Reciprocal learning among educators in two communities in KwaZulu -Natal

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A Research paper submitted in partial fulfilment of the requirements for the degree of Magister Educationis in the Faculty of Education, University of the Western Cape.

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KEY WORDS

Teachers
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Reciprocal learning
Mutuality
Reciprocity

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ABSTRACT

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This research sets out to analyze the adult learning practices between two groups of secondary school teachers from historically differently resourced schools in the context of a partnership.   It seeks to test the nature of the partnership which exists between these schools, and explore the nature of the learning which takes place between the teachers as adult learners.

It presents the growth in the learning path between these schools as partners, and points to what will contribute to true reciprocity in this and other community development partnerships where knowledge is a shared resource. It points to personal and community growth in a project which reflects historical apartheid differences between these partners, and suggests how they can move toward disentanglement from potential negative patterns of relating and learning.

Reflections on the literature illustrate the issues surrounding the nature of learning among adult learners in shared community relationships. It looks at views on the nature of power relations in community partnerships among adult learners, and contributes to the development of a social learning theory perspective on learning within Communities of Practice.

Methodologically this research is qualitative in nature, and has used interaction within the wider Social Responsibility Programme of St Agnes College as a field for interaction. Within that wider programme specifically, the mathematics partnership between Umdodo High School (UHS) and St Agnes was used for data collection.

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DECLARATION

I declare that **Reciprocal learning among educators in two communities in KwaZulu -Natal** is my own work, that it has not been submitted before for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged as complete references**.**

November 2007

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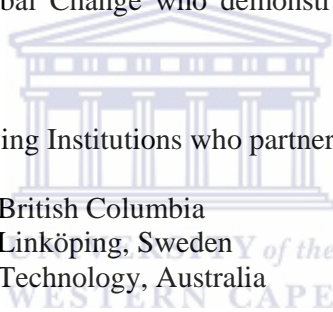
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ABBREVIATIONS

ABET: Adult basic education and training

CBO: Community based organization

CoP: Community of Practice (and in some instances) Communities of Practice

FET: Further education and training

IEB: Independent Examinations Board

UHS: Umdodo High School

COPC: Community Outreach Partnership Centres

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CONTENTS

Section 1

Introduction to Research

Introduction

This introductory section sketches the analytical and theoretical framework of this paper, outlines the research method, and sets out the basic aim of this research with the questions it seeks to answer. It comments on the research method, looks at the rationale and purpose, situates the research in a current historical educational context of secondary schools in South Africa, and places the teachers as adult learners in that context. Finally it summarizes the sections of this paper.

Analytical /theoretical framework

The paper uses the structure of social learning theory to portray a context in which learning happens as a social experience between teachers as adult learners. The literature review provides a description of social learning theory with various perspectives and interpretations. It's principal concept is an examination of academic partnerships as they exist in community development programmes, and it looks at how sharing, sustainability, joint activity, mutual affirmation, power relations and benevolence affect the learning which happens in partnerships.

The concept of partnerships is posed as the context in which learning can ideally happen when adults are engaged in ongoing education. Such partnerships represent existing communities in which adults are working and learning, and in which there is an acknowledged sense of community combined with attributes of learning – which

may be realized or still developing. The review looks at various kinds of community partnerships and examines what they potentially teach through their experience of success and failure.

It goes on to appraise the nature of reciprocal learning within shared community relationships, and specifically how Lave and Wenger's (1999) concept of Communities of Practice (hereafter CoP) is a framework within which examination of the nature of the learning can occur. It poses CoP as an ideal medium in which further learning can occur, and in which vocalization of various concepts of learning can be advanced. CoP are further posed as entities through which the holding organizations of partnerships can be challenged to see learning as a focus, amend their method of operation, and refine their motive for engagement in community relations. They can also provide the means for learning groups who may recognize themselves as CoP and need to question the nature of their interaction with other learning communities.
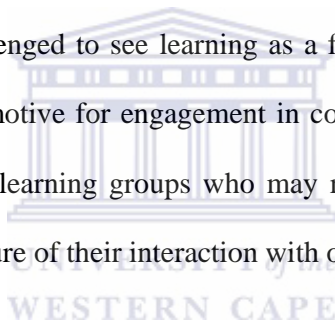
The research method

The nature of the research project – in which future expression of growth on a community level as well as a deepening individual level is envisaged – lent itself to the qualitative model of conducting this research. The research is about measuring learning among a group of teachers. Engagement across the divide of their profession, society and culture will be an important element in reciprocal learning as a whole. The sample for the collection of data was the two groups of teachers - in very different environments separated by a historical divide in their country and profession.

The sample of the teachers is set within the context from which they come, and the partnership is set within the broader background of the programme of the schools. Interviews were conducted with each of the teachers based on an interview schedule designed to draw out responses about their own training and situation, their views on learning in general, the information about their partnership, and how they saw learning and the development of learning in it.

Reflections on the data collection process is included to place the researcher in context of the research and ensure critical self- inquiry in the research process.

The rationale and purposes of the research project

The rationale of this research paper is to analyze the adult learning practices between two groups of secondary school teachers from historically differently resourced schools in a partnership project.
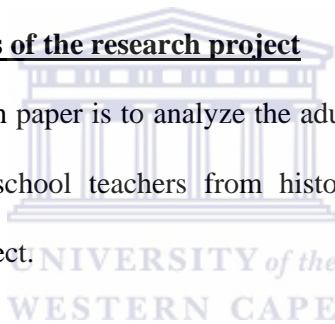
Secondary education in South Africa - and particularly in KwaZulu-Natal – is in a crisis. "Only 38% of KwaZulu-Natal pupils complete grade matric[1]. And teachers at public schools who should be spending seven hours a day teaching are only spending, on average, 3.2 hours" (Govender, 2006). We are now, in the decades that follow, reaping the consequences of the historical under-resourcing of education in South Africa through the apartheid era, in both lack of infrastructure as well as teacher motivation.

