervising clinician could then assist and guide the

students to interpret and reflect on their peers' and their own participation in research.

Powerful learning experiences are therefore provided by the opportunity to apply theoretical knowledge, reflection and components of research in appropriate settings such as clinical practice. Clinical practical work is generally perceived to provide the opportunity to apply academic education to clinical settings (Alsop & Ryan 2001). Alsop (2006:442) stresses that "*the way in which students learn can be considered as important as what they learn.*" Mini-research projects therefore could be used to facilitate learning through definite engagement in research and reflection.

In the context of this investigation, action research specifically appeared to be a vehicle for facilitating change in the process of compiling, supervising and evaluating the mini-research projects. As action research is a continuous process, Zuber-Skerritt (2005a) explains this as an upward spiral of uninterrupted improvement in professional and personal knowledge. Furthermore, action learning also encouraged students administering the mini-research projects to learn through actions and reflections. Therefore, by addressing the problem defined by the mini-research project, students could develop professionally while the care facility simultaneously shared in the benefits. An ALAR approach consequently could enable both the students and the researcher to experience multiple ways of knowing (in other words, meaningful learning experiences); an approach embraced by the pedagogy of learning (Erasmus 2005).

With a specific focus on the mini-research projects, a scientific course of action was an integral part of the project execution. The assignments required that the students access scientific literature, critically consider and apply this information, and when necessary, generate appropriate data themselves. These acts, in combination with the verbal presentation of the projects, resulted in the use of research evidence in daily clinical work. In this way the global trend to seek new knowledge that informs OT practice, could be addressed (Bennett & Townsend 2006; Mayers 2007). The revised code of ethics by the College for Occupational Therapists (2005) in the United



Kingdom actually specifies that "*research is now every occupational therapist's business*" (Bannigan, Hughes & Booth 2007: 95).

Therefore, the possible impact of the ALAR approach on professional development of OT students as noted in the literature lead to the main research question for this investigation:

*Can an ALAR approach in the clinical setting promote professional development, with particular reference to research?*

This question did not stand in isolation, and in answering it, a number of subsidiary research questions were asked:

- 1. What role does reflection fulfil in promoting professional development of undergraduate OT students during clinical practice?*
- 2. How do the students perceive the adaptation of the curriculum to promote professional development during clinical practice?*
- 3. How could employment of the ALAR approach promote research skills of undergraduate OT students during clinical practice?*
- 4. Which professional skills are facilitated by the ALAR approach utilised, when students engage in mini-research projects?*

The nature of the research design and methodology employed for finding possible answers to these research questions are explained in the next section.

### **3. RESEARCH DESIGN AND METHODOLOGY**

As indicated previously, an ALAR approach was followed. There are various perspectives on ALAR as it denotes an orientation to research, rather than a methodology as such (*Action Research* 2006). Tripp (2003) describes the participatory democratic process for developing practical knowledge as a blanket term that may involve reflective practice, action learning, action research and researched action. According to Dick (2000), the advantage of action research is that change may be facilitated while gaining an understanding at the same time.

### 3.1 Nature of the approach

Various authors are in agreement concerning the cyclical nature of the process followed that encourages improved practice (Tripp 2003; Dick 2000; Zuber-Skerritt 2002; McNiff & Whitehead 2006). Continual engagement in a "*plan – act – describe – review*" cycle encourages a clinician to follow a disciplined, systematic process to investigate her own practice and in finding ways to live more fully according to her values as a practitioner/educator.

### 3.2 Type of approach

The research design in this investigation was predominantly an emancipatory ALAR approach. Zuber-Skerritt (2005a) explains that the aims of such an approach would be to promote collaboration so that responsibility for change and effectiveness in practice and professional development are shared with co-opted participants.

### 3.3 Level of participation

It is especially the emancipatory nature of ALAR that specifically appealed to the researcher. Zuber-Skerritt (2001), based on the work of Carr and Kemmis, emphasises that the process of action inquiry encourages the participation and reflection of the participants. The inherent ethical principle of respect for persons involved in action research is reflected by Dick, who refers to participants as *stakeholders* and emphasises that "*ultimately stakeholders are persons*" (2002:4).

In this investigation, a comprehensive sample of all students on clinical placement at the specified facility meant that all 14 participants were involved in the action learning and action research process. The residents of the care facility however, were purposefully sampled, so as to ensure optimal learning experiences for the students. Ethical approval for the research was obtained from the UFS, *Ons Tuiste* (the facility), guardians of the 13 residents involved, as well as the participating students individually.

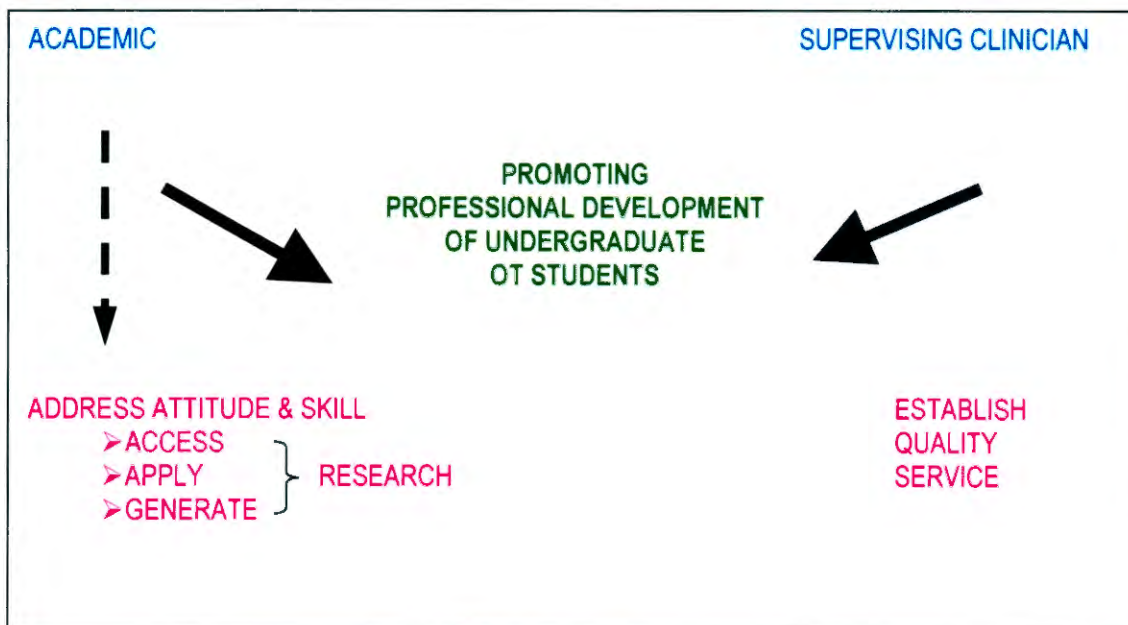


### 3.4 Researcher role and organisation

The researcher's dual roles of (part-time) academic at the University of the Free State and consultant occupational therapist at a local residential care facility encouraged her interest in an action research study. An overview of the different functions and intertwined roles of the researcher are illustrated in Figure 1 and may be summarised as follows:

- As the supervising clinician, the researcher endeavoured to develop a quality service for her clients.
- As an academic, her focus was on promoting the attitude and skill of the students for accessing, applying and generating research.
- Both these roles were consolidated by the attempt to promote the professional development of undergraduate OT students.

Figure 1: Position of the researcher



In order to execute these functions, the researcher gave the students on clinical placement at *Ons Tuiste* (the residential care facility) mini-research projects, instead of case studies, as assignments. (Both mini-research projects and case studies are part of the practical curriculum for final year OT students at the UFS). Through these mini-research projects students were instrumental in developing person-specific treatment programmes for residents of the dementia care unit.

During the first two action research cycles, these mini-research projects focused on:

- acquiring extensive background research on residents;
- establishing various multi-sensory treatment environments;
- exposing residents to different treatment situations;
- compiling person-specific treatment programmes;
- determining if treatment programmes implemented were effective; and
- evaluating the effect of reflective practice on the students' professional development. (Table 1 summarises the specific topics covered.)

*Table 1: Summary of mini-research project assignments at Ons Tuiste*

| Chronological order | Project Title   |
|---------------------|---|
| 1                   | Design of a multi-sensory room (involving the community).                                     |
| 2                   | Compilation of indicators of selected residents' current functional abilities.                |
| 3                   | Critical comparison of standardised assessment with compiled list of indicators.              |
| 4                   | Critical evaluation of Projects 2 and 3 – adapt and apply form.                               |
| 5                   | Design of a multi-sensory outside area in designated space.                                   |
| 6                   | Critical evaluation of Projects 2 and 3 – adapt and apply form.                               |
| 7                   | Critical evaluation of two previous funding submissions and suggestions for adaptations.      |
| 8                   | Critical evaluation of updated submission and addition of an outside area.                    |
| 9                   | Design of multi-sensory passage with reminiscence theme (involving local artists).            |
| 10                  | Critically evaluation of documentation for sponsors and compilation of a DVD to accompany it. |
| 11                  | Selection of 10 residents to evaluate according to M.O.H.O.S.T. and observation grid.         |
| 12                  | Evaluation of selected residents with PAL and compilation of background questionnaire.        |
| 13                  | Processing of data generated by Project 11 and comparison with findings from Project 12.      |
| 14                  | Compilation of four person-specific treatment programmes.                                     |
| 15                  | Evaluation of reflective practice process encouraged as to increase research.                 |
| 16                  | Investigation of potential of duplication programme at Mooihawe as part of CSL.               |
| 17                  | Application of ICF to evaluate effectiveness of person-specific programmes.                   |
| 18                  | Investigation of action learning by implementing a reflective journal.                        |



## 4. DATA COLLECTION AND ANALYSIS

Data collection was multi-faceted. Multiple methodologies and various sources of information were applied and critically analysed during various stages of the first three research cycles. These included:

- a reflection by students;
- a survey performed as part of the mini-research project (peer conducted);
- a survey performed by the researcher (follow-up questionnaire);
- the nominal group technique during group sessions with students; and
- personal reflections recorded by the researcher.

Both the surveys and nominal group technique were strategies employed to address data triangulation.

### 4.1 Validity and reliability

The mini-research projects created more than merely scientific data. In order to portray the powerful contributions made by the students, the researcher attempted a global analysis of data by integrating all the findings. Presenting findings in artistic dimensions is advocated by Finlay (2006) who maintains that this process promotes the resonance and relevance of the data. Therefore, the criteria applied to guide the selection and interpretation of appropriate findings, are as follows (Richardson 2000, cited by Finlay 2006):

- the aesthetic merit of the findings in the creative contributions of the students;
- reflexivity in linking the findings and discussion;
- the impact of the findings on the researcher and the students;
- the expression of the clinical practical reality in which the investigation took place; and
- the substantive contribution of the mini-research projects to the students' professional development.

These criteria were adhered to in varying degrees. The impact of the findings focused more on the gains for the students. These gains which were mostly in professional development of the students and could therefore also be interpreted as direct gains for the researcher as a lecturer and clinician.

## 4.2 Reflection by students

A very practical protocol guided students on clinical placement. The social intent of improving work done in the care unit in order to benefit the clinician, students and the residents, impacted directly on the way in which things were done. Action research and professional learning were therefore inherent to the *modus operandi* of the area. The work ethos for students on practical placement also encouraged daily reflection.

In order to explain how various forms of reflection were integrated by the OT training programme in *Ons Tuiste* as an area, Kinsella's (2000) identification of different kinds of reflection was employed. She distinguishes between:

- anticipatory reflection – the anticipation of a specific situation or planning of a treatment session;
- reflection-in-action – taking place in the midst of professional activity; and
- retrospective reflection – evaluating what had occurred in practice or a deeper reflection on many domains.

The mini-research projects potentially provided the opportunity to engage in all three identified forms of reflection. At the outset, the assignment facilitated anticipatory reflection and engagement in the project, allowing for reflection-in-action. After the completion and presentation of the project, a structured questionnaire assisted the student with retrospective reflection.

Besides the mini-research projects, reflection was also encouraged in most of the expected work activities for the students on placement (see Table 2 for a summary and Appendix C for examples). During the induction week, students were expected to identify what they wanted to learn during their clinical placement in the area. This



information, in addition to identifying areas they were most concerned about (as it could possibly impact on their effective functioning in the area), was noted in a learning contract. Students were also expected to initially complete a structured reflection for each treatment session they did, as the supervising clinician could only attend one treatment session per week. This was submitted weekly so that the supervisor could make comments to encourage further learning. This form of reflection was replaced by a daily reflection sheet as soon as the students were competent in assessing their own input.

*Table 2: Reflection formats used at Ons Tuiste*

| <b>Type of reflection:</b>                     | <b>When used:</b>  |
|--|--|
| Learning contract                              | Induction week   |
| Treatment session reflection                   | Daily for first week   |
| Daily reflection on all activities involved in | Daily from second week   |
| Mid-placement reflection                       | Half-way during placement - reflect on self and area   |
| Final placement reflection                     | Last week of placement   |
| Post-project reflection                        | After project presentation - once final marks have been given (all assessment completed by then) |

Additionally, a mid-placement critical analysis, encouraging the students to identify their own, as well as the area's strengths and weaknesses, was completed. A final placement reflection, in combination with a post-project reflection, endeavoured to promote a focus on all the learning opportunities offered by the area. This structured format for reflection was based on questions directing students to think about what went well, what did not go well and what they would have done differently if they had had another opportunity.

During the first two research cycles these documents provided very useful information to interpret the ALAR process followed. Content analyses of documents employed were conducted.

#### **4.2.1 Survey performed as part of mini-research project assignment**

Additional data were generated by a specific mini-research project (Project 15), that investigated the effect of reflective practice on the students' professional development. This project focused on evaluating the mentioned methods for reflection (and included a semi-structured questionnaire to eight students previously involved in the mini-research projects). Detailed information from this mini-research project is included in the results and discussion section.

#### **4.2.2 Survey performed by researcher (follow-up questionnaire)**

Besides the students' individual contributions during their placements, the researcher conducted a follow-up survey after the first research cycle by means of a structured questionnaire. This questionnaire inquired as to whether previous participants had gained skills during the mini-research projects that were applied during their community year and also if participation in these projects affected their attitude towards research. In a third question they were asked to comment on how the ALAR process followed at *Ons Tuiste* could be adjusted to advance meaningful learning experiences for future students.

#### **4.2.3 The nominal group technique**

The nominal group technique was applied during a group session after the initial two cycles to confirm the learning experiences and was attended by all the students involved in each cycle. Students specifically focused on the research component of their involvement in the successive projects after the second cycle. The students were given a copy of the KAB408 module guide and then taken through the steps (as identified by Zuber-Skerritt 2005a) of the nominal group technique:

- They were requested to scrutinise the question and brainstorm individually.
- A public list was compiled from everyone's ideas. (Students were specifically requested not to criticise or judge one another's comments.)
- Then contributions were discussed to clarify the contents of the list.
- Students were given the opportunity to rank the public list, so as to identify which statements they agreed with the most.
- A results table was compiled according to the ranking of statements.



The predominant value of the session was to observe how the students reacted to an opportunity for evaluating and making a potential contribution to the KAB409 module outcomes. Although initially very wary of overstepping their boundaries as students, the emancipatory nature of the session promoted creativity and participation. The survey, as an orientation to the session, was intended to assist students to focus on the potential value of mini-research projects. The questions included in the survey could however, have influenced the students' thinking and may have hampered creativity to some extent.

The next section portrays the findings and their relevant implications by initially addressing the subsidiary research questions.

## **5. FINDINGS AND DISCUSSION**

The information generated by the investigation is discussed by sequentially addressing the questions asked by the researcher at the outset of the investigation.

### **5.1 The role of reflection in promoting professional development**

The first subsidiary question focuses on the role of reflection in promoting the professional development of undergraduate OT students during clinical practice. The potential contributions of anticipatory reflection, reflection in action, retrospective reflection and reflection on reflection for professional development are stated here.

#### ***5.1.1 Anticipatory reflection***

Trends denoted in the learning contract documents revealed that the students' expectations centred on learning how to deal with elderly persons. This included the endeavour to utilise the opportunity provided by the placement at *Ons Tuiste* for applying speciality techniques (for example, sensory stimulation, reminiscence and validation) in treatment, for example:

*"I have not worked with elderly clients and therefore, I would like to gain skills relating to treatment in such an area." (July 2005)*

By contrast the students conveyed doubt in their own abilities and acknowledged their lack of skills for working with elderly persons, for example:

*"Will I be able to complete all these unfamiliar forms? Will I understand my mini-research project assignment and execute it correctly with techniques I have not engaged in before...."* (September 2006)

The researcher found it most interesting that the prospect of engaging in a mini-research project is seldom mentioned. It is common knowledge that students discuss clinical placements with one another. As this placement at *Ons Tuiste* was the only facility that involved students in successive mini-research projects for their final placement assessment, some acknowledgement of this fact was expected. The omission of this aspect as a concern (by the students themselves), could indicate that students were comfortable with this idea. There might however, be a much more practical answer. When completing the learning contract, the summative assessment was usually six weeks away and may therefore merely have not been a pressing issue for the students.

### **5.1.2 Reflection in action**

Critical reflection on their own day-to-day functioning indicated that students gained specific insight into themselves and their own personal reactions. They started acknowledging their own inadequacies, for example:

*"I am not always patient enough! I get demotivated when residents do not want to get involved with the group activities."* (August 2005)

Critical reflection on the facility as an area for clinical practice revealed a recurring weakness, in that there was no permanent occupational therapist employed. Nevertheless, a constant strength was the support from the staff and the clinical supervisor (that is, the consulting occupational therapist). It therefore appeared as if students valued the support structure provided, but could envisage the potential of a full-time therapist in the area. Other reflections focused on activities in the day-to-day functioning of the student in the clinical area:



*"I have the opportunity to initiate things that are bigger than I am; for example, the games day, Special Care Unit and mini-research project." (October 2006)*

The researcher also noted that although students received their mini-research assignment at the beginning of their second week at *Ons Tuiste* (after they had completed their induction and orientation), they tended to procrastinate. The majority of activities in preparation for the assignment presentation appeared to focus on the week or ten days prior to the set assessment date.

### **5.1.3 Retrospective reflection**

Retrospective reflection initially focused on reflections noted on the final reflection form that students handed in on the day of the conclusive assessment. Furthermore, the data from the post-project presentation reflection form were considered.

Findings indicated that students' final reflections supported many of the comments they made in their daily reflections. Recurrent themes of what they mostly perceived they could have done differently were as follows:

- involving more residents in group treatment sessions; and
- being more skilled in the handling of the residents.

With hindsight, students appeared to realise what conduct would have been more appropriate for specific circumstances. This included simple tactics for involving residents who seemed opposed to participation in group activities:

*"That incidental involvement is a very important component in the treatment of the elderly." (August 2005)*

Students found that they were more successful when involving residents in this way, rather than creating an opportunity for residents to decline outright involvement when invitations to join a group were proposed.

Final reflections also indicated that, in general, all the students valued the following three skills gained on placement in this clinical area:

- report writing skills;
- planning and managerial skills; and
- finding ways to sustain their internal motivation.

In the researcher's opinion these three skills were not necessarily specific to *Ons Tuiste* as an area for clinical practice, neither to the involvement in the mini-research projects. These rather constitute generic skills that final-year OT students should master while on clinical placement.

However, when one considers individual gains mentioned by students, each student identified skills gained that related to specific requirements associated with the mini-research project assignments. Therefore, specific assignments and the related contents of projects apparently affected professional skills gained during the placement. An example is the use of standardised assessment tools like the M.O.H.O.S.T. (Model of Human Occupation Screening Tool) that was specified for use in four different projects. This tool was not used in any of the other clinical areas since it is most appropriate for clients whose functional abilities are limited (such as the dementia care residents). One student stated:

*"I learned more about the M.O.H.O.S.T. and could apply it practically which was not the case before..." (March 2006)*

After the presentation of their mini-research projects the concluding opportunity for deep reflection was provided through a semi-structured questionnaire in the post-project presentation reflection form. Students were given a few (usually three to four) days to consider their experience before they handed in the form. Once again, the practical approach of the students on placement at *Ons Tuiste* was evident from the comments in the post-project reflections. Students realised that when executing a mini-research project, the following aspects were of the utmost importance:

- *"Planning is very important and a timetable for execution should be used."* (May 2005);



- “*Be practical, be specific.*” (Interpreted by the researcher as being realistic about what one can accomplish in the given time for project execution or what would be appropriate for the dementia care unit at *Ons Tuiste’s*) (*May 2005*);
- “*Ask, ask and ask!*” (Interpreted by the researcher as confirming correct interpretation of the assignment) (*May 2006*); *and*
- “*Be positive!*” (*September 2005*).

As with the above-mentioned final reflections, in the midst of listing practical capabilities, volition as a positive attribute to professionalism and accomplishment re-emerged. Maintaining a positive attitude and being motivated to contribute to the succession of projects at *Ons Tuiste* appeared to be linked to the students’ perceptions of the long-term value of an ongoing project. The reflection forms corroborated an appreciation for available information generated by previously completed projects:

*“The previous projects done were a big help in directing me. The ‘project satchel’ is a very good resource.”* (*August 2005*)

#### **5.1.4 Reflection on reflection**

From the literature study it was evident that the experiential learning component involved in action learning supports a process where reflection on experiences lead to an abstract conceptualisation for a new-found understanding that then encourages new ideas for future experimentation. Therefore, the researcher sent a follow-up questionnaire to participants involved in the first research cycle in the following year (when they were already practising as community therapists).

A few months after this process had been completed, a student involved in the second cycle decided to use a questionnaire to gain information for her mini-research project. She had to critically analyse and investigate the methods of reflection encouraged by the clinical area (see Table 2, Project 15). Her research population also included the eight ex-students involved in the researcher’s follow-up survey.

This presented a unique situation, as information from both questionnaires could be compared and contrasted. The fact that one questionnaire was administered by a peer rather than by the researcher, had specific significance. Even though the ex-students were not in an academic milieu any more, their responses might have still been influenced by the perceived power relationship between lecturer and student. Answers to inquiries by a peer might have been more open and even more comprehensive since they could identify with the situation the student was in, based on their own mini-research project experience.

The students' feedback to their peer in connection with positive and negative aspects, as well as recommendations for the structured reflection formats employed, was refreshingly direct and useful. All eight participants acknowledged the effort, time and energy associated with reflection. One of the students was honest enough to admit: *"It is a lot of writing and thinking and at the end of the day, I just did not feel like completing it."*

Positive aspects associated with the use of the reflection forms related to the connection found between the mid-way analysis and the final reflection. Participants reported that it was a viable way to observe growth and professional development and, as the critical analysis was completed halfway during the placement, it gave students the opportunity to address the negative aspects (or those aspects in need of attention) that they had identified. Two significant comments were:

*"It gives you an idea of where you are and the opportunity for improvement."* (Referring to the Halfway Reflection); and

*"It is very good especially if you compare the Halfway Reflection with the End-of-Placement Reflection."* (Referring to the end-of-placement reflection)

The post-project reflection was perceived as very positive because it occurred after the completion of the mini-project. The students indicated they could be more objective about their experience as completion of the form was not included as a task they were assessed on. Recommendations made included the following:

- *"Perhaps a section for suggestions for future students".*



- *"Make it more specific for general experiences during the day – a diary".*
- A diagram by one of the participants suggested re-organising the final reflection by structuring the three reflective questions with specific reference to individual treatments, group treatments, programme development and the mini-research project (rather than leaving it up to the student's discretion on which aspects she would like to focus).

Only one of the eight students specified gaining skills in reflective practice. Her comment on the most surprising aspect during the implementation of her project was *"Of how much value the things are that we (that is, the students on placement) perceive as a schlep"*. She indicated that reflection had a positive effect on professional practice *"Wow! I learnt a lot about my own professional personal development."*

## **5.2 Possible adaptation to the curriculum for promoting professional development during clinical practice**

The second question relayed the students' perceptions of how the curriculum should be adapted to promote professional development during clinical practice.

The researcher purposely engaged the students in a session where new ideas were explored and feedback collected by evaluating the action research process after the second cycle. This situation compelled the students to focus on the research component of their mini-projects. In other words, the researcher conducted research on the students' experience of research.

The focal question that drove the nominal group technique inquiry was:

*"When looking at the outcomes for KAB409, the short case<sup>1</sup> as such, is not included as part of the knowledge, skills and attitude that should be obtained at the end of the module. How do you think these outcomes should be formulated to include the short*

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<sup>1</sup> UFS module guides and guidelines refer to a case study on an individual or group of individuals as a 'long case' and the mini-research project as a 'short case'.

*case and specifically its research component?"* (See Table 3 for an outline of the outcomes of KAB409.)

Initially, the students participating in the nominal group technique appeared hesitant to contemplate altering a UFS module guide. However, once they had recognised the potential contribution they could make as a group, a lively discussion followed. They stipulated that clinical practice in a community setting provided a learning opportunity that allowed students to develop simultaneously on two levels, that is, professionally (in gaining skills), as well as personally (for improving self-knowledge). This viewpoint provided a foundation from where the students then explored what gains in knowledge, skills and attitude the mini-research projects had facilitated.

*Table 3: KAB409 module guide outcomes*

|   |
|---|
| <p><b>Outcomes of the module</b><br/>At the end of the module the student will</p> <p><b>have knowledge of</b></p> <ul style="list-style-type: none"> <li>- contracting with the patient/client</li> <li>- the planning of treatment within the scope of occupational therapy with reference to health care, welfare, educational system and private practice             <ul style="list-style-type: none"> <li>- various management aspects within a practice</li> <li>- the ethical aspects and its application within occupational therapy.</li> </ul> </li> </ul> <p><b>have the skills to</b></p> <ul style="list-style-type: none"> <li>- manage a practice under guidance</li> <li>- apply treatment under guidance on various levels of health care, welfare, educational system and private practice</li> </ul> <p><b>have the attitude to</b></p> <ul style="list-style-type: none"> <li>- have respect for the patient's /client's human dignity and rights at all times</li> <li>- display ethically correct behaviour and be professional at all times</li> </ul> <p>Source: KAB409 Module Guide – Clinical Practical Work in Occupational Therapy 2007</p> |
|---|

The nine students firstly concluded that engagement in mini-research projects facilitated skills in how to:

- *"Apply the steps involved in a research process".*
- *"Either start, follow-up or implement projects".*



Secondly the students agreed that involvement in mini-research projects encouraged them to know how to:

- *"Apply a research approach when expanding services in an area".*

Thirdly they agreed that engagement in mini-research projects facilitated an attitude of:

- *"Ascertaining that assignments are understood and interpreted correctly".*

This outcome clearly indicated that the students wanted to take responsibility for their own learning.

The relevance of these outcomes identified by the students participating in the nominal group technique was strengthened by findings from the previously discussed peer conducted inquiry. The participants in the latter survey were involved in the first research cycle. They had no formal connection with the UFS at the time of the survey, nor had they any direct contact with the students involved in the second research cycle. The inquiry was also conducted after the nominal group and therefore, this group of ex-students involved in the first cycle, could not have influenced the students from the second group who focused on changes in the curriculum. Interestingly, data from both groups echoed the same sentiments implied in the findings. Additions proposed to the KAB408 module guide indicated that there was evidence of gains in research skills. The third subsidiary question is therefore discussed next.

### ***5.2.1 Employment of the ALAR approach to promote research skills of undergraduate OT students during clinical practice***

In answering the third question possible professional skills facilitated by engagement in the mini-research projects are highlighted.

Ex-students, by means of the peer-conducted survey, related that positive experiences due to involvement in the mini-research projects included:

- *"Had little insight of what the research study comprised"* (before engaging in the mini-research project).
- *"Constructive criticism was given; learned a lot from feedback."*

Gains in skills were also evident from comments:

- *"Very challenging and learnt how to present information in a scientific way."*
- *"Learnt how to analyse data and to select the most important information..."*
- *"To integrate a wide variety of sources' information and making it applicable to my own project."*

Furthermore, analysis of the questionnaires explicitly revealed that ex-students identified positive gains in their attitude towards research such as:

- *"Good to be part of a larger project'."*
- *"I started to like research and recognised the value thereof. I observed that there are many opportunities to do research."*
- *"That research can be enjoyable!!"*

This last comment was supported by recent actions of ex-students. Three contacted the researcher since July 2007 to discuss an interest in pursuing a master's degree. They were involved in the first, as well as the second research cycles and felt that they wanted to engage in further learning that could be helpful to their clients. One of these student's already specified (two years ago) in the follow-up survey conducted by the researcher that,

*"I would really like to complete my own master's degree study."*

In contrast to the direct gains in research skills apparent from the above, the most insightful revelation for the researcher during the first two research cycles was related to the research component as part of the mini-research projects specifically. During presentation of the finished assignments, the researcher observed that 12 out of the 14 students did not pinpoint the research genre applied, when executing their project. It appeared as if students felt safer by merely listing the actions that they had followed for generating and analysing information.

In an attempt to conceptualise this preferred approach of the students, the researcher reverted to Tripp's (2003) interpretation of reflective practice. It should be noted that OT students engaged in the mini-research projects had already completed orientation



to research in their third year of training and therefore were familiar with research methodology. It appeared as if students were able to engage in the cycle of a “*plan - act - describe - reflect*” sequence. This process however was dominated by thoughtful action. The students found it difficult to name and illuminate recognised research procedures that they engaged in. The inclination to prefer thoughtful doing to deep thinking resonated with popular beliefs about activity-related outcomes. Nicholls (2003) suggests that within the profession of OT there is a tendency to focus on action in an attempt to avoid uncomfortable issues. The researcher interprets the deliberate disregard of a research design during a scholarly investigation as a manifestation of the students’ insecurity as novice researchers.

However, in general, the researcher recognised that the core value of the students’ engagement in an ALAR approach was that the mini-research projects provided a vehicle for the facilitation of knowledge, skills and an attitude for research engagement. The students’ actions directly produced information for the researcher to enhance the meaningful learning experiences offered at *Ons Tuiste* during clinical practice. The students were therefore participating in the development of collaborative research which, according to Bringle and Hatcher (2005), results in stronger academic learning and civic competencies.

At this point, the fact that the day-to-day experiences in clinical practice could not be separated from gains due to involvement in the mini-research projects should be acknowledged. It was more likely that all the activities undertaken at *Ons Tuiste* could support meaningful learning, since learning experiences overlapped. The successful execution of the mini-research projects could also be promoted by insight and understanding gained when presenting group and/or individual treatment sessions.

### ***5.2.2 Professional skills facilitated by the ALAR approach through engagement in mini-research projects***

The final subsidiary question conveyed the contributions of an ALAR approach to professional development during clinical practice.

The researcher experienced that the compulsory use of the structured reflection forms engaged all the students in actions, from which they identified to have gained skills. It should however be acknowledged that some students' reflections were more superficial than others. The researcher found that the quality of reflections often related to study pressures students experienced during specific periods of their clinical placement. It was also obvious whether a student naturally reflected on what she did or did not do as part of her general approach to learning. Students who usually questioned themselves and reflected on what they did could more easily relate their experiences in the structured format.

