THE PORTFOLIO TO SUPPORT APPLIED COMPETENCE IN A SOUTH AFRICAN DISTANCE LEARNING PROGRAMME FOR FOUNDATION PHASE TEACHERS – A CASE STUDY

C. G. Kruger*
Faculty of Education
School of Social Sciences and Humanities for Education
North West University
e-mail: corne.kruger@nwu.ac.za

M. W. de Witt
Faculty of Education
Department of Psychology of Education
University of South Africa
Pretoria, South Africa
e-mail: marike.dewitt@gmail.com

J. M. Janse van Rensburg*
Faculty of Education
School of Humanities and Social Sciences for Education
North-West University, Potchefstroom Campus, South Africa
e-mail: Ona.JanseVanRensburg@nwu.ac.za

ABSTRACT

This article reports on a search for a parallel between literature findings based on portfolios for teacher education and the accounts of practising South African Foundation Phase teachers, regarding the way the portfolio supported the development of their applied competence. Teacher responses captured during one-to-one interviews were perused for a possible parallel with findings from international studies to come to a conclusion regarding the way a portfolio could serve to support

applied competence in a distance learning programme in the South African context. Literature concurs regarding the way teacher education programmes should support the development of (i) pedagogical content knowledge, (ii) application of new knowledge in practice, (iii) a professional attitude and (iv) self-directed learning strategies such as reflective and inquiry learning. Teacher experiences largely coincide with the literature on the value of a portfolio in supporting these components. Recommendations are made regarding the design and delivery of a portfolio as part of a Distance Learning (DL) programme for Foundation Phase teachers to ensure sustained applied competence as outcome.

Keywords: Foundation Phase teacher education, applied competence, portfolio, self-directed learning, reflection

1. INTRODUCTION

In South Africa, Distance Learning (DL) is viewed as a cost-effective way to provide under- or unqualified practising teachers the opportunity to attain an accredited qualification. The capacity of DL programmes to ensure the development of applied teaching competence and consequent improved standards in schools has been the main focus of many inquiries in this field (Aldridge, Fraser and Ntuli 2009, 147; Rumajogee, Jeeroburkhan, Mohadeb and Mooneesamy 2003, 14; Daniel 2010; Perraton, Creed and Robinson 2002, 18).

2. PROBLEM STATEMENT

Darling-Hammond (2010, 39) expresses her concern regarding the quality of teacher education programmes offered for instance in the United States. Furthermore, the inability of the different DL programmes to support the development of practical competences of teachers is ascribed to the absence of reflexive competences required of good practice (Council on Higher Education 2010, 135, 136).

Where a portfolio was implemented as mechanisms to support applied competence as outcome of a DL programme for Foundation Phase teachers, the following questions are asked: What are the experiences of South African Foundation Phase teacher enrolled for a DL programme regarding the way a portfolio supported their applied competence? How do the experiences of teacher-students relate to literature findings regarding the value of a portfolio for applied competence of teachers?

3. RESEARCH ORIENTATION

This research study followed an interpretivistic paradigm and intended to develop a deep understanding of the way a practical component within a DL programme supported applied competence as programme outcome. Where the focus is on the implementation-

evaluation of the practical component of a DL programme the study follows from a longstanding belief that if teacher-students are to be actively engaged in their own learning, their voices must be heard (Cook-Sather 2002, in Volante 2006, 168).

4. CONCEPTUAL AND THEORETICAL FRAMEWORK

Findings from literature served as a framework for the study whereby the implementation of a portfolio as part of a DL programme for Foundation Phase teachers was evaluated.

Although a portfolio can take on many forms, the portfolio which was the focus of the investigation is viewed as a tool to complement traditional measures of student development and achievement through engaging students in collecting selected samples of their work for assessment, but primarily to engage them in in continuous, collaborative reflection about the process of learning (Zubizarreta 2008, 3).

In accord with the definition by Darling-Hammond and Snyder (2000, 524) the portfolio which is the focus of this study is viewed as a tool to assemble artefacts of practice, exhibitions of   performance and problem-based inquiries in order to capture important attributes of teaching, reasoning about teaching, linking theory to practice and drawing generalizations about practice. According to these authors the process may transform teachers' understandings of both theory and practice. The portfolio is thus not only viewed as a tool for evaluation *per se*, but also aimed to support a reflective approach to teaching practice that is a hallmark of effective teachers (Santiago and Benavides 2009, 15).