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[1]   Matric or grade 12, is the final year of secondary school in South Africa.

Recent steps by the National Education System in the country bear testimony to the management crisis among many state school teachers. This research should be able to make a meaningful contribution towards helping teachers through the supposed crisis in my immediate sphere of influence. Moreover, the research should help prompt highly-resourced, and by proportion mostly white, resourced school teachers, to invest in understanding their under-resourced, and mostly black, colleagues to learn how they can become a teaching resource to their historically advantaged white counterparts.

At this point the learning in the project is unstructured, in that the curriculum for the partnership learning seeks to meet the current need of the under-resourced teachers. Though not intended, currently apartheid power relations are possibly reproduced – as teachers from the highly resourced school play the lead roles. Consequently, the learning appears to be one-way. However, the awareness is growing that as they progress further into the project, reciprocal learning needs to be vocalized. The research will show how this is beginning to happen, as well as how the teachers themselves see the power relations operating.

Part of building trust with the research group will be to initiate group discussions on reciprocal learning as a developing CoP. This is significant in bridging the divide in the South African teaching community. It would be valuable to seek to understand at a deeper level how teachers who are apparently distanced by their self-perception as 'superior' or 'inferior', can, as adult learners, discover from each other's experience of advantage and disadvantage.

The learning from teachers in the under-resourced school is important in exploring the contribution to what we currently experience as a crisis in secondary education in South Africa - with many de-motivated teachers leaving the profession. It will be helpful to affirm that while economic restructuring in the country will make the dominant difference in the future of secondary education, the need for continuing adult education and personal motivation of teachers, is a significant factor in how they approach their work as educators.

The Setting

One school is an historic, urban, independent, highly resourced institution. The other school is a rural, under-resourced, historically disadvantaged state school. The intention is to research eight mathematics teachers, who, despite different work contexts, experience similar yet different pressures as adult learners. The teachers meet every two weeks for between two and four hours, mostly during school time. Activities include sharing teaching issues, forward planning, computer literacy lessons and monitoring progress. Very occasionally the teachers observe one another giving lessons in each other's schools.

Research site

The main objective of this partnership among mathematics teachers was to assist the UHS department to improve the pass rate. It was also aimed at sharing the expertise in these subjects, and sharing the experiences of these two different worlds.

The teacher coordinator from St Agnes describes the objective of the project as responding to the UHS goal above through uplifting and enriching the teachers themselves to achieve the UHS aim. The results over eighteen months were self-

evident: the matriculation pass rate in core mathematics at the start of the project was nil. It rose to 4%, then 34% then 38% over an eighteen-month period (Table1, Appendix A). The training takes place on three levels. The first one is once per week for the teachers of mathematical literacy and for core mathematics, alternating the weeks. These training sessions comprise the content, methods of teaching, formulation of handouts and the formulation of necessary teaching material or aids.

The second level was originally focussing on the new subject – mathematical literacy. Eight educators from Umdodo High school attended this training, which took four days. It comprised: The reasons for the introduction of mathematical literacy to the curriculum; the difference between the core mathematics and mathematical literacy. What to teach and its content; how to do the lesson preparations; how to teach and choose the context; the examples of activities which could be done.

The third level was when the Umdodo educators had an opportunity to attend a workshop at an Independent High School in Pietermaritzburg with the assistance of St Agnes College. They were able to share their experiences and their fears with private schools from all provinces throughout South Africa.

Two other important aspects to this partnership are planning and observation. Under-resourced situations have repercussions in that often no proper planning happens for the future. The group have recognized this, and begun to address it. As a result, planning for the current teaching year began in the 1st half of last year – with the aim of learning to prioritize and think ahead. The groups together identified the need to overcome perceived needs of not just thinking for today, future staffing, as well as

look forward to the change of needing to teach more lessons in a day once classrooms have been added.

The partnership is currently an ongoing process, hoping both parties will achieve what they intended to achieve. The teachers meet each week to interface on various issues. In initial discussion with the St Agnes teachers, they testify to learning from the UHS teachers' general tenacity, ability to remain focused despite the adverse circumstances, their dedication to teaching, their ability to teach extra-ordinary large classes and their tenacity in furthering their own skills.

Central Research question

The central question is: Is there reciprocal learning between the eight[2] teachers involved in this partnership, and what is the nature of the learning?

Following initial enquiry into the partnership, meeting with the programme co-ordinator at St Agnes, the black teachers from UHS, and reading the STEPP programme's mission and vision, it is clear that these programmes are initiated and sustained by St Agnes' social responsibility programme, who genuinely desire to share resources and be part of continued education of previously under-resourced teachers. This creates the impression that the resourced institution takes all the initiative and the under-resourced one receives.

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2   Eight teachers originally began the partnership. Of these, the four UHS teachers still continue regularly, and from St Agnes while four teachers have participated, three have had ongoing contact from time to time.

What therefore needed to be investigated is how these resourced teachers receive and learn from the under-resourced Umdodo teachers in a reciprocal way. I suspected that the learning by the St Agnes teachers was deeper than realized and that the UHS teachers were not in the habit of formulating the questions on reciprocal learning for fear of appearing obtuse or unlearned. I further suspected that the emotions surrounding both sets of teachers' learning from each other is similar – both not wanting to appear unintelligent, nor to be seen to be uninformed about one another's culture. The investigation was therefore to gain deeper understanding of what the real learning is.

Consequently, other questions need to be asked of the partners. They are questions like: Do I really understand black/white cultural issues in teaching? How would I have coped if our situations were reversed? How can I be authentic in supporting you without appearing to be racist or ignorant? Can highly-resourced teachers learn anything technical from under-resourced teachers? How can we better share resources to learn reciprocally? Finally, the issue of resources turned out to be a burdensome one, which crept into almost every answer given by both sets of teachers.