From the researcher's questionnaire the importance of skills gained were verified. Specific findings that impacted on professional development could be categorised as attributes to general work abilities. These are listed in no specific order:

- self-discipline;
- internal motivation;
- self-assertiveness;
- initiative;
- sense of responsibility;
- problem solving;
- decision making;
- thoroughness;
- planning;
- time management; and
- asking for assistance.

In summary, one ex-student's comments on the impact of being engaged in the mini-research project process, related to a foundation that was laid for new experiences:

*"I created a multi-sensory area for two autistic children. I also assisted with writing a proposal to suggest alcohol rehabilitation and an overnight shelter in the Prieska district... It helped me to be more positive about research because I used the knowledge I gained. I have more self confidence to initiate projects."*



Therefore, the skills students appeared to gain from the action learning process, were relevant since these students were enabled, as noted by Erasmus (2005), to experience multiple ways of knowing and doing.

Significantly, the ex-students went out of their way to make suggestions that could assist their peers in finding ways that practically could encourage deeper reflection for future students (refer to section 1.4). In contrast however, they were very vague when asked by the researcher for suggestions to improve the meaningful learning experiences related to mini-research project assignments. Comments included:

*"It was a privilege to be part of such a project and it is important to give your best so that the process can be made quicker and more effective. Enjoy it!"*

Previous results showed that the ex-students could very specifically indicate what skills they felt they had gained through participating in the mini-research projects. It therefore appeared as if they refrained from amending the researcher's work method. Due to the previous power relation, it might be that the ex-students preferred to make positive comments to their previous lecturer (the researcher). They believed that opinions that might lead to an alteration in practice would not be well received.

## **6. POTENTIAL CONTRIBUTIONS OF AN ALAR APPROACH IN THE CLINICAL SETTING TO PROMOTE PROFESSIONAL DEVELOPMENT**

For the purpose of this article the researcher investigated the potential role of mini-research projects on OT students' professional development during clinical practice. These mini-research projects specifically encouraged research and reflective practice as an integral part of the process for executing the projects. Professionalism as defined by Bossers *et al.* (1999) was addressed in relation to professional parameters, behaviours and responsibility as discussed in the following sections:

## 6.1 Professional parameters

Engagement in mini-research projects contributed to an understanding of legal and ethical issues, such as obtaining informed consent, formed part of most assignments. This aspect directly assessed the identified students' ability to apply their knowledge of the steps involved in the research process. Moreover, occupational therapists could internalise the aesthetic merit evident in the findings of this study, as it addresses an ethos inherent to OT. From this initial investigation, successive mini-research projects specifically addressed the importance of providing residents of the dementia care ward at *Ons Tuiste* with choices and preserving their dignity.

## 6.2 Professional behaviour

Strong indications of gains in practical skills, relationships with clients and the presentation of themselves were evident in the 14 participants. A specific gain in practical skills related to comprehensiveness and precision:

*"Because I knew that the project would be executed over a period of time by various students, I did not want to omit anything. One would like it if everyone understood how you thought and why you did what you did."* (Peer conducted survey – September 2006)

The importance of a client-centred approach was central for what one student felt future students, who would still engage in the project, should value:

*"Your heart should be in the project. It is important to find fulfilment in the small things; for example, a smile, eye contact or just a hug from the residents. What looks like a minute change in terms of functioning to you, is an experience for them that makes a big difference. I believe that they feel that they are cared about, even if it is on a subconscious level. It is not always easy, but take courage! It is worth it. Enjoy the residents. They still have the potential to touch hearts."* (Post-project reflection – August 2006)

Another student indicated that she would change how she presented her mini-research project for the assessment situation:



*"Present it completely differently, like a research presentation. More orientation relating to the project specifically, rather than the general practice profile (of the area)."* (Post project reflection – October 2006)

At this stage of their clinical training, the students had had adequate exposure to ensure that they knew how they were expected to behave as OT students. Expectations at *Ons Tuiste* therefore promoted consideration of the behaviour expected of occupational therapists. The specific relevance of these findings related to the realities provided by *Ons Tuiste* for clinical practice.

### **6.3 Professional responsibility**

This area was affected most dramatically by the mini-research projects. The very acts of accessing, applying and even generating research contributed towards participants embracing a culture of research. Mini-research projects therefore had the potential to encourage future occupational therapists to be *"responsible to the profession, to one's self, to the community, and to one's client and employer"* (Bossers *et al.* 1999: 119). As such, the relevance of these findings were stipulated by the indicated contribution of the mini-research projects to both the students' and the researcher's professional development. The impact of the findings therefore resonated with the lived experience of those involved, which is the very essence of experiential learning.

## **7. CONCLUSION**

Pre-registration education aims to deliver professionals who have an understanding of more than just core knowledge. The real-life situations provided by clinical training in specific community settings could therefore contribute to equipping students with knowledge, theory and experience that bring new dimensions to their understanding of practice (Alsop 2006). Tompson and Ryan (1996: 65) further stress that *"it is during fieldwork that the theoretical knowledge that students acquire in the academic*

*setting is mixed with practical experience to forge a sense of professional identity and ability*" (emphasis added by researcher).

The researcher has argued that the ALAR process definitely contributed to professional development of undergraduate OT students during clinical practice. Participation in the mini-research projects firstly appeared to assist students in gaining skills of evaluating and understanding the literature and research of others. This might make them more open to future research opportunities. However, even if they do not become research practitioners, they could become clinical practitioners who would ensure that their practice adhered to current best evidence. Additionally, they could even co-ordinate or supervise mini-research projects of future students.

Secondly, participation in the mini-research projects indicated that the added skill of reflection would encourage practice where the practitioner constantly is aware of what she does, why she does it and whether what is done has a positive effect. As the researcher applied a practical approach to ALAR, a more participatory style in all aspects of the investigation might have contributed to emancipate the students. The nature of a practical inquiry is less empowering and may have limited the students' professional development.

Engagement in mini-research projects, however, encourage skills of reflective practice, in addition to promoting an understanding of the role of research in clinical practice. What occupational therapy students know or learn; how they behave and the ways in which they demonstrate their accountability, link very closely with their ability to integrate research into practice (Bossers *et al.* 1999). The reflection and research components integral to the mini-research projects specifically enhance professional development that could be instrumental for facilitating a culture of research among undergraduate occupational therapy students.



## 8. REFERENCES

Action Research 2006. Resource page.

<<http://www.sagepub.co.uk/resources/actionresearch.htm>>

Downloaded on 08/03/2006.

Adamson, B.J., Cant, R.V. & Hummell, J. 2001. What managerial skills do newly graduated occupational therapists need? A view from managers. *British Journal of Occupational Therapy* 64(4): 184 – 192.

Alsop, A. & Ryan, S. 2001. *Making the most of fieldwork education – a practical approach*. Cheltenham: Nelson Thornes Ltd.

Alsop, A. 2006. Qualifying as an occupational therapist: an educational journey from ward-based to workplace learning. *British Journal of Occupational Therapy* 69(10): 442 – 449

Bannigan, K., Hughes, S. & Booth, M. 2007. Research is now every occupational therapist's business. *British Journal of Occupational Therapy* 70(3): 95.

Barnes, K. 2007. Community service. *FOCUS* August 2007: 2.

Bennett, S. & Townsend, L. 2006. Evidence-based practice in occupational therapy: international perspectives. *World Federation of Occupational Therapists Bulletin* 53 (May 2006): 6-12.

Bossers, A., Kernaghan, J., Hodgins, L., Merla, L., O'Connor, C. & Van Kessel, M. 1999. Defining and developing professionalism. *Canadian Journal of Occupational Therapy* 66(3): 116 – 121.

Bringle, R. and Hatcher, J. 2005. Service learning as scholarship: why theory-based research is critical to service learning. *Acta Academia* 2005 (3): 24 – 44.

Dick, B. 1997. *Action learning and action research*.

<<http://www.scu.edu.au/schools/gmc/ar/arp/actlearn.html>>

Downloaded on 3/5/2007.

Dick, B. 2000. *The change process and action research*. Session 2 of Aerol – action research and evaluation on line.

<<http://www.scu.edu.au/schools/gmc/ar/areol/areol-session02.html>>

Downloaded on 10/03/2007.

Dick, B. 2002. Postgraduate programmes using action research. *The Learning Organisation* 9(4): 159 – 170.

Erasmus, M. 2005. Community service learning and the South African Research Agenda. *Acta Academia* 2005(3): 1 – 23.

Finlay, L. 2006. Rigour, ethical integrity or artistry? Reflexively reviewing criteria for evaluating qualitative research. *British Journal of Occupational Therapy* 69 (7): 319 – 326.

Forsyth, K., Mann, L.S. & Kielhofner, G. 2005. Scholarship of Practice: Making occupation-focused, theory driven, evidence-based practice a reality. *British Journal of Occupational Therapy* 68(6): 260 – 267.

Kinsella, E.A. 2000. *Professional development and reflective practice: strategies for learning through professional experience*. Ottawa: CAOT Publications ACE.

Mayers, C. 2007. Practice and research: discovering what people need. *British Journal of Occupational Therapy* 70(5): 183.

McNiff, J. & Whitehead, J. 2006. *All you need to know about action research*. London: SAGE Publications.



Morely, M., Rugg, S. & Drew, J. 2007. Before preceptorship: new occupational therapists expectations of practice and experience of supervision. *British Journal of Occupational Therapy* 70(6): 243-253.

Nicholls, L. 2003. Occupational therapy on the couch. *Therapy Weekly* 39(2).

Saunders, E. 2005 Serving the Community. *FOCUS* (March): 3.

Toal-Sullivan, D. 2006. New graduate's experiences of learning to practice occupational therapy. *British Journal of Occupational Therapists* 69(11): 513 – 524.

Tompson, M.M. & Ryan, A.G. 1996. The influence of fieldwork on the professional socialisation of occupational therapy students. *British Journal of Occupational Therapists* 59(2): 65 – 70.

Tripp, D. 2003. *Action inquiry, action research e-reports, 017*.

<[www.fhs.usyd.edu.au/arow/arer/017.htm](http://www.fhs.usyd.edu.au/arow/arer/017.htm)>

Downloaded on 14/06/05.

Zuber-Skerritt, O. 2001. Action learning, action research: paradigm, praxis and programs. In: S. Sankaran, B. Dick & R. Passfield. (Eds). *Concepts, Perspectives and Applications*. Lismore: Southern Cross University.

Zuber-Skerritt, O. 2002. A model for designing action learning and action research programs. *The Learning Organization* 9(4): 143 – 149.

Zuber-Skerritt, O. 2005a. Unpublished workshop manual: Introduction to action research. Bloemfontein: UFS. (Conducted on 25 April 2005).

Zuber-Skerritt, O. 2005b. Unpublished workshop manual: Supervising qualitative research, including action research. Bloemfontein: UFS. (Conducted on 26 April 2005).

Zuber-Skerritt, O. 2005c. Models for action research. In: S. Pinchen & R. Passfield. (Eds). *Moving on: creative applications of action learning and action research*. Brisbane: Action Learning, Action Research and Process Management Assn, Inc.

## EMBRACING THE VALUE OF EXPERIENCE: PERSONAL GROWTH OF UNDERGRADUATE OCCUPATIONAL THERAPY STUDENTS DURING CLINICAL PRACTICE

### ABSTRACT

Clinical practice in community settings, where real problems are addressed, provides powerful learning experiences. At *Ons Tuiste* (a residential care facility for elderly persons) the learning of undergraduate occupational therapy students was promoted by engaging them in successive mini-research projects. In a prolonged investigation the researcher aimed to uncover how engagement in these mini-research projects might have impacted on the personal development of those involved. An action inquiry was followed through three research cycles to substantiate findings. The main findings indicated that the extent of the students' personal development, as a result of involvement in this process, impacted not only on their spirituality, but also fostered an awareness of their own and others' worldview.

**Keywords:** personal development, spirituality, research, reflection, worldview

*"Learning is thus a way of interacting with the world. As we learn, our concepts of phenomena change, and we see the world differently. The acquisition of information of itself does not bring about such change, but the way we structure that information and think with it does. Thus, education is about conceptual change, not just the acquisition of information" \**

### 1. INTRODUCTION

The researcher embarked on a journey as an action researcher in an attempt to consolidate the values underpinning her work as part-time academic at the University of the Free State (UFS) with that of being consultant occupational therapist at *Ons Tuiste*.

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\* Bigg, J. 2006. *Teaching for quality learning at university*. (2<sup>nd</sup> Edition) Maidenhead: Open University Press:13



*Ons Tuiste* (a local residential care facility for elderly persons) provided a role emerging placement for OT students in their fourth year of training, since this was a placement "where there is not an established OT service" (Martin 2007:24). In November 2004, *Ons Tuiste* and the OT Department at UFS agreed on the involvement of final-year OT students to initiate an activity programme in the twenty-person multi-cultural dementia high-care ward. This service was run by one or two fourth-year OT students, per placement of five to six weeks, with the researcher acting as their clinical supervisor.

The researcher's involvement was restricted to a maximum of five hours' consultation per week. The main challenge she faced in developing and coordinating the service area at *Ons Tuiste*, was that a lack of her continuous input could be detrimental to the progress and quality of input. In her endeavour to improve both the quality of life of the residents in the dementia care unit, as well as to ensure that the students had meaningful learning experiences, the researcher took a closer look at how research could inform practice.

At the Department of OT at the UFS, the students' competence is assessed after each phase of clinical training in their third and fourth years. The supervising clinician could give the student either a case study or a mini-research project to be assessed on. The latter option provided the researcher with a unique opportunity to initiate and evaluate the design, structure and development of the successive mini-research projects she coordinated. And subsequently the deliberate use of a "plan – act – describe – review" cycle stimulated continuous evaluation of the effects and effectiveness of change in practice. In this way the practical use of action research was encouraged in the clinical context while simultaneously generating evidence for practice. Therefore, the natural progression during service expansion resulted in an evolving learning process for both the researcher as well as the students involved.

Due to this natural progression of the action research process, the researcher had the opportunity to investigate two situations simultaneously. On the one hand she could enquire whether the service at *Ons Tuiste* had improved due to the implementation of successive mini-research projects. And, on the other hand, she could discover whether

the successive mini-research projects had impacted on the students' personal development during clinical practice. This latter aspect is the focus of this article.

As clinical practice within OT training focuses on preparing undergraduate OT students for their future profession, the impact of several associated contexts and concepts should be considered. The next section reviews the personal, professional (relating to both OT and university education) and clinical contexts within which personal gains could be encountered due to engagement in mini-research projects during clinical practice.

## **2. THEORETICAL PERSPECTIVE**

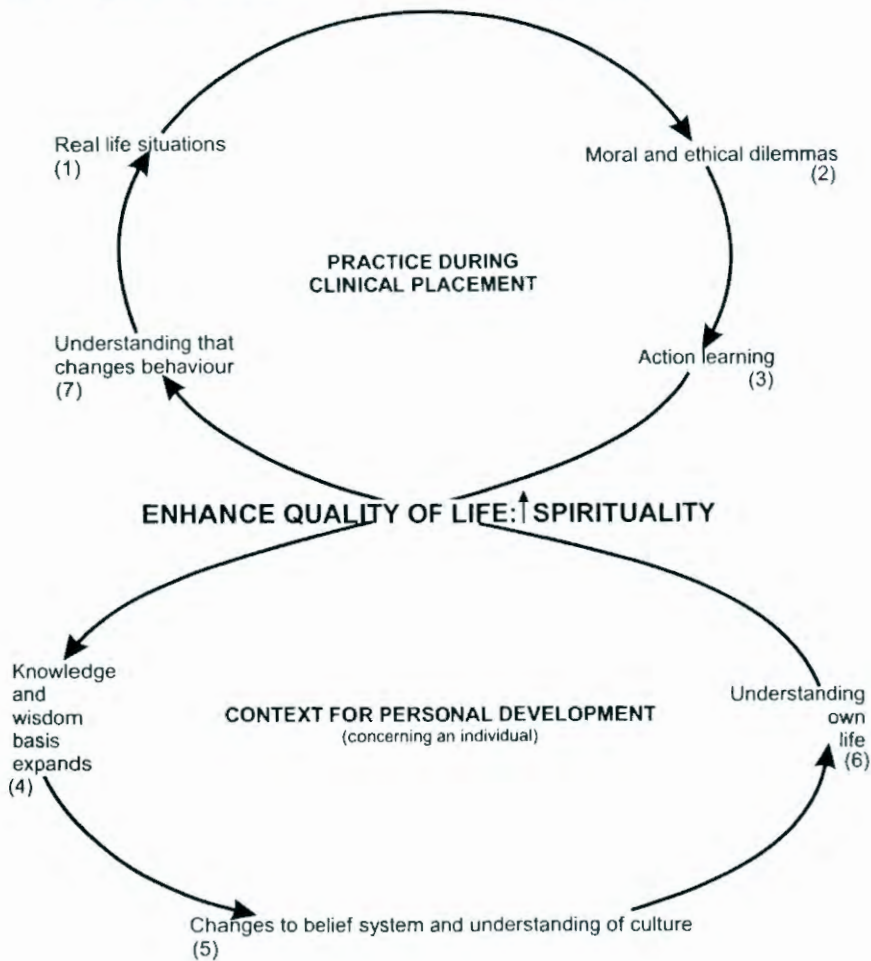
Clinical practice forms an important component of undergraduate occupational therapy (OT) training. Alsop (2006) emphasises that the real-life situations provided by clinical training in specific community settings should equip students with knowledge, theory and practical experience. This experience subsequently could bring new dimensions to their understanding of practice. On the one hand this understanding relates to exposure to the culture of OT and experiencing the identity associated with the profession's unique way of doing things (Alsop & Ryan 2001). And, on the other hand, the researcher argues that the accumulated knowledge and experience also impacts on the undergraduate students' view of life and becomes part of their future professional wisdom.

Undergraduate OT students at the UFS engage in 1 720 hours of clinical work over the four years of their training, although the World Federation of Occupational Therapy requires only a thousand hours of practical training (WFOT 2002). When considering the vast amount of time spent in clinical work it is clear that plentiful opportunities exist for learning that could contribute to more than just professional development.

In Figure 1 the researcher attempted to visually portray (in a figure eight model) how exposure to clinical practice could feed into the personal development of undergraduate OT students.



Figure 1: Process of personal development during clinical practice



This visual portrayal can be explained as follows:

During clinical practice, dealing with ill health and disability is a given (that is, *real-life situations*). Additionally, the needs of others that undergraduate OT students face during clinical practice in the South African community could be overwhelming. These needs may include poverty, unemployment, cultural diversity or a general lack of resources. Facing these diverse circumstances would probably leave no one unaffected and yet, most students learn to cope and deal with these *ethical and moral dilemmas* that are an inseparable part of their future careers. Therefore the students appear to engage in *action learning* that contributes to *understanding their own lives* and could impact on their *belief system and understanding of culture*. These changes affect their *knowledge and wisdom basis* and in the end contribute to their *quality of life*.

The concept of learning based on an understanding that can only be gained from experience is identified by Tripp (2003) as action learning. Zuber-Skerritt (2005:50) defines action learning as the opportunity to *"learn from each other, from action and concrete experience, as well as taking action as a result of this learning"*. Tripp (2003) furthermore stipulates that the whole experience of knowing something results in one having feelings about the knowing – it is therefore more than just an intellectual process.

When clinical practice embraces action inquiry the processes of both action research (by the clinical supervisor) and action learning (by the students on placement) may be facilitated (based on Tripp 2003). The clinical supervisor could then focus on how she promotes learning experiences and the students could concentrate on gaining an understanding of what is being learned. These processes could then promote a situation where the quality of life of both the students and the supervising clinician is improved. (In Figure 1 this aspect is portrayed as the central feature of the figure eight model.) McNiff (2002) advocates the belief that when each person aims to be a better individual, collectively these individuals can contribute to a better society. The 'society' in the clinical practice set-up would refer directly to the OT practitioner, the students on placement and the clients receiving the service.

Due to the impact of the real-life experiences during clinical practice, the researcher as a clinical supervisor has been interested in how these experiences have affected the student as a person. It is not mere knowledge that equips students to deal with situations but the wisdom due to experience and the ability to derive meaning from these experiences. This implies that the conscious selection of learning activities for students to engage in during clinical practice could impact on their personal development. And potentially, as indicated in Figure 1, this could contribute to a deepening in spirituality. Therefore, in pursuing this investigation, the researcher wanted to answer the question whether, *"action learning due to engagement in successive mini-research projects could facilitate personal development of undergraduate OT students during clinical practice"*.



### 3. RELATING CONTEXTS AND CONCEPTS

There are four different angles, namely the personal, OT, educational and clinical supervision contexts, that had the potential to impact on this investigation. Although each one should be considered in its own right, the potential link is illuminated for consideration in the form of associated concepts. As the researcher is the link for all these contexts, her personal context needs clarification. All the concepts and contexts are also related to the field of OT practice and therefore, OT can be viewed as the central context. In addition, the institution directing the qualification influenced the researcher in her capacity as an academic (that is, an educational context) and the process of learning followed in the real-life situations at *Ons Tuiste*, provided the clinical supervision context.

#### 3.1 Personal context

The researcher (as well as the majority of OT students involved in the three action research cycles to date) is Afrikaans speaking. For the researcher specifically this had specific implications. The fact that she is a white South African living in the post-apartheid era had a profound influence on her life. She felt she had been blessed with a middle-class upbringing and adult life in a country where the majority of residents live in poverty and have limited opportunities for changing this reality. Their lives are accordingly dominated by social injustice.

In contrast, the researcher felt that her life had provided her with abundant opportunities and choices. The way in which she therefore applied and shared her skills and abilities was a choice through which she could meet her civic responsibility as a citizen of a developing country. She recognised however that it was not only giving that was of importance, but also an openness to receiving that gave meaning to her life. She wanted to enable each person she worked with (whether student or client) to realise their own potential. This implied honouring and respecting each individual for who they actually were and how they embraced their lives. This in turn provided her with enriching learning experiences.

The researcher appreciates that she has her own specific worldview, consisting of personal beliefs, values and assumptions that influence how she interprets reality (Van der Merwe 2005). Besides acknowledging her worldview, she recognises that the profession of OT has assisted her with acknowledging and respecting the worldview of others. And while the *"breadth, diversity and complexity of OT make it almost impossible to define"* (Duncan 1999: 4), the researcher nonetheless attempts to encapsulate the OT context that could potentially assist South African OT professionals (and those still in training) to come to terms with the worldview of the diverse population for whom they have to provide a service.

### 3.2 Occupational therapy context

The researcher's personal context lead her to hypothesise that the choice of a vocation could be influenced by an individual's lived worldview. Alsop and Ryan (2001) support this opinion and propose that the choice for entering into OT as a profession could be connected with intrapersonal needs based on personal values and beliefs. They also specify that these needs could be on a subconscious level. In their opinion the personal framework supporting the original choice of a career in an allied health profession, would change both consciously and unconsciously as training progresses (Alsop & Ryan 2001). These changes could therefore be linked to an adjustment in the students' worldview as a direct result of the course contents and of relating to clinical practice experiences.

Table 1 is a very elementary portrayal summarising the values, virtues and beliefs espoused by OT as a profession in South Africa (SA), as identified by Duncan (1999).

*Table 1: Core elements of OT as a profession*

| <b>Virtues:</b> | <b>Values:</b> | <b>Beliefs:</b>                  | <b>Ethic principles:</b> |
|-----------------|----------------|----------------------------------|--------------------------|
| Integrity       | Human freedom  | Humans are occupational beings   | Beneficence              |
| Humility        | Equality       | Occupation is a basic human need | Non-maleficence          |
| Altruism        | Truth          | OT is a moral enterprise         | Veracity                 |
| Prudence        | Dignity        | OT is client-centred             | Justice                  |



One way in which to explain how these virtues, values, beliefs and principles feature within the OT process would be by using a conceptual model of practice. The Canadian Model of Occupational Performance is a useful choice, as it is covered thoroughly by the UFS OT students in both the third and fourth academic years. This model and the whole concept of client-centred practice promotes the capacity of viewing the world through the eyes of a client in order to gain understanding of his/her daily lived experience (Jamieson, Krupa, O'Riordan, O'Connor, Paterson, Ball & Wilcox 2006). As a client-centred occupational therapist, the profession promotes the view that the therapist should attempt to view her clients *"holistically, value their individuality, respect their autonomy and allow them to make their own decisions"* (Finlay 2001: 26).

Of specific significance in client-centred practice is the concept of spirituality which is portrayed as central to all the personal-environmental-occupational factors involved. Spirituality relates to ethics, meaning and purpose rather than religion *per se* and is defined by McColl (2003:70) as *"both an experience and a force, that in and of itself, gives meaning to life"*. McColl (2003) further indicates that the essence of a client-centred partnership would require that a therapist should be aware of and comfortable with her own meaning and purpose (in other words, being in touch with herself as a spiritual being).

OT students at the UFS are therefore challenged to be client-centred practitioners and as part of this process they have to acknowledge spirituality as a concept not only within their clients, but also within themselves.

### **3.3 Educational context for community service learning**

The educational context can be connected with the concept of values found in both the personal and occupational therapy contexts associated with this investigation. Braham (1995:4) proposes that *"learning is simultaneously both a process and a value."* She also acknowledges that learning is more than just acquiring knowledge and specifies that true learning could potentially change behaviour (Braham 1995).

The UFS as an educational institution promotes an academic culture supported by three underlying concepts, namely education, research and community service (Ellis & Erasmus 2006). Since education and research are concepts synonymous with tertiary education, the concept of community-service learning (CSL) is addressed initially.

In SA, CSL in institutions of higher learning is currently a vehicle through which transformation for increased participation, responsiveness, co-operation and partnerships is addressed (Erasmus 2005). The key feature of CSL is "*teaching, research and service in and with the community*" (Bringle & Hatcher 2005: 25). While opportunities are now consciously sought to integrate teaching and learning with community engagement, OT students at the UFS have experienced the relationship between theory and practice through engagement in clinical work over the past 30 years. CSL has provided the real-life situations necessary for clinical training in specific community settings that equip students with knowledge, theory and clinical experience and bring new dimensions to their understanding of practice (Alsop 2006).

From an OT educational perspective specifically, Lorenzo, Duncan, Buchanan and Alsop (2006) emphasize that CSL also allows students the opportunity to develop an awareness of their own values in addition to their perceptions about culture and diversity. Learning therefore occurs on a personal and professional level. A central concept in this dual learning process is reflective practice. According to Bringle and Hatcher (2005) it is in essence the reflective activities associated with CSL and the pursuit of a scholarship of civic engagement that contributes towards skills generation in innovation, knowledge, feedback, analysis and interpretation – qualities associated with action research. Although all these qualities promote professional development of undergraduate OT students directly, the obvious impact on personal development cannot be ignored.

The educational context is very closely related to the clinical practice of undergraduate OT students. The UFS identifies clinical practice as a sub-category for integrating community service with academic work (Ellis & Erasmus 2006). Clinical supervision as a



context in which the learning of undergraduate OT students is promoted should therefore receive specific attention.

### **3.4 Clinical supervision context for action learning and action research**

During the training of OT students, the opportunity to apply theoretical knowledge in appropriate settings provides very powerful learning experiences. Alsop (2006: 442) stresses this point by saying that "*the way in which students learn can be considered as important as what they learn.*" In a role emerging placement, where contact with the clinical supervisor is restricted, every effort is needed to facilitate and direct learning rather than deter it.

An action learning and action research (ALAR) process subsequently provides a supportive approach to evaluate whether what is done is continually improved (McNiff 2002). Guided by action learning, students and the supervising clinician directing the mini-research projects, had a flexible and systematic method in which to conceptualise learning from experience (Zuber-Skerritt 2002). This learning was embedded in a process whereby each cycle, after the initial problem identification, fed into action planning, implementation, evaluation and reflection (Zuber-Skerritt 2001).

Both the concepts of research and reflection associated with the ALAR process, deserve illumination. It is an established fact that reflection assists with learning (Alsop & Ryan 2001; Kinsella 2000). Schon's work (as cited by Alsop & Ryan 2001) indicates that becoming a reflective learner could benefit both the person and the profession. He proposes that reflecting-in-action leads to knowing-in-action, which in turn supports the development of clinical reasoning. Developing the ability and confidence to examine personal values and knowledge could impact to change practice. Consequently, clinical reasoning in action may promote a research ethos that seeks to improve knowledge and skills (Alsop & Ryan 2001). The challenge here remains for the clinical supervisor as she has to have an understanding of, and experience in, promoting the use of reflective skills.

Engagement in successive mini-research projects at *Ons Tuiste* provided a vehicle through which the researcher as the clinical supervisor could facilitate reflection as part of a continuous process of planning, implementing and evaluation of each assignment.

The results of each mini-research project were aimed at addressing the quality of life of elderly persons in institutional care. The essence of the reflection, therefore, could potentially impact on both personal and professional development of the undergraduate OT students. The action learning process meant that each student had to reflect critically on the contributions of previous projects prior to planning and implementing his/her own project assignment.

### **3.5 Concepts illuminated by contexts**

From the four contexts mentioned above, it is suggested that learning might be facilitated to potentially change behaviour. Some of these changes are part of the process of qualifying as an allied health professional, but others relate more to a change on a personal level (with reference to Figure 1). In Table 2, the researcher attempted to summarise the concepts in the OT, educational and clinical contexts and found that they were linked to the concepts of spirituality and worldview in the personal context.

Table 2 can be interpreted in terms of spirituality, where the choice of a calling (OT), exploring the calling (ALAR in clinical practice), and being confronted with one's civic responsibility (CSL), are aligned. Worldview is addressed on two levels. On the one hand, the personal experience of valuing oneself as a unique individual promotes an awareness of one's own values and passions. On the other hand, valuing others as unique individuals could encourage one to improve the quality of life of others through client-centred care and by acknowledging diversity within cultures.



Table 2: Concepts revealed by literature and their potential impact

| OT                                  | Educational                                | Clinical                                  | Personal     |
|-------------------------------------|--|---|--------------|
| Promote values:<br>live out calling | Challenged to face<br>civic responsibility | Explore calling<br>(reflection-in-action) | Spirituality |
| Uniqueness of<br>individual         | Promote awareness<br>of own values         | Discover passion<br>(knowing-in-action)   | Worldview    |
| Client-centred care                 | Perceive cultures & diversity              | Address quality of life in self & others  | Worldview    |

It would appear as if the creation, integration, application and transmission of knowledge during clinical practice may not only promote scholarship, but might also encourage the contemplation of the meaning of life. Koth (2003:6) proposes that identifying what gives meaning to one's life through *spiritual reflection* should be promoted by exposing students during their tertiary training to opportunities to "*explore their calling, discover their passion, and ultimately live out this calling*".

Koth (2003) further highlights the significant role of reflection in the connection between service and learning. He states specifically that besides the benefit of students beginning to understand the impact of their service on the community and themselves, there is a natural tendency for reflective practice to reveal and develop a deeper sense of purpose and values on a personal level (Koth 2003).