4.1. The need for quality DL programmes for Foundation Phase teacher education

Taylor (2013) questions the way programmes offered to under-qualified practising teachers support the development of applied teaching competence. According to Gardiner (2008, 22) many Institutions of Higher Education (HEIs) are unlikely to address the needs of the rural communities as programmes do not equip teachers to translate the concepts and ideas of their training into the everyday realities of their learners and their parents. The on-going debate on the capacity of DL to ensure the development of applied teaching competence and consequent improved standards has implications for the practiced-based nature of Foundation Phase education. Villegas-Remers (2003, 138) highlights the importance of guided work-integrated learning for especially Foundation Phase teachers. Therefore supervised and guided work-integrated learning, which is often not accommodated in a DL programme, is a prerequisite for programme design to ensure the development of professional teaching competencies by all teacher-students (South African Government 2011, 3). Mechanisms should therefore be devised to effectively include work-integrated learning in DL programmes in order to guide the application of theory in practice and thereby support applied teaching competence of Foundation Phase teachers as programme outcome.

4.2. Supporting and assessing applied competence in a DL programme for teachers

It is not easy to develop or attain applied competence in a DL programme or to measure the extent to which this goal has been achieved. Educationists in industrialised countries such as Australia, (Green, Edwards, Wolodko, Stewart, Brooks and Littledyke 2010) , New Zealand (Fox and Donohue 2009), and Finland (Rodgers 2002; Meriläinen, Valli, Valli and Piispanen 2013) seem to be exploring ways of supporting the development of applied competence via e-learning or as part of blended learning models.

Rodgers (2002, 843) warns that assessing a skill that is vaguely defined, such as applied competence, requires carefully consideration by reflecting on what exactly one is looking for as evidence of applied practice. In order to determine criteria for quality teacher education with applied competence as outcome, literature on education programmes offered by countries known for their quality teacher education was explored. Yates (2007, 2) refers to the Global Monitoring Report (GMR) that identified Finland, Korea, Canada and Cuba as among the top performers in terms of offering a quality education for their teachers. Through analyses of the literature on the teacher education of these four countries we identified core components to be included in effective teacher education programmes namely, (i) pedagogical content knowledge, (ii) supporting self-directed learning strategies such as reflective and inquiry learning, and the development of a professional attitude, and (iii) guided opportunity to apply new knowledge in practice.

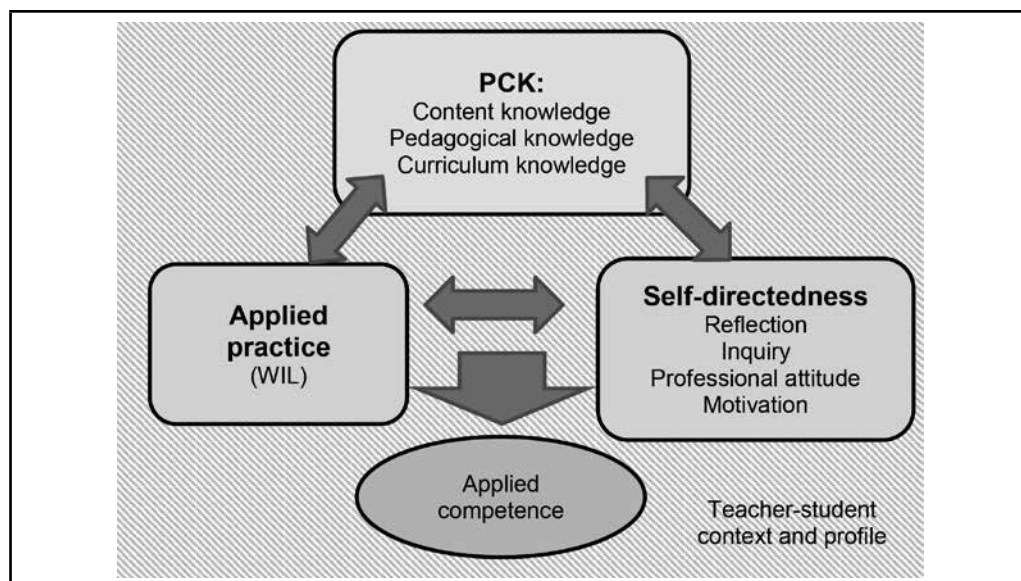The interrelatedness between these components is illustrated in figure 1.