<u>Brief outline of the sections to follow</u>

Section 2 outlines the principal concept of the literature review as a broad analysis around the nature of academic partnerships as they exist in community development, including sharing, sustainability, joint activity, mutual affirmation, power relations and benevolence in partnerships. A further concept is around the nature of reciprocal learning within shared community relationships.

Section 3 mentions the choice of methodology as qualitative and why it is chosen. It also qualifies the methodological choice within the researcher's earlier rationale for the research.

Section 4 analyses the main findings of the research by developing an analytical perspective on how learning has occurred in the partnership between the two schools as the holding organizations of the partners.

Section 5 draws the paper to a close by posing the question of whether the learning in the partnership provides a premise for establishing a CoP, and what needs to be re-conceptualized in the partnership to create such a community.

Section 2

Review of Literature

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<u>**Introduction**</u>

The literature review for this paper presents the analytical and theoretical perspectives in selected literature about adults learning in partnerships**.** The paper is framed within a social learning theory, and as such will portray partnership as a social event and the context in which learning takes place. The literature will provide a description of social learning theory with different perspectives and interpretations of the theory.

The principal concept of the literature review is a broad analysis around the nature of academic partnerships as they exist in community development, including sharing, sustainability, joint activity, mutual affirmation, power relations and benevolence in partnerships. A further concept is around the nature of reciprocal learning within shared community relationships.

Wenger (1998) and Lave and Wenger's (1999) concept of Communities of Practice contains particular value for learning partnerships and organizations which host such partnerships. The relevance of CoP will be highlighted as a means through which learning grows and finds relevance in shared community relationships.

<u>**Review of social learning theory**</u>

What follows, is a description of social learning theory, some different perspectives and interpretations of the theory, and a movement of views within social learning

which emerge as a theory given to the interaction between groups of learning practitioners with a desire to "learn from and with each other"(Wenger, 2007b:4).

" 'Social learning' has multiple meanings across academic disciplines. The most common use of the term social learning is in the field of social psychology and in the development of social theories of learning that highlight the social context within which individuals learn" (Bandura, 1977 cited in Juma and Timmer 2003:4). Analyzing social learning is a broad field, which will encompass societal, organizational, group and specific learning - like within partnerships. It is acknowledged that the concept of social learning is a controversial one, but there are obvious links between all these fields of social learning which might describe the interaction and observation of learning in various social contexts. Juma and Timmer summarize it by saying that "in general, social theories of learning embrace the notion that learning occurs both inside the human mind and in social interaction" (2003:4).

The distinctive features of this theory include that learning is both natural to life, and a social phenomenon. The premise is that we are all social beings, that knowledge comes from competence in valued enterprises doing social things, knowing is about active engagement in the world, and that knowledge produces meaning. It holds that there is no universal standard of the knowable.

Juma and Timmer's (2003) dual concept of learning happening inside the mind as well as in social interaction, embraces the growth and expansion in understanding learning when seen that historically, learning has often been studied through examining how individuals learn; indeed, the theory of learning itself has historically

been located in psychological rather than sociological concepts and research.   But learning clearly has a social dimension or context. "We learn from other people and alongside them, in all our social relationships.   This is particularly evident in education which involves relations between teachers and learners, and between learners themselves" (Jarvis et al, 2003:42). Jarvis et al take this further by saying that "for adult learners too, supportive social relations, whether in classroom, family or workplace, are known to be significant factors in the motivation to learn.   Social relations may promote or inhibit effective learning" (Jarvis et al, 2003:42).

Bandura (1977) accepts that as a social process, learning involves functionalism, interactionism, and significant symbolism.   But he stresses how far individuals are capable of self-regulation and self-direction.   "This brings learning theory into the service of one of the primary characteristics of life-long learning theory (see chapters 1 and 2 of this book): *social learning theory approaches the explanation of human behaviour in terms of a continuous reciprocal interaction between cognitive, behavioural and environmental determinants.   Within the process of reciprocal determinism lies the opportunity for people to influence their destiny as well as well as the limits of self-direction.   This conception of human functioning then neither casts people into the role of powerless objects controlled   by environmental forces nor free agents who can become whatever they choose. Both   people   and   their environments are reciprocal determinants of each other."* (his italics).   (Bandura, 1977: vii, cited in Jarvis et al, 2003: 50)

Futher movement in social learning theory which bridged the meaningful relationship of learning between individual and social learning is described by Saloman and

Perkins (1998). It reflects the notable debate in the tension from individual to social learning: "We began by asking whether social learning is a meaningful concept, sufficiently distinct from individual learning to warrant attention. Our answer is an emphatic yes. As elaborated earlier, there is ample evidence to show that individuals' learning is facilitated by others, that meaning is often socially constructed, that tools serve as mediators, and that social systems as organic entities can engage in learning much as individuals do". (Saloman and Perkins, 1998:16). They describe two complimenting levels of analysis:

"Something similar might be said of learning: It takes place in individuals' minds, and, as we elaborate later, it takes place as a social, participatory process, offering two distinctively different perspectives on learning. While each of these perspectives is often treated independently of the other, our aim here is to examine their interrelationships, not as two separate logical categories but as two perspectives on the phenomena of learning. Thus, while children often practice arithmetic or climbing trees alone, "individual" learning is rarely truly individual; it almost always entails some social mediation, even if not immediately apparent. Likewise, the learning of social entities (e.g., teams) entails some learning on the part of participating individuals " (Saloman and Perkins, 1998:2).

Thus it is that different a social learning theory – described by Smith (2003) as "a more radical model" (2003:1) than observational learning - and more radical than many combinations of individual and social learning, comes into play. A theory which (Wenger 2006) describes as one likely to transform the way we think about learning. It is Lave and Wenger's (1998) situated learning model, and takes the process of

community engagement to a full and meaningful place in the interface between individual, community and organization.