Clinical practice in OT is therefore the one area where an extensive and diverse compilation of values and beliefs can be embraced. The aim of this investigation was therefore to uncover how engagement in successive mini-research projects might have impacted on the personal development of those undergraduate OT students involved.

#### 4. RESEARCH DESIGN AND METHODOLOGY

The research undertaken in this study can be classified as an action inquiry. Tripp (2003) describes action inquiry as a blanket term that could involve reflective practice, action learning, action research and researched action. According to Dick (2000) action research allows one to facilitate change while gaining an understanding at the same time. In directing the successive mini-research projects the researcher was committed

to change as she learned from each project before compiling the next assignment during the three initial cycles. She was therefore continually engaged in a successive mini-research projects she co-ordinated. And subsequently the deliberate use of a “*plan – act – describe – review*” cycle. Dick (2000) stipulates that planning is the reflection prior to action, observation is reflection during action and reflection is reflection after action.

The successive mini-research projects covered a variety of topics during the initial three research cycles (see Table 3). As this investigation focused on what was learnt from engaging in the mini-research projects, data directly related to contents of the projects have not been included.

This investigation focused on the third research cycle where the researcher reflected on reflections after action. It is therefore a deeper interpretation based mostly on a critical and self-critical attitude that was manifested in terms of a technical inquiry which the researcher pursued, taking on the role of outside expert (Zuber-Skerritt 2001). The researcher’s interpretation of events and manifestations of personal development was supported by choosing data selectively from the following:

- Project 18 that specifically focused on reflective practice.
- Structured reflections completed by all students after engagement in the mini-research projects.
- Data generated by a nominal group technique at the end of the second research cycle. The nominal group technique was applied to affirm what the researcher uncovered as part of the action research process – in other words, what she learned from her reflexive experiences during the second cycle. Specific focus was placed on community service learning (CSL) and the research aspect of the mini-research projects as part of final year OT students’ clinical practice module outcomes (KAB409).



*Table 3: Sequence and topics covered by successive mini-research projects for developing person-specific treatment programmes*

| Chronological order | Project Title   |
|---------------------|---|
| 1                   | Design of a multi-sensory room (involving the community).                                     |
| 2                   | Compilation of indicators of selected residents' current functional abilities.                |
| 3                   | Critical comparison of standardised assessment with compiled list of indicators.              |
| 4                   | Critical evaluation of Projects 2 and 3 – adapt and apply form.                               |
| 5                   | Design of a multi-sensory outside area in designated space.                                   |
| 6                   | Critical evaluation of Projects 2 and 3 – adapt and apply form.                               |
| 7                   | Critical evaluation of two previous funding submissions and suggestions for adaptations.      |
| 8                   | Critical evaluation of updated submission and addition of an outside area.                    |
| 9                   | Design of multi-sensory passage with reminiscence theme (involving local artists).            |
| 10                  | Critically evaluation of documentation for sponsors and compilation of a DVD to accompany it. |
| 11                  | Selection of 10 residents to evaluate according to M.O.H.O.S.T. and observation grid.         |
| 12                  | Evaluation of selected residents with PAL and compilation of background questionnaire.        |
| 13                  | Processing of data generated by Project 11 and comparison with findings from Project 12.      |
| 14                  | Compilation of four person-specific treatment programmes.                                     |
| 15                  | Evaluation of reflective practice process encouraged as to increase research.                 |
| 16                  | Investigation of potential of duplication programme at Mooihawe as part of CSL.               |
| 17                  | Application of ICF to evaluate effectiveness of person-specific programmes.                   |
| 18                  | <b>Investigation of action learning by implementing a reflective journal.</b>                 |

Therefore, a more holistic approach to the analysis of data was pursued to produce an integrated view of all the findings. The researcher's notations in her reflective journal incorporated interpretations and introspection as she had to acknowledge her own personal context and endeavoured (in accordance with Brahm 1995) to analyse and question without judging. The established themes and patterns were associated with areas of personal development and how these areas related to the students' values, beliefs and underlying worldviews.

In the pursuit of rigour Anderson, Herr and Nihien's criteria for validity (cited by Mills 2001) were incorporated. These refer to:

- Democratic validity – include multiple perspectives of participants.
- Outcome validity – subsequent research cycles are supported by previous findings.

- Process validity – modifying strategies to ensure data collection answers the research question.
- Catalytic validity – actions taken as a result of findings.
- Dialogic validity – critical conversations relating to findings.

These aspects are reflected on in Table 5 (p 136) where the implications of the investigation are reflected on and an indication is given that the findings are valid and reliable.

### **Ethical conduct**

A purposeful sample of all those students assigned to engage in clinical practice at *Ons Tuiste* during the period of the three initial research cycles was selected. Fourteen students participated. They gave informed consent to making the findings public. Consent was asked for specific activities (for example, to use data obtained from the nominal group technique, as well as information generated during day-to-day activities as part of the clinical placement and execution of the mini-research project). This action ensured that students knew they had control over disclosure of information. To ensure that ethical conduct promoted beneficence and respect for the participants, member checks of the interpretation of data was conducted. Two students (whose mini-research projects and reflections on them were referred to most frequently) were requested to read a draft document of this article. They agreed with the context.

## **5. MAIN FINDINGS AND THEIR SIGNIFICANCE**

Findings related mainly to four actions observable from the students. These indicated that students appeared to:

- take responsibility for their own development;
- make peace with societal injustice;
- recognise their clients' view of reality; and
- acknowledge a deeper sense of purpose.

These themes will be discussed in succession.



## 5.1 Taking responsibility for development

In the OT curriculum the learning opportunities provided by clinical practice have to relate to the outcomes established for the course. When the researcher considered the exposure students had had as a result of engagement in the mini-research projects she also had to take into account the KAB409 module guide outcomes (see Table 4). It appeared as if these outcomes did not acknowledge the potential contribution of the research component inherent in the mini-research project or the civic engagement factor due to the CSL component inherent in clinical practice.

Table 4: KAB409 Module guide contents

|   |
|---|
| <p><b>Outcomes of the module</b><br/>At the end of the module the student will</p> <p><b>have knowledge of</b></p> <ul style="list-style-type: none"> <li>- contracting with the patient/client</li> <li>- the planning of treatment within the scope of occupational therapy with reference to health care, welfare, educational system and private practice</li> <li>- various management aspects within a practice</li> <li>- the ethical aspects and its application within occupational therapy.</li> </ul> <p><b>have the skills to</b></p> <ul style="list-style-type: none"> <li>- manage a practice under guidance</li> <li>- apply treatment under guidance on various levels of health care, welfare, educational system and private practice</li> </ul> <p><b>have the attitude to</b></p> <ul style="list-style-type: none"> <li>- have respect for the patient's /client's human dignity and rights at all times</li> <li>- display ethically correct behaviour and be professional at all times</li> </ul> <p>Source: KAB409 Module Guide – Clinical Practical Work in Occupational Therapy 2007</p> |
|---|

In order to consider the potential implication of CSL on the successive mini-research projects, the concept of community should firstly be clarified. In the context of this study the community, or "*specific, collective interest group*" (Ellis & Erasmus 2006:8), consisted of 20 residents in the 24-hour care ward as well as the staff and volunteers involved in caring for them. The planning and establishment of multi-sensory treatment areas for the identified community, as well as developing person-specific programmes for residents to utilise these areas, were aimed at addressing the identified needs of this group (see the project themes listed in Table 2). The action learning and action

research approach therefore allowed not only for the needs of the specific community to be addressed, but also created the opportunity for the researcher and OT students to engage in solution-driven community-orientated research (Ellis & Erasmus 2006).

The nominal group technique, applied during a group session with eight students at the end of the second action research cycle, allowed the participants to take a critical look at the outcomes for the KAB409-module, as stipulated in the module guide. The students were encouraged to focus on how engagement in mini-research projects within a CSL genre could facilitate skills, knowledge and attitudes.

In the discussion leading up to the re-formulation of KAB409 outcomes, students were amazed when they realised that CSL is an integral part of how OT students gain knowledge and skills during their clinical practice.

With reference to the significance of CSL, the nominal group technique allowed the eight participants to agree from the outset that CSL was:

- rendering a service to the community that provides a learning opportunity. This learning opportunity allows the student to develop simultaneously on two levels, in other words, professionally (in gaining skills) as well as personally (for improving self-knowledge).

The ethos the students identified as part of CSL promoted insight into their own learning. They agreed that due to the real-life setting provided by clinical practice and engagement in the mini-research project they gained knowledge of how to:

- identify and address voids in theory as well as in practical skills.

It was, however, not only the professional sphere that was affected as a result of this knowledge. The students decided that the skills they gained were in:

- applying reflective practice so as to develop optimally in personal and professional areas.

Literature supports the gains these students identified as arising from the educational philosophy associated with CSL. Alsop (2007: 139) stipulates that in SA CSL promotes



the practical experience "that *brings about transformative learning and assists in professional development*".

Besides indications in literature, outcomes identified by the nominal group technique were further supported by the results of Project 18 specifically. This assignment required a specific student to keep a reflective journal in which to note experiences and development while canvassing for volunteers to implement the person-specific treatment programmes compiled for residents of the dementia care unit. In an attempt to understand the link between personal and professional development with learning and reflection, this student portrayed her journey via a reflective journal visually. She had to explain her choices for the visual portrayal which served as the demonstration aspect for her mini-research project.

Her first attempt was linear (see Figure 2) and she had difficulty in verbalising her own understanding of her development. It became clear that when considering Tripp's (2003) interpretation of reflective practice, that this student did engage in the cycle of a "*plan – act – describe – review*" sequence, but the process was dominated by thoughtful *action*. It was very interesting to see how the student who participated in this project struggled to focus on learning experiences, but rather directed her reflection towards actions associated with duties she performed on placement. For example, when she was unsuccessful in canvassing for volunteers she focused her reflection on what she should do ("*Show the person an example of a person-specific programme*") rather than how it made her feel. It was only after feedback that she could differentiate between personal and professional development gained by reflective practice. A prime example was a comment relating to skills gained from facilitating a non-directive therapy session: "*I now have a better idea of how a session in the multi-sensory room should proceed. It is not easy to relinquish control*" (Dated: 09/03/2007).

This student realised that she could initially not focus on her learning experiences because she feared that her personal development was not as valuable as the contributions she could make towards implementing person-specific treatment programmes for the residents with dementia. When she was encouraged and given a

second opportunity to search for and visually portray her meaningful learning experiences as recorded in her reflective journal, it resulted in Figure 3.

The researcher was impressed by the boldness of the student in portraying a journey that originated at a place where she was very aware of her lack of skills for what lay ahead. (*"I feel uncertain of myself and do not think I have enough self-confidence to work on my own. I'm afraid."*) Reflection aided her in identifying what skills she had gained over this period of five weeks (*"I am standing on my own two feet"*). It seems a pity that she was still unable to pinpoint whether the one aim she identified, but was not able to meet (in other words, the inability to canvass for and establish volunteers), might be due to personal attributes. It may also be that she did in fact identify a personal attribute deterring her from this aim, but that she did not feel she wanted to share that so publicly.

One should therefore acknowledge that, although this student could apply reflective practice skills, reflexivity (in other words, critical self-awareness as described by Finlay 2006) was still superficial. It seemed as if a deeper set of reflection enabled her to confirm her sense of purpose and how to pursue it (Koth 2003). She had to take a risk by confronting possible mistakes she made, in order to embrace an openness for learning. Braham (1995) supports this act of confronting current beliefs and values in order to challenge one's current level of competence by doing things in a new way.



Figure 2: Poster content used for demonstration aspect during presentation Project 18

### **Encouragements in my experience**

"It makes my day to see someone is prepared to try despite uncertainties"  
(07/03/2007)

The knowledge that I am going to enrich someone's life because I got volunteers to present the person-specific programmes.

### **That which made me want to cry from frustration**

"It makes me angry that people that have so much to give are afraid to do so. And those that are prepared to help are presently having problems with their own health. I feel too discouraged to look any further for volunteers."  
(02/03/2007)

"Alzheimer's disease and dementia is unknown to people and put them off."  
(07/03/2007)

The unwillingness of some people to help. When they hear it is about volunteer work they say no even before knowing what it is about.

### **Recommendations**

"Show the person an example of a person-specific programme."  
(06/03/2007)

Present a workshop for the residents where Alzheimer's disease and dementia are explained to them. Also what are symptoms there-of, how do you deal with persons with these pathologies, how do you do activities with them. If it is possible, expose them to residents who do suffer from these pathologies.

### **What I learned**

That even though the negative aspects are more than the positive aspects, the positive aspects mean more than the negative ones. It makes the difficulty of finding volunteers bearable.

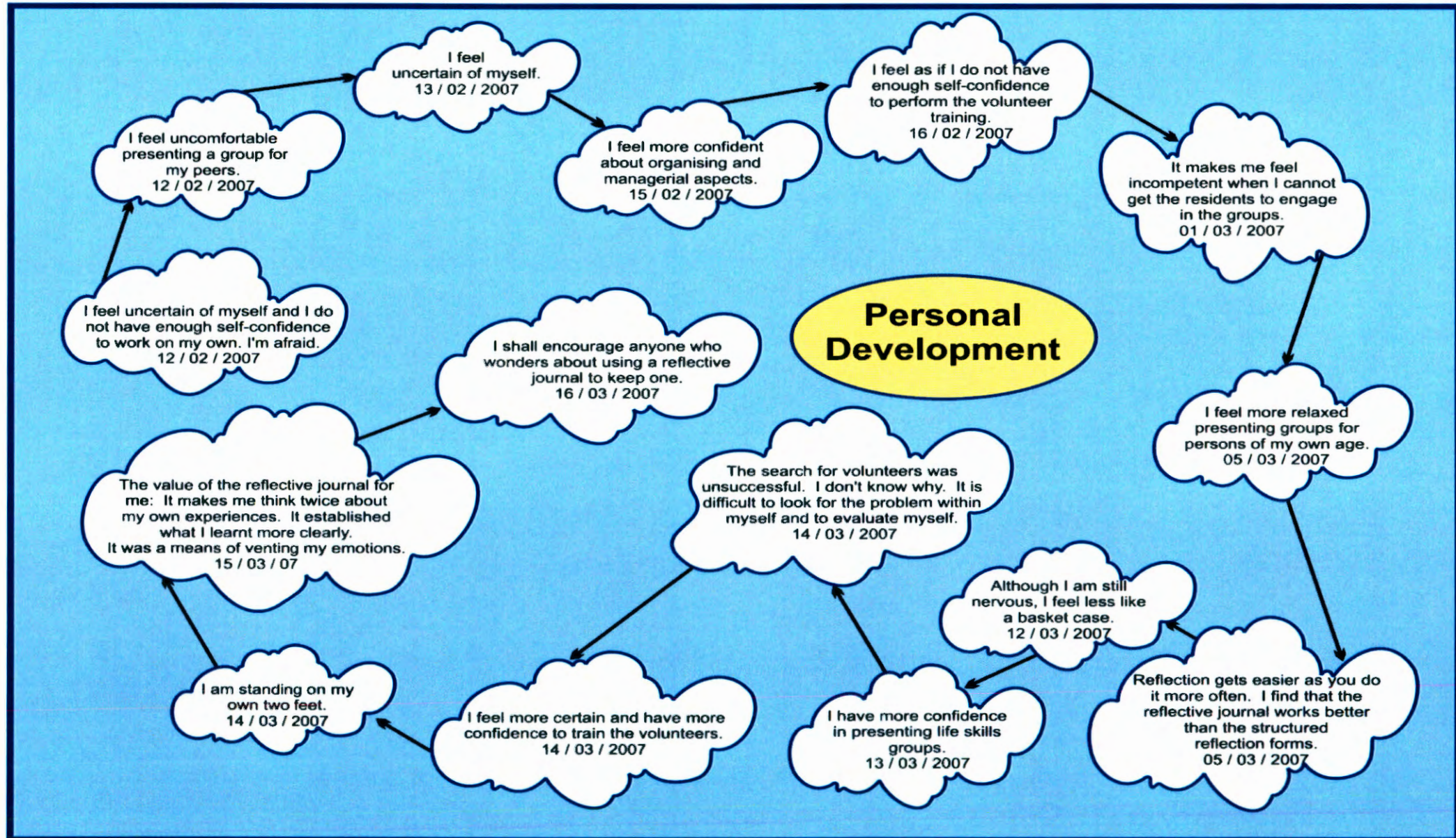
How to give persons older than myself guidance in aspects I know more about.  
(Training regarding the practical aspects of a group.)

That canvassing for volunteers is not so easy and could lead to many frustrations.

Source: Poster presented by the student during her presentation of Project 18



Figure 3: Poster content of reflective journal experiences during Project 18 portrayed after feedback





## 5.2 Making peace with societal injustice

Findings so far indicated that engagement in the successive mini-research projects supported OT students into taking responsibility for their own development. A mind-set of promoting self-directed learning could contribute towards cultivating an attitude that would promote service excellence despite circumstances. These circumstances generally refer to a lack of resources.

In a developing country like SA, where needs surpass resources, residents in a dementia care unit are generally viewed as well-cared for, if their basic needs for security, food and personal hygiene are met. From an OT perspective, however, an understaffed situation condoning sensory deprivation and not addressing maintenance of residents' residual skills and abilities opposes the ethos for enhancing well-being. So, from the outset the vision for the person-specific programmes challenged confines due to financial restraints in a country where basic necessities for survival in some communities are not always met.

Students involved in the dementia care unit appeared committed to address the residents' inadequate personal fulfilment and dependence resulting from restricted access to dignified and meaningful occupation. The establishment of seven person-specific treatment programmes to date highlighted the students' endeavour to prevent occupational apartheid that could jeopardise the residents' health and quality of life.

The nominal group technique also assisted the participants to agree that they endeavoured to:

- consistently provide a quality service despite unfavourable situations and circumstances.

This commitment to civic responsibility, the defined ethos of CSL, was apparent during the session utilising the nominal group technique. Two participants in particular focused very strongly on the selfless nature that should motivate community service. They felt that such an attitude would be a prerequisite to ensure that learning opportunities as well as personal and professional development could be embraced.

This attitude supported the group's agreement in the nominal group technique that engagement in successive mini-research projects promoted skills to:

- optimally utilise resources in the community; and
- apply interpersonal relationship skills in the community to facilitate communal goals.

By the time that OT students reach their final year it would be safe to assume that they find a deeper sense of purpose in what they do during clinical practice. The researcher perceived all 14 students involved at the dementia care unit as individuals committed to a future profession in caring and promoting a just society. Unlike other students engaged in community service, these civic responsibilities are not prompted by programmes on campus (Koth 2003). The reverse should rather be noted: OT students face unmet needs in every community where they engage in clinical practice.

The students involved in the dementia care unit were often observed to return in the first couple of weeks after their placement ended, mainly to ensure that the next student was sufficiently well orientated. It appeared as if they overcompensated for societal injustice by taking on responsibilities beyond their duties. They wanted to be sure that the new student could take over the responsibilities required for continuing the programme they had worked on and from which their clients had benefited. After this initial phase of orientation and when these students who had previously been involved became used to their new area of practice, their time and energy were then consumed by the next set of overwhelming needs in that particular area of clinical practice.

Societal injustice, however, refers to more than a lack of resources. Like most of their peers, students appeared not to seek out contact with elderly persons. The placement at *Ons Tuiste* was also the only clinical area that provided experience in elderly care. To a certain extent students were prejudiced by ageism – the fact that elderly persons are "*persistently labelled negatively*" (Labuschagne in Crouch & Alers 2005: 552). One of the students reflected on the experience she had gained as a result of her participation in the mini-research project as:



*"Geriatrics was not an area that I looked forward to, but I saw that OT could really play a role and could have a positive influence." (August 2006)*

After compiling four person-specific programmes as part of her assignment, the same student wanted future students who would still be participating in the mini-research projects in future to remember that:

*"Your heart should be in the project. It is important to find fulfilment from the small things, for example a smile, eye contact or just a hug from the residents. What looks like a minute change in terms of functioning to you, is an experience for them that makes a big difference. I believe that they feel that they are cared about, even if it is on a subconscious level. It is not always easy, but have courage! It is worth it." (August 2006)*

This student also documented the most important aspects that she learned at *Ons Tuiste* as:

*"...To view the elderly with a sensitive eye so as to really see their needs. How to apply humour in an appropriate way with the elderly." (October 2006)*

### **5.3 Recognising clients' view of reality**

Making peace with the societal injustice, prejudice and discrimination faced by those institutionalised elderly persons who cannot contribute to society any more, impacts on students' perceptions and therefore affects their worldview. A specific manifestation noted by the researcher was the insight these students gained when acknowledging the residents' view of reality.

Thirteen of the 14 students who participated in the mini-research projects were Afrikaans-speaking (and one was English). These students were confronted with their own style of communication as they preferred to address residents as *aunt* or *uncle* – in their culture a sign of respect for older persons. Even those who opted for a more professional approach by addressing the residents by their title and surname had to rethink this approach. Impairment of memory impedes communication in persons

suffering from dementia. The students learned through experience that the best way to engage residents in conversation, or just to have their presence acknowledged, was by making eye contact and addressing the person by the name used most frequently prior to the onset of the illness. This might have been a nickname used during the first 18 to 20 years of the resident's life; often addressing residents by their first name had the most positive result.

Furthermore, residents were confused by general conversation. Students had to let go of what they normally considered as good manners and use one-word sentences (mostly verbs) to elicit responses that could promote the residents' functional abilities. The researcher observed many trial and error situations prior to students gaining confidence and applying this technique to benefit the treatment situation.

It was only by acknowledging of the residents' individual experience of reality that person-specific programmes could be compiled. For one student who decided that her client's love for and background in music should dominate the treatment sessions, a personal lack of ability in this field was masterfully overcome during a demonstration session. Prompts for this resident varied from playing classical music on CD to putting sheet music in front of her when she sat at a piano. During this demonstration the resident could not respond to either of these prompts, but when the student engaged her in a duet, the parallel set-up of the activity promoted engagement. A feeble version of *Chopsticks* was the only asset in the student's repertoire, but it successfully engaged the resident in the activity.

Acknowledging and interpreting residents' view of reality was also manifested in different versions of the same activity for residents from different cultural backgrounds. For example, the focus on a hand-washing activity for a Sesotho-speaking resident who had mothered six children was triggered by the washing of garments, something she must presumably have done daily for her family. The same activity for an Afrikaans-speaking resident who had been a nurse focused on the hygienic component involved. Both, however, appeared satisfied with the result of engagement and were able to focus and complete the washing activity.



The way in which students adapted their behaviour to accommodate the realities of the residents in the dementia care ward indicated sensitivity towards their clients' worldview – not only respecting these persons' view of reality due to their pathology, but also acknowledging their perceived values, beliefs and cultural preferences. Taylor (2007) identifies this skill as diversity competence which is neither cultural competence, nor diversity blindness. As the students' understanding of their clients' realities went beyond the narrow confines of ethnicity and culture, it focused on more than just superficial characteristics that could reinforce stereotypes. Being client-centred enabled the students not to abuse an approach where insincere equality could have encouraged them to treat everyone in the same way, hereby ignoring uniqueness and differences. According to Taylor (2007) the ability to have an informed understanding of the world starts with the individual. In essence this requires that each person should be aware of his/her own norms, beliefs, values and practices on a personal and professional level. It is this awareness that could affect the basis of the students' personal worldview and spirituality.

#### **5.4 Acknowledging a deeper sense of purpose**

It should be acknowledged that an action inquiry approach could have enhanced the students' ability to bring to conscious awareness those beliefs, assumptions and preconceived notions that guide decision making even without deliberate previous attention or examination thereof (Van der Merwe 2005). For students to derive meaning from experiences they had to re-think situations and events. The amount of effort put into the *re-thinking* allowed for different levels of reflection and therefore different levels in deriving meaning from experiences could be gained.

The real-life setting in which the mini-research projects were conducted contributed towards action learning – in other words, learning from concrete experience as specified by Zuber-Skerritt (2001). But it is when feelings about what they know promote a deeper understanding that the effects of real learning as advocated by Senge (cited by Braham 1995: 9) are felt:

*"Real learning gets to the heart of what it means to be human. Through learning we re-create ourselves. Through learning we become able to do what we never were able to do. Through learning we re-perceive the world and our relationship to it. Through learning we extend our capacity to create, to be part of the generative process of life. There is within each of us a deep hunger for this type of learning".*

For the student engaged in Project 5 (in other words, designing a multi-sensory garden) thinking about gains due to engagement in the mini-research project surprised her as she could connect various areas of knowledge:

*"Personally I could believe a bit in my known abilities again after the feedback. It was rather interesting to see how I used knowledge that I have gained throughout my life (mom – plants and garden) (dad - building, drainage, materials). Also how much I enjoyed the effect of nature/outdoor life on myself." (May 2005)*

In the researcher's opinion the true value for OT students to engage in spiritual reflection would be to ensure personal nurturing, resolving and accepting the problems and pain faced by their clients. The moral and ethical dilemmas caused by irreversible pathologies within settings where limited resources restrict the development and effectiveness of services could also be dealt with in this way.

The students' earnest commitment was portrayed by a quote used and re-used in their separate mini-research project presentations at the end of the placement. They vocalised the extent to which they embraced their civic responsibility to their elderly clients in the words of Dame Cicely Saunders:

*"... we will do all we can, not only to help you die peacefully, but to help you live until you die."\**

Besides assisting students to cope with realities of the practice setting, Koth (2003) adds that spirituality can play a role towards promoting a long-term commitment to public service, because spiritual reflection strengthens the deeper meaning of these service-related experiences. The power of spiritual grounding, therefore, would not

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\* Quote downloaded from <<http://www/nhpc.org.html>> on 29/11/2007)



only assist students to face and cope with ethical and moral questions during clinical practice, but could assist them to embrace a profession that they feel supports them in living out their calling in life.

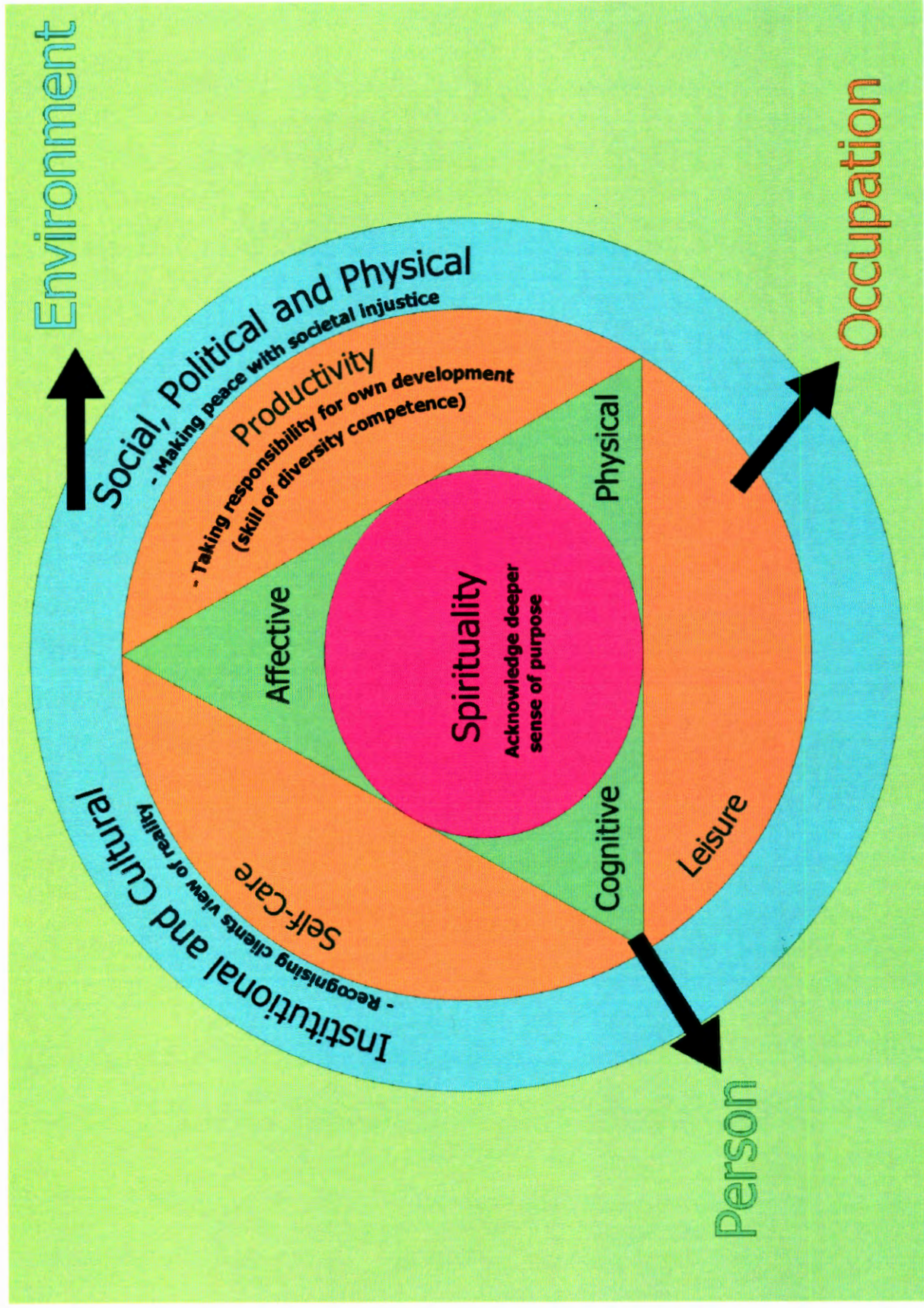
## 6. IMPLICATIONS

Action learning inherent to the process of executing the mini-research projects exposed students to thinking about why they did things in a certain way – not only on a professional, but certainly also on a personal level. Interpreting the findings from an OT perspective, the occupation that students engaged in was clinical practical work. The Canadian Model of Occupational Performance mentioned earlier was a useful tool to conceptualise the implications of the findings. Although it might be seen as a contradiction to apply a Eurocentric model to the South African situation, it is a powerful method of using the OT philosophy to interpret the students' experience during clinical practice at *Ons Tuiste*.

Figure 4 relates how clinical practice as a productive occupation incorporated the students' action of taking responsibility for their own development. Central to this aspect was the mastered skill in diversity competence. Both the cultural and institutional environment associated with *Ons Tuiste* helped the students to recognise their clients' view of reality. It was, however, the students' contact with the social and political environment evident in *Ons Tuiste's* dementia care ward that confronted them with the concept of societal injustice. Their ability to make peace with this aspect relied on change in their cognitive and affective abilities (due to these learning experiences) as well as the indirect effect this process had on their spirituality. The potential impact on their spirituality in turn facilitated their acknowledgement of a deeper sense of purpose in their lives.