Figure 1: Supporting applied competence as outcome of a DL programme for Foundation Phase teachers

4.3. Pedagogical content knowledge

Shulman (1987, 8) defines pedagogical content knowledge (PCK) as 'the blending of content and pedagogy into an understanding of how particular topics, problems or issues are organized, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction'. All meaningful learning by teachers should be grounded in relevant PCK. However, the literature indicates that effective teacher education programmes should not only guarantee the attainment of PCK, but also ensure that teacher-students are able to apply PCK in the most relevant way in practice (Darling-Hammond 2010; Van Driel and Berry 2012; South African Government 2011, 4).

4.4. Supporting self-directed learning by teacher-students

Self-directed learning is positively correlated with academic achievement in traditional higher education classroom settings (Francis and Flanigan 2012) while the development of self-directed learning strategies by teacher-students is believed to resonate in the teaching practice of these teacher-students eventually. Although various qualities play a role in self-directedness, three main traits of self-directedness came to the fore in the analysis of effective teacher education programmes of top performing countries identified by the EFA Global Monitoring Report - (2004). These qualities firstly relate to a reflective behaviour, including reflective learning and the development of a reflective practice, and secondly, to the way teacher-students are supported to implement an inquiry-based practice.

4.4.1.   Reflection on theory and practice

Welch and Gultig (2002, 27) view reflection as a prerequisite of improved practice. They caution that while some reflective abilities may develop naturally, higher-level reflective abilities are dependent on theoretical understanding and an active teaching of their application in practice. This view has implications for DL programmes, as active teaching and assessing of understanding are hampered by the distance between teacher educator and teacher-student. Dewey's theory of experience learning (Dewey 1938), also accentuates the need for a more practice-based component as part of a DL programme to provide opportunity for reflection *on* and *in* practice.

4.4.2.   Inquiry learning

Inquiry by teachers refers to a deeper exploration whereby teachers implement self-directed skills to generate information to enhance the teaching practice. Clifton (2013) postulates that much of the knowledge and skills acquired by students will be irrelevant by the time they complete their qualifications. Education programmes, therefore, should

not focus primarily on the acquisition of knowledge and skills needed for employment, while neglecting to prepare students to adapt to never-ending change through inquiry.

Darling-Hammond and Bransford (2005, 438) refer to the different perspectives of inquiry by teachers. While inquiry is regarded by some as a process whereby individual teachers become more reflective and analytic about their own classroom practice and that promotes their individual growth as teachers, inquiry also entails engaging in constructing knowledge about teaching and learning themselves and using this understanding to guide their practice and their future learning (Darling-Hammond and Bransford 2005, 438).

4.5. Development of a professional attitude

The National Framework for Teacher Education defines a professional teacher as a person characterised more by a commitment to the ideals of the profession and flexible competences to pursue those ideals in a variety of circumstances, than by mere obedience to the legitimate requirements of an employer (South African Department of Education 2005, 6). According to Shulman, teacher education programmes need to strive towards standards without standardisation, by equipping teachers to serve the practice and not the system (Shulman 1987, 20). The relationship between teacher motivation, a reflective practice and a professional attitude is also highlighted by Rodgers (2002, 854)

4.6. Guided opportunity to apply knowledge in practice

Darling-Hammond (2010, 40) reported on common factors of strong teacher education programmes, which include the opportunity for teacher-students to practise under the guidance of an expert. According to Darling-Hammond, core design features of quality programmes accentuate the importance of learning *in* and *from* practice. Apart from connecting coursework directly to practice in much more extensive practicum settings, she found that efforts to profit from the wisdom of practice through the involvement of experienced teachers, and to connect theory to practice, both through well-designed clinical experiences and through the use of case methods, action research and performance assessments, contributed greatly to the teachers' applied competency (Darling-Hammond 2010, 36).

Various authors view the portfolio as a means by which to enhance teaching practice through reflective and practice-based learning, and this view may well serve to address aforementioned deficiencies of DL programmes. Where DL programmes previously neglected the importance of guided work-integrated learning, portfolios could serve as a way to provide this guidance in practice.