Rather than looking to learning as the acquisition of certain forms of knowledge, Lave and Wenger have placed their theory in social relationships – situations of co-participation. As Hanks puts it in his introduction to their book: "Rather than asking what kind of cognitive processes and conceptual structures are involved, they ask what kinds of social engagements provide the proper context for learning to take place" (Hanks cited in Smith, 1999: 1).

The theory is not exclusively academic, but relevant to daily action, making of policy, technical and organisational aspects. Wenger's concept of CoP is the field for meaningful interaction: " Learning involves participation in a CoP" (Smith 1999:1).

CoP show a constant interaction between theory and practice – but always with social learning as the connection. In this theory, there is seldom lack of connection between central concepts. They always point to the other. Whatever the theory, it is always linked to practice, and so speaks always to the relationship between basic and applied knowledge, and between for example, behaviour and its implications.

Defining CoP within the context of reciprocal learning partnerships in community relations enables the use of Wenger's innovative social learning theory in the flexible way it is intended.   It enables the fit between academic partnerships, which are defined by the need for developing relationships and learning theory which is geared toward developing innovative ways in which people exercise the balance between

capability and experience in a way which is meaningful. Because CoP become valuable ways of defining both the path along which learning is achieved, as well as ways in which partnerships can grow to the next place of their existence together, some definitions of what constitutes them is important. "The essence and value of the theory of CoP (Lave and Wenger, 1999; Wenger, 1998) lies in its potency as a theory of learning. The theory deals with concepts such as participation, relationships, activity, practice, and context (Lave, 1993) to explain the social and situated character of learning" (John, 2006:53).

In his academic proposal: Learning for a small planet - Research agenda *, Wenger (2006) says: "I believe that this interplay of complex identities and multi-scale social systems will be at the core of the learning challenges of the 21st century. It is not just a cognitive story. It is a story of real people living their lives in the world. What we need are more rigorous ways to talk about these processes so we can appreciate the practical entailments of this perspective" (2006:5). Wenger's intention for using CoP to describe learning action taking place, is a firm basis for both giving a language to learning which occurs, as well as being a vehicle for propelling learning communities or partnerships to achieve meaningful growth. "According to Lave and Wenger (1999), learning is the increasing participation in a *community of practice*" (John, 2006: 53). John quotes this in context of setting out the advancing process through which partners become involved with one another's communities.

This view concurs with the observation of Jarvis et al (2003), who propose that "there is another way of thinking about the social context of learning. This lies in the social purposes for which people learn. These may be collective: to advance the interest of

a particular group, such as an excluded social minority, or a community, or to raise the level of awareness and consciousness of a particular section of society" (Jarvis et al, 2003:43). This definition of purpose happens best in the space of a learning community. It is an edge for most people, as here, learning occurs through what we gravitate to as meaningful in life, as well as move away from, because of the fear of disturbing our comfort and strongly-held views. Communities of all descriptions have the power to learn through both delight and frustration.
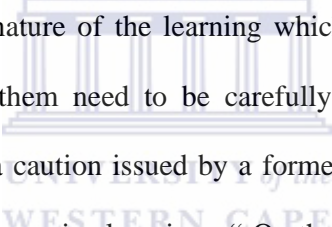
Review of literature - partnerships.

The examination of how learning takes place within partnerships is key to understanding their value in the learning process. For the purposes of the exploration of learning through partnerships, three focus areas pertaining to the nature of partnerships is included. Because partnerships ideally embody the context in which learning occurs, what follows is a description of sharing, mutual affirmation and power relations within partnerships as learning spaces.

It is also important to point out that while partnerships in academic and service learning contexts may not start out with the intention of being Communities of Practice, conceptually, learning in a partnership is by implication learning in a CoP. It is therefore possible to re-conceptualize certain partnerships as CoP, especially if they demonstrate both characteristics and intention to embrace the journey of learning "which will improve their ability to address their challenges" (Wenger, 2007a:4).

Learning through sharing in partnerships

John (2006), claims that partnership is both a widely used as well as an easily misunderstood term in the association between parties involved in community support relationships, and lies at the base of defining the nature of the relationship. The motives of groups in community relationships needs to be carefully examined and especially so in a country like South Africa which has a negative history of benevolent and philanthropic development relationships. These are effects we currently experience in the country's besieged education system, and they directly affect how learning may or may not occur.

To be able to identify the nature of the learning which occurs in partnerships, the motives and issues around them need to be carefully scrutinized. Mitchell and Rautenbach (2006) refer to a caution issued by a former Deputy Vice Chancellor of the University of Natal about service learning. " On the one hand I fully endorse the idea of service learning… On the other hand it would seem to me to be a betrayal of the mutuality of the partnership relationship to assume a dominant role in the partnership and promote as the educational intervention to be espoused by the partnership, a programme which is manifestly to the advantage of the university and fixes the university squarely back in the centre of a wheel of relationships which may turn out to be little better than the extension relationships of the past." (Maughan Brown, 1998 cited in Donovan and Wolfe, 1998: 73). Maughan Brown's caution highlights the research issue around reciprocal learning, and also the need to research how the concept of partnership is understood between groups in agreed community partnerships.

What do people or groups learn from each other? What is the reciprocal nature of the learning? These are the basic questions of community partnerships. Discerning the nature of learning in the arena of community partnerships may be likened to a spiritual relationship which embraces one who shares and one who listens. An example describing this is held by Rakoczy (1992) in her book Common Journey, Different Paths. Its theme is cross-cultural spiritual direction.