Figure 4: Concepts underlying personal development during clinical practice based on the Canadian Model of Occupational Performance (Law et al, 1998)



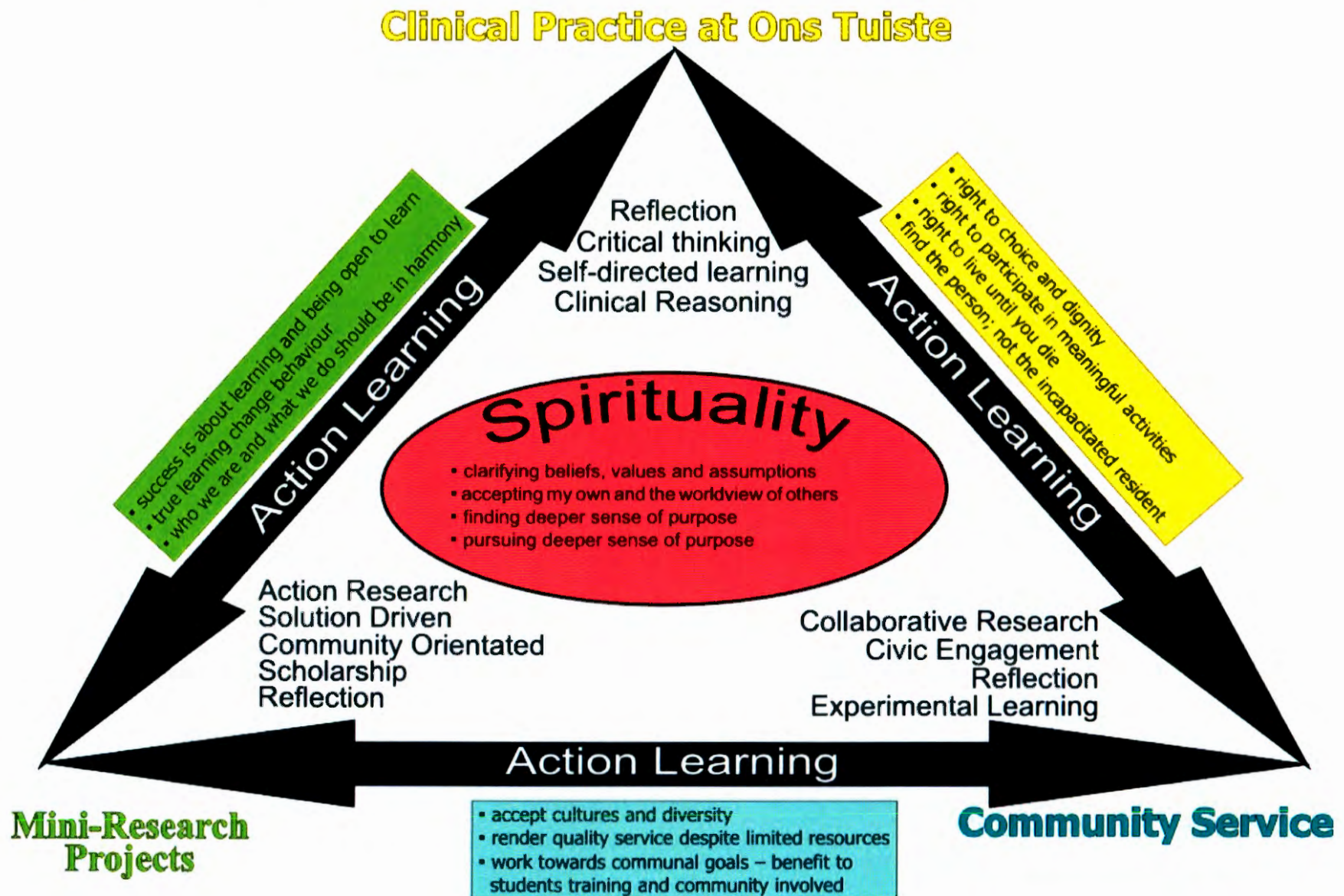


Even though application of this model might be an oversimplified way of explaining the implications of the findings, it helped to demonstrate that personal development is multi-faceted. It could simultaneously take place on more than one level while progress in one aspect could also promote progress in others. Development therefore, whether professional or personal, is a complex process.

The findings of this investigation indicated that personal development can be related to an individual's spirituality and worldview. Engagement in OT training and the prospect of a lifelong career reflected on students' pursuit of meaning in life. Weskamp and Rumugondo (in Watson & Swartz 2004: 165) acknowledges that many occupational therapists *"may feel uncomfortable with the idea of spirituality, and this is their right. But there can be little question that the issue of finding meaning, and making sense of life, is an important issue for many people – possibly, for everyone. We have all experienced what it is like to do or make something that brings us deep satisfaction because we know that who we are and what we do are in perfect harmony"*. The researcher argues that this should be a reality for an OT student before she could appreciate this value for her clients.

In essence, therefore, clinical practice, community service and execution of the mini-research projects were linked through the students' engagement in action learning. Figure 5 portrays how these concepts and their related values combined to impact on the students' spirituality. On the inside of the pyramid are the three primary concepts showing what experiences are promoted when students engaged in clinical practice. As these three concepts embrace the spiritual core of each student the obvious implication is that personal and professional development were cultivated by the action inquiry approach. Therefore, mini-research projects could be viewed as a vehicle in which to expand scholarship from the firm academic grounding offered by the theoretical setting to the generation of new knowledge in a more diverse environment presented by CSL.

Figure 5: Activities facilitated by action learning during clinical practice that could impact on personal development.





It therefore appears as if successive mini-research projects could promote a scholarship of practice. Within a scholarship of practice “a *community of learning in which students are apprentices in working with lecturers and practitioners to solve real world problems is emphasised*” (Forsyth, Mann & Kielhofner 2005:262). Not only did students learn how to apply knowledge, but they were involved in generating research that would inform practice.

The main findings, their significance and associated implications could prove valuable for the OT profession if the researcher proved the investigation reliable and valid. Several constructive procedures were incorporated in this investigation to promote reliability and validity as advocated by Anderson *et al.* (cited by Mills 2001). Table 5 portrays the verification strategies which contributed to rigour in the investigation, as well as factors that detracted from it.

*Table 5: Verification strategies promoting reliability and validity*

| <b>Aspect</b>       | <b>Promoted rigour</b>  | <b>Deterred rigour</b>  |
|---------------------|---|---|
| Democratic validity | Feedback from more than one situation contributed to triangulation of data.   | The personal context of the researcher, the fact that she views the profession of OT as her calling, directed her investigation and coloured her interpretation of findings.                                  |
| Outcome Validity    | Data from the first three research cycles confirmed and supported one another.  | Action research is an ongoing process and insights up to the third cycle could only be verified by future research cycles.  |
| Process Validity    | Towards the end of the first cycle the researcher proceeded from a technical towards a more practical mode of inquiry where she could encourage participation and reflection of the participants (Carr & Kemmis, cited by Zuber-Skerritt 2001). | Technical and practical modes of inquiry rather than an emancipatory approach were followed by the researcher and resulted in a less critical inquiry – data therefore are at risk of being more superficial. |
| Catalytic Validity  | Constant checking and re-checking of findings; comparing findings with literature.  | No recommendations have been made to alter the theoretical base of undergraduate training at the UFS in order to incorporate specific modules on spirituality and worldview.                                  |
| Dialogic validity   | Verification strategies included member-checking where students previously involved in the action research process were invited to read the researcher's interpretations and make comments.   | Hawthorne affect – even though ex-students were no longer enrolled at the UFS, the previous power relationship between them and the researcher could have influenced the quality of the member check.         |



As action research is an ongoing process, this investigation is the stepping-stone towards the third cycle. This will ensure that insights gained thus far will in future be put to further scrutiny and confirmed or modified if necessary. The action inquiry process also allowed the researcher to alternate her approach between technical and practical modes of inquiry. Additionally, data and method triangulation were applied and all these aspects contributed towards the reliability and validity of the investigation.

Finally it should also be acknowledged that the action inquiry process followed here impacted on the OT practitioner, the students on placement, as well as on the clients receiving the service. The focus of this article does, however, not extend to discuss the effects on the OT practitioner or the clients receiving the service.

## 7. CONCLUSION

Pre-registration education aims to deliver professionals who have an understanding of more than just core knowledge. Mere hospital-based learning could deprive students from the impact of experiences provided by working in the realities of specific community settings. Although Lorenzo *et al.* (2006) interpret professional competence as a dynamic and multi-faced quality – embracing clinical skills, problem solving, clinical reasoning, technical and interpersonal skills – gains in personal development should also be acknowledged. During clinical practice the facilitation of professional competence allows for the initiation of lifelong learning, which is “*a process of accomplishing **personal**, social and professional development throughout the lifespan of individuals*” (Dave, cited by Gropee 1998:116, emphasis by the researcher).

Successive mini-research projects utilised during clinical practice at *Ons Tuiste* appeared to have been instrumental in providing students with meaningful learning experiences in research and reflection. Therefore gains due to engagement in the mini-research projects could be indicated on both personal and professional levels.

Engagement in the mini-research assignment was promoted by proactive learning due to an action-learning approach. According to Braham (1995), proactive learning



encourages an attitude that involves planning a learning experience in order to reflect afterwards on what was gained.

The researcher therefore proposes that the findings of this study supported her argument that the impact of research and reflection associated with action learning promoted the participants' awareness of what gave meaning to their lives (in other words, their spiritual core) as well as an appreciation of their own and others' worldview. It is mainly these aspects of action inquiry that could sensitise students to embrace new learning experiences that could facilitate a culture of research while promoting personal development among undergraduate OT students at the UFS.

## 8. REFERENCES

- Alsop, A. & Ryan, S. 2001. *Making the most of fieldwork education – a practical approach*. Cheltenham: Nelson Thornes Ltd.
- Alsop, A. 2006. Qualifying as an occupational therapist: an educational journey from ward-based to workplace learning. *British Journal of Occupational Therapy* 69(10): 442 – 449.
- Braham, B.J. 1995. *Creating a learning organisation*. California: CRISP Publications, Inc.
- Bringle, R. and Hatcher, J. 2005. Service learning as scholarship: why theory-based research is critical to service learning. *Acta Academia* 2005 (3): 24 – 44.
- Dick, B. 2000. *The change process and action research*. Session 2 of Aerol – action research and evaluation on line.  
<<http://www.scu.edu.au/schools/gmc/ar/areol/areol-session02.html>>  
Downloaded on 10/03/2007.
- Duncan, M. 1999. Our bit in the calabash. *South African Journal of Occupational Therapy* 29(2): 3 – 9.
- Ellis, W. & Erasmus, M. 2006. Community Service Policy of the University of the Free State.  
<[www.ufs](http://www.ufs)>  
Downloaded on 16/02/2006.
- Erasmus, M. 2005. Community service learning and the South African Research Agenda. *Acta Academia* 2005(3): 1 – 23.
- Finlay, L. 2001. *The practice of psychosocial occupational therapy* (2<sup>nd</sup> ed). Cheltenham: Nelson Thornes Ltd.
- Finlay, L. 2006. Rigour, ethical integrity or artistry? Reflexively reviewing criteria for evaluating qualitative research. *British Journal of Occupational Therapy* 69 (7): 319 – 326.



- Forsyth, K., Mann, L.S. & Kielhofner, G. 2005. Scholarship of Practice: Making Occupation-Focused, Theory Driven, Evidence-Based Practice a Reality. *British Journal of Occupational Therapy* 68(6): 260 – 267.
- Gropee, N. 1998. Lifelong Learning in Health Care: Who will Pay? *British Journal of Therapy and Rehabilitation* 5(3): 116 – 117.
- Jamieson, M., Krupa, T., O’Riordan, A., O’Connor, D., Paterson, M., Ball, C. & Wilcox, S. 2006. Developing empathy as a foundation of client-centred practice: evaluation of a university curriculum initiative. *Canadian Journal of Occupational Therapy* 2(73): 76-85.
- Kinsella, E.A. 2000. *Professional development and reflective practice: strategies for learning through professional experience*. Ottawa: CAOT Publications ACE.
- Koth, K. 2003. Deepening the commitment to serve: Spiritual reflection in service-learning. *About Campus* January – February, 7(6): 2-7.
- Law, M., Babbiste, S., Carswell, A., McColl, M., Poltatajko, H. & Pollock, N. 1998. *Canadian Occupational Performance Measure*. 3rd ed. Toronto: CAOT Publications.
- Labuschagne, R. 2005 Chapter 25: Gerontology, psychiatry and occupational therapy. In: Crouch, R. & Alers, V. (Eds). *Occupational therapy in psychiatry and mental health*. (4<sup>th</sup> ed.) London: Whurr Publishers, 552 – 567.
- Lorenzo, T. Duncan, M. Buchanan, H. Alsop, A. 2006. *Practice and service learning in occupational therapy – enhancing potential in context*. Chichester: John Wiley & Sons, Ltd.
- McColl, M.A. 2003. *Spirituality and Occupational Therapy*. Ottawa: CAOT Publications.
- Martin, H. 2007. Role emerging placements: a success story in a climate of cutbacks. *Occupational Therapy News* 15(2): 24.
- McNiff, J. 2002. *Action research for professional development*. (3<sup>rd</sup> ed.)  
<<http://www.jean.mcniff.com/booklet1.html>>

Downloaded on 17/03/2006.

Mills, G.E. 2001. Three frameworks for validity in action research. Taken from: *Action Research. A guide for the teacher researcher* (2<sup>nd</sup> ed.).

<[http://imet.csus.edu/classes/250/10\\_17\\_for.htm](http://imet.csus.edu/classes/250/10_17_for.htm)>

Downloaded on 12/06/2005.

Taylor, M.C. 2007. The Casson Memorial Lecture 2007: diversity amongst occupational therapists – rhetoric or reality? *British Journal of Occupational Therapy*, 70 (7): 276-283.

Tripp, D. 2003. *Action Inquiry, Action research e-reports, 017*.

<[www.fhs.usyd.edu.au/arow/arer/017.htm](http://www.fhs.usyd.edu.au/arow/arer/017.htm)>

Downloaded on 14/06/05.

Van der Merwe, J.C. 2005. Unpublished paper: *The relevance of worldview-interpretation to healthcare in South Africa*. Bloemfontein.

Watson, R. & Swartz, L. 2004. *Transformation through occupation*. London: Whurr Publishers.

World Federation of Occupational Therapists. 2002. *Overview of the WFOT minimum standards for the education of occupational therapists 2002*. (PowerPoint presentation and narrative text on CD.) Sponsored by REED Health.

Zuber-Skerritt, O. 2001. Action Learning, Action Research: Paradigm, Praxis and Programs. In: S. Sankara, B. Dick & R. Passfield. (Eds). *Concepts, perspectives and applications*. Lismore: Southern Cross University.

Zuber-Skerritt, O. 2002. A model for designing action learning and action research programs. *The Learning Organization* 9(4): 143-149.

Zuber-Skerritt, O. 2005. A model of values and actions for personal knowledge management. *Journal of Workplace Learning* 17(1/2): 49-64.



**A MODEL FOR PROMOTING A RESEARCH ETHOS AMONG  
UNDERGRADUATE OCCUPATIONAL THERAPY STUDENTS AT THE  
UNIVERSITY OF THE FREE STATE**

**ABSTRACT**

The four years of undergraduate occupational therapy (OT) training at the University of the Free State incorporates various research-related activities. However, although knowledge and skills are addressed quite adequately, students appear not to embrace a lifelong inclination towards research once they start practising as qualified therapists.

Findings from a prolonged action learning action research (ALAR) study indicated that more emphasis on affective learning could be the key to address the facilitation of a research culture at undergraduate level for OT students. Consequently the researcher utilised research findings and relevant literature to compile a conceptual model based on a framework that could promote an appreciation for research-related activities (FARRA).

This proposed FARRA model was validated by submitting a questionnaire for scrutiny to an expert panel on local, national and international level. Reflections on feedback were applied to make adjustments to the model. In this article the researcher firstly conveys the journey for developing the FARRA model. Then the model is presented to indicate how the proposed roles, habits and values of undergraduate OT students should be addressed to facilitate an ethos for embracing research. The article is concluded by suggesting how the FARRA model could be developed further and adapted for undergraduate programmes outside OT.

**Keywords:** research-informed practice, mini-research projects, action learning, action research, undergraduate training, research culture, model

## 1. INTRODUCTION

The resourcefulness of South African occupational therapists and the way in which their ingenuity and determination triumph despite the circumstances they work in, are inspirational. The researcher has been concerned that despite this ingenuity little evidence thereof is recorded in scientific publications. Joubert (2005:10) actually states that South African "*occupational therapists are particularly bad at producing research.*" Consequently, it appears as if available research evidence is seldom applied in practice, whether in South Africa (SA) or internationally (Humpries, Littlejohns, Victor, O'Halloran & Peacock 2000, cited by Atwal 2002). Not only do occupational therapy (OT) clinicians admit to not employing research findings, but they specify numerous obstacles to building research capacity and thus ensuring quality health care (Forsyth, Mann & Kielhofner 2005; Alsop 1997).

Recently, Forsyth *et al.* (2005) attributed one of the most overlooked factors causing clinicians to omit theory in practice as the academic-practice gap, that is the way in which academics generate and present knowledge. Furthermore, in developing countries like SA, where a lack of resources and staff plague many public health sectors, these factors intensify other identified obstacles such as workload pressures and lack of support, time, energy and skills (Alsop 1997; Forsyth *et al.* 2005). Moreover, in SA, "*looking for evidence to determine if what one is doing is correct or not,*" after four years of undergraduate training, may be perceived as a luxury (Joubert 2005:10). This is especially true when Third World circumstances could raise questions as to the compatibility of data published elsewhere.

The pertinent question that arises is how occupational therapists could expect one to embrace the fullest potential of the evidence-based practice (EBP) agenda, where research informs practice, without firsthand experience thereof. It would be unrealistic to expect that engagement in a single research project during undergraduate training could ignite the full potential of research-informed practice. The researcher therefore identified an opportunity for research to inform practice in the mini-research projects on which students from the Department of OT, University



of the Free State (UFS), are assessed on in their final year. Student competence after each phase of clinical training in the fourth year is assessed by giving the student either a case study (*long case*) or a mini-research project (*short case*). During their final clinical examinations, however, passing both modes of assessment is a prerequisite to graduation.

Successive mini-research projects therefore served as encouragement to develop the service at *Ons Tuiste* (a residential care facility for elderly persons). The researcher attempted to incorporate recognised action inquiry procedures while structuring and coordinating the mini-research projects. This meant a formalised approach to evaluating the processes and actions that were followed, instead of merely putting in thought and action (as advocated by Tripp 2003). In this way the practical use of action research was encouraged in the clinical context while simultaneously generating evidence for practice.

Consequently, the researcher embarked on an action inquiry journey in an attempt to consolidate the values underpinning her work as part-time academic (at the UFS) with that of being consultant occupational therapist (at *Ons Tuiste*). The different phases of the study involved the completion of ten mini-research projects during the first action research action learning (ALAR) phase and another seven in the second cycle (see Table 1 for an outline of the topics).

*Table 1: Sequence and topics covered by successive mini-research projects*

| Chronological order | Project Title   |
|---------------------|---|
| <b>Cycle 1</b>      |   |
| 1                   | Design of a multi-sensory room (involving the community).                                     |
| 2                   | Compilation of indicators of selected residents' current functional abilities.                |
| 3                   | Critical comparison of standardised assessment with compiled list of indicators.              |
| 4                   | Critical evaluation of Projects 2 and 3 – adapt and apply form.                               |
| 5                   | Design of a multi-sensory outside area in designated space.                                   |
| 6                   | Critical evaluation of Projects 2 and 3 – adapt and apply form.                               |
| 7                   | Critical evaluation of two previous funding submissions and suggestions for adaptations.      |
| 8                   | Critical evaluation of updated submission and addition of an outside area.                    |
| 9                   | Design of multi-sensory passage with reminiscence theme (involving local artists).            |
| 10                  | Critically evaluation of documentation for sponsors and compilation of a DVD to accompany it. |
| <b>Cycle 2</b>      |   |
| 11                  | Selection of 10 residents to evaluate according to M.O.H.O.S.T. and observation grid.         |
| 12                  | Evaluation of selected residents with PAL and compilation of background questionnaire.        |
| 13                  | Processing of data generated by Project 11 and comparison with findings from Project 12.      |
| 14                  | Compilation of four person-specific treatment programmes.                                     |
| 15                  | Evaluation of reflective practice process encouraged as to increase research.                 |
| 16                  | Investigation of potential of duplication programme at Mooihawe as part of CSL.               |
| 17                  | Application of ICF to evaluate effectiveness of person-specific programmes.                   |
| <b>Cycle 3</b>      |   |
| 18                  | Investigation of action learning by implementing a reflective journal.                        |

Deeper reflections on the process to date revealed that recorded data mirrored the ALAR outcomes identified by Zuber-Skerritt (2005b). This implies that the researcher and students were exposed to a learning situation that encouraged:

- Transformational, experiential, existential and lifelong learning. (In all the projects.)
- Personal growth and professional development. (Generally in all the projects, but more specifically so in Projects 15 and 18.)
- Organisational, community development and change. (In Projects 1 to 14, 16 and 17.)

The apparent value of these outcomes would suggest that research-informed practice could initially be a good option for the SA situation as a counterpart to EBP.



Furthermore, engagement in mini-research projects could potentially address the assumed fact that research is neglected. The advancement of OT as a profession in South Africa would greatly benefit from the facilitation of research generation and/or application and sharing gained knowledge.

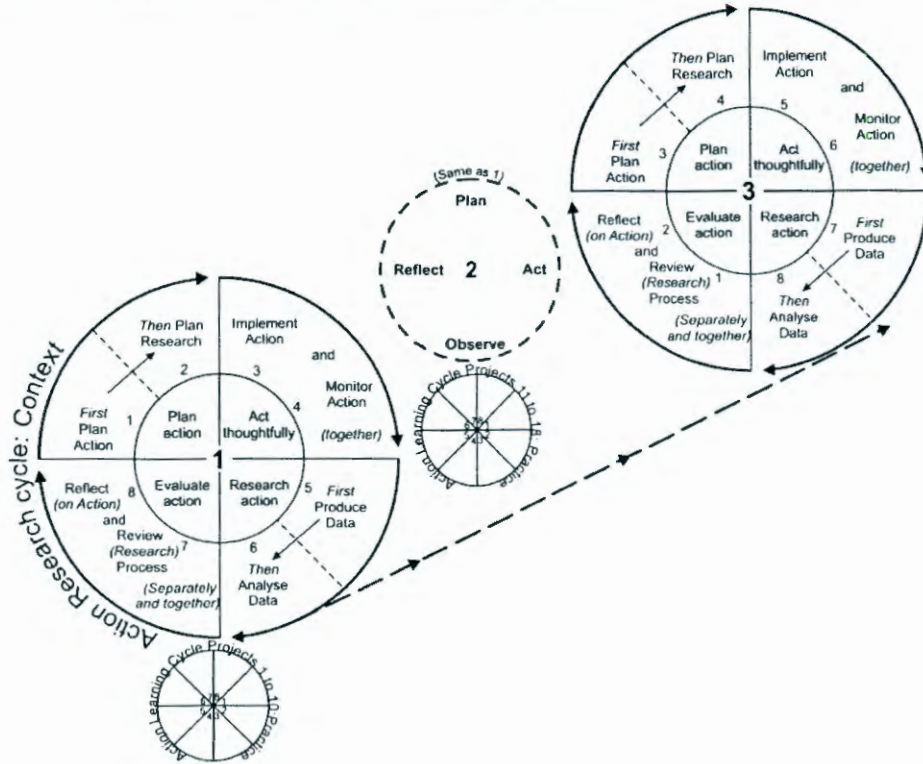
One way in which to address these apparent issues would be by facilitating a research culture at undergraduate level for OT students. Culture depicts an ethos of traditions and customs that would form a natural part of what OT students do and expect themselves to do. As in any culture, these traditions and customs would have to be part of *infant* student life, in order to mature with the student during the four years of undergraduate training.

In this article the researcher proposes a model that could support the development of a research culture within the UFS OT department, as a specific learning community. The article covers the research design and methodology, key findings from various phases in the study, background to the model and ultimately the proposed FARRA model. The article is concluded with reflections on how the model could be implemented, adapted and refined for various undergraduate training situations.

## **2. RESEARCH DESIGN AND METHODOLOGY**

This investigation formed part of a prolonged action inquiry and focused on the third cycle in which the researcher was involved (see Figure 1). Action inquiry is interpreted differently by different persons. In agreement with Zuber-Skerritt (1995), the researcher found it to be more than a technique, but rather a philosophy, methodology and theory of learning. Tripp (2003) describes this participatory democratic process for developing practical knowledge as a blanket term that could involve reflective practice, action learning, action research and researched action. According to Dick (2000a) the advantage of action research is that change can be facilitated while gaining an understanding at the same time.

Figure 1: Action research cycles engaged in during this investigation



The outcome of both action research and action learning is focused on improving practice (Dick 1997). Zuber-Skerritt (2005a:50) defines action learning as the opportunity to “*learn from each other, from action and concrete experience, as well as taking action as a result of this learning.*” Due to this approach, the students (involved in executing the projects) and the researcher (directing the projects) had a flexible and systematic method in which to conceptualise learning from experience (Zuber-Skerritt 2002).

The third action research cycle was significantly different from the two previous cycles as the researcher here initially engaged in the evaluation process (by contrast the *plan action* stage led the way in the other two cycles). This enabled her to focus on reviewing and reflecting on the overall process engaged in, rather than on organising and planning the next successive mini-research projects.

Another review of the process engaged in during the first two cycles enabled the researcher to contemplate actions and research that would support the development of a model for the potential facilitation of a research culture at undergraduate level.



Consequently the researcher was able to determine what context would support her next phase of research. An outline of the process involved is portrayed in Table 2.

*Table 2: Planning action and research for the third cycle*

| <b>What do I want to do?</b>   |   |
|--|---|
| <b>Plan action</b>   | <b>Plan research</b>  |
| Acknowledge what I learned about myself.   | }] Reflect and evaluate previous cycles.  |
| Acknowledge what I learned about practice.   |   |
| Identify contribution of current OT curriculum contents to the development of knowledge and skills relating to research.                           | Interview head of department; review literature, reflection on previous cycles.   |
| Pinpoint gains to practise when utilising successive mini-research projects.   | Interview head of department; head of school; review literature, reflection on previous cycles.                         |
| Identify gaps in use of mini-research projects that could hamper development of a research culture.  | Review literature, reflection on previous cycles.   |
| Identify actions/activities that could promote a research culture by supporting skills needed for successful engagement in mini-research projects. | Review literature, reflection on previous cycles.   |
| Compile a framework that would facilitate the development of a research culture.   | Review literature, reflection on previous cycles.   |
| Validate what I learned and what I propose (involve critical friends, and stakeholders).   | Discuss with critical friend, have validation group with stakeholders and discuss findings with second critical friend. |
| Test what I learned and what I propose locally.  | Select and submit survey to expert panel of five academics at UFS.  |
| Test what I learned and what I propose nationally.   | Select and submit survey to expert panel of three academics in SA.  |
| Test what I learned and what I propose internationally.  | Select and submit survey to expert panel of three academics in Canada, England and Australia, respectively.             |
| Compile a model that could facilitate the development of a research culture at undergraduate level for OT students at the UFS.                     |   |

The multi-method nature of this investigation is evident from Table 2. For each step of the process data were gathered, interpreted, compared and applied. This process was followed until a proposed model in support of the facilitation of a research culture was compiled. A questionnaire was compiled to gain feedback on various levels. The survey comprised both a qualitative and a quantitative section. The findings and discussion are presented together in support of the suggested model. To ensure that

rigour was maintained throughout the multi-faceted investigation, various procedures were incorporated to contribute to the trustworthiness and validity of findings.

Morse, Barrett, Mayan, Olson and Spiers (2002) warn that qualitative research should not deter researchers from including constructive procedures during the research process. They feel that many guidelines relating to the establishment of trustworthiness focus on evaluative procedures that are administered *post hoc* to the research process and do not necessarily ensure rigour. Taking heed of this warning, the researcher endeavoured to stay responsive throughout the investigation. She ensured that findings were "*systematically checked, focus*" was "*maintained, and the fit of data and the conceptual work of analysis and interpretation*" were "*monitored and confirmed constantly*" (Morse *et al.* 2002:6).

Other verification strategies (as advocated by Morse *et al.* 2002) incorporated were:

- **Appropriate sampling:** Participants were purposefully sampled for expert opinions on different levels. (This refers to clinical and academic staff within OT from a local, national and international level. Only one academic did not have an OT background. All the participants did have contact with aspects of the research at different stages of the action inquiry process).
- **Collecting and analysing data concurrently:** The investigation was a data-driven process. Dick (2000b) advocates that the advantage of such a course of action is that as the research proceeds, a better understanding of the situation being researched supports better plans for action and change.
- **Thinking theoretically:** This is also supported by the data-driven process that was followed as ideas emerging from data were verified by reconfirming them in new data.
- **Theory development:** Findings of the investigation were both an outcome of the research process, and also subjected to the scrutiny of an expert panel.

In addition to a purposeful effort to ensure rigour, action that involved participants directed ethical conduct. (See Appendix G for examples of the forms used.) Participants were purposefully sampled so as to contribute to the reliability and



validity of the findings. The involvement of participants was guided by values inherent to action inquiry. Zuber-Skerritt (2001, based on the work of Carr and Kemmis) emphasises that the process of action inquiry encourages participation and reflection of the participants. The inherent ethical principle of respect for persons underlying action research is reflected by Dick who refers to participants as *stakeholders* and who emphasises that "*ultimately stakeholders are **persons***" (Dick 2002:4, emphasis added by researcher).

Stakeholders and information relating to stakeholders during the investigation include:

- All students previously involved in the ALAR process at *Ons Tuiste* were invited to participate in a validation group. Five were able to attend.
- Five therapists were invited to attend the validation group. They indicated interest in the use of successive mini-research projects and/or were involved in their own research at the time.
- Feedback from the validation group was incorporated into the proposed framework and the framework was then subjected for scrutiny to various staff members at the UFS. These included the head of the School for Allied Health Professionals, the head of the OT department, one lecturer from the psychosocial field in OT, and one lecturer from the physical field in OT. Additionally a lecturer outside the OT department who was familiar with action research and involved with basic skills training of first-year students within the Faculty of Health was also involved.
- Feedback from the expert panel of the UFS was used to adjust the proposed framework. Thereafter it was then sent to three lecturers at universities within SA who had been external examiners for the OT department at UFS in recent years and were familiar with the mini-research projects. It was also sent to four lecturers internationally (in Australia, the United Kingdom, the United States of America and Canada). Three of these four persons attended a conference at which the researcher presented a paper and therefore had a basic background on the study. The fourth assisted the researcher to find appropriate tools for measuring the functional ability of the elderly persons at *Ons Tuiste* and from then on has taken a keen interest in the progress of the investigation.

- A critical friend, in addition to the research supervisor, also assisted with focus in the study. She was involved regularly to discuss progress and to support the researcher with her reflections on the process which followed.