4.7. The portfolio as mechanism to support and assess applied competence

Various international studies affirm the value of a portfolio in teacher education (Imhof and Picard 2009; Klenowski 2002; Ohlhausen and Ford 1990; Wade and Yarbrough 1996; Williams, Davis, Metcalf and Covington 2003; Orland-Barak 2005; Chetcuti, Buhagiar and Cardona 2011, to name but a few). Welch (2008, 330, 331) also views the portfolio as a possible solution to support applied competence in a DL programme in the South African context, and suggests a work-integrated DL model for the professional development of under-qualified practising teachers where a portfolio forms a fully integrated component of the programme. She further describes the role of a portfolio in a DL programme as developmental for all students by mediating reflection on previous as well as current practice.

Shulman (2003, 22), who investigated the effectiveness of a portfolio for the professional development of teachers, reported that the portfolio is a powerful instrument to 'connect the relentless flow of practice with the growing edge of research and theory'. According to Shulman (2003, 2), the portfolio provides an opportunity to inform good teaching by theory, and serves as a way to learn and understand good teaching through the study of practice.

The portfolio is often viewed as an effective assessment tool to evaluate practice-based teaching competencies. Some studies, however, agree that the design of a portfolio will greatly determine if and how a portfolio will provide authentic evidence of applied competence. Merely showcasing practice based tasks doesn't guarantee sustained applied competence as a programme outcome (Orland-Barak 2005, 27; Zeichner and Wray 2001, 620; Van der Schaaf, Stokkinga and Verloop 2008, 1692).

4.8. Implementing the portfolio in a DL programme for Foundation Phase teachers in the South African context

Critique on the way existing DL programmes contributed to applied competence of teachers, as well as literature confirming the way portfolios contribute to improve outcomes of teacher education programmes, served as impetus for the revision of an existing programme offered as part of a bursary project. The portfolio component consisted of a guide, a comprehensive manual that focused on practical aspects of classroom management, teaching and learning, perceptual skills, and Foundation Phase subjects, namely, Language, Mathematics and Life Skills, as well as strategies to support learners with special educational needs (LSEN). The aim of the portfolio study guide was to bridge the distance between lecturer and student in this DL programme. Teacher-students are guided in a reflective way in the implementation of theory in practice, and referred to visual inserts of practice on a DVD in order to support the connection between theory and practice, and consequently, the development of a more reflective

practice. While practical tasks that need to be included in the portfolio are explained, the guide also scaffolds teacher-students' reflection *on* and *in* practice. The portfolio further aimed to support the development of applied competence by accommodating the components identified from literature, namely, reflection, inquiry, guided applied practice and the development of a professional attitude.

As no previous research findings related to the South African context could be identified in the literature, it was deemed important for the success of this teaching and learning mechanism to be investigated, and for findings to be documented. Informing designers of possible successes and pitfalls based on teacher-students' lived experiences and the relation between these experiences and international research findings could serve as a useful framework for ways to implement a portfolio in a DL programme in the specific South African context.

4.9. Methodology

The voice of the teacher-student regarding the way the portfolio supported their applied competence is regarded as a reliable indicator of the way the programme supported their applied competence. As verification of the way literature shows how a portfolio serves to support the development of applied teaching competence, 16 studies on portfolios were analysed to determine *if* and *how* the core components known to support applied competence (Figure 1), were accommodated by the portfolio. Drawing a parallel between the literature and teachers' experiences provided an opportunity to evaluate the way in which a portfolio could succeed in supporting applied competence in a DL programme in the South African context by accommodating the core components identified.

5. RESULTS

Analysis of and comparison between literature and empiric investigations

After a thorough analysis of the 16 studies, general themes were derived with regard to the focus, findings and/or suggestions of literature on portfolios for teacher education. These themes were then summarised as shown in Table 1.

The foci of the 16 identified studies on portfolios as support mechanism for the development of applied competence vary, and included investigations regarding the purpose of a portfolio, its design, learning outcomes as well as the way a portfolio could be used successfully as an assessment tool for applied competence.