Rakoczy begins a chapter entitled Unity, Diversity and Uniqueness, by saying that "spiritual direction is a privileged meeting of hearts. Built on trust in the bond of the Spirit of God, two persons come together in faith to hear the story of the workings of the Spirit in the life of one of them. For the person who shares her or his experience of God, there is always the moment of 'stepping out on the water' as one begins to speak of what is most sacred in life. The listener, who is companion on the journey, is called to receive that sharing in trust and love, with encouragement and support and, at times, with the invitation of challenge to further growth, even at the cost of pain and suffering" (1992:9). This epitomizes the essence of sharing in partnerships, and helps identify how learning might occur. The nature of partnerships often means they are very cross- cultural, as well as being established across financial and resource barriers, giving rise to the need for sensitivity in purpose and practice. A mutuality of listening is the essence of sharing, and defines an attitude and atmosphere in which learning occurs across the same barriers.

Continuing this theme, Mitchell and Rautenbach (2006) give attention to Hogue's (1994) definition of what partnership in community development involves. It is, they

claim, firstly, "the dimension of purpose - with the purpose of a partnership being to share resources in addressing common issues and merging resource bases to create something new." Secondly, "the dimension of structure with the structure of a partnership being a central body of people which consists of decision makers who have defined roles and formalized links, and who develop new resources and a joint budget". Thirdly, "the dimension of process, with the process of a partnership involving autonomous leadership with a focus on issues, group decision-making in all groups and clear, frequent communication" (Hogue 1994, cited in Mitchell and Rautenbach, 2006: 104).

Mitchell and Rautenbach (2006) maintain that "Hogue's (1994) definition is relevant as it may be that universities are using the language of partnerships when in fact they are aiming for a different level of community linkage where less sharing and joint ownership are required, for example a co-operation or an alliance" (2006:104). So, it calls for a definition of purpose. In social responsibility and community development projects it is popular to use the vocabulary of partnerships. One of the reasons is that financial donors are favourably disposed toward the concept of partnership. The purpose however, might be an academic project, or another type of alliance as mentioned above. For learning to be a focus within a partnership, there needs to be a clarification of purpose of sharing in such a way as to include learning as the end toward which the associates in a partnership are working. It is possible that ideally, what partners genuinely seek to establish, are in fact partnerships, with the hope that reciprocal learning will occur, or otherwise to break with old notions of benevolent community relationships. This end always needs to be critically examined.

The questions asked by Mitchell and Rautenbach (2006) in their case study are valuable for research purposes because they probe the partnership motive.   They ask questions which query partnership motives like: "Are universities capable of entering into true partnerships?   Do communities have the capacity to partner with universities? If the focus of the partnership is a particular geographic community, how does this impact on the role of the service provider? Will partnerships lead to sustainable community development?" (2006:109). These are questions about the nature of sharing in partnerships, but equally have implications for learning in partnerships.

Sharing in partnerships prompts further questions.   Despite the Mitchell and Rautenbach (2006) case study being a higher education learning based one, there are similar questions which must be asked by other academic partnerships – if only to rename a different level of community linkage.   Does one party dominate the partnership and can learning occur within a dominated relationship? While this is valid for their partnership, the same examination will benefit all partnerships if they are to learn from the experience of others and make progress toward truly reciprocal partnership relations given to mutual learning. Can two communities – one highly resourced, wealthy, predominantly white in the South African context, and one historically disadvantaged, under-resourced, black for example – share with one another, and be a learning resource to one-another in an empowering way? The issue is one of collaboration and reciprocity in partnerships.   Academic partnerships offer something unique into the field of partnership, in that they are associated with service learning and in this, the sharing of knowledge as a resource. This holds a key to

academic partnerships in their offering of what and how knowledge is shared, and therefore whether learning is happening.

One of the conclusions reached by Mitchell and Rautenbach (2006) is that conceivably the future of successful service learning, with the outcomes of sustained community development, may lie in recognizing that the often neglected role of community outreach and development in higher education needs to come to the fore along with the more traditional roles of research and teaching. This shift in emphasis in higher education institutions could lead to the development of the partnering capacity and partnering skills of the institution. Ramaley (1997), cited in Mitchell and Rautenbach (2006) says that "fundamental to this would be developing the desire for reciprocal learning from the community, developing the ability to share resources and decision making, and vitally developing real support for service learning from the leadership of the university" (2006:111). This is equally true for any organization in a learning partnership.

Helping this debate along the way means learning more about how sharing of resources and particularly knowledge as a resource, happens in unequal relationships. And through such sharing, unearthing the pointers and the readiness in communities which indicate the desire to offer something into the arena of reciprocal learning. This means considering the many factors which affect and are affected by the historical lack of resources, and their effect on learning. In reciprocal learning these might include confidence of under-resourced teachers, language medium for teaching and on-the-ground resources in schools.

Furthermore, developing real support from the leadership of academic institutions may also require what Rakoczy mentions about the role of the listener on the journey. This is, that the listener - who is companion on the journey, is called to "receive that sharing in trust and love, with encouragement and support, and at times, with the invitation of challenge to further growth even at the cost of pain and suffering" (1992:9).

Growing towards reciprocal learning will involve aspects of cost, which partners who are usually in control of partnerships by virtue of their being resourced do not expect. But this is the nature of reciprocity in learning.

Learning through mutual affirmation and sustainability in partnerships

Mitchell and Rautenbach (2006) have valuable insights into the necessity of mutual affirmation of the parties in partnerships. They define partnership within the context of service learning, quoting Castle and Osman (2003), Foss, Bonaiuto, Johnson and Moreland (2003), who identify service learning as designed to benefit both the provider and the recipient of the service equally, and using partnership as a means to extend limited resources in such a way as to affirm each respective partner's strengths and contributions. It is for them, described as a mutual relationship. This mutuality also needs to extend to how learning occurs.