### **3. KEY FINDINGS FROM VARIOUS PHASES IN THE STUDY**

The findings are portrayed in sequence relating to the data-driven process followed. Initially the reflections of the researcher for the ALAR cycles implemented prior to this investigation are portrayed. The significance of these findings is discussed by reviewing the context preceding the first cycle and then inspecting the practical components of the first two cycles. Lastly, the context preceding the third cycle also receives attention.

#### **3.1 Personal insights gained due to action inquiry**

The action inquiry process engaged in had a profound impact on the way the researcher structured and conducted the successive mini-research projects at *Ons Tuiste*. Table 3 specifies insights resulting from the action inquiry and how the researcher endeavoured to adapt her actions to the advantage of her students and clients. Table 3 also indicates how engagement in this process impacted on the researcher in her capacity as a researcher, educator and occupational therapist. The most poignant (and definitely comical) revelation was the preoccupation of both the researcher and the students with their actions (*doing*). The researcher often became frustrated with the students' preoccupation with actions rather than using opportunities for reflection to focus on personal growth. However, she had to acknowledge that many recordings in her reflective journal also focused predominantly on previous and future actions rather than personal insights into herself and/or her skills and abilities.

Overall, these deeper reflections during the initial phase of the third cycle, guided the researcher to come to the realisation that she wanted to promote an appreciation of research-related activities for undergraduate OT students at UFS. The insights supporting this vision and the actions followed in an attempt to realise it, are discussed next.



Table 3: Action learning due to action research undertaken by the researcher

| <b>What did I learn?</b> |   |   |
|--------------------------|---|---|
| Cycle                    | <b>Data from cycles 1 to 3 revealed that:</b>   | <b>Personal insights gained were that:</b>  |
| (1)                      | <p>There are a scarcity of SA OT publications and little research. Obstacles identified relate to: lack of time and knowledge (competence).<br/>Work-based activities are the preferred continuous professional development (CPD) activities for research engagement.<br/>Research can inform practice (access, apply or generate) and that findings from mini-research projects could be an alternative to EBP for SA.</p>   | <p>Innovative practice is not shared<br/>Observed reservation of clinical colleagues for articulating thinking.<br/>I was motivated to share the findings of my research at conferences and to encourage students to do the same.<br/>I wanted to involve both students and clinicians to participate in my study - I want results that are practical and easy to implement.</p>  |
| (2)                      | <p>Students valued the purposefulness of successive projects. It was not merely an engagement with the aim to practice research-related skills.<br/>Practical tips for students executing successive mini-research projects are:</p> <ul style="list-style-type: none"> <li>➤ Identify verbs in the assignment to direct focus.</li> <li>➤ Share all findings, not just the outcome.</li> <li>➤ Be realistic (what can be accomplished within resources and time).</li> <li>➤ Define and identify research actions engaged in.</li> <li>➤ Demonstration aspect should portray practical skills as a therapist.</li> <li>➤ Formulate aims and outcome (do not list as actions).</li> <li>➤ Be familiar with assessment form: this will assist with executing the project and provide a basis for a holistic approach.</li> </ul> <p>Only the identified steps in KAB409 module guide for mini-research project engagement enjoyed preference for directing the research aspects.<br/>Students identified skills gained as being able to</p> <ul style="list-style-type: none"> <li>➤ Apply steps involved in research process.</li> <li>➤ Start, follow-up or implement projects.</li> <li>➤ Apply research approach when expanding services.</li> <li>➤ Take responsibility for own learning (understanding and interpreting assignment correctly).</li> <li>➤ Analyse data.</li> <li>➤ Select most appropriate information for presentation.</li> <li>➤ Present information in a scientific way.</li> <li>➤ Recognise the value of research.</li> <li>➤ Apply self-discipline, internal motivation, self-assertiveness, sense of responsibility, problem solving, decision making, thoroughness, planning, time management, asking for assistance.</li> </ul> <p>Students identified knowledge gained as being able to:</p> <ul style="list-style-type: none"> <li>➤ Identify voids in theory and practical skills.</li> <li>➤ Engage in reflective practice to promote personal and professional development.</li> </ul> <p>The students' ability to make peace with societal injustice and finding a deeper sense of purpose could be linked to their espoused belief and values (spirituality).</p> <p>Students adapt their worldview to accommodate their clients' view of reality. (The aesthetic quality of completed mini-research projects indicated the affective value experienced by students).</p> | <p>Students want to know that hard work would not be lost but utilised to benefit of clients.</p> <p>Students prefer to act (do) rather than think (reflect and interpret) about their own learning. I realised that I also often used my reflective journal to document past or planned future actions rather than interpreting them! Our natural tendency seems to be to focus on the cognitive and practical aspects of the task at hand.<br/>Formulation of assignments has to include an outcome, background and guidance for the scientific approach.<br/>The assessment form can be adapted to provide clearer guidelines for both assessors and students</p> <p>Students do not identify the research genre applied during research process. Their engagement indicates knowledge and skills but not an appreciation of research. The skills students identified they gained were not all specific to engagement in the mini-research projects. Many relate to managerial skills and client involvement during clinical practice of OT students from UFS in their fourth year of training.</p> <p>Reporting findings and sharing of insights gained had many facets. I communicated the progress of the ALAR inquiry on a regular basis with the stakeholders, but also shared on a national and international level at three different conferences. The students presented their mini-research projects when they were assessed. They however also participated in a national conference by presenting two papers and one poster presentation.<br/>I realise the important role my values, beliefs, spirituality, civic responsibility and worldview played in my choice of OT as a profession.</p> <p>I want students to embrace elderly care and value older persons for the whole life they have lived, rather than focusing on difficulties that prompted their admission to a care facility<br/>I observed the development of ownership due to mini-research projects. How could students share these values, roles and habits relating to research with peers?</p> |
| (3)                      | <p>Mini-research projects can facilitate the opportunity to develop and apply knowledge and skills relating to the research process, scientific writing, verbal presentations and visual presentations.</p>   | <p>I want students to take ownership of research and their potential researcher roles. How can I assist them to enjoy and appreciate it?</p>  |



### **3.2 Context directing actions of first research cycle**

Data from the first cycle (as specified in Table 2) revealed that occupational therapists would consider engaging in research if these activities were work-based. Therapists also exhibited a reluctance to express their opinion or to engage in conversations for voicing their critical thinking.

The ALAR process which directed the mini-research projects also encouraged research on a macro (for the researcher) and micro (for the students) level and formed an integral part of the service delivery at *Ons Tuiste*. This meant that it was not an added burden but was integrated into the duties executed by both the clinical supervisor and the students. Furthermore, besides the structured assessment where students had to express critical thinking in support of their mini-research project execution, the nominal group technique applied during discussion sessions also provided additional opportunities for students to share their views.

### **3.3 Improvement of practice evident in first two action research cycles**

#### ***3.3.1 Adaptation of the assessment form***

From data reviewed in the second cycle, a practical piece of advice for students executing the mini-research projects, was to familiarise themselves with the form used during their assessment. The combination of a comprehensive assignment with an understanding of what one will be evaluated on, assists students to prepare for what is expected of them when conducting mini-research projects. The OT department provides supervising clinicians involved with final-year OT students with a guideline to use when assessing mini-research projects (refer to Appendix D). This used to be a checklist to ensure that guidelines for completion of a mini-project were adhered to, as well as providing an outline of how many marks should be allocated to each section.

Initially the researcher supplemented the assessment guideline with a reflection form that the external examiner was requested to complete after assessing the mini-



research projects. (As clarification, please note that the clinician, in this case the researcher, is always joined by an academic member of the UFS staff for evaluation of student competence during the final week of each clinical placement). The examiner's reflection focused on what was positive about the student's presentation and the mini-project contents, in addition to making recommendations for refining the assignments given. The researcher (as supervising clinician) also reflected on the presentation and compiled a table of positive and negative aspects for each student. The researcher focused her reflections on the project contents, methods applied, practical viability of findings and the quality of information conveyed in the presentation.

Although relevant information was obtained from the checklist, as well as the reflections by the examiner and researcher, feedback was still vague. In an attempt to simplify the feedback process the researcher quantified and expanded the original guide. This contributed significantly to structuring the evaluation so that both the student and evaluator benefited. The checklist was adjusted by dividing it into subcategory sections and incorporating a rubric. Each section was also supported by comments arising from reflective questions (refer to Appendix E). The rubric specifically guides mark allocation by indicating on a scale from one to five what aspects of the case study are:

1. unacceptable;
2. emerging (basic);
3. developing (commendable);
4. proficient (good); or
5. exemplary (exceptional).

Although the assessment grid is a work in progress, the researcher found that this revised format assisted with objectivity in allocating marks and allowed feedback to students in a much more organised way. Students were often so focused on the actions they engaged in when executing mini-research projects, that mark allocation for the scientific course of action followed, was purposely incorporated in the assessment.

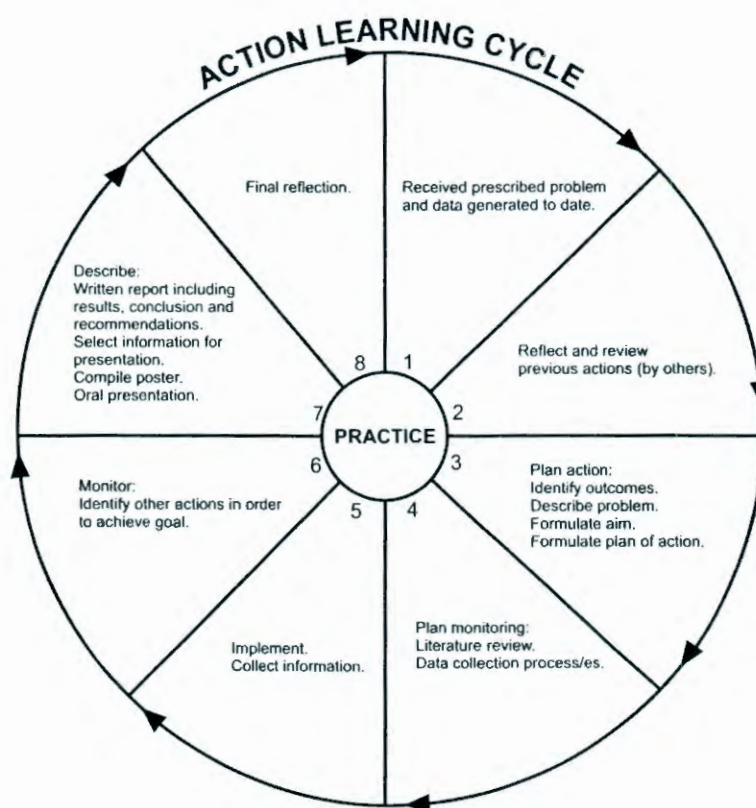
An aspect that was not directly included on the assessment form, and that could impact on how students approach mini-research projects, was their acknowledgement of how an appreciation for the research process followed might influence the interpretation of their results. Further use and scrutiny by means of the ALAR approach, however, would ensure refinement of this tool to make it even more helpful.

### ***3.3.2 Embracement of the research process***

Research, quite obviously, formed an important aspect of the mini-research projects. Figure 1 focuses on the action learning cycle of the students. This process related significantly to Tripp's (2003) reflective practice cycle. There was however a formal research component embedded in the students' action learning experience. Figure 2 combines the action learning aspects with the UFS guidelines (see Excerpt 2) students had to follow when executing a mini-research project. For example, during the *PLAN ACTION* phase, students were required to identify outcomes; describe the problem; and formulate an appropriate goal for the project. By the time they *PLAN MONITORING* they should have completed a literature study and selected means for data collection. The *DESCRIBE* phase would also involve selecting information to include in the final presentation of the project – the action for assessment of the completed project. In the final *REFLECTION* phase, students had the opportunity to analyse their presentation and engagement in research after being evaluated and receiving feedback. Therefore, in Figure 2 the first four steps relate to the *plan* process, step 5 is *act*, step 6 is *observe* and steps 7 and 8 are *reflect*.



Figure 2: Action learning cycle



Mini-research projects could therefore be viewed as a direct opportunity to apply research-related knowledge and skills. It was however quite an encouragement for the researcher to observe an affective experience revealed by the students. A recording in the researcher's reflective journal on 12 May 2005 reads as follows:

*"A comment I shall always cherish was when N (student assessed) stated that she would not even mind if her whole form was changed by the next student. She felt she had the same advantage because she had A's (previous student) form to work from. She (N) said it was very exciting to be part of an ongoing project and that she would like to be informed of how it progressed."*

The quotation supported data indicating that most students valued the legacy they left through their completed mini-research projects. Students appeared to take ownership of their efforts. They saw their contribution as part of a process that endeavoured to address the quality of life of persons severely affected by the final stages of dementia. They did not only address these persons' wellbeing, but

promoted the quality of the OT service at *Ons Tuiste* and also assisted their peers (by executing assignments to the best of their ability) in providing the foundation for successive projects.

### **3.3.3 Sharing of research**

McNiff (2002) states that accountability is part of good practice and in doing action research and sharing findings, one would therefore give account of oneself. Furthermore, one of the main characteristics of qualitative research is communicativeness (Lamnek, cited by Zuber-Skerritt 2005b). This refers mainly to situational interaction between the researcher and stakeholders, but the openness fostered by this methodology also has the implication that knowledge gained should be shared to the benefit of others.

In the course of the ALAR process at *Ons Tuiste* the researcher embraced three different opportunities during the first two cycles to share findings and insights gained. These were in Sydney (focusing on research in OT), Pretoria (focusing on community service learning in tertiary education) and in Estoril, Portugal (focusing on person-specific programmes for persons with dementia).

The most significant experience for the researcher was at the World Federation of Occupational Therapy Conference in Sydney (July 2006). The focus of the researcher's paper was, "*Why don't South African occupational therapists publish?*" Besides immediate feedback from attendees that served as encouragement to proceed with her endeavour to improve practice, the researcher received various communications after the conference. Two were from OT academics at other universities in SA, working on postgraduate studies, sharing some aspects covered by the researcher's presentation. Two others were from academics abroad who wanted to continue discussions on the subject. The other two papers also resulted in various follow-up communications and even an invitation to speak at the June 2007 World Association Cooperative Education Conference in Singapore.



Experiencing the impact of her research findings by presenting them for feedback motivated the researcher to purposefully investigate opportunities for the undergraduate students at the UFS to share their mini-research project findings outside the university set-up. Three students presented papers and a poster at the 2007 Occupational Therapy of South Africa Conference in Pretoria. This provided a new and unique learning experience. Directly after presenting her paper, one of the students sent the researcher an SMS to say,

*"Mrs. Du Toit I think I went up a level in creative participation due to all the wise people I have met at the congress. The week meant an immense lot to me. THANK YOU!"*

In a letter thanking the sponsor who made attendance of the conference a reality, the gains identified by this student appeared to have impacted on her at a spiritual level (see Excerpt 1).

*Excerpt 1: Student's experience of sharing research on national level*

Thank you very much for the opportunity to attend the OTASA Congress. It's been a huge learning experience. I've learned a lot about our profession and the attitudes of different occupational therapists. I came back a changed and inspired person both professionally and personally.

I had the opportunity to think critically and the most important lesson that I have learned, is that no one has got all the answers. We as occupational therapists can only work together to find the best answers to life's questions and to promote and strengthen our profession. You are never too old or too clever to learn. Nonetheless, I was privileged to be in the presence of all of that wisdom. It was almost tangible when you walk into the seminar rooms.

I have gained a lot of self-confidence by giving my paper. I never thought I would say this, but despite being nervous, it was quite an enjoyable experience.

So thank you very, very much. I wish I had better words to describe the change that happened inside of me.

Source: Letter of thanks included with permission from the writer. Emphasis added by the researcher.

### **3.3.4 Creating an affective experience**

There was a strong indication that exposure to the successive mini-research projects exposed students to the value of research during their placements at *Ons Tuiste*. The researcher was not unaffected by how students adjusted their worldview to accommodate the realities of their clients. To single out but one example, Project 5 focused on designing a multi-sensory outside area in designated space. When

reflecting on this student's project presentation, the researcher recorded the following on 17 May 2005 in her reflective journal,

*"I was very impressed with the level of innovation and creativity displayed. Lovely ideas! Incorporated very practical issues – even flowers that won't attract bees!"*

The students displayed a level of ownership that was reflected in the research process, scientific writing, verbal presentation, as well as visual presentation that formed part of the mini-research project execution. It appeared as if the mini-research projects had the potential to instil roles, habits and values that could promote a culture of research at undergraduate level for the OT students at the UFS.

What the researcher observed is resonated by Zuber-Skerritt (2007: in press). She states that *"learning in this century must mean more than an accumulation of knowledge. It must be the ability to problem solve and think creatively and analytically."* She further explains that this is especially true for SA as a developing country where research and development have to be *"fast, innovative and pro-active to solve longstanding poverty and consequently social and health problems."* She also indicates that mentorship and modelling would impact on an affective experience as it *"is the by-product of emotions, such as self-confidence, optimism, independence, enthusiasm, feelings, beliefs and values."*

### **3.4 Context directing actions of third research cycle**

During the third action research cycle, the researcher endeavoured to develop a model that would facilitate a culture of research by utilising the opportunities provided by mini-research projects during clinical practice. In order to ensure an appropriate context for this endeavour, it was presented to a validation group for scrutiny. The researcher then incorporated the professional judgement and critical feedback by this group to add to the educational value of the proposed framework (McNiff 2002).



### **3.4.1. Validation group**

During the process of constructing the framework, the researcher validated the gains she experienced during the prolonged action inquiry process, by sharing findings, insights and the proposed framework with a selected validation group of 10 members (see Section 2). The meeting commenced with an explanation of the focus of the researcher's action research journey and then conveyed insights and the conceptual ideas for a proposed framework. The attendees were invited to interrupt the researcher at any time when information was unclear and then the proposed framework was discussed at length.

Cryptic notes were made by a volunteer as to minute the most important aspects of the meeting. From reflections on the discussion (aided by these notes) the researcher identified three main issues:

- Perspectives on research.
- Potential benefits of a research culture.
- The role of constructive feedback.

Firstly, the group agreed that research was not something that occupational therapists or OT students encountered every day. Students were introduced to different aspects of research from their first year onwards, but may never have been orientated to the bigger picture of where research fits in. Therapists would occasionally encounter research material, which might have however promoted an impression that it was all about numbers (quantifying facts). Therefore it appeared as if the current generation of therapists were afraid of research.

Secondly, being afraid of research may be combined with the inability to handle criticism which prevented therapists from giving their own opinions. This created the challenge of facilitating the development of a new generation of therapists as part of a research culture. These therapists, it was hoped, would perceive accessing and applying previously generated data or generating new research findings as a natural part of what they do in practice.

Poor handling of criticism was associated with the third issue identified during the meeting, and that related to the inability to give constructive criticism. Students had the potential to learn from one another, but this opportunity was hampered when they avoided being critical of their peers. Constructive feedback could be a meaningful learning opportunity when it was viewed for the potential growth it could instigate. It would be even more helpful if possible alternatives and/or solutions could be provided for the weaknesses observed when other students present mini-research projects. Events where students, lecturers and clinicians could come together to learn from one another when mini-research projects were presented and feedback given, were welcomed by all those present at the meeting.

The validation group served as an encouragement to the researcher as the concept of a framework to promote an appreciation of research-related activities (FARRA) was well received. It also motivated the researcher to consider the actualisation of the proposed FARRA model in more detail.

### ***3.4.2 Continued validation process***

By means of the FARRA model a way was suggested for promoting feelings of worth that would foster trust, collaboration and openness when students are exposed to research-related activities. The researcher wanted to justify her interpretation of how this should happen. Consequently, the validation process played a very important role in verifying the contents of the proposed FARRA model. Information from the initial validation group, literature reviewed and data relating to the current research structure within the OT department at UFS were applied to formulate a conceptual model and draft framework. These documents were then submitted to expert panels for further scrutiny and feedback as part of a validation process.

#### ***3.4.2.1 Background on the survey***

Features for the proposed FARRA model were converted into a survey (see Appendix F). The survey had seven sections. Each section gave the participant the opportunity to evaluate the proposed element quantitatively by indicating whether it was essential



(crucial/critical), useful (valuable/practical), or unnecessary (excessive/disused). Each section was also concluded by the opportunity to verify qualitatively the choice made with comments and/or suggesting modifications. The seven sections included:

- The four areas selected for promoting research-related activities.
- Competency levels for promoting research-related activities.
- Levels for visual presentation associated with the ability to use media in support of verbal presentations.
- Levels for verbal presentation associated with the ability to articulate thinking and insights on assignment and eventually basic research findings.
- Levels for scientific writing associated with the ability to portray thinking and insights on assignments and eventually basic research findings in written format.
- Levels for the research process associated with the ability to purposefully collect, evaluate, synthesise and analyse information that would support thinking, insights and indicated aspects of research findings.
- The actualisation process for providing interactive learning opportunities to apply, observe, participate and model knowledge, skills and attitudes associated with research-related activities. This focused on yeargroup-specific theoretical course activities in combination with inter-yeargroup opportunities for assignment or research presentation and poster exhibitions.

#### 3.4.2.2 *Expert panel feedback*

The opportunity to validate the contents of the proposed model with colleagues (locally, and then nationally and abroad) provided an insightful learning curb. It provided the researcher with the opportunity to prepare herself for feedback and to apply feedback constructively. Additionally a very practical lesson on using e-mail for distributing the survey was learnt. Word documents should be saved in a format (like rich text format) that is accessible to most computer programs, as some colleagues did not receive all the information sent. Feedback from the expert panel is included in the discussion of the FARRA model. The response rate was as follows:

- Local panel 5/5 (100%)
- National panel 1/3 (33%)
- International panel 3/4 (75%).

## **4. BACKGROUND TO THE FARRA MODEL**

In addition to key findings from various phases in the study, the context for promotion of a research ethos within the OT programme at the UFS also involved surveying the theoretical aspects, research module and clinical training that were part of the qualification. All these factors had to be considered alongside the literature focusing on research as part of undergraduate tertiary education.

### **4.1 Research at undergraduate level**

In order to appreciate the potential role of research in undergraduate training, a closer look was taken at the literature to assert what research actually means, which problematic issues relating to research exist in undergraduate training, as well as how it could and should contribute towards the development of a profession.

#### ***4.1.1 What is research?***

Definitions of research basically stipulate engagement in an organised process in order to learn something. According to French, Reynolds and Swain (2001) research refers to the process of systematic inquiry and finding out. This process is engaged in to improve an understanding of the topic concerned (it could also include a theoretical dimension).

With specific consideration to the nature of OT, involving both art and science components, the science aspect of research could refer to the generation of new knowledge through the application of a scientific method. This implies achieving interplay between curiosity, creativity, critical thinking abilities and knowledge of research procedures (Isaac & Hubert 1999).

#### ***4.1.2 Issues concerning research***

Research appears to be an inseparable part of university activities. Much debate and controversy however surrounds the teaching versus researching roles of a university



(Healy 2005, Deem & Lucas 2006). The Boyer Commission (1998:10) attributes the apparently irreconcilable relationship between research and teaching to lack of vision of the universities involved, as there is *"no connection between undergraduate study and the creation of future research faculty."* Winn (1995) supports this statement as she feels this situation is aggravated when students do not know what the aim of their involvement in research is. (For example, should they be critical consumers of research or foresee becoming research practitioners?)

Beside the lack of scope, poor organisation also appears to have a negative affect on undergraduate research development. While Booth and Harrington (2003) specify that there is a lack of literature to support the structuring of research training, Willison and O'Regan (2007) indicate the need for a theoretical framework to conceptualise undergraduate research training across disciplines.

## **4.2 Factors to consider when organising undergraduate teaching**

The Boyer Commission (1998) advised universities to leave the teaching versus research debate behind and focus on how to be creative in training scholars. A very inspiring fragment within the report by The Boyer Commission (1998:9) refers to the unifying quality of research at university:

*"The ecology of the university depends on a deep and abiding understanding that inquiry, and discovery are at the heart of the enterprise, whether in funded research projects or in undergraduate classrooms or graduate apprenticeships. Everyone at a university should be a discoverer, a learner. That shared mission binds together all that happens on a campus. The teaching responsibility of the university is to make all its students participants in the mission."*

### **4.2.1 Constructive alignment**

In order to promote a journey of discovery that would enable a lifelong research ethos among students, Willison and O'Regan (2007) recommend an organised approach to research, involving both research-orientated teaching (learning how to do research

within a specific discipline), and research-based teaching (students conducting their own research).

An organised approach to teaching holds many facets. One of the challenges the researcher experienced as a lecturer, was that students had very diverse backgrounds. Therefore one should never assume that students have had the same opportunities for prior learning in any given area. Moreover, learning styles differ and personal motivation influences the potential to learn. Biggs (2006:13) summarises these facets as: "*what people construct from a learning encounter depends on their motives and intentions, on what they know already, and on how they use this prior knowledge. Meaning is therefore personal.*" Biggs (2006) further advocates that learning styles and a deep learning approach involve reflection, understanding the big picture and constructive alignment (in other words that all components support each other while creating a certain climate for learning).

#### **4.2.2 Professional guidelines**

Besides ensuring that teaching is aligned, there are rules and procedures that direct the training of undergraduate students. For the OT students at the UFS, guidelines to adhere to are mainly those from the South African Qualifications Authority (SAQA) as well as the Professional Board for Occupational Therapy [part of the Health Professions Council of SA (HPCSA)].

As the focus of this investigation was on whether the mini-research projects at undergraduate level could assist in facilitating a research culture, relevant information from specific documents is highlighted. These include specifications relating to research in the Professional Board for Occupational Therapy standard of practice for occupational therapists (2004); the regulations relating to the registration of occupational therapy students and the minimum training standards for the training of occupational therapy students (2004); a submission to SAQA for the registration of OT undergraduate training qualification (2007); and critical outcomes for cross-field training specified by SAQA (2001). (See a summary in Table 4.)



The critical cross-field outcomes, as mentioned before, were an integral part of theoretical and clinical modules within the undergraduate programme at the UFS and promote problem solving in order to discover through learning. (The only cross-field outcome that was incorporated to a lesser degree in the OT programme at the UFS was the development of entrepreneurial opportunities.)

With regard to SAQA registration, baseline research knowledge and skills were covered and appeared to be aimed at fostering critical awareness and in-depth knowledge for training proficient consumers of research.

Constructive alignment in the development of skills was apparent between the minimum training standards and the standards of practice. Both these documents reflected the identified SAQA registration exit levels. The minimum training standards specifically indicated the role of research for maintaining and sustaining the ability to function effectively as a future therapist. In comparison, the standards of practice related to research as being an integrated part of service delivery to improve quality of practice.

All four documents involved knowledge and skills associated with the ability to engage in research or for applying research data (generated by self or others). Once again, the focus was on cognitive and practical aspects. No specific reference was made to an affective mastery or appreciation of research.

Table 4: Professional guidelines relating to the research aspect in training

| Standard of Practice   | Minimum Training Standards  | SAQA Registration (Components of Exit levels 6, 9 and 10)   | Critical Cross-field Outcomes  |
|--|---|---|--|
| <p>For Standard I professional standing and responsibility also relates to:</p> <p>Knowledge about research.</p> <p>Applying research findings ethically and appropriately.</p> <p>Communicate research findings with support staff.</p> <p>For Standard VI a registered therapist should:</p> <p>Be informed about developments in the profession by reading material relevant to area of practice.</p> <p>Apply research principles during direct and indirect service delivery, document outcomes.</p> <p>Identify research opportunities that would improve quality of practice.</p> <p>Evaluate effectiveness of OT service delivery.</p> | <p>In context of professional practice, students should:</p> <p>Identify appropriate qualitative and quantitative research methodology for research questions, prepare protocol, carry out research.</p> <p>Appraise application of research processes, principles and methods for promoting meaningful OT research.</p> <p>Communicate research in written report.</p> <p>Demonstrate ability to undertake self-study and research as needed to maintain and sustain ability to function effectively as therapist.</p> | <p>6: Critical awareness to act professionally, ethically and reflectively; responsible for own competence and actions</p> <p>9: In-depth knowledge of occupational science and OT practice in SA, globally and acknowledging international and indigenous perspectives (creativity).</p> <p>10: Ability to select &amp; apply appropriate research methods, techniques and technologies.</p> | <p>Identify and solve problems in which responses display that responsible decisions using critical and creative thinking have been made.</p> <p>Work effectively with others as a member of a team, group, organisation, community.</p> <p>Organise and manage oneself and one's activities responsibly and effectively.</p> <p>Collect, analyse, organise and critically evaluate information.</p> <p>Communicate effectively using visual, mathematical and/or language skills in the modes of oral and / or written presentation.</p> <p>Use science and technology effectively and critically, showing responsibility towards the environment and health of others.</p> <p>Demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation.</p> <p>Reflecting on and exploring a variety of strategies to learn more effectively.</p> <p>Participating as responsible citizens in the life of local, national and global communities.</p> <p>Being culturally and aesthetically sensitive across a range of social contexts.</p> <p>Exploring education and career opportunities.</p> <p>(Developing entrepreneurial opportunities.)</p> <p><i>(Last component not generally appropriate to mini-research projects.)</i></p> |



### 4.3 Enabling research

Gonzales (2001:1624) targets the distinct mission of a university *"to introduce students to research, to inspire them in a passion for discovery."* The value of research as specified by literature was also clearly not only about skills obtained, but there was a definite inclination that a research ethos could support learning and positive attitudes towards learning. The Boyer Commission (1998) highlights several aspects that could contribute towards a research culture within a department and/or university due to a foundational synergy between teaching and research. The aspects the researcher focused on were the value of communication, the influence of modelling and empowerment through a sense of community.

When coursework is linked with aspects needed for a lifelong inclination towards research, the importance of communication is highlighted. The Boyer Commission (1998:24) states that *"every university graduate should understand that no idea is fully formed until it can be communicated..."* Because assignments are usually addressed to lecturers, students rarely have the chance to learn how to write to audiences less informed. Even exam papers could provide an opportunity to reflect clear communication (good spelling, grammar and being well organised). Besides writing and speaking, state-of-the-art practices should be incorporated where technology enriches teaching rather than substituting for it. All these skills could support framing a question, exploring creatively for answers and conveying results professionally. Students should use their skills and the process of research preparing for symbolic conclusion, for example the presentation day of group research projects.

Mentoring rather than transition of information is greatly valued by the Boyer Commission (1998). As the results of research should be offered publicly to critique, correct or extend, it could be used to influence others through setting an example. Undergraduate students are in essence receivers of what is handed out to them. Observing the sharing of research, or even participation in sharing research, could turn them into inquirers. These experiences allow students to be stimulated by

examples in a situation where an attitude of everybody being both a researcher and a student, is promoted.

Ultimately a sense of community, where the student's personal identity is reflected in both smaller and larger groups, should be fostered on campus. A university is a purposeful place of learning and could provide these connections. In these circumstances diversity is an asset for students when working on collaborative projects and utilising the available range of perspectives and backgrounds. Diversity enriches the "*process of discovery, the ways of thinking about solving problems, the multiple modes of communicating ideas*" (the Boyer Commission 1998:35), since it contributes to flexibility for learning in different ways. Fondiller, Rosage and Neuhaus (1990) explain that when a system of values for a person or group develops from knowledge and experience, this results in feelings of worth.