To compare these findings with the experiences of five teachers enrolled for a Foundation Phase programme on the way the portfolio supported their applied competence, data were captured through individual interviews and coded through ATLASti software to analyse the transcriptions. Components identified in literature, as related to applied competence, were used as basis for deductive reasoning on the way participants experienced the portfolio as supporting the development of their applied

competence. The codes with highest frequency (referred to most by the five teachers) were included in the network (Figure 2). The interrelatedness between the main components indicated in the network implies that all codes related to applied competence will directly or indirectly influence other related aspects coded, and consequently also applied competence as programme outcome. Links between subcodes were, however, omitted in this network, which focuses on frequency of occurrence only. High code frequency served as indication of aspects of applied competence, which were supported by the portfolio process. These codes were then compared with themes identified in the literature (Table 1). The areas in which these two sources positively correlate could be regarded as significant for future DL programme design for Foundation Phase teacher education in the South African context. By comparing the data collected from the two sources, we looked for correlations between the way a portfolio contributes to the development of self-directness (including reflection and inquiry), PCK, a professional attitude and applied practice.

Table 1: General themes derived from the literature on portfolios for teacher education

Author	General themes identified
Orland-Barak (2005) Israel	Reflection Self-directed learning Autonomy Process and product portfolios
Shulman (2003) United States of America	Reflection Applied practice Motivation / teacher attitude Understanding Transformative
Chetcuti, Buhagiar and Cardona (2011) Malta	Reflection Applied competence
Yasin, Rahman and Ahmad (2012) Malaysia	Reflection Life-long learning Sustainable education Transformative / changed practice
Wade and Yarbrough (1996) United States of America	Reflection Understanding Experience Self-directed learning Autonomy
Farr Darling (2001) Canada	Reflection Understanding Experience Self-directed learning Autonomy

Author	General themes identified
Imhof and Picard (2009) Germany	Reflection Exploration/inquiry Life-long learning Improved professional attitude
Zeichner and Wray (2001) United States of America	Reflection Applied competence Inquiry Applied practice Self-directed learning / autonomy Professional attitude / perspectives Assessment mechanism Student profile is important
Van der Schaaf, Stokkinga and Verloop (2008) The Netherlands	Professional attitude / beliefs / motivation Understanding Assessment mechanism Student profile is important
Loughran and Corrigan (1995) Australia	Reflection Applied practice Self-directedness / autonomy Professional attitude / motivation/ beliefs Understanding
Wray (2007) United States of America	Reflection Self-directedness Applied practice Understanding
Berrill and Addison (2010) Canada	Applied practice Student profile is important
Williams, Davis and Covington (2003) United States of America	Applied practice Self-directness / autonomy Assessment mechanism
Galuzzo (2005) United States of America	Applied practice Self-directness / autonomy Assessment mechanism
Galuzzo (2005) United States of America	Reflection Transformative / changed practice Applied practice Assessment mechanism IT
Constantino (2009) United States of America	Assessment mechanism

The network diagram contains the following concepts and relationships:

####+Applied practice {38-8}~
####+Planning for learning {4-1}~
####+Linking theory to practice {17-1}~
####+SR implementation {19-1}~
####+Improved practice {32-1}~
####+Implement new resources {3-1}~
####+Subject knowledge {3-1}~
####+Knowledge LSEN {25-2}~
#####+PCK {52-11}~
####+Classroom management {7-1}~
####+Gain in curriculum knowledge {2-1}~
####+Pedagogical knowledge {6-1}~
####+Knowledge of resources {12-1}~
##Applied competence {99-3}~
####+Professional attitude {50-5}~
####+Motivation {17-1}~
####+Change in attitude {6-1}~
####+Transformative experience {4-1}~
####+Positive about programme {54-2}~
####+Inquiry learning {21-4}~
####+Finding knowledge {17-1}~
####+Knowledge sharing {8-1}~
####+Cooperative learning {6-1}~
####+Reflection on metacognition {15-1}~
####+Reflection on effective practice {31-1}~
###+Self-directedness {94-7}~
####+Reflection {90-8}
####+Reflection on PCK {4-1}
####+Reflection on barriers {10-1}~
####+Reflection on change {31-1}~
####+Critical reflection on own knowledge {341-1}~
####+Critical reflection on own practice {40-1}~