However, mutual affirmation within partnerships is in itself a challenge. Voiced in the context of reciprocity, it will draw from often unequal partners the test of how they have engaged over a period of time from a confident peer perspective rather than one defined by what the partners have in terms of physical resources, academic prowess or

ability defined by experience. This is a challenge for a learning relationship which shares knowledge as the resource. Can the under-resourced partners grow over time to believe that their physical teaching surroundings and resources, their own proficiency as academics imparting and receiving knowledge, and their ability to give some knowledge resource into a partnership, is adequate and meaningful?

Furthermore, mutual affirmation is a quality and practice which needs to come from the defining statements of partnerships, and the belief that in the other is someone who will both benefit and produce through affirmation and the honest experience of what has been lived in the community partnership. Holland (2005) outlines six points defining effective and mutual partnerships:

"Partners must jointly explore their separate and common goals and interests; each partner must understand the capacity, resources and expected contribution of every other partner; effective partnerships must identify opportunities for early success; the focus of partnership interaction should be on the relationship itself and not only on a set of tasks; the partnership design must ensure shared control of partnership directions and the partners must make a commitment to continuous assessment of the partnership relationship itself " (Holland 2005: 12).

Can academic learning partners grow to do this for one–another? As a mutual exercise in learning, it is always easier for the resourced partner to do so, but this defies mutuality because it is giving out knowledge or skill, rather than sharing it as learning. The ideal for effective and mutual partnerships listed by Holland (2005) and co-authors in their report is a strong guide laying a firm foundation. Yet the challenge

lies in the mutuality of the support. It is relatively easy for resourced partners to praise, see progress, teach and research because they hold the security within themselves, see the vision and have the power of being resourced. Knowledge as a resource is more difficult to share mutually, as it involves inner confidence and self worth which often goes deeper than, say, action.

Vidal et al's insight into purpose and growth toward partnerships confirms this, implying that "each party to a partnership has something at stake - a contributed asset, whether money, expertise, time, data, or reputation - for which they expect some benefit in return.   Academic institutions and CBOs possess and contribute very different assets and may benefit in different ways from their joint pursuit of new, shared outcomes" (2002 : iv)
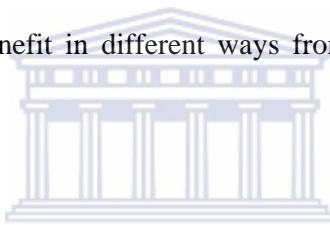
Learning as a mutual asset in a partnership takes time to develop as it is dependent on relationship development. These are important landmarks within mutuality of partnerships but their implementation depends on sustainability. This is voiced as institutionalization. What has to be addressed is the question of giving sufficient time to sustaining the partnership activity so that there is opportunity for mutual affirmation to take root, grow and be seen. As mentioned above, this is doubly true in learning partnerships because of the time it takes to form relationships which are trusting or vulnerable enough to share on the level of knowledge as an asset.

Vidal et al quote a research approach in the COCP report which poses "three questions of central interest to HUD: Has the COPC program helped colleges and universities broaden their community outreach activities? What kinds of partnerships

have academic institutions forged with their communities and to what end? How and to what extent, have colleges and universities institutionalized their community outreach and partnership activities?" (2002:ii). It is possible that the second question about the nature of partnerships forged can be of most use in transforming the usefulness of partnerships. If academic institutions form relationships, they stand to be more beneficial if established as learning- focused partnerships. This is because learning is the chief asset they have to share.

Unless sufficient time is given for the realization as well as the vocalization of the contributed assets, the under-resourced partners are not able to build the assurance needed to express their assets.

Mitchell and Rautenbach (2006) query future sustainability in partnerships. They question: "are universities capable of entering into true partnerships? Do communities have the capacity to partner with universities? If the focus of the partnership is a particular geographic community, how does this impact on the role of the service provider? Will partnerships lead to sustainable community development?" (2006:14). These questions arise from their experience of service learning, and echo the issues of mutuality alongside sustainability raised above. Mitchell and Rautenbach's queries may well be answered through the premise that knowing is about active engagement in the world, and that knowledge produces meaning, and thus seeing partnerships as the means for promoting learning.

 Holland (2005) writes that "partnerships will be difficult to implement and sustain unless the partnership reflects candidly on the motivations, goals and expectations of

each partner; articulates the historic tensions that might exist between campus and community; and develops a new understanding of each partner's interests, capacities, and limitations. These steps will help ensure that the partnership leads to mutual benefits, respect, equity, and reciprocity" (Holland, 2005:11). Learning relationships, through the medium of CoP, have the capability of making the focus chiefly a focus of learning, and prompting directed questions within partnerships and organizations which further this end through, where necessary, challenging the power of the resourced partner.

Learning through power relations and benevolent practices within partnerships

Challenging the power within a partnership may seem like an unnatural or unusual action. However, growing towards equality in partnerships is a process of realization that resources – financial, knowledge, training and historical advantage – develop different abilities and levels of sureness in different groups of people. Growth in a partnership which allows for honest realization of where power resides and the vulnerability of allowing this to be challenged, is one where power relations can be recognized and worked with to a positive learning outcome. However, a platform is needed to enable such a challenge, and it is constituting and understanding a partnership as a CoP with learning as its aim, which will facilitate this. Wenger describes this as defining a domain, which is the "definition of the area of shared inquiry and of the key issues" (Wenger 2007a:3). Such a definition enables a partnership to evaluate and challenge the issues facing it, and tabulate the learning. It is much like learning to *play the ball and not the man* (my italics). To do this, there must be an objective and equal space between partners.

CoP enable the space for learning to occur where there is potential inequality through financial resources, knowledge resource and benevolent attitude often underscored by benevolent practice. John (2006) captures many of the inherent problems. John's argument is that "community development is not an inherently benevolent practice" (2006:51). He goes on to warn about "the danger for inequality and injustice to be reinforced and sometimes introduced through community development activity" (2006:51), and also highlights the issue of power relations in community development projects.