However, the process for enabling research at an undergraduate level needs a theoretical foundation. The researcher therefore explored the content of the OT training programme.

#### **4.4 Identified research-related activities at the University of the Free State occupational therapy department**

The research-related activities within the OT undergraduate programme at the UFS referred mainly to the KAB405 and KAB408 modules. There were however various other opportunities within the theoretical programme for engaging in research-related activities that should also be considered.

##### **4.4.1 KAB405 and KAB409**

A careful look at KAB405 (the group research project module guide) revealed that it showed strong comparisons with the fourth level (out of the five identified levels) in the research skills framework of Willison and O'Regan (2007). The main reason for this was that it was the first opportunity where the undergraduate students exercised



their own choice for a research topic (although in group format and with support from a supervising lecturer). Therefore, the level of autonomy was at open inquiry and the whole aim of the group research project was to fill the gap in knowledge identified by the students.

The mini-research project as part of clinical experience was included in the KAB409 module guide. There was a definite resemblance here to level three of the work of Willison and O'Regan (2007). Basic research skills gained from executing the mini-research projects could therefore contribute to mastering requirements for the group research projects. In preparation for more autonomy in the group research, the mini-research projects formed part of an individual closed inquiry (in other words, clinician specified) where the student had the opportunity to process and organise information by self-determined means.

*Excerpt 2: KAB405 and KAB409 module outlines*

| <b>KAB405: Group Research Project</b>   | <b>KAB409: Mini-Research Project as part of Clinical Practice</b>   |
|---|---|
| <p>Objective: guide students to independent research <u>within a group</u>; integrate knowledge on research methodology.</p> <p>Learning outcomes:</p> <ul style="list-style-type: none"> <li>➤ select and apply appropriate research methods, techniques and technology, appropriate to OT under supervision</li> </ul> <p>Associated criteria:</p> <p>Students should be able to</p> <ul style="list-style-type: none"> <li>➤ identify appropriate research question</li> <li>➤ prepare research proposal and ethical clearance report</li> <li>➤ prepare literature review</li> <li>➤ prepare and put research protocol into practice</li> <li>➤ appraise results of research</li> <li>➤ draw conclusions based on evidence</li> <li>➤ communicate findings in written report</li> <li>➤ report research finding verbally with PowerPoint presentation</li> </ul> <p>Source: KAB405 Module Guide</p> | <p>At the end of the module the student will have knowledge of</p> <ul style="list-style-type: none"> <li>➤ various management aspects within a practice</li> <li>➤ the ethical aspects and its application within occupational therapy.</li> </ul> <p>Have the skills to</p> <ul style="list-style-type: none"> <li>➤ manage a practice under guidance</li> </ul> <p>Have the attitude to</p> <ul style="list-style-type: none"> <li>➤ have respect for the patient's /client's human dignity and rights at all times</li> <li>➤ display ethically correct behaviour and be professional at all times</li> </ul> <p>Guidelines for Project (Short Case):</p> <ul style="list-style-type: none"> <li>➤ guidance given to identify outcomes (should include managerial components)</li> <li>➤ written assignment / problem including specified demonstration aspect provided</li> <li>➤ student to describe assignment / problem</li> <li>➤ student to formulate goal</li> <li>➤ student to formulate plan of action</li> <li>➤ student to collect information</li> <li>➤ student to identify other actions in order to achieve goal</li> <li>➤ student to describe results</li> <li>➤ student to indicate conclusion</li> <li>➤ student to indicate recommendations / implications</li> <li>➤ student to present written report when presenting project verbally with poster</li> </ul> <p>Source: KAB409 Module Guide – Clinical Practical Work in Occupational Therapy 2007</p> |

#### ***4.4.2 Theoretical coursework in support of research-related activities***

Prior to compiling a framework that could potentially address an appreciation for research-related activities, the researcher had to ensure that the OT curriculum for undergraduate students at the UFS did indeed incorporate opportunities to learn and apply research-related skills. Although mini-research projects were introduced in the third year of student training, these projects were not compulsory and very few supervising clinicians made use of the opportunity to expose students to research-related activities at this stage. It would therefore be important to ensure that other facets of the OT curriculum supported research-related knowledge and skill development. An interview was conducted with the head of the OT department to determine which parts of the curriculum she felt supported the development of knowledge and skills for future engagement in research. She assisted the researcher to compile a list and verified the contents of the list after it had been reproduced in written format (see Table 5).

From Table 5 it was evident that a structured and organised route, beginning with basic skills that were built and expanded on annually, was followed. The level of introduction in the students' first year also appeared to compensate for various levels of prior learning as students entering OT training came from very diverse backgrounds and might not have had the same exposure. Opportunities were created to engage in aspects of the research process, to communicate assignments at different levels of scientific writing, and to present assignments visually and orally. These research-related activities were done individually or in group format and adhered to most of the critical cross-field outcomes identified by the South African Qualifications Authority (SAQA) (see Table 4).

During a validation group discussion, the contents of Table 5 were shared with ten stakeholders (as discussed in 3.4.1.). Feedback indicated that a more positive approach to research could be encouraged if students were made aware of the role of research in a practical way. Practical encounters with peers at various stages of training, as well as conscious efforts by lecturers to emphasise the contribution of research to the various aspects of the curriculum, were the two principal suggestions.



In general, the content of Table 5 indicates that knowledge and skills in research-related activities were addressed satisfactorily within the undergraduate OT programme at the UFS. However, there appeared to be insufficient opportunity for addressing students' attitudes that could support the cultivation of research appreciation. The foundation for the proposed model would therefore have to focus on how students could gain values, roles and habits to promote an appreciation of research-related activities within the profession of OT.

Table 5: Research-related exposure in the undergraduate OT course at the UFS

| 1 <sup>st</sup> year   | 2 <sup>nd</sup> year   | 3 <sup>rd</sup> year  | 4 <sup>th</sup> year   |
|--|--|---|--|
| <p><b>General skills course (AAV112)</b><br/>Library use.<br/>Referencing styles.<br/>Academic writing.<br/>Group-work assignment with specifications (written format: layout of written document; literature included for example www, scientific journals, text books)<br/>Referencing.<br/>Oral and PowerPoint presentation of assignment judged by panel.</p> <p><b>Clinical practice(KAB123)</b><br/>Group-activity (needs analysis): compile a community profile.<br/>Feedback: orally with PowerPoint presentation.</p> <p><b>Theoretical lectures (ABT114, 124 ,...)</b><br/>Literature studies.<br/>Portfolio work.<br/>Essays.</p> | <p><b>Communication media (ABT254):</b><br/>Use of posters.<br/>Compiling brochures, pamphlets and newsletters.<br/>Writing submissions for funding.<br/>Compiling PowerPoint presentations.</p> <p><b>Statistics Course in 2008 (ABT264)</b><br/>Data management and checking.<br/>Descriptive statistics.<br/>Parametric / non-parametric.<br/>Comparison of groups:<br/>confidence intervals and P-values.<br/>Categorising (RxK tables).<br/>Correlation / regression and associations.<br/>Risk determination.<br/>Diagnostic tests.<br/>Data summation.<br/>(Tests and laboratory activities on computer)</p> <p><b>Clerical activities (KAB205):</b><br/>Identify problem.<br/>Formulate problem.<br/>Formulated aim.<br/>Literature study.<br/>Compare area with literature.<br/>Graphically portray findings.<br/>Conclusion.<br/>Recommendations.</p> <p><b>Clinical areas (KAB205):</b><br/>Pathology studies to support assessments<br/>Verbal presentation for assessment<br/>(Process: evaluation, listing problems, identifying three priority aims)</p> <p><b>Theoretical course work</b><br/>Literature studies<br/>Portfolio work<br/>Essays</p> | <p><b>Research course (Introduction to KAB406)</b><br/>First semester:<br/>Introduction to research process<br/>Search and evaluation of literature<br/>Study design<br/>Sampling and randomisation<br/>Z-scores and percentiles<br/>Questionnaires<br/>Measuring instruments<br/>Interviewing<br/>Validity and reliability<br/>Ethics<br/>(Assessment: written test)</p> <p>Second semester:<br/>Protocols for group research project<br/>Literature study</p> <p>Attend 4<sup>th</sup> year project presentations in August</p> <p><b>Clinical practice (KAB309):</b><br/>Short cases:<br/>Usually given as an additional task<br/>Taken through process of a mini-research project<br/>Mostly includes literature study</p> <p>Long cases:<br/>Pathology studies to support assessments<br/>Verbal presentation for assessment with poster</p> <p><b>Theoretical course work:</b><br/>Literature studies<br/>Portfolio work<br/>Essays</p> | <p><b>Group research project (KAB406)</b><br/>Executing research study<br/>Analysing data<br/>Writing research report<br/>PowerPoint and oral presentation on research day<br/>Two selected presentations go to Faculty of Health Sciences Student Forum<br/>Best research report sent to Vona du Toit Foundation (possible presentation at national level)</p> <p><b>Clinical practice (KAB409)</b><br/>Short cases:<br/>Important part of final clinical examination<br/>Could include qualitative / quantitative<br/>Verbal presentation for final assessment with poster</p> <p>Long cases - as KAB309</p> <p>Portfolios</p> <p><b>Management assignments (ABT408 and ABP408):</b><br/>Three done in groups and one individually<br/>Presented orally with PowerPoint in specified time<br/>Data collection includes interviews and scientific literature<br/>Integration and critical thinking promoted<br/>Have to make recommendations</p> <p><b>Theoretical course work</b><br/>Literature studies<br/>Topical debates (express critical thinking)<br/>Portfolio work<br/>Essays</p> |



## **5. THE FARRA MODEL**

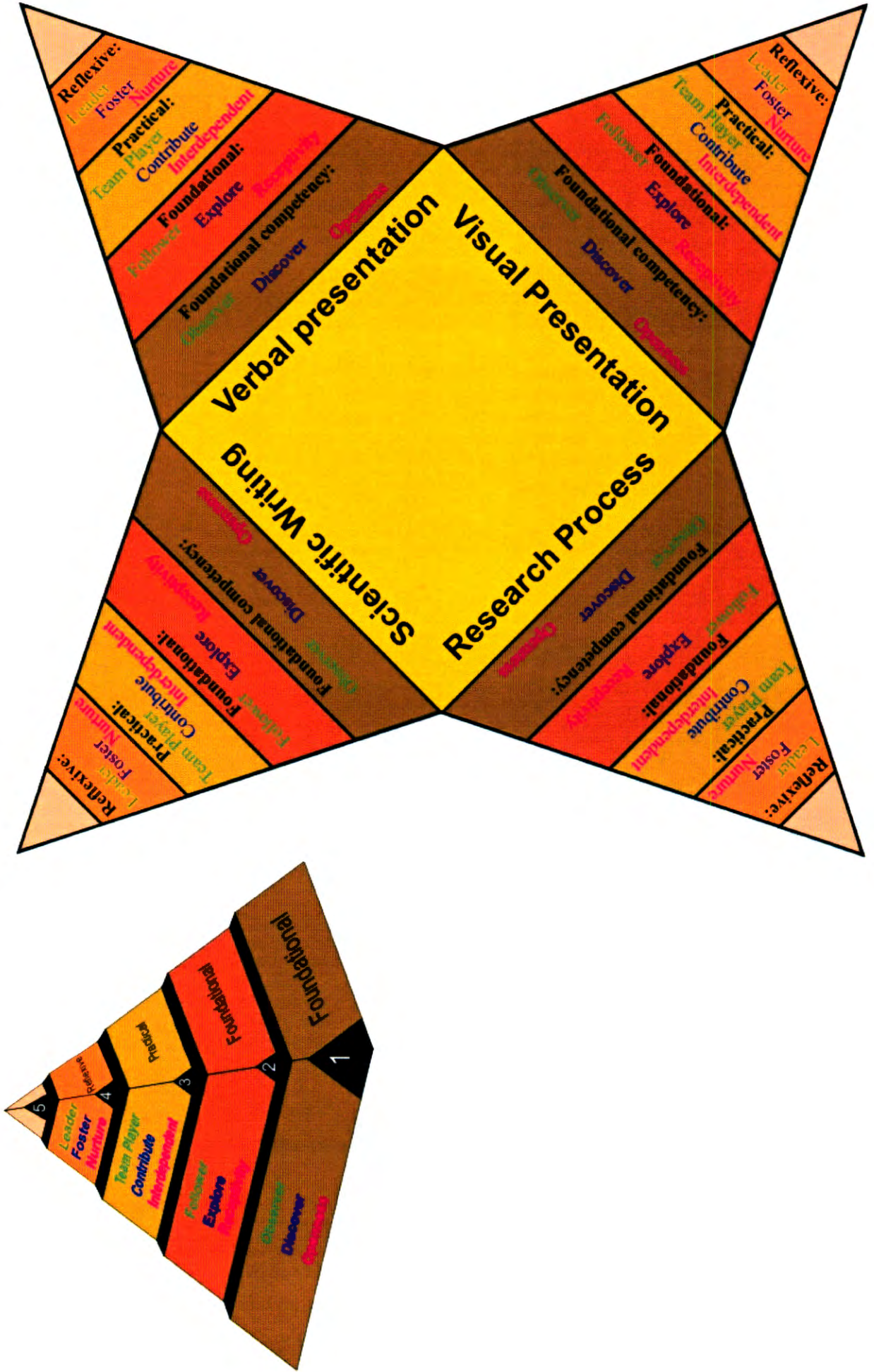
### **5.1. Rationale in support of the FARRA model**

Dain van der Ryden (2007) in her Examination Report on the 2006 clinical exams stated with regard to the mini-research projects that "this aspect of the examination evaluates professional approaches, clinical reasoning and importantly research skills". The predominant challenge therefore was to build upon what was already in place in the undergraduate OT programme. These aspects should be built on in order to promote the sharing of innovative practice and to encourage the expression of critical thinking as an inseparable part of the OT profession. Although knowledge - and to some extent skill - on different facets of research were addressed in the undergraduate curriculum, somehow research was rarely practised as part of the qualified clinician's work duties.

The three research cycles of action inquiry the researcher engaged in, confirmed that even though undergraduate OT students at the UFS were adequately prepared, they were not convinced about becoming consumers of published research. Exposure to research-related activities therefore did not necessarily affect their appreciation of research. Consequently a model, utilising the theoretical and practical opportunities for embracing research, is suggested (see Figure 3). This model has the potential to bring the hearts of OT students into the research experience. In order to elucidate the concepts included in the model, a supporting framework to promote an appreciation of research-related activities (FARRA) is also proposed (see Table 7).

Involvement of research at undergraduate level should not neglect the importance of identifying its scope. According to Booth and Harrington (2003), the aim of research could relate either to research appreciation or research competence.

Figure 3: Model for promoting an appreciation of research-related activities





Research competence refers to an empirical approach aimed at developing students as research practitioners with a given set of tools and techniques. This is research through doing (practical) and application (practical and cognitive). Research appreciation again relates to a critical approach aimed at training students to evaluate existing published research critically, "*in order to enable the systematic and logical study of the general principles guiding inquiry*" (Burgess & Bulmer 1981, cited by Booth & Harrington 2003:20). This is research through critique (cognitive) or reflection (affective).

The researcher interpreted the aim of exposing students to research-related activities during their four years of undergraduate training at the UFS as twofold. On one hand a certain level of research competence, both practically and cognitively, is predominantly aimed at promoting research appreciation. On the other hand, research appreciation would support the ability of a future clinician to critique her professional practice and compare it with research findings. This reflective approach could promote a situation where research would inform practice.

In addition to incorporated aspects of knowledge and skills in the undergraduate training programme, greater emphasis on addressing the attitude of students could potentially assist them to embrace a lifelong sensitivity and positive inclination of research after qualification. A natural conclusion therefore was that the appreciation of research should be integrated into the OT curriculum so that it formed an integral part of how things are done. This fact implied the facilitation of a culture of research at undergraduate level. The word "*culture*" here depicts an ethos of traditions and customs (or roles, habits and values) that would mature with the student during the four years of training.

Advancement of roles, habits and values that would support the development of a research culture is illustrated as part of a net for a learning pyramid (see left side of Figure 3). The four faces (representing the research process, scientific writing, verbal presentations and visual presentations) are aligned from first to fourth year. These faces represent areas of activities that would promote knowledge, skills and attitude



acquisition during engagement. Engagement in research-related activities implies that the model should come to actualisation on specific occasions. These occasions would provide the opportunity for mentoring and modelling of skills by senior students and as such promote a meaningful learning milieu. Modelling and mentoring, however, would only be possible if acquisition of roles, habits and values is constructively aligned during the four years of undergraduate training. Clarity on why the FARRA model could promote a research culture is followed by a discussion in the next section on what should be addressed and in what way it should be done.

## **5.2. Opportunities for embracing action learning**

The FARRA is based on providing an opportunity where the essence of action learning could be incorporated into planned activities. The base of the pyramid acknowledges that levels of prior learning in students may vary and therefore they should learn from each other. Action learning here and elsewhere is often used as a synonym for experiential learning (De Jager 2002; Dick 2000b; Zuber-Skerritt 2005a). This implies engaging students in activities where they learn from and reflect on *doing*, whether from their own, or the experience and actions of other students. Taylor, Marais and Kaplan (1997) emphasise that this process could promote students to *own* their learning, *feel* it and *live* it more actively.

Ideally, when attempting the development of a research culture among undergraduate OT students at the UFS, the ALAR approach could contribute to a situation where a unique sense of community would promote meaningful learning of and about research. This implies learning with personal meaning for the individuals involved. Personal meaning regarding research in SA could be promoted when students experience African values mirrored by ALAR (as identified by Zuber-Skerritt 2007; see Table 6). These values would support the Boyer Commission's (1998) ideal of a foundational synergy between research and teaching, as students would be exposed to situations where interdependence and humanness lead and support learning. Trust, collaboration and openness could therefore sway the idealistic concept of a research culture into a practical reality.



Table 6: *Espoused values to support the promotion of research*

| <b>ALAR values:</b>   | <b>African values:</b>               |
|---|--------------------------------------|
| Advancement: promoting learning and knowledge                             |                                      |
| Collaboration: symmetrical communication, unique and equal contributions  | Communalism: interdependence         |
| Trust: respecting and honouring similarities and differences              | Ukama: relationship                  |
| Imagination/vision: IQ, EQ (emotional) and SQ (spiritual)                 | Masathane: people driven             |
| Openness: admit ignorance, strengths and abilities                        | Ubuntu: humanness                    |
| Non-positivist beliefs: modelling and mentoring beliefs                   | Batho pele: people first             |
| Success: enjoyable way to learn, share experience and receive recognition | Afro-centricity: multicultural focus |

The FARRA endeavours to integrate and align skills, knowledge and attitudes that that would support both the KAB405 and KAB409 modules. This means developing an understanding of how different aspects of research could relate to one another and to the research process as a whole (Winn 1995). The areas for activities identified in which the opportunity for experiential learning (based on interdependence, collaboration and trust) could promote an appreciation for research-related activities are:

- the research process;
- scientific writing;
- oral presentations; and
- visual presentations.

Feedback on these identified activities indicated that visual presentation, scientific writing and the research process were identified by most members of a local expert panel as essential for promoting research-related activities at an undergraduate level. Comments that supported their choice included that these areas provided an "*integrated unit*" in support of research activities as well as contributed to "*research sensitivity*" and "*knowledge of the importance of research*".

Members from the expert panel abroad regarded referral to a *research process* as severe, especially where only two years is available for OT training. It was indicated that the use of research should focus on how it would support the clinician in practice,

rather than “*expecting students in training to be clinicians to 'enjoy' or write at a scientific level may be unrealistic and put them off*”. It was felt that exposure to a research process level at undergraduate level should ultimately lead to the ability of clinicians to host a journal club for discussing EBP.

To the researcher it appeared as if a lack of exposure to the OT undergraduate training programme at the UFS, especially with regard to the mini-research projects, might restrict the insight of outside experts because of inadequate background information. The actualisation of research-related activities (like mini-research projects) directly related to the aims of exposing students to the research process at different levels during undergraduate training. These experiences should promote the ability to host and/or participate in journal clubs (just as a colleague from abroad suggested). It therefore appears as if the academic programmes in SA and abroad have the same objectives but are going about achieving these objectives very differently.

Accordingly, the central purpose of the FARRA would be to create a learning situation that promotes understanding, practical skills and insights into oneself so that knowing, doing and being merges into a coherent whole (Bunning 1993, cited by Zuber-Skerritt 1995). The researcher’s aim was that during the actualisation of research-related activities, students would have an opportunity that would promote gains based on five steps of the ALAR Model of Zuber-Skerritt (2005a). These gains related to:

- personal knowledge management;
- knowledge through reflection on action/experience;
- knowledge through collaboration;
- knowledge of oneself (strengths and weaknesses);
- knowledge of how to explore new opportunities through self-assessment, self-criticism, and through openness to criticism from others (that is *sharing ignorance*); and
- knowledge of basic beliefs and the assumptions underpinning research and development activities through learning from mentors.



### 5.3. Mentoring and modelling an appreciation of research-related activities

OT undergraduate training programmes in SA compared to those overseas have the advantage that they span four years. This time-frame provide more opportunities for senior students to act as models and/or mentors. Strategies like modelling, mentoring in actual practice and pointing out discrepancies are identified by Zuber-Skerritt (2007) as non-positivist beliefs and coaching that support leadership qualities. These concepts are central to the FARRA model (as evident in Figure 3).

Research-related activities should therefore not only be assessed summatively. Roles for mentoring and modelling worldviews and spiritual development are unusual and the context could be misunderstood. The promotion of a research culture would rely extensively on formative assessment such as structured reflections and checklists applied during opportunities to engage in or observe research-related activities (for example research presentation or poster exhibition days). Therefore the FARRA model could build not only on theoretical course activities, because these involve interaction of students in the same year groups. Each year group would have to contribute to those roles, habits and values appropriate for their level of proficiency in knowledge, skills and attitude of research-related activities. These suggested levels as specified in the FARRA model are:

First year: observer (role) – discover (habit) – openness (value)

Second year: follower (role) – explore (habit) – receptivity (value)

Third year: team player (role) – contribute (habit) – interdependence (value)

Fourth year: leader (role) – foster (habit) – nurture (value).

Each face of the pyramid proposes that the same roles, values and habits should be encouraged for the research process, scientific writing, verbal presentation and visual presentation aspects to support sequential development from first to fourth year.

Interaction at inter-yeargroup opportunities could promote mentoring and modelling, even if fourth-year students are not completely proficient in all aspects of the research-related process, scientific writing, verbal presentation and visual

presentation. The key to a research culture would be modelling an openness to learning and acknowledging what one is good at and which aspects one should work on.

The choice of presenters at inter-yeargroup learning opportunities therefore needs careful consideration. If participants are selected only on achievement-basis this could convey the wrong message and impact negatively on the development of a research culture. Participation should perhaps be based on a willingness to present, to share personal insights, the openness to receive feedback from others and the ability to create a meaningful learning situation for oneself. Students would also experience greater ownership if they could be involved in deciding what presentations should be rewarded and for what reason.

The value of the actualisation process was summarised well by an expert panel member who commented that "*... these skills support a reflective practitioner who can take feedback, provide constructive feedback to co-workers, and reflect on herself to support growth and ethical practice*".

#### **5.4. Constructive alignment of research-related activities**

Different learning styles, an opportunity for deep learning and constructive alignment were all considered prior to compiling the practical framework in Table 7. Therefore, various theoretical perspectives were incorporated in the proposed framework as summarised in Table 7. Willison and O'Regan's work (2007) provided guidance to the research process component. The summative mini-research assessment form, an indirect development opportunity during the course of the successive mini-research projects as specified in Excerpt 2 (see Appendix E), and - to a lesser degree - the Revised Bloom's Taxonomy (2006), assisted with aligning activities successively for different levels.

The idea of constructive alignment is echoed by the scaffolding of learning principles (framed by Vygotsky). Wilhelm, Baker and Dube (2001) explain scaffolding of



learning as conducting teaching in such a way that learning starts "*from the ground up, on the foundation of what is already known and can be done. The new is built on top of the known.*"

The main focus for first-years is to master basic knowledge and skills associated with *becoming aware* of the indicated factors. This process could be seen as progression from an unconscious incompetent level, to being consciously incompetent and even becoming aware of some basic conscious competencies at a foundational level. During the second year activities should be directed towards promoting an emerging ability of conscious competence in foundational competencies. In the third year, skills should be developed to such an extent that a practical level of unconscious competency is established. Lastly, the fourth year should focus on reflexive competencies that mirror not only recognition of the students' own strengths and weaknesses, but also mastering the ability to model appropriate values, skills and habits that would support the facilitation of a research culture in others.

It is important, however, to report that one participant found the terminology referring to the levels for promoting research-related activities problematic. The researcher's intention was that the different levels in competency referred to an increase in *the ability to do*. By contrast, this person interpreted foundational competency as not allowing the students to apply practical skills until their third year of training, as that was termed a *practical competency*. None of the other participants found the indicated levels problematic.

In accordance with the National Research Framework within the South African Qualification Authority (2001), successive levels for advancement are based on advancement in proficiency of knowledge, skills and attitudes – here termed as *competency*. The model therefore proposes that the first two years of training should lay the appropriate **foundational competencies**. For the first year of training, this level refers to facilitating an openness (value) to research, discovering (habit) the nature of a research culture from more mature peers and lecturers by being an observer (role). The second year of training indicates advancement to acceptance

(value) of a research culture, following the more mature peers and lecturers (role) in order to explore concepts (habit) inherent to a research culture.

**Practical competencies** then should be promoted to ensure that students would mutually depend on and support one another in their third year of training. Interdependence (value) is a key aspect of this level where students contribute (habit) as team players (role) to the research process. Lastly the foundational and practical competencies should be integrated through **reflexive competencies** where the student would not only add to the research culture ethos but would be in the position to act as a role model for the other three year groups. Here the student should nurture (value) fellow students by being a leader (role) in fostering (habit) the research culture.

Issues relating to various areas affected by constructive alignment are subsequently discussed separately.



Table 7: Proposed framework for promoting an appreciation of research-related activities (FARRA)

|  | <b>Level of Task</b>                            | <b>Research Process</b>  | <b>Verbal Presentation</b>  | <b>Visual Presentation</b>   | <b>Scientific Writing</b>  | <b>Value</b>  | <b>Role</b>                                 | <b>Habit</b>                                     |
|--|---|--|---|--|--|---|---|--|
| <b>Foundational competency 1<sup>st</sup> year</b> | I am expected to:                               | <ul style="list-style-type: none"> <li>- Collect information in response to lecturer's specified task.</li> <li>- Use simple, prescribed criteria to evaluate and organise information.</li> <li>- Synthesise and analyse information to reproduce existing knowledge in prescribed formats.</li> <li>- Be aware of others' research performance against given criteria.</li> <li>- Be aware of the contribution of scientific publications to quality of assignments.</li> </ul>  | <ul style="list-style-type: none"> <li>- Speak appropriately in mostly lay language.</li> <li>- Have basic podium presence.</li> <li>- Have basic time utilisation.</li> <li>- Handle questions.</li> <li>- Be aware of the role of critical articulation to professional communication.</li> </ul> | <ul style="list-style-type: none"> <li>- Select content.</li> <li>- Manage visual aids (mostly PowerPoint and transparencies).</li> <li>- Be aware of the artistic value of an effective delivery.</li> </ul>  | <ul style="list-style-type: none"> <li>- Organise and structure (short reports).</li> <li>- Apply linguistic skills, mostly in lay language.</li> <li>- Apply referencing.</li> <li>- Be aware of the value of scientific communication through writing.</li> </ul>                    | I appreciate: Openness to a research culture        | I act as: Observer of a research culture    | I reflect by: Discovering a research culture     |
| <b>Foundational competency 2<sup>nd</sup> year</b> | I attempt to, but lack quality when I:          | <ul style="list-style-type: none"> <li>- Collect information in response to lecturer/ clinician's specified task.</li> <li>- Use prescribed criteria to evaluate and organise information.</li> <li>- Synthesise and analyse information to reorganise existing knowledge in standard formats.</li> <li>- Understand others' research performance against given criteria.</li> <li>- Understand the contribution of scientific publications to quality of assignments.</li> </ul>  | <ul style="list-style-type: none"> <li>- Same as first year but working towards emerging ability to use discipline-specific language.</li> <li>- Understand the contribution of critical articulation to professional communication.</li> </ul>   | <ul style="list-style-type: none"> <li>- Same as first year but working towards emerging visual presentation skills.</li> <li>- Use basic poster presentations.</li> <li>- Understand the artistic value of an effective delivery.</li> </ul>          | <ul style="list-style-type: none"> <li>- Same as first year but working towards improved quality and more discipline-specific language.</li> <li>- Understand the value of scientific communication through writing.</li> </ul>  | I appreciate: Receptivity to a research culture     | I act as: Follower of a research culture    | I reflect by: Exploring a research culture       |
| <b>Practical competency 3<sup>rd</sup> year</b>    | I can identify where I need to improve when I:  | <ul style="list-style-type: none"> <li>- Collect information in response to lecturer/ clinician's specified task.</li> <li>- Evaluate and organise information relating to aims of inquiry.</li> <li>- Synthesise and analyse information to construct emergent knowledge.</li> <li>- Appreciate own research performance against given criteria.</li> <li>- Use scientific publications to enhance quality of assignments.</li> </ul>   | <ul style="list-style-type: none"> <li>- Same as second year but ability to use discipline-specific language is more evident.</li> <li>- Participate initially in professional communication.</li> </ul>  | <ul style="list-style-type: none"> <li>- Same as second year but visual presentation skills are more evident.</li> <li>- Contribute to the artistic value of an effective delivery.</li> </ul>   | <ul style="list-style-type: none"> <li>- Same as second year but development of scientific writing skills is more evident.</li> <li>- Contribute to scientific communication through writing.</li> </ul>   | I appreciate: Interdependence in a research culture | I act as: Team player of a research culture | I reflect by: Contributing to a research culture |
| <b>Reflexive competency 4<sup>th</sup> year</b>    | I can learn from others and / or teach them to: | <ul style="list-style-type: none"> <li>- Collect information in response to lecturer/ clinician/ own specified task.</li> <li>- Critically evaluate and organise information relating to aims of inquiry</li> <li>- Synthesise and analyse information when attempting to fill knowledge gaps.</li> <li>- Be aware of researcher role (can identify personal strengths and weaknesses)</li> <li>- Contribute to others' research performance by sharing own experiences and insights.</li> <li>- Model sensitivity and ethical considerations towards participants.</li> </ul> | <ul style="list-style-type: none"> <li>- Regulate own verbal performance skills.</li> <li>- Foster verbal presentation skills in others by directing group learning of peers.</li> <li>- Model the articulation of critical thinking in professional communication.</li> </ul>                      | <ul style="list-style-type: none"> <li>- Regulate own visual performance skills.</li> <li>- Foster visual presentation skills in others by directing group learning of peers.</li> <li>- Model the artistic value of an effective delivery.</li> </ul> | <ul style="list-style-type: none"> <li>- Indicate initial accommodation of different worldviews.</li> <li>- Model the enjoyment of scientific communication through writing.</li> <li>- Appreciate the value of scientific writing for the promotion of OT as a profession.</li> </ul> | I appreciate: Nurturing of a research culture       | I act as: Leader in a research culture      | I reflect by: Fostering a research culture       |



#### **5.4.1 Visual and verbal presentation skills**

The proposed alignment of visual and verbal presentation skills was specifically commended during the expert panel survey. A comment in support was, "*all of these aspects as mentioned are very important not only in cultivating a research culture but they are also reflective of an academic culture.*"

Despite the specific attempt of alignment, assessment of competencies at various levels could be perceived as problematic. For example, if the development of visual presentation skills was not appraised by comparing these with the suggested actualisation process, the practical difference between basic and emerging skills in first and second year could be difficult to indicate. This obstacle could be addressed by assignment guidelines for students where specific reference should be made to what quality is expected and incorporating different modes of technology for the different year groups. For example: first years should master using transparencies, second years PowerPoint and third years Excel or other indicated programmes.