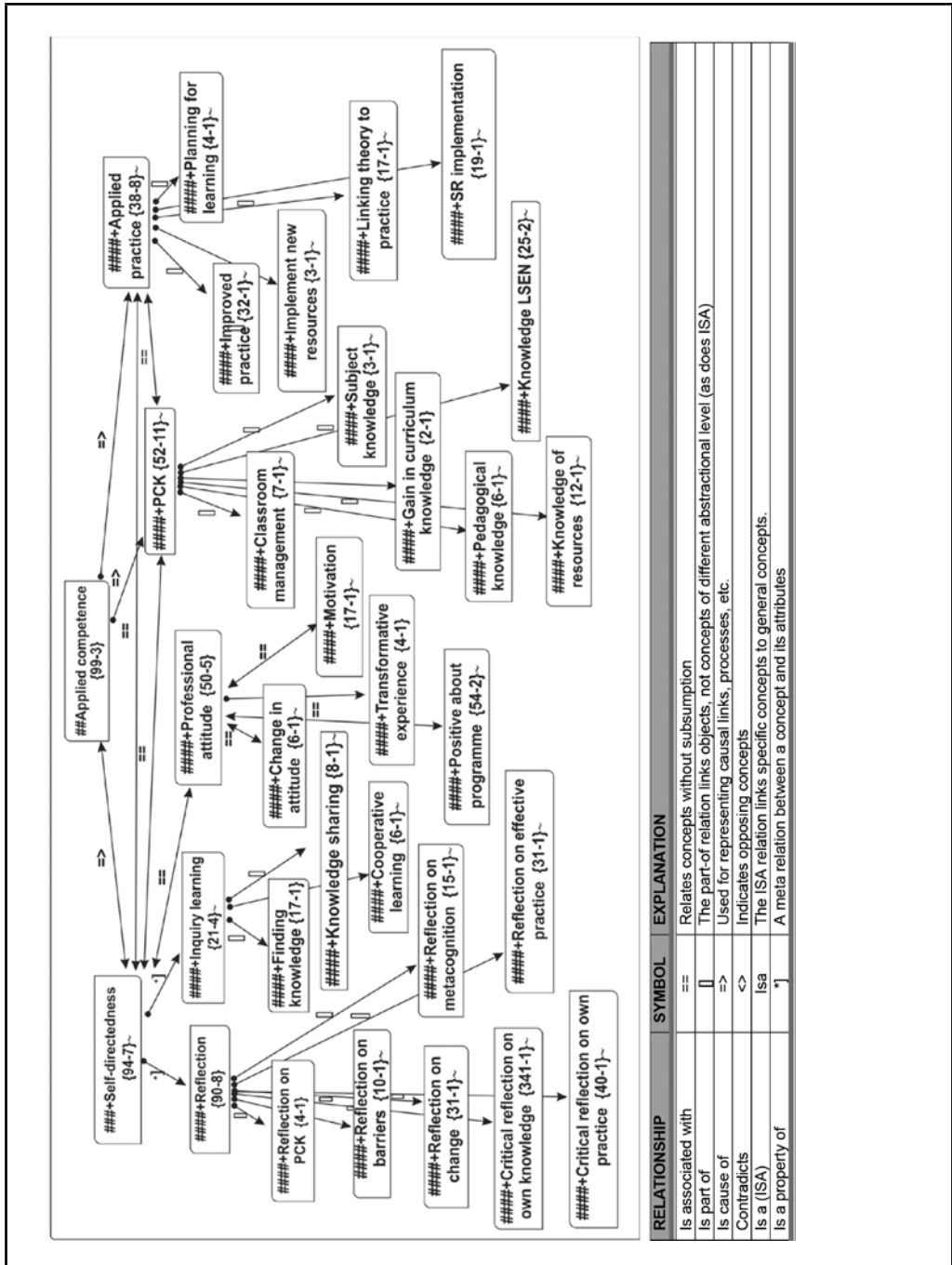| RELATIONSHIP	SYMBOL	EXPLANATION
Is associated with	==	Relates concepts without subsumption
Is part of	[]	The part-of relation links objects, not concepts of different abstractional level (as does ISA)
Is cause of	=>	Used for representing causal links, processes, etc.
Contradicts	<>	Indicates opposing concepts
Is a (ISA)	Isa	The ISA relation links specific concepts to general concepts.
Is a property of	*]	A meta relation between a concept and its attributes

Figure 2: Participant experiences related to components of applied competence (ATLASti network)

6. DISCUSSION

Reporting on student profile and its implications for portfolio design does not form part of this study.   However, 28 comments on the poor socio-economic context of participants and 18 regarding unfavourable teaching circumstances, imply that the discussion of findings should recognise the background of teachers enrolling for DL programmes. The contextual factors on which participants commented were thus used as an indication of circumstantial aspects that a South African programme needs to recognise when a portfolio is implemented to support applied competence as part of a DL programme

6.1. Supporting PCK as outcome of the portfolio

The portfolio as a performance based mechanism, mainly aimed to guide the application of PCK in practice rather than supplying PCK. The literature study confirms that the opportunity to apply content in a classroom context generates and confirms pedagogical knowledge (n=7). The way the portfolio guided teacher-students to implement PCK in practice could be linked to 52 quotes, of which the following serve as example: 'There are so many things, but with this programme I know I have all those exercises, I can train the child every day.'