We can learn from John's article and his critique of Van Vlaenderen's (2004) understanding of the kind of partnerships which constitute CoP. John echoes the view above by suggesting that academic communities can in certain ways define and delineate community relationships. There has to be a measure of caution in making assumptions about what different CoP are in relation to one another, particularly because of how easily power dynamics are introduced through having and sharing knowledge. John in his article therefore warns against making assumptions about the state of togetherness CoP enjoy.

In discussing the boundaries of communities and relationships between communities, Wenger describes brokering as the "connections provided by people who can introduce elements of one practice into another" (Wenger 1998: 105, cited in John 2006:56). Promoting brokering roles as a way of describing healthy linkages by professionals in community partnerships. John cautions against making assumptions about the relative closeness of community contacts - such as calling them merged communities, and his critique of van Vlaenderen's article helps introduce balance into the potential danger of too hastily drawing conclusions about community connection.
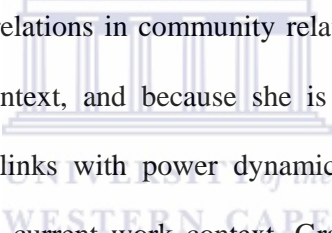
His suggestion, rather, that communities see themselves enjoying boundaries in their relationships is a guard against misuse of power in partnerships. As described above, specific learning communities can institute such boundaries.

Regarding power and empowerment John explains the need for acknowledging that "development agencies and donor organizations are a CoP of their own and that university academics are also a CoP of their own.   Both the latter communities hold substantial power in relation to the project" (2006:59).

Discerning the interface between the communities comes with the exposure of time and honest assessment, with a clearly defined domain between the learning communities. John's article reminds us of the role a critical academic can play in power and empowerment. He does this through reminding that development agencies work through academics and consultants who bring very different social capital to the development project.   "Such academics need to acknowledge their enormous power in the process relative to focal communities who have to work within predefined areas of funding and approach.   The power in the relationship is very often prescribed" (2006: 60). It is too easy to misunderstand the neediness caused by lack of resources. Discerning the interface between what is benevolence and long term enabling is complex.   Often this is further clouded by the need of the facilitator/giver versus the need of the recipients.

In a closely allied view, Mitchell and Rautenbach (2006) bring into question the issue of dominant roles and initiative in community support relationships.   They probe the issue of power relations in relation to the experience of their own university

community and the myopia which was revealed on examination. They are totally open about shortfalls in their university's UKZNP/CHESP programme, where "the community partner from Inadi described the partnership as a 'big brother / little brother relationship' where he reported that he experienced the university as the big brother leading the little brother" (2006:110). Citing other examples they claim that "these power issues directly impact on the experience of the micro-level partnerships, where module coordinators reported that it appears that the university often drives the process, and there is a level of passivity from the community" (2006:110). Again, power roles are potentially equalized through, at the outset, creating firmer boundaries within partnerships using constant evaluation of learning as the bridge.

Graven (2004) links power relations in community relationships through association to learning and working context, and because she is writing in a South African context, this has historical links with power dynamics in terms of both original learning resource as well as current work context. Graven says that confidence in learning has a direct bearing on context of where and how teachers studied initially, as well as their current work place environment. In examining how teachers from resourced and under-resourced work contexts learn, she notes: "In this paper confidence is considered both a product and process of the mathematics teachers' learning, and it is argued that as with Wenger's other four components (meaning, practice, identity and community) it is 'deeply interconnected' and 'mutually defining' " (2004: 179).

Graven says: " In addition, the poor mathematical histories of the teachers in the study place teachers in a particularly vulnerable position with respect to these curriculum

reforms" (2004:180). It is important to see that because of historical factors, power between teachers from different racial groups in South Africa has been unequally distributed and this has affected and continues to affect how groups can learn from each other. This imbalance has the effect of causing power imbalances to flow into academic partnerships through attitude, self-doubt, or conversely self-belief and educational practice.

Parker and Adler (2005) also discuss this theme. "Prior to 1995 there were approximately 150 state funded institutions providing teacher education (Parker, 2003). Operating under 19 different apartheid education authorities and offering a range of qualifications of varying quality, Colleges of Education had the major responsibility for initial teacher training. Teacher educators within these institutions were state employees. Colleges operated much like high schools with strong external framing of curricula and in most cases external examinations, full teaching timetables, little space for independent study and little expectation that staff engage in research or become disciplinary experts".

They continue: "In short, teacher education under apartheid operated largely as a field of reproduction under the control of the apartheid state. Possibilities for systematic intellectual growth and the development of specialist knowledge and identities were severely limited" (2005:62). This is the origin of present historic power imbalances in partnerships which can be overcome through building sustained relationships in academic partnerships as learning communities, which allow for questioning, challenge, mutual sharing and growth toward a truly reciprocal relationship between teachers as ongoing learners.
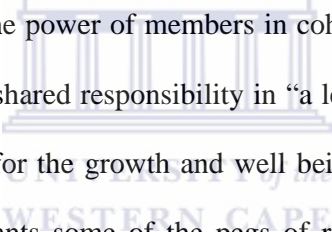
Holland (2005) promotes equal community support relationships saying that "partnerships are exchange relationships and the coin of exchange is knowledge. In such partnerships every member is learning, teaching, contributing, and discovering all forms of expertise are valued" (2005: 11). This opinion is very insightful, but in relation to power dynamics in partnerships could be idealistic. Historically under-resourced partners may have an implicit belief that they can exchange knowledge. However, once an academic partnership is established and begins to take root, the gaps in prior education, perceived ability and lack of confidence reveal themselves as inequalities which have the power to threaten the confidence of the under resourced partners to challenge the relationship.