In pursuit of greater clarity the researcher altered the foundational competency in the first year of *being aware* to *becoming aware*. This change gave a clearer indication of the change in awareness of skills needed or a personal lack of skills noted when students develop from a level of unconscious incompetence to conscious incompetence. The term *emerging* used to describe the foundational competency level in the students' second year may also be explained by *building*, as this could indicate the student is building on the skills introduced and/or assessed during the first year.

#### **5.4.2 Scientific writing skills**

Alignment for the style for scientific writing might be questioned because some lay language is still deemed acceptable in the students' first year. One, however, needs to consider that most pathologies have been covered in lectures only by the end of the OT students' second year. Additionally, proficiency in English as a medium for



scientific writing should receive separate attention as most OT students enrolled at the UFS are Afrikaans speaking.

During the survey practical tips were given with regard to the alignment of referencing. It was suggested that at first-year level, students should have to include only books and scientific journals in their reference lists. At a second-year level more criteria for reference materials should be included (for example, Internet, personal communications). In their third year students should apply different formats for referencing (for example, Harvard or Vancouver) as indicated by specific assignments. In their fourth year students would therefore be proficient in various types of referencing.

#### ***5.4.3 Research process skills***

The research process relates to the increased ability to purposefully collect, evaluate, synthesise and analyse information that would support thinking or insights relating to assignment or research findings. This process therefore incorporates the way students deal with all information and literature.

The level of synthesis and analysis of information relating to Bloom's Revised Taxonomy (beginning from the first year) was questioned by three participants. The impression was given that only senior students should be expected to synthesise and analyse data and/or information. The researcher, however, felt that critical thinking should be fostered from the first-year level and therefore aligned the structure for this aspect. First-year students would be supported by prescribed formats according to which existing knowledge should be synthesised and analysed for specific assignments. In their second year, various assignments could adhere to a standard format to which existing knowledge should be synthesised and analysed. For third-year students this process related to construction of emergent knowledge and fourth-year students would attempt to fill knowledge gaps.

### **5.5. Learning outcomes associated with facilitating an appreciation of research-related activities**

In summary, the outcome of this proposed framework is to present guidelines for the facilitation of roles, habits and values in support of the development of a research culture at undergraduate level for OT students at the UFS. This outcome is supported by the aim of providing students with the opportunity to engage in activities that could promote an appreciation for research-related activities. The aim rests on four main principles. Students would gain from the FARRA if they utilised the research-related opportunities provided:

- to observe sharing of knowledge and experience;
- to engage in sharing of knowledge and experience;
- to learn from one another; and
- to reflect on the research process, scientific writing and oral and visual presentations.

## **6. THE PROPOSED ACTUALISATION PROCESS FOR THE FARRA MODEL**

Collaboration, reflection, openness to criticism and learning from mentors are all factors that imply an opportunity for interaction and are of the utmost importance. The proposed framework set out in Table 7 will therefore only come to realisation if it would be supported by an actualisation process. This process relates to interactive learning opportunities to apply, observe, participate and to model knowledge, skills and attitudes associated with research-related activities. These learning opportunities could be sought within the theoretical part of the curriculum, or by creating additional research presentation and poster exhibition days.

Previously the fourth-year group research presentation day within the department of OT at the UFS (taking place annually in August) has been the only opportunity for encountering research-related activities presented by others. This day was attended only by the fourth and third-year students. In a conscious attempt to promote roles,



habits and values associated with a research culture, new interactive learning opportunities open to all year groups should be created to add to those previously provided. These could include, for example, research presentation days, poster exhibition opportunities, inter-faculty research forums and national conferences.

During research presentation days for example, students could be involved in a formative assessment process where they engage in both a peer and self-assessment as to obtain a better grasp of assessment criteria (CHE 2004). Rust (2002) specifies that providing students with assessment criteria alone is not enough and that, rather than learning for assessment, this approach fosters learning from assessment (Gravett & Geysler 2004).

Levels of participation for these proposed opportunities would be linked with the alignment for skills, knowledge and attitudes development. Research-related activities should also provide opportunities for senior students to mentor and model roles, values and habits associated with research development at undergraduate level. For the development of roles, habits and values associated with the area of verbal presentation, students could for example be expected to engage in the following:

- Recognition of aspects associated with a proficient oral presentation by completing a checklist indicating what should be present and indicating on a structured reflection if they have mastered any of the identified aspects (Foundational level in the first year).
- Application of knowledge associated with a proficient oral presentation to list what they perceived as good or unacceptable during their peers' presentations. This list needs to be compared with feedback from the lecturer chairing the event in order to reflect on their ability to judge proficiency in skills (Foundational level in the second year).
- Analysis of peer presentations by using a simplified assessment form (the same format as that on which students would be assessed when presenting a mini-research project). Analysis should be based only on indicating good and proficient components of oral presentation. A structured reflection would further assist them to identify aspects they have already mastered or ones in need of



attention. Students then need to reflect on how the latter may be addressed (Practical level in the third year).

- Evaluation of presentations by using the recognised assessment form. The associated structured reflection would involve suggestions to the presenter and the students themselves for increasing their level of proficiency. With regard to their own development, the students would have to set a goal for what aspect/s of their verbal presentation of their mini-research project they would want to address, how and by when. This goal could be incorporated in the student's learning portfolio (Reflexive level in the fourth year).

## **7. CONCLUSION**

Mini-research projects as part of clinical practice training provide a unique opportunity to integrate knowledge, skills and attitudes of research-related activities during OT training at the UFS. A prolonged action inquiry investigation indicated that these knowledge, skills and attitudes should be supported by an affective experience where students observe and participate in roles, habits and values associated with a culture of research. Therefore the FARRA model suggests a basis for training EBP future professionals who would be committed to pursuing research-informed practice resulting from the cultivation of an appreciation for research at undergraduate level. By implementing the guidelines in the framework, it would become evident whether students who gain skills in accessing, applying (that is by evaluating and understanding) research of others and/or who generate their own research would be motivated to give research its rightful place when they become therapists.

A continuation of the action inquiry process could also assist to adapt research-related activities included in the FARRA model. An ALAR commitment would encourage a continued improvement of the FARRA model for preparing students as practitioners who would embrace a research ethos for maintaining and sustaining the ability to function effectively as therapists. If the FARRA model proves to be effective for promoting a culture of research at undergraduate level for OT students it might be



possible to adapt it for other allied health professions or careers where the quality of life of clients could be promoted by research-informed practice.

However, at undergraduate level the challenge remains to promote research appreciation built upon a level of research competence that would not alienate future professionals from scientific processes or published information. It would be unwise for undergraduate programmes to aim to teach students how to become OT clinicians and at the same time try to make these students researchers. The main focus of undergraduate training should be to assist students in becoming good clinicians.

In SA, we should also allow the training of good OT clinicians to be aided by African values that foster habits and roles supported by the spirit of Ubuntu. A culture of research would flourish if students would embrace a sense of belonging promoted by the ethical idea of caring and sharing, "*in which the human self exists and actualises only through relationships with other persons*" (Watson & Swartz 2004: 307). Occupation as the essence of OT should enable transformation towards a lifelong inclination for embracing research by utilising research-related activities during undergraduate training.

## 8. REFERENCES

- Alsop, A. 1997. Evidence-based Practice and Continuing Professional Development. *British Journal of Occupational Therapy* 60(11): 503 – 508.
- Atwal, A. 2002. Getting Evidence into Practice: the Challenges and Successes of Action Research. *British Journal of Occupational Therapy* 65(7): 335 – 340.
- Biggs, J. 2006. *Teaching for quality learning at university*. (2<sup>nd</sup> ed.) Buckingham: The Society for Research into Higher Education & Open University Press.
- Booth, C. & Harrington, J. 2003. Research methods modules and undergraduate business research: an investigation. *The International Journal of Management Education*. 3(3): 19 – 31.
- CHE (Council for Higher Education). 2004. ITL resource no.5. *The assessment of student learning*.  
<[http://www.che.ac.za/documents/d000087/ITL\\_Resources\\_no5.pdf](http://www.che.ac.za/documents/d000087/ITL_Resources_no5.pdf)>  
Downloaded on 12 August 2005.
- Deem, R. & Lucas, L. 2006. Learning about research; exploring the learning and teaching/research relationship among educational practitioners studying in higher education. *Teaching in Higher Education* 11(1): 1 – 18.
- De Jager, A. 2002. An integrated and holistic approach to assessment in outcome-based learning in South Africa.  
<<http://www.cdra.org.za>>  
Downloaded on 28/09/2007.
- Dick, B. 1997. *Approaching an action research thesis: an overview*.  
<<http://www.scu.edu.au.schools/gem/ar/arp/phd.html>>  
Downloaded on 24/01/2007.



Dick, B. 2000a. *The change process and action research*. Session 2 of Aerol – action research and evaluation on line.

<<http://www.scu.edu.au/schools/gmc/ar/areol/areol-session02.html>>

Downloaded on 10/03/2007.

Dick, B. 2000b. *Data driven action research*.

<<http://www.scu.edu.au/schools/gmc/ar/arp/datadrive>>

Downloaded on 10/04/2007.

Dick, B. 2002. *Stakeholders and participation*. Session 4 of Aerol – action research and evaluation on line.

<<http://www.scu.edu.au/schools/gmc/ar/aerol/aerol-session04.html>>

Downloaded on 10/04/2007.

Fondiller, E.D., Rosage, L.J. & Neuhaus, B.E. 1990. Values influencing clinical reasoning in occupational therapy: an exploratory study. *The Occupational Therapy Journal of Research* 10(1): 41 – 55.

Forsyth, K., Mann, L. S. & Kielhofner, G. 2005. Scholarship of practice: making occupation-focused, theory driven, evidence-based practice a reality. *British Journal of Occupational Therapy* 68 (6), 260 – 267.

French, S., Reynolds, F. & Swain, J. 2001. *Practical research: a guide for therapists*. Oxford: Butterworth Heinemann.

Gonzalez, C. 2001. Undergraduate research, graduate mentoring and the university's mission. *Academic Search Premier* 293(5535): 1624-1628.

<<http://web.ebscohost.com/ehost/delivery?vid=18&hid=3&sid=e7a3f3e9-a5cd-4b5cd-89>>

Downloaded on 03/01/2007.

Gravett, S. & Geysler, H. 2004. *Teaching and learning in higher education*. Pretoria: Van Schaik Publishers.

Healy, M. 2005. Linking research and teaching to benefit student learning. *Journal of Geography in Higher Education* 29(2): 183 – 201.

Isaac, D.J. & Hubert, W.A. 1999. Catalyzing the transition from student to scientist – a module for graduate research training. *Bioscience* 49(4): 321-327.

<<http://web.ebscohost.com/ehost/delivery?vid=17&hid=112&sid=e7a3f3e9-a5cd-4b5cd-89>>

Downloaded on 03/01/2007.

Joubert, R. 2005. Evidence-based Practice: a critique based on occupational therapy within the SA context. *South African Journal of Occupational Therapy* 35(2): 7 – 13.

McNiff, J. 2002. *Action research for professional development*. (3<sup>rd</sup> ed.)

<<http://www.jean.mcniff.com/booklet1.html>>

Downloaded on 17/03/2006.

Morse, J.M., Barrett, M., Mayan, M., Olson, K. & Spiers, J. 2002. Verification strategies for establishing reliability and validity in qualitative research. *International Journal of Qualitative Methods* 1(2), Article 2.

<http://www.ualberta.ca/~ijqm/>

Downloaded on 20/06/2007.

Professional Board for Occupational Therapy and Medical Orthotics/Prosthetics. 2004. *Standards of Practice for Occupational Therapists*.

[www.hpcs.co.za/.../Standards%20practice%20%20OT%20October%202004%20Final.doc](http://www.hpcs.co.za/.../Standards%20practice%20%20OT%20October%202004%20Final.doc)

Downloaded on: 21/09/2007.



Professional Board for Occupational Therapy and Medical Orthotics/Prosthetics. 2007. Unpublished Report: *Submission of a Qualification for Registration with SAQA*. Pretoria.

Revised Bloom's Taxonomy 2006. *Oz-TeacherNet – teachers helping teachers*. <<http://www.rite.ed.qut.edu.au/ozteachernet/index.php?moduleContentExpress&func=print&ceid=29>>

Downloaded on 23/03/2006.

Rust, C. 2002. The impact of assessment on student learning. *Active learning in higher education* 3(2): 145 – 158.

SAQA (South African Qualifications Authority). 2001. *Criteria and guidelines for assessment of NQF registered unit standards and qualification*. Pretoria: SAQA.

Taylor, J. Marais, D. & Kaplan, A. 1997. Action learning – a developmental approach to change.

<[www.cdra.org.za](http://www.cdra.org.za)>

Downloaded on 28/09/2007.

The Boyer Commission on Educating Undergraduates in the Research University. 1998. *Reinventing undergraduate education: a blueprint for America's research universities*. Stony Brook: New York.

<<http://naples.cc.sunysb.edu/Pres/boyer.nsf/>>

Downloaded on 21/09/2007.

Tripp, D. 2003. *Action Inquiry, Action research e-reports, 017*.

<[www.fhs.usyd.edu.au/arow/arer/017.htm](http://www.fhs.usyd.edu.au/arow/arer/017.htm)>

Downloaded on 14/06/05.

Van der Reyden, D. 2007. Unpublished Report: *Examination report to the department of occupational therapy, University of the Free State*. (Dated 19 February 2007). Durban: UKN.

Watson, R. & Swartz, L. 2004. *Transformation through occupation*. London: Wurr Publishers.

Wilhelm, J., Baker, T., & Dube, J. 2001. Scaffolding learning. Adapted from *Strategic reading: guiding students to lifelong literacy*. New Hampshire: Heinemann.

<<http://www.myread.org/scaffolding.htm>>

Downloaded on 08/03/2007.

Willison, J. & O'Regan, K. 2007. Commonly known, commonly not known, totally unknown: a framework for students becoming researchers. *Higher Education Research and Development* 26(4): 393 – 409.

Winn, S. 1995. Learning by doing: teaching research methods through student participation in a commissioned research project. *Studies in Higher Education* 20(2): 203 – 215.

<<http://web.ebscohost.com/ehost/delivery?vid=9&hid=109&sid=e7a3f3e9-a5cd-4b5cd-89>>

Downloaded on 03/01/2007.

Zuber-Skerritt, O. 1995. Models for action research. In: Pinchen, S. & Passfield, R. (Eds). *Moving on – creative applications of action learning and action research*. Brisbane: ALARPM, 2-29.

Zuber-Skerritt, O. 2001. Action learning, action research: paradigm, praxis and programs. In: S. Sankaran, B. Dick & R. Passfield. (Eds). *Concepts, Perspectives and Applications*. Lismore, Southern Cross University. 1 – 20.



Zuber-Skerritt, O. 2002. A model of values and actions for personal knowledge management. *Journal of Workplace Learning* 17(1/2): 49 – 64.

Zuber-Skerritt, O. 2005a. Models for Action Research. In: S. Pinchen & R. Passfield. (Eds.): *Moving on: Creative Applications of Action Learning and Action Research*. Brisbane: Action Learning, Action Research and Process Management Assn, Inc.

Zuber-Skerritt, O. 2005b. Workshop manual: Introduction to action research. Bloemfontein: UFS. (Conducted on 25 April 2005).

Zuber-Skerritt, O. 2007 (in press). Leadership development in South African higher education: The heart of the matter. *South African Journal of Higher Education* 21(8).

As an occupational therapist it is part of my ethical responsibility to my clients to continue improving in my area of practice. As an occupational therapy (OT) lecturer and clinical supervisor, I am even more aware of this responsibility, because my influence on students will indirectly have a definite effect on their future clients. Therefore, the action research and action learning (ALAR) process introduced me to a scientific approach for applying reflective practice, so that I can continually improve what I do and the way in which I do it.

ALAR, in combination with the guidance and nurturing I received as a postgraduate student, assisted with developing scholarship of a more engaged nature. As a direct result of this scholarship I now value a range of knowledge that is connected to the real-life context of the clinical practice setting in OT. Consequently, I appreciate theory as an equivalent to experiential learning and practical know-how. This appreciation became the core of what I wanted students to experience when they engage in research-related activities during their undergraduate training.

Upon reflection the endeavour to facilitate a research culture at undergraduate level for OT students', however, remains an idealistic enterprise. The prospect of research and publication, even when part of a postgraduate qualification, is a daunting aspect for academics, students and/or clinicians. First attempts at publication are generally humbling and often quite demotivational, but definitely meaningful, learning experiences. As indicated in Article 1, not many occupational therapists in South Africa appear to engage in the activity of research and publication despite the attention it receives in undergraduate training programmes. The apparent reason for this lack of engagement in research and publication therefore could not be due to lack of knowledge and/or skills.

Personal experience has rendered me incredulous at the unconstructive negative feedback made by reviewers of journal articles. This kind of first-hand experience could be one of the reasons why South African occupational therapists are discouraged from embracing opportunities for research and publication. But many occupational therapists do not engage in research, nor do they access published scientific literature to inform their practice (*Article 1*).

The journey that formed part of the ALAR process allowed me and the students involved in the mini-research projects to engage in and share research. Consequently our perspective on research and publication was influenced. Personal engagement in research, attempts to



capture findings through scientific writing, and sharing research verbally and visually at conferences contributed to the changes experienced.

I realised that a positive approach to research, whether by engagement in or accessing research by others and the ability to judge research constructively, is a beneficial part of undergraduate training. Exposure to research-related activities therefore should happen in a nurturing environment, whether for the student engaging in her first mini-research project, or for the professional as a novice researcher and/or author. Engagement in mini-research projects during clinical practice could consequently provide meaningful learning experiences for OT students from the University of the Free State (UFS). Findings also suggest that OT students were encouraged to make a contribution to, while interacting with, the community served when engaging in these mini-research projects (*Article 2*).

Moreover, research findings demonstrated that a formalised model, promoting roles, habits and skills associated with a culture of research, could contribute to a sense of community for advancing growth and discovery for lecturers, clinical supervisors and students alike.

The aim of the Framework to Promote an Appreciation of Research-Related Activities (FARRA) and its associated model, is however not to produce researchers and publishers at the end of the undergraduate training course. The four years of training at the UFS provide ample opportunity to utilise research-related activities for preparing clinicians to be articulate when expressing their opinion professionally during ward rounds (verbal presentation). These clinicians would also be able to proficiently prepare funding proposals or communicate care plans and home programmes in written format (components of visual presentation, scientific writing and the research process). Mini-research projects can provide ample opportunity for students to develop the above professional skills (*Article 3*) in addition to self-discipline; internal motivation; self-assertiveness; initiative; sense of responsibility; problem solving; decision making; planning; and time management.

Exposure to research-related activities appeared to have the potential to also influence personal (besides professional) development of the undergraduate OT students (*Article 4*). The sense of community that a research culture would endeavour to foster could unfortunately not only depend on the components of the FARRA model. Many factors could deter such a pursuit. The determining predominant factor, in my opinion, is the academic climate at the given tertiary institution. The academic climate would refer to specific departments on micro level but also to faculty and inter-faculty attitudes on macro level.



Therefore, the impact of findings from this study could be limited due to the institutional set-up within the UFS. Consideration should be given to the following aspects:

- The attitude, skills and knowledge of staff at the Department of OT that would impact on the research appreciation and application, were not investigated as part of this study.
- Qualitative research and especially action inquiries are seldom considered as themes for group research projects, even though client-centred practice is integral to an OT ethos. The positivist paradigm, focusing on statistical analysis and detached observation to assist one to arrive at objective truths, is apparently still favoured within the field of medical sciences. Students may therefore be deprived from experiencing the integration of theory and practice and the role of experiential knowledge for creating theory.
- Research development in general at the UFS would benefit from improved interdepartmental and interfaculty collaboration. Collaboration would prevent practical obstacles like unnecessary and lengthy procedures to obtain study leave. It would also encourage potential researchers if applications for funding would be considered on merit (because it would improve the quality of teaching for undergraduate students), despite the fact that the researcher might be registered in a faculty different to the one where she is employed.
- Research development within the Department of OT might benefit if part-time lecturers were encouraged to be more involved in the research development of students and clinicians.

Two additional limitations to the study that I would like to highlight were:

- The results of the study the researcher selected to focus on were mainly the experiences of the students and the researcher. The impact of the mini-research projects and the established person-specific programmes for elderly persons with dementia in *Ons Tuiste* were not addressed directly. A specific focus on this aspect of the ALAR process could form an insightful addition to this study.
- The OT undergraduate training programmes are very full and if an ALAR approach seemed to take an excessive amount of time, students might feel burdened rather than empowered, as a result of participation.

With specific reference to the mini-research projects as part of the actualisation opportunities within the FARRA model, the challenge would be to ensure that assignments are not too extensive and that they include a research component. Other recommendations for consideration are:



- The written format presented to the students should include the outcome of the project and could also specify what scientific approach/work method to consider.
- Students could be given more authority to decide what would be feasible (practical) to execute during the time frame they have been allocated. If the assignment is too cumbersome they could divide the study into stages. If enough time is allocated they may execute all three stages themselves, but marks should be allocated to each separate stage. This approach would however not be feasible for the final exam situations.
- More supervising clinicians should be motivated to engage third-year students in very structured mini-research projects. This will assist students to gain experience prior to their fourth year when they are formally assessed on this aspect of their clinical practice.
- The contents of the FARRA model should be expanded and refined so that the actualisation process supports optimal learning opportunities.

For me, the enduring value of this investigation is the impact it has had on the students and elderly clients as stakeholders. With specific reference to the students, thanks to the mini-research projects, they could experience the effect they had had on the area and their elderly clients. The ALAR approach and groups they engaged in after clinical practice emphasised their personal and professional development. Additionally, the emancipatory nature of the nominal group technique utilised during discussion sessions made the students aware of how they had contributed to my professional development as their supervising clinician and a scholar.

I regard the development of the FARRA model as my personal contribution to the knowledge in higher education studies with specific reference to OT as the field of application. The process of development was not an easy one, but I regard the product presented here as a point of departure for debate, application and further refinement – not only in the applied health sciences, but in all fields endeavouring to develop a culture of research among undergraduates.

Finally, the facilitation of a research culture at undergraduate level could, in the words of Alsop and Ryan,<sup>\*</sup> assist to prepare OT practitioners who would be "*proactive and forward thinking about conducting research in order to build on their successes and correct their failures.*"

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<sup>\*</sup> Alsop, A. Ryan, S. 2001. *Making the most of fieldwork education – a practical approach*. Cheltenham: Nelson Thornes Ltd.





## MINI-RESEARCH PROJECT 13

### Background:

The long-term residents of *Ons Tuiste's* Dementia Care Unit are deteriorating. Staff and family members expect less of them as time goes by and even volunteers occasionally only involve one resident in their weekly groups. At present it is unclear when residents respond and to what they might show any reaction during the day. Therefore it would be important to observe them in a structured manner, as to observe their current level of activity participation prior to rendering occupational therapy input.

Various mini-research project assignments have already been conducted in an attempt to:

- Compile profiles for identified residents in the Dementia Care Unit.
- Develop multi-sensory environments for therapeutic purposes.
- Acquire funding for named projects.

(Study the previous mini-research projects to orientate yourself.)

The overall aim of these consecutive projects is to develop client-centred, person-specific treatment programmes for each resident, so that each one's quality of life will be addressed individually

### Assignment:

Process data generated by project 11 and compare your findings with the set questions (for background information) of project 12 in order to identify inadequacies.

Ensure a scientific work method by considering the following aspects:

- Both forms were completed during the observation of an eating activity, but in future will be used during exposure to multi-sensory environments and sensory stimulation groups.
- Evaluate questions on background information critically in relation to the role it can play when preparing for therapeutic input during groups.

- Give consideration on how the background questions and the evaluation forms complement each other (or if not).
- Specify as part of the results which components of the forms are appropriate for:
  - Eating situations.
  - Can only be completed with collateral information.
  - Will be appropriate for observation of sensory/multi-sensory stimulation.

**Demonstration:**

Identify your predominant recommendation relating to the next phase of project implementation and motivate to the therapist why this is your choice and what it would entail.

| <b>Critical Analysis Project 13</b>  |   |
|--|---|
| <b>Positive Aspects</b>  | <b>Negative Aspects</b>   |
| <ul style="list-style-type: none"> <li>➤ Much data generated by the completed MOHOST and observation grid forms.</li> <li>➤ Feedback to previous students was used very positively.</li> <li>➤ Integrated all the information very well.</li> <li>➤ Gave a good background and overview of the research to date.</li> <li>➤ Hard work went into accumulating data and interpreting it.</li> <li>➤ Inspirational work!</li> </ul> | <ul style="list-style-type: none"> <li>➤ Time use for presentation needs attention.</li> <li>➤ Selection of information to make it more concise requires some attention.</li> </ul> |



## TABLED FINDINGS FROM REFLECTION FORMS AND QUESTIONNAIRES.

Table I: Information and comments from and on the use of reflection forms

| Selected Quotes and Comments: | Learning contract:   | Halfway reflection:  | Final reflection:  | Project reflection:   |
|-------------------------------|--|--|--|---|
|                               | Expectations centre around learning how to deal with elderly persons and experience in using speciality techniques in treatment. | Reoccurring weakness mentioned is the fact that there is not a permanent therapist in post in the area.  | What could be done differently: <ul style="list-style-type: none"> <li>▪ involving more residents; and</li> <li>▪ handling of residents (with hindsight, students realised which ways would have been more appropriate for specific circumstances).</li> </ul> | The importance of <ul style="list-style-type: none"> <li>▪ planning;</li> <li>▪ being practical;</li> <li>▪ being positive; and</li> <li>▪ confirming correct interpretation of the assignment were stressed.</li> </ul>  |
|                               | Uncertainties focuses doubt in own abilities and lack of skills working with the elderly.  | Reoccurring strength is the support from the staff and fieldwork educator.   | What was learnt: <ul style="list-style-type: none"> <li>▪ report writing skills</li> <li>▪ planning and management skills</li> <li>▪ sustaining internal motivation.</li> </ul>  | All the students were very positive regarding the long-term value of the project.   |
|                               | The prospect of engaging in a research-project is not specifically mentioned.  | Students are very specific regarding insights in themselves and their reactions as a person. (E.g. if they do not have enough patience with residents or experience feelings of helplessness when residents do not attend groups). | Each student identified skills gained that were specific to requirements they had to meet. Therefore, the selection of assignment and project contents affects skills gained during the placement.   | Information from previously completed projects was greatly appreciated.<br>Challenges faced were: <ul style="list-style-type: none"> <li>▪ selecting appropriate information for presentation of the project; and</li> <li>▪ coping with time constraints.</li> </ul> |

Table II: Answers of questionnaire completed by stakeholders after the second action research cycle

| <b>Question 1:<br/>Successive<br/>Projects</b>   | N = 9    | <b>Question 2:<br/>Positive<br/>Experiences</b>  | N = 9   | <b>Question 3:<br/>Negative<br/>Experiences</b>   | N = 9   |
|--|----------|--|---------|---|---------|
| There is an ultimate goal; it is not only for the purpose of the specific case study.              | 9 (100%) | Enthusiasm of OT – project findings will be useful.  | 5 (56%) | Lack of staff inhibits implementation of research findings.   | 4 (44%) |
| Skills expected of a occupational therapy practitioner are developed contributing to one's future. | 4 (44%)  | Gained skills for community year – will be able to follow up previous projects.  | 3 (33%) | Staff do not appreciate the value of the ongoing study.   | 3 (33%) |
| Can appreciate mini-projects' value for the residents of <i>Ons Tuiste</i> .                       | 3 (33%)  | Experience growth as a student – gaining confidence as well as a positive attitude towards research projects.          | 3 (33%) | External factors as part of the research that are beyond students' control (e.g. waiting for quotations).   | 3 (33%) |
| Promotion of the profession.   | 2 (22%)  | Enhance knowledge of Alzheimer's and dementia.   | 3 (33%) | Participation in initial phase of the project is difficult – covering ground work was a challenge.  | 2 (22%) |
| Promotion of the specific area of work.  | 2 (22%)  | Management component – will know how to start a new project in future.   | 3 (33%) | Poor delay of gratification – not part of reaching overall aim.   | 2 (22%) |
| Having feedback of previous studies contribute to a positive start to research.                    | 2 (22%)  | See definite personal contribution made.   | 2 (22%) | Presenting the project is difficult – it is a challenge to collect correct information out of all the work covered.   | 1 (11%) |
| Makes research a reality.  | 1 (11%)  | Work towards a defined outcome with an understanding of what is to be accomplished and how it should be done.          | 1 (11%) | Evaluation of residents is very time consuming.   | 1 (11%) |
| Aware of own development.  | 1 (11%)  | Additional comment: supportive relationship with fieldwork educator contributes to development in other areas as well. | 1 (11%) | Would have liked to do more (e.g. implement findings).  | 1 (11%) |
| Increase knowledge and skill as a student.   | 1 (11%)  |  |         | Additional comment: Not all projects focus directly on residents and may not involve them, therefore residents do not directly benefit from all the research results. | 1 (11%) |
| Challenged to improve on findings of previous study.   | 1 (11%)  |  |         |   |         |
| Learn how to select only relevant information.   | 1 (11%)  |  |         |   |         |



## LEARNING CONTRACT

What are your expectations for this placement?

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What would you like to achieve by the end of this placement?

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Do you have any uncertainties about this placement?

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.....

Name: .....

Date: .....

## GROUP REFLECTION SHEET

Date of group: .....

Activity: .....

Did you reach the aims you set for the group? Why?

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Was the group appropriate for participants? Why?

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.....  
.....

How would you adapt the group to make it more appropriate in future?

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.....  
.....

Name: .....