The dire need for this knowledge base is also apparent from the following comment: 'This is something new for me. Ja. This was very very interesting ... I rather like it, yes'.

6.2. Reflection as outcome of the portfolio

Eleven (n=11) of the 16 literature sources referred to the value of a portfolio in supporting reflection. Numerous references were made by participants on the way the programme guided them in developing a more reflective practice. Ninety (n=90) quotes relate to the way the programme guided reflection on aspects of teaching and learning. These reflections include reflection on effective practice (n=31), reflection on barriers (n=10), reflection on PCK (n=4) and on metacognition (n=15). Thirty one (n=31) quotes could be linked to critical reflection on own knowledge while 40 quotes (n=40) could be positively linked to reflection on own practice. One participant reflected as follows on her prior lack of knowledge and how the programme provided the relevant knowledge for effective practice:

> Sometimes you get into a routine and you do it in your own way and you accept the learners will learn ... they just have to learn ... by the way you are doing it ... but then someone gives you this ... and the learners really benefit from it.

An even more prized experience of participants is the 31 quotes (n=31) that could be positively correlated with the way the portfolio motivated them to reflect on a change in their teaching practice.

> I didn't know most of the things, maybe I ignored them, you know, I will come in class and teach and teach to those learners but not in the way that this programme helped me.

Reflection on barriers that hampered the implementation of the teaching strategies suggested in the programme could serve as a first step in a plan of action to overcome these obstacles. Barriers included ineffective planning, changing of curriculum, poor socio-economic background of the learners, the large number of LSEN in their classes, and a lack of cooperation among teachers. Where some portfolio tasks required collaboration, the participants commented on the barriers to work as a team:

> I think we have a problem among us and we have a problem of just planning together. I think we are afraid of each other.

6.3. Inquiry learning as outcome of the portfolio

To improve their own practice, teachers need to have the necessary self-directed inclination to know *when* they need knowledge, *what* knowledge they need as well as *where* to find it. Twenty-one (n=21) references were made to inquiry learning, and most participants referred to looking for information in their textbooks or consulting fellow teachers:

> But with this programme you know ... you always go back to your books. If a child has a problem, in the afternoon you go back to your books and find out what is the problem?

Where teachers often do not have the critical professional skills required of a competent teacher, the programme should, firstly, support teacher-students in developing the ability to identify their own shortcomings through critical reflection and, secondly, equip them with the relevant skills to acquire knowledge they lack, through exploration and research. Reference to this self-directed prerequisite for effective teaching was highlighted by only three of the 16 literature sources.

6.4. Motivation and professional attitude as outcome of the portfolio

A positive attitude towards the programme is correlated strongly with dedication towards teaching, as these teachers may also be more motivated to improve their teaching practice, while dedication is one of the pillars of a professional attitude. Fifty quotes (n=50) could be coded as part of or related to a professional attitude. Participants generally demonstrated a positive attitude towards the programme, as 54 comments (n=54) clearly indicate acknowledgement of the value of the programme. One teacher viewed the programme as essential for the development of applied teaching competence:

> It was a great programme. Maybe they could include other teachers also who have not done this programme or who have degrees but do not have a qualification in Foundation Phase. They should be able to enrol them because they have the degrees but they do not have the know-how of this programme ... how it worked. And it could even benefit our learners and our parents.

While three literature sources (n=3) referred to the transformational value of the portfolio, six (n=6) of the literature sources coincide regarding the value of a portfolio in supporting a more professional attitude. Supporting the development of greater autonomy and self-directedness (n=9) as well as supporting lifelong learning (n=2) are also identified as attributes of a portfolio in the literature. It is also more likely that those students who experienced the programme as worthwhile would be motivated to apply knowledge gained in practice and, thereby, develop a more professional attitude and, consequently, also improve their teaching practice.