## DAILY REFLECTION SHEETS

Date: ..... Name of student: .....

Groups presented: .....

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.....

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Other activities: .....

.....

.....

What has gone well and why?

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What would you do differently? (For example: how will you adapt your group presentation after reflecting on it; or what do you think do you need more information on in order to feel more competent?)

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## GROUP PREPARATION SHEET

Aims: .....

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Warm-up activity:

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Main activity / procedure:

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Closing:

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Precautions:

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Date: .....

Name of student: .....

**HALF-WAY EVALUATION - PERSONAL REFLECTION**

|               |            |
|---------------|------------|
| Strengths     | Weaknesses |
| Opportunities | Threats    |

Name: ..... Date: .....



# HALF-WAY EVALUATION - REFLECTION ON AREA

|               |            |
|---------------|------------|
| Strengths     | Weaknesses |
| Opportunities | Threats    |

Name: ..... Date: .....

## END OF PLACEMENT REFLECTION

Name of student: .....

Date: .....

What went well?

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What could you have done differently?

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What have you learnt?

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## PERSONAL REFLECTION ON CASE STUDY-PROJECT

Name: .....

Date: .....

Time of Clinical Phase: .....

Please complete the following questions after careful consideration. Your contribution will be utilised in the composition of future projects that will be part of this study.

1. What was your overall experience during participation in this project?

.....  
 .....  
 .....  
 .....

2. Could a different approach or additional information have made a positive contribution to your initial general orientation to the project? If so, please motivate.

.....  
 .....  
 .....  
 .....

3. Which aspect / experience / result surprised you most pleasantly during the implementation of the project? Why?

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 .....  
 .....  
 .....

4. What was difficult / an obstacle? Motivate why.

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 .....  
 .....  
 .....

5. What would you have done differently if you had a second opportunity?

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 .....  
 .....  
 .....

6. What aspect did you enjoy the least during the execution of this project? Why?  
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7. What do you think is the long-term value of your input in this research project?  
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.....
8. Do you have any message for students who will participate in this project in future?  
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9. Would you be available to participate in a focus-group later this year, so that all the students who have participated thus far can discuss it?  
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.....
10. Are there any additional questions that could be asked in order to assist students in their reflection on the research experience? Please list these.  
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.....



**KAB 409**  
**ASSESSMENT FORM**  
**SHORT CASE/MINI-RESEARCH PROJECT**

|          | <b>NAME OF STUDENT</b>                     | <b>AREA</b> | <b>DATE</b>              |
|----------|--|-------------|--------------------------|
| <b>A</b> | Practice profile .....                     |             | <input type="checkbox"/> |
| <b>B</b> | Assignment/Problem .....                   |             | <input type="checkbox"/> |
|          | Description .....                          |             | <input type="checkbox"/> |
|          | Goal formulation .....                     |             | <input type="checkbox"/> |
|          | Plan of action/Implementation method ..... |             | <input type="checkbox"/> |
|          | Results .....                              |             | <input type="checkbox"/> |
|          | Conclusion .....                           |             | <input type="checkbox"/> |
|          | Presentation/Implication .....             |             | <input type="checkbox"/> |
|          | List of references.....                    |             | <input type="checkbox"/> |
| <b>C</b> | Language usage .....                       |             | <input type="checkbox"/> |
|          | Selection of content .....                 |             | <input type="checkbox"/> |
|          | Time utilisation.....                      |             | <input type="checkbox"/> |
|          | Aids.....                                  |             | <input type="checkbox"/> |
| <b>D</b> | Demonstration .....                        |             | <input type="checkbox"/> |
|          | Time utilisation .....                     |             | <input type="checkbox"/> |
|          | Answering of questions... ..               |             | <input type="checkbox"/> |
|          | General comment.....                       |             | <input type="checkbox"/> |

**E** Ethical and professional conduct .....

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.....

**Mark allocation**

|   |             |
|---|-------------|
| Description of problem/goal formulation   | /10         |
| Implementation/Ethical and professional conduct (Plan of action, collection of information, results, conclusion, recommendations, sources, following of ethical code) | /40         |
| Insight and suitability   | /10         |
| Presentation  | /10         |
| Practical demonstration   | /30         |
| <b>Final mark</b>   | <b>/100</b> |



## EVALUATION OF PROJECT PRESENTATION

Name of student: \_\_\_\_\_

Area: \_\_\_\_\_ Date: \_\_\_\_\_

Evaluated by: \_\_\_\_\_

**Key:**

1. Unacceptable.
2. Emerging (basic).
3. Developing (commendable).
4. Proficient (good).
5. Exemplary (exceptional).

| A          | Assignment/Problem | 1 | 2 | 3 | 4 | 5 |
|------------|--------------------|---|---|---|---|---|
|            | Description        | 1 | 2 | 3 | 4 | 5 |
|            | Goal formulation   | 1 | 2 | 3 | 4 | 5 |
| Total /10: |                    |   |   |   |   |   |

Remarks: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

| B          | Implementation                              | 1 | 2 | 3 | 4 | 5 |
|------------|---|---|---|---|---|---|
|            | Practice profile                            | 1 | 2 | 3 | 4 | 5 |
|            | Background / Linking with other short cases | 1 | 2 | 3 | 4 | 5 |
|            | Plan of action / Implementation method      | 1 | 2 | 3 | 4 | 5 |
|            | Results                                     | 1 | 2 | 3 | 4 | 5 |
|            | Conclusion                                  | 1 | 2 | 3 | 4 | 5 |
|            | Ethical & professional conduct              | 1 | 2 | 3 | 4 | 5 |
|            | List of references                          | 1 | 2 | 3 | 4 | 5 |
|            | Written report                              | 1 | 2 | 3 | 4 | 5 |
| Total /40: |   |   |   |   |   |   |

Remarks: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

| C          | Insight                     | 1 | 2 | 3 | 4 | 5 |
|------------|-----------------------------|---|---|---|---|---|
|            | Suitability & Implication   | 1 | 2 | 3 | 4 | 5 |
|            | Scientific course of action | 1 | 2 | 3 | 4 | 5 |
| Total /10: |                             |   |   |   |   |   |

Remarks: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

| <b>D</b> |                                       | <b>Presentation</b> |   |   |   |   |
|----------|---------------------------------------|---------------------|---|---|---|---|
| D        | Language usage & Selection of content | 1                   | 2 | 3 | 4 | 5 |
|          | Time utilization & Aids               | 1                   | 2 | 3 | 4 | 5 |
|          |                                       | Total /10:          |   |   |   |   |

Remarks: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

| <b>E</b> |                        | <b>Practical</b> |   |   |   |   |
|----------|------------------------|------------------|---|---|---|---|
|          | Selection of contents  | 1                | 2 | 3 | 4 | 5 |
|          | Aids                   | 1                | 2 | 3 | 4 | 5 |
|          | Achieving aim          | 1                | 2 | 3 | 4 | 5 |
|          | Presentation           | 1                | 2 | 3 | 4 | 5 |
|          | Time utilization       | 1                | 2 | 3 | 4 | 5 |
|          | Answering of questions | 1                | 2 | 3 | 4 | 5 |
|          |                        | Total /30:       |   |   |   |   |

Remarks: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**F** What was positive about the project's contents?

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**G** Comments regarding the assignment given to the student:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**H** Any other feedback: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

### Mark Allocation:

|    |   |     |
|----|---|-----|
| A. | Description / goal formulation                  | /10 |
| B. | Implementation / ethical & professional conduct | /40 |
| C. | Insight & suitability                           | /10 |
| D. | Presentation                                    | /10 |
| E. | Practical demonstration                         | /30 |

**FINAL MARK**

**/100**

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## SURVEY ON FRAMEWORK FOR PROMOTING AN APPRECIATION OF RESEARCH-RELATED ACTIVITIES (FARRA)

Dear participant

Thank you very much for being willing to participate in this survey. Also find a consent form and the explanation of the FARRA attached to this e-mail. The FARRA was developed in the endeavour to cultivate an appreciation for research at undergraduate level for occupational therapy students at the University of the Free State. The aim of this survey is to obtain expert feedback from educators within the field of occupational therapy on the scope and context of the proposed framework. This inquiry is part of an action research process.

Please complete the following survey by making a  to indicate your choice. A box below each element provides the opportunity to indicate whether that specific suggestion is:

- essential (crucial / critical),
- useful (valuable / practical),
- or unnecessary (excessive / disused)

There is also opportunity to verify your choice by:

- making comments and / or suggesting modifications

(Please do not be confined by the space provided as the text box will enlarge to accommodate your feedback).

It would be appreciated if the completed survey could be returned electronically by 10 November 2007 to [dutoitsh.md@mail.uovs.ac.za](mailto:dutoitsh.md@mail.uovs.ac.za). By completing this survey, the author will assume that you have given informed consent. Please note that non-participation will not be held against you and that you have the right to withdraw from the study at any stage.

| <b>I. Areas for promoting research-related activities</b> | Essential Element | Useful Element | Unnecessary Element |
|---|-------------------|----------------|---------------------|
| i) Visual presentation                                    |                   |                |                     |
| ii) Verbal presentation                                   |                   |                |                     |
| iii) Scientific writing                                   |                   |                |                     |
| iv) Research process                                      |                   |                |                     |
| <b>Comments &amp; suggestions:</b>                        |                   |                |                     |

| <b>II. Levels for promoting research-related activities</b>  | Essential Element | Useful Element | Unnecessary Element |
|--|-------------------|----------------|---------------------|
| i) Foundational competencies in 1 <sup>st</sup> year of training<br>(Relates predominantly to an observer role within research culture)  |                   |                |                     |
| ii) Foundational competencies in 2 <sup>nd</sup> year of training<br>(Relates predominantly to a follower role within research culture)  |                   |                |                     |
| iii) Practical competencies in 3 <sup>rd</sup> year of training<br>(Relates predominantly to a team player role within research culture) |                   |                |                     |
| vi) Reflexive competencies in 4 <sup>th</sup> year of training<br>(Relates predominantly to a leader role within research culture)       |                   |                |                     |
| <b>Comments &amp; suggestions:</b>   |                   |                |                     |

**VISUAL PRESENTATION**

(The ability to use media in support of verbal presentations).

| <b>1. Foundational competency - 1<sup>st</sup> year</b>  | Essential Element | Useful Element | Unnecessary Element |
|--|-------------------|----------------|---------------------|
| F.1.1 Basic ability to select content (quantity, clarity, level of interest, supports verbal presentation) |                   |                |                     |
| F.1.2 Basic ability to manage visual aids (promptly, do not attract attention)                             |                   |                |                     |
| F.1.3 Becoming aware of the artistic value of an effective presentation                                    |                   |                |                     |
| <b>Comments &amp; suggestions:</b>   |                   |                |                     |

| <b>2. Foundational competency – 2<sup>nd</sup> year</b>  | Essential Element | Useful Element | Unnecessary Element |
|--|-------------------|----------------|---------------------|
| F.2.1 Emerging ability to select content (quantity, clarity, level of interest, supports verbal presentation)          |                   |                |                     |
| F.2.2 Emerging ability to manage visual aids (promptly, do not attract attention – mostly PowerPoint & transparencies) |                   |                |                     |
| F.2.3 Understanding the artistic value of an effective delivery  |                   |                |                     |
| <b>Comments &amp; suggestions:</b>   |                   |                |                     |

| <b>3. Practical competency – 3<sup>rd</sup> year</b>  | Essential Element | Useful Element | Unnecessary Element |
|---|-------------------|----------------|---------------------|
| P.3.1 Developing ability to select content is evident (quantity, clarity, level of interest, supports verbal presentation)            |                   |                |                     |
| P.3.2 Developing ability to manage visual aids is evident (promptly, do not attract attention – posters, PowerPoint & transparencies) |                   |                |                     |
| P.3.3 Contributing to the artistic value of an effective delivery   |                   |                |                     |
| <b>Comments &amp; suggestions:</b>  |                   |                |                     |

| <b>4. Reflexive competency – 4<sup>th</sup> year</b>                                      | Essential Element | Useful Element | Unnecessary Element |
|---|-------------------|----------------|---------------------|
| R.4.1 Regulating own visual performance skills (identifying weaknesses & strengths)       |                   |                |                     |
| R.4.2 Fostering visual presentation skills in others by directing group learning of peers |                   |                |                     |
| R.4.3 Modelling the artistic value of an effective delivery                               |                   |                |                     |
| <b>Comments &amp; suggestions:</b>  |                   |                |                     |



**VERBAL PRESENTATION**

(The ability to articulate thinking, insights and research findings)

| <b>1. Foundational competency - 1<sup>st</sup> year</b>   | Essential Element | Useful Element | Unnecessary Element |
|---|-------------------|----------------|---------------------|
| F.1.1 Basic ability to speak appropriately in mostly lay language (use of language, volume, tempo)            |                   |                |                     |
| F.1.2 Basic podium presence (appearance, gestures, posture, eye contact)                                      |                   |                |                     |
| F.1.3 Basic time utilization  |                   |                |                     |
| F.1.4 Basic handling of questions   |                   |                |                     |
| F.1.5 Becoming aware of the importance of the articulation of critical thinking in professional communication |                   |                |                     |
| <b>Comments &amp; suggestions:</b>  |                   |                |                     |

| <b>2. Foundational competency – 2<sup>nd</sup> year</b>  | Essential Element | Useful Element | Unnecessary Element |
|--|-------------------|----------------|---------------------|
| F.2.1 Emerging ability to speak appropriately in discipline-specific language (use of language, volume, tempo) |                   |                |                     |
| F.2.2 Emerging podium presence (appearance, gestures, posture, eye contact)                                    |                   |                |                     |
| F.2.3 Emerging ability to use time appropriately   |                   |                |                     |
| F.2.4 Emerging ability to handle questions   |                   |                |                     |
| F.2.5 Understanding the importance of the articulation of critical thinking in professional communication      |                   |                |                     |
| <b>Comments &amp; suggestions:</b>   |                   |                |                     |

| <b>3. Practical competency – 3<sup>rd</sup> year</b>  | Essential Element | Useful Element | Unnecessary Element |
|---|-------------------|----------------|---------------------|
| P.3.1 Developing ability to speak appropriately in discipline-specific language is evident (use of language, volume, tempo) |                   |                |                     |
| P.3.2 Developing podium presence is evident (appearance, gestures, posture, eye contact)                                    |                   |                |                     |
| P.3.3 Developing ability to use time appropriately is evident   |                   |                |                     |
| F.3.4 Developing ability to handle questions is evident   |                   |                |                     |
| F.3.5 Valuing the importance of the articulation of critical thinking in professional communication                         |                   |                |                     |
| <b>Comments &amp; suggestions:</b>  |                   |                |                     |

| <b>4. Reflexive competency – 4<sup>th</sup> year</b>                                      | Essential Element | Useful Element | Unnecessary Element |
|---|-------------------|----------------|---------------------|
| R.4.1 Regulating own verbal performance skills  |                   |                |                     |
| R.4.2 Fostering verbal presentation skills in others by directing group learning of peers |                   |                |                     |
| R.4.3 Modelling the articulation of critical thinking in professional communication       |                   |                |                     |
| R.4.4 Asking and answering questions built upon insight of own abilities                  |                   |                |                     |
| R.4.5 Modelling the articulation of critical thinking in professional communication       |                   |                |                     |
| <b>Comments &amp; suggestions:</b>  |                   |                |                     |

**SCIENTIFIC WRITING**

(The ability to portray thinking, insights and research findings in written format).

| <b>1. Foundational competency - 1<sup>st</sup> year</b>  | Essential Element | Useful Element | Unnecessary Element |
|--|-------------------|----------------|---------------------|
| F.1.1 Basic organisation & structuring (planning, presenting)  |                   |                |                     |
| F.1.2 Applying linguistic skills mostly in lay language (word choice, prose style, grammar, spelling, punctuation, syntax) |                   |                |                     |
| F.1.3 Basic referencing skills   |                   |                |                     |
| F.1.4 Becoming aware of the value of scientific communication through writing  |                   |                |                     |
| <b>Comments &amp; suggestions:</b>   |                   |                |                     |

| <b>2. Foundational competency – 2<sup>nd</sup> year</b>  | Essential Element | Useful Element | Unnecessary Element |
|--|-------------------|----------------|---------------------|
| F.2.1 Emerging organisation & structuring (planning, presenting)   |                   |                |                     |
| F.2.2 Applying linguistic skills mostly in discipline-specific language (word choice, prose style, grammar, spelling, punctuation, syntax) |                   |                |                     |
| F.2.3 Emerging referencing skills  |                   |                |                     |
| F.2.4 Understanding the value of scientific communication through writing  |                   |                |                     |
| <b>Comments &amp; suggestions:</b>   |                   |                |                     |

| <b>3. Practical competency – 3<sup>rd</sup> year</b>   | Essential Element | Useful Element | Unnecessary Element |
|--|-------------------|----------------|---------------------|
| P.3.1 Developing organisation & structuring skills is evident (planning, presenting)   |                   |                |                     |
| P.3.2 Applying linguistic skills in discipline-specific language (word choice, prose style, grammar, spelling, punctuation, syntax) & from a basic scholarly perspective |                   |                |                     |
| P.3.3 Developing referencing skills are evident  |                   |                |                     |
| P.3.4 Contributing to scientific communication through writing   |                   |                |                     |
| <b>Comments &amp; suggestions:</b>   |                   |                |                     |

| <b>4. Reflexive competency – 4<sup>th</sup> year</b>  | Essential Element | Useful Element | Unnecessary Element |
|---|-------------------|----------------|---------------------|
| R.4.1 Indicating initial accommodation of different worldviews  |                   |                |                     |
| R.4.2 Modelling the enjoyment of scientific communication through writing   |                   |                |                     |
| R.4.3 Appreciating the value of scientific writing for the promotion of OT as a profession  |                   |                |                     |
| R.4.4 Modelling personal inner (spiritual) development for incorporating and building upon feedback that enhance skills in scientific communication through writing |                   |                |                     |
| <b>Comments &amp; suggestions:</b>  |                   |                |                     |



**RESEARCH PROCESS**

(Purposefully collect, evaluate, synthesize and analyse information that would support thinking, insights and research findings)

| <b>1. Foundational competency - 1<sup>st</sup> year</b>  | Essential Element | Useful Element | Unnecessary Element |
|--|-------------------|----------------|---------------------|
| F.1.1 Collecting information in response to lecturer's specified task                            |                   |                |                     |
| F.1.2 Using simple, prescribed criteria to evaluate & organise information                       |                   |                |                     |
| F.1.3 Synthesizing & analysing information to reproduce existing knowledge in prescribed formats |                   |                |                     |
| F.1.4 Becoming aware of others' research performance measured against given criteria             |                   |                |                     |
| F.1.5 Becoming aware of the contribution of scientific publications to quality of assignments    |                   |                |                     |
| <b>Comments &amp; suggestions:</b>   |                   |                |                     |

| <b>2. Foundational competency – 2<sup>nd</sup> year</b>   | Essential Element | Useful Element | Unnecessary Element |
|---|-------------------|----------------|---------------------|
| F.2.1 Collecting information in response to lecturer/ clinician's specified task                |                   |                |                     |
| F.2.2 Using prescribed criteria to evaluate & organise information                              |                   |                |                     |
| F.2.3 Synthesizing & analysing information to reorganise existing knowledge in standard formats |                   |                |                     |
| F.2.4 Understanding others' (e.g. peers') research performance measured against given criteria  |                   |                |                     |
| F.2.5 Understanding the contribution of scientific publications to quality of assignments       |                   |                |                     |
| <b>Comments &amp; suggestions:</b>  |                   |                |                     |

| <b>3. Practical competency – 3<sup>rd</sup> year</b>                                      | Essential Element | Useful Element | Unnecessary Element |
|---|-------------------|----------------|---------------------|
| P.3.1 Collecting information in response to lecturer/ clinician's specified task          |                   |                |                     |
| P.3.2 Evaluating & organising information relating to aims of inquiry                     |                   |                |                     |
| P.3.3 Synthesizing and analysing information to construct emergent knowledge              |                   |                |                     |
| F.3.4 Appreciating others' research performance measured against given criteria           |                   |                |                     |
| F.3.5 Applying information from scientific publications to enhance quality of assignments |                   |                |                     |
| <b>Comments &amp; suggestions:</b>  |                   |                |                     |

| <b>4 Reflexive competency – 4<sup>th</sup> year</b>  | Essential Element | Useful Element | Unnecessary Element |
|--|-------------------|----------------|---------------------|
| R.4.1 Collecting information in response to lecturer/ clinician / own specified task   |                   |                |                     |
| R.4.2 Critically evaluating & organising information relating to aims of inquiry   |                   |                |                     |
| R.4.3 Synthesizing and analysing information when attempting to fill knowledge gaps  |                   |                |                     |
| R.4.4 Becoming aware of researcher role (can identify personal strengths & weaknesses) & contributing to others' research performance by sharing own experiences & insights. |                   |                |                     |
| R.4.5 Modelling sensitivity & ethical considerations towards participants  |                   |                |                     |
| <b>Comments &amp; suggestions:</b>   |                   |                |                     |



**ACTUALISATION PROCESS**

(Interactive learning opportunities to apply, observe, participate and model knowledge, skills and attitudes associated with research-related activities)

| <b>1. Course Work</b>              |   | Essential Element   | Useful Element | Unnecessary Element |
|------------------------------------|---|---|----------------|---------------------|
| A.1                                | Feedback on group and/or individual assignments to:   |   |                |                     |
| A.1.1                              | Compile short reports within informal guidelines & with maximum guidance as part of theoretical coursework  | Use transparencies & PowerPoint (1 <sup>st</sup> year)          |                |                     |
| A.1.2                              | Compile assignments within semi-formal guidelines & with medium guidance as part of theoretical coursework  | Use transparencies & PowerPoint (2 <sup>nd</sup> year)          |                |                     |
| A.1.3                              | Compile assignments within formal guidelines & with minimum guidance as part of theoretical coursework, individual mini-research projects & formal group research           | Use transparencies, PowerPoint & posters (3 <sup>rd</sup> year) |                |                     |
| A.1.4                              | Compile assignments within formal guidelines & with guidance only upon request as part of theoretical coursework, individual mini-research projects & formal group research | Use transparencies, PowerPoint & posters (4 <sup>th</sup> year) |                |                     |
| <b>Comments &amp; suggestions:</b> |   |   |                |                     |

| <b>2. Research presentation &amp; poster exhibition days</b> |  | Essential Element | Useful Element | Unnecessary Element |
|--|--|-------------------|----------------|---------------------|
| A.2  | Creating the opportunity to be selected for presenting:  |                   |                |                     |
| A.2.1  | Best 1 <sup>st</sup> year theoretical assignment   |                   |                |                     |
| A.2.2  | Best 2 <sup>nd</sup> year theoretical assignment   |                   |                |                     |
| A.2.3  | Best 3 <sup>rd</sup> year structured mini-research project                                       |                   |                |                     |
| A.2.4  | Best 4 <sup>th</sup> year mini-research project from the psychosocial field of clinical practice |                   |                |                     |
| A.2.5  | Best 4 <sup>th</sup> year mini-research project from the physical field of clinical practice     |                   |                |                     |
| <b>Comments &amp; suggestions:</b>                           |  |                   |                |                     |

| <b>3. Research presentation &amp; poster exhibition days</b> |  | Essential Element | Useful Element | Unnecessary Element |
|--|--|-------------------|----------------|---------------------|
| A.3  | Creating a cooperative learning opportunity for structured reflections to:   |                   |                |                     |
| A.3.1  | Recognise indicated aspects in peers' work during 1 <sup>st</sup> to 4 <sup>th</sup> year presentations (1 <sup>st</sup> year) |                   |                |                     |
| A.3.2  | Compare personal interpretation of relevant aspects during presentations with feedback from lecturer (2 <sup>nd</sup> year)    |                   |                |                     |
| A.3.3  | Identify personal aspect/s that needs improvement to enhance quality of group/individual assignments (3 <sup>rd</sup> year)    |                   |                |                     |
| A.3.4  | Provide constructive feedback on own & peer's contributions (4 <sup>th</sup> year)   |                   |                |                     |
| <b>Comments &amp; suggestions:</b>                           |  |                   |                |                     |



**FORM A**  
**INFORMED CONSENT**  
(Used mostly with expert panel)

Dear Madam

You have agreed to participate in a research study conducted by Sanet du Toit towards her Ph D thesis at the University of the Free State.

**Title:** *'Facilitating a research culture at undergraduate level for occupational therapy students at the University of the Free State'*.

**Aim of the study:** The main research question focuses on how a culture of research can be facilitated when utilising the opportunities provided by clinical practice. The objective of this survey is to answer the last of five subsidiary questions that direct this study in support of the overall aim. These are:

- 1.1 What factors dissuade South African occupational therapists to embrace opportunities for research and publication?
- 1.2 How could mini-research projects be designed and structured to contribute to a meaningful learning experience for students on clinical placement?
- 1.3 Can the ALAR approach through mini-research projects, positively contribute to the professional development of undergraduate OT students during clinical practice?
- 1.4 How can involvement in community projects contribute to the personal development of undergraduate OT students?
- 1.5 What should the main elements be of a research development framework that would utilise the potential of clinical practice in occupational therapy?

**Methodology & study design followed:** The research undertaken in this study can be classified as an action inquiry, involving reflective practice, action learning, action research and researched action. Elements of both quantitative and qualitative data will be used to support the action inquiry process.

**Value of the study:** The survival and progress of health care professionals in SA operate in a "cash-strapped developing country" where basic needs in the work environment are barely addressed (Duncan 1999:7). Every practitioner should take self-development seriously and have a personal responsibility for clinical effectiveness by becoming effective research consumers and contributors (Duncan 1999). The link between CPD and lifelong learning that embarks on student level has not yet been explored in depth (Metcalf 2004). First-hand experience and participation in research during clinical practice could impact on students' attitude and perception towards the applied value of research findings. Furthermore, clinical research can provide a unique opportunity for client-centred, research-informed practice that would support the viability and potential expansion of existing services.

A possible key to an evidence-based or research-informed practice future is to begin at undergraduate level. This implies that students need to develop the skills needed for critiquing current theory and research. A potential way to jump-start this process is by allowing students to participate in consecutive mini-research projects (also known as short cases) as part of their clinical practice.

**Guarantee of confidentiality:**

**If you complete this questionnaire the author will assume that you have given informed consent. Please note that non-participation will not be held against you and that you have the right to withdraw from the study at any stage.** If any reference is made to identify you as an individual, you will be presented with this aspect of the thesis as to consent on its relevance and your continued consent for participation.

You may contact the following individuals at any time if you have questions about the research:

| PERSON                  | ROLE         | POSITION   | CONTACT DETAILS   |
|-------------------------|--------------|--|---|
| Prof. Annette Wilkinson | Study leader | The Head:<br>Higher Education<br>Studies and<br>Research<br>(Faculty of<br>Humanities) | Benito Khotseng Building (BAO 204),<br>University of the Free State,<br>PO BOX 4345,<br>Bloemfontein 9300<br>Tel: +27 51 401 3776<br>Fax: +27 51 444 6357<br>E-mail: <a href="mailto:wilkinac.rd@mail.uovs.ac.za">wilkinac.rd@mail.uovs.ac.za</a> |
| Mrs. Sanet du Toit      | Researcher   | Lecturer:<br>Department of<br>Occupational<br>Therapy                                  | (G44). C.R. De Wet Building,<br>PO Box 339, Bloemfontein, 9300<br>Tel: 051 401 2830 / 082 413 2264<br>Fax: 051 401 3288<br>E-mail: <a href="mailto:dutoitsh.md@mail.uovs.ac.za">dutoitsh.md@mail.uovs.ac.za</a>                                   |

Please sign and date this document:

.....  
Name

.....  
Date



**FORM B**  
**Consent Form Information**  
 (Used in most instances throughout investigation)

**Name of researcher:** Sanet du Toit

**Degree enrolled for:** Ph D

**Title:** *'Facilitating a culture of research at undergraduate level for occupational therapy students at the University of the Free State'.*

**Aim of the study:** The main research question focuses on how a culture of research can be facilitated when utilising the opportunities provided by clinical practice. Five subsidiary questions direct this study in support of the overall aim. These are:

1. What factors dissuade South African occupational therapists to embrace opportunities for research and publication?
2. How could mini-research projects be designed and structured to contribute to a meaningful learning experience for students on clinical placement?
3. Can the ALAR approach through mini-research projects, positively contribute to the professional development of undergraduate OT students during clinical practice?
4. How can involvement in community projects contribute to the personal development of undergraduate OT students?
5. What should be the main elements of a research development framework that would utilise the potential of clinical practice in occupational therapy?

**Methodology & study design followed:** The research undertaken in this study can be classified as an action inquiry. Tripp (2003) describes action inquiry as a blanket term could involve reflective practice, action learning, action research and researched action. According to Dick (2000) action research allows that change can be facilitated while gaining an understanding at the same time. In directing the successive mini-research projects the researcher was committed to change as she learned from each project before compiling the next assignment during the three initial cycles. She was therefore continually engaged in a *'plan, act, describe, review'* cycle where Dick (2000) stipulates that planning is the reflection prior to action, observation is reflection during action and reflection is reflection after action. Elements of both quantitative and qualitative data were used to support the action inquiry process. It is especially the qualitative nature of the research design and its strong focus on communicativeness that promotes situational interaction and communication between researcher and participants (Zuber-Skerritt, 2005).

**Value of the study:** The survival and progress of health care professionals in SA operate in a "cash-strapped developing country" where basic needs in the work environment are barely addressed (Duncan 1999:7). Every practitioner should take self-development seriously and have a personal responsibility for clinical effectiveness by becoming effective research consumers and contributors

(Duncan 1999). The link between CPD and lifelong learning that embarks on student level has not yet been explored in depth (Metcalf 2004). First-hand experience and participation in research during fieldwork experience could impact on students' attitude and perception towards the applied value of research findings. Furthermore, clinical research can provide a unique opportunity for client-centred evidence-based practice that would support the viability and potential expansion of existing services.

A possible key to an evidence-based future is to begin at pre-graduate level. This implies that students need to develop the skills needed for critiquing current theory and research (Jones & Higgs 1995, as cited by Forsyth *et al.* 2005). A potential way to jump-start this process is by allowing students to participate in consecutive mini-projects as part of their clinical practice. The supervising clinician can then assist and guide them to interpret and reflect on their peers' and their own participation in research.

**If you complete this questionnaire the author will assume that you have given informed consent. Please note that non-participation will not be held against you and that you have the right to withdraw from the study at any stage.**

**Contact details:** [dutoitsh.md@ufs.ac.za](mailto:dutoitsh.md@ufs.ac.za)  
051 401 2832  
082 413 2264



MY WORD!  
Language practice

Roelien Viljoen  
Ronelle Ceronio

0832335472

**To Whom It May Concern:**

This is to certify that the interpretations of Mrs. S.H.J. Du Toit with regard to her action research study and students' feedback, are correctly translated and in context.

Yours faithfully



**Ronelle Ceronio (M.A. Ling.)**