Reference to a change in professional attitude could be identified from the way participants expressed a change in their sympathy for learners (n=6) as well as a change in attitude towards teaching, and increased motivation as a result of the programme (n=17). The following quote attests to the way the portfolio process made the participant aware of the negative influence an unprofessional attitude may have on learning:

> [From this portfolio I learned] ... a lot of patience. You know, sometimes you shout and they can't even concentrate ... so I've been trying to be there for them. I've learned a lot from this course ... and I really want to implement it after this.

The potential of a portfolio to motivate a change in professional attitude and, consequently, lead to an improvement in practice, is confirmed by Orland-Barak (2005, 41).

6.5. Applied practice as outcome of the portfolio

Welch and Gultig (2002, 23, 38) state that practice should be improved by encouraging a balance between theory and classroom-based in-service teacher education, which will enable teachers to reflect upon and improve their own practice. This guided application of knowledge in practice is often neglected in distance learning programmes and in the programme investigated, the portfolio aimed to fill this gap. Thirty eight quotes (n=38) could be linked positively to applied practice, while 32 participants (n=32) commented on the way the portfolio helped to improve their own practices. The participants commented 17 times (n=17) regarding the way the programme supported them in linking theory and practice:

> Because the first year was theory ... I think it went well but in the second year you had to practise whatever you were taught ... you had to practise, it was a challenge but it was eye-opening... it was eye-opening.

Ten (n=10) of the literature sources highlighted guided applied practice as a benefit of portfolio learning. Nine participant quotes (n=9) were correlated positively with the

way the portfolio supported self-regulated implementation of knowledge in practice. This lower code frequency may be an indication of a deficiency in the way the portfolio supports the development of a more self-regulated predisposition for teachers registered for the programme.

Literature confirms applied practice as outcome of a portfolio. Chetcuti et al. (2011, 67) viewed the portfolio as a means to help students link theory and practice. A portfolio that takes cognisance of the teacher-student profile, could serve as a way to scaffold the application of new knowledge gained through a DL programme in the classroom context. However, not all quotes indicated a positive relationship between the portfolio process and an improved applied competence.

6.6. Aspects hampering applied competence as outcome of a portfolio

Where this article does not focus on negative outcomes, but reports on the correlations between literature and teachers' experiences regarding the way the portfolio indeed contributes to applied competence, only those codes related to negative comments that could be positively linked to more than 10 quotes are discussed, briefly. These comments referred to a lack of ability to apply new knowledge in practice (n=20), and the need for more support in applying knowledge in practice (n=15). Various determinants could have contributed to this lack of ability to apply new knowledge in practice, such as a lack of self-regulated skills, which is a prerequisite for the successful completion of any DL programme. Although a lack of prior knowledge could have been put forward as a barrier, this again will be an indication of a lack of self-directness and self-regulation as comprehensive content knowledge, as well as practice based scenarios and resources, which formed part of the study material.

7. CONCLUSION AND RECOMMENDATIONS FOR FURTHER RESEARCH

There is a clear correlation between findings in the literature and teacher experiences regarding the value of a portfolio in a DL programme. The relatively high rate of recurrence of reflection in both these data sources, strengthens the claim that a portfolio supports reflective learning and, consequently, also a more reflective practice. Characteristics such as teacher-student profile, self-direction, motivation, attitude and self-regulation play an essential role in the successful implementation of a portfolio aimed at applied competence as outcome.

Based on Biggs's theory (2003, 43), this (qualitative) study is regarded as a transformative reflection on the way a portfolio could be implemented in a DL programme to support the applied practice of South African teachers through DL. Refining the portfolio in accordance with the findings, both from the literature and from the teachers'

experiences, may ensure that Institutions of Higher Education (HEIs) offering a DL programme, do not merely supply teachers with an accredited qualification, but also equip them to make a difference in the quality of education in South African schools.

Where teacher-students lack the necessary self-regulated skills such as reflective and inquiry-based learning, portfolios may be experienced as yet another barrier to improved applied competence of teacher-students and, consequently, improved educational standards in SA. The depth of reflection and ways to scaffold meaningful reflection for a sustained impact on teaching practice could be investigated further. Other benefits of the portfolio documented in the literature, such as the development of greater autonomy by students, contributing to the transformation of education, supporting metacognition, better understanding of theory and strengthening lifelong learning, should also be investigated in the South African context.

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