Learning through the nature of reciprocal learning within shared community relationships

A valuable tool for models of reciprocal interaction and learning is Lawrence's (2002) description of collaborative learning – defined as "students and teachers engaged in a process of mutual inquiry and reflection through the sharing of ideas, experiences and perspectives" (2002:85). Lawrence uses Gruntvig's (cited in Warren, 1989) term reciprocal teaching, which is a useful term to co-exist with reciprocal learning, especially when described as Lawrence does – "not only from each other's knowledge, but from their own questions and their own areas of confusion" (2002: 85). He shares Gruntvig's view of learning processes stemming from dialogue and sharing personal stories of their lived experiences, "that as participants recount their experiences, others listen, interpret, give feedback, and relate similar experiences" (2002:85).

It is such sharing of life and the development of community which breeds learning as the alignment of competence and experience. Wenger describes learning as an "experience of learning about who you are and developing an identity" (Mennigke, 2007). This happens both on a personal level, as well as on a community level, and so interacting with the legitimacy of a social context is a learning experience. As adults interact in learning cohorts or formal partnerships, so their learning is not just from academic input and increased theoretical knowledge, but from sharing life and it's experiences. Sustained partnerships increase the capacity for this to happen especially as they push past the barriers of initial exposure to sharing themselves alongside their knowledge.

Lawrence (2002) develops the power of members in cohort groups learning together. He puts forward the idea of shared responsibility in "a learning community where all participants are responsible for the growth and well being of every member" (2002: 85). In this, he clearly plants some of the pegs of reciprocal learning processes, which help enquire whether, and how, different CoP in partnerships may form cohorts from a community perspective.

The notion of learning through risk in partnerships is an important one. Human relationships must risk in order to grow in depth and understanding. The risk is generally the confrontation of what will help the relationship to move forward. In learning partnerships this must also happen. Wenger encourages "risk as a way forward in the development of CoP, by saying that the story is the driver – method cannot be applied first to enable learning. The risk is in telling the story, and solving the problems together develops the learning" (Mennigke, 2007). Lawrence's use of

cohorts and their development as learning communities sharing goals in partnerships is a worthwhile concept.   He extends it to emotional support and assistance as a natural part of community life saying students in cohorts "support one another emotionally and provide assistance in times of personal crisis" (2002:88).

Graven's (2004) notion of growth in the general confidence in personal and professional ability, as well as the ability to take one's place as an educator, holds important learning for how teachers learn, and how reciprocal learning may take place between different communities of teachers.   "It revealed a newfound confidence in teachers to argue, to challenge and to justify and be proud of one's actions" (2004:199).   The development of the individual and what they have to share reciprocally with other teachers across resource barriers has bearing here.

Growth in reciprocity therefore collects the opinions of Graven (2004), Lawrence (2002), Wenger (2007) and Van Vlaenderen (2004) quoted above. They each use their experience of learning as "a negotiation between what it means to know and how to experience it" (Mennigke, 2007) meaningfully. Social learning theory expresses learning through growth in reciprocity in a more powerful way now than ever before. Adult learners who are in partnerships need to experience the edge of learning theory through seeing that it is not enough to give students "merely an experience of usability in learning, but they must interact with their experience of one another, and connect with who they themselves are" (Mennigke, 2007). This is the nature of reciprocal learning which should define shared community relationships.

Wenger's model as a Social Learning Theory

Using Lave and Wenger (1999) and Wenger's (1998) situational learning model within social learning theory as a theoretical framework is well fitted to framing the perspective on learning in partnerships. Here the context of learning is social participation, and being involved. This learning theory does not require a complex intertwining of context, meaning and experience. Rather, they lie alongside one another giving meaning to the other with ease. Through them one experiences learning through involvement. This is the substance of learning, and draws knowledge into life.

Communities of Practice in shared community relationships

CoP make the theory very applicable for the context of, because of the intersection of experience and knowledge. Learning in this theory operates on the intersection of two axes - theories of social structure and theories of action.

CoP provide the platform for learning in partnerships, because they move learning from a purely cognitive exercise to an interactive one. CoP are groups of people who share a concern or a passion for something they do, and "learn how to do it better as they interact regularly" (Wenger, 2007b:3). While partnerships do not infer CoP per se, they can provide the structure for defining groups of people who are communities with learning as a focus, and who could benefit from refining their process of interaction to enable meaningful learning. They can also provide the means for learning groups who may recognize themselves as CoP's and need to question the nature of their interaction with other learning communities. This is an important undertaking for partnerships involving risks of various kinds.

This notion is borne out by Vaughn John (2006), writing to counter what he regarded as a departure from Lave and Wenger's CoP theory by van Vlaenderen (2004). John affirms that using Wenger's theory of CoP, will both help define the learning achieved, as well as encourage the partners to aim for realistic aspects of CoP. He refers specifically to the field of community development projects between university and local communities which are "usually poor marginalized communities surrounding the university" (2006:52). John clarifies that partnerships do not refer specifically to CoP, but that there could be elements of the desire for, and growth towards such CoP between two communities.

Developing the notion that the learning challenges of the 21st Century "is not just a cognitive story, but a story of real people living their lives in the world" (2006:5), helps develop the value of seeing partnerships as developers of new social theories of learning. Wenger's refrain that learning is a "negotiation between what it means to know, and how to experience it" (Mennigke, 2007), is the basis from which communities of adult learners may explore among themselves. When placed alongside his statement that "learning is not just what you have learned, but the question of where you have visited" (Mennigke, 2007), it stretches learning in partnerships to explore the balance between knowing and being in the world. How communities are in the world is the risky edge of partnership interaction, which, if ventured upon, brings meaning to learning.

CoP hold meaning for learning and challenge on a number of levels from group to organization. Current trends in the business world alongside global example now give strong emphasis to corporate social responsibility as a norm within organizational

structure. Learning therefore, is no longer just the responsibility of the individual or the groups in partnership, but also that of the organization.

Section 3

Research Design and Methodology

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<u>**Introduction**</u>

This section mentions the choice of methodology as qualitative and why it is chosen. It also qualifies the methodological choice within the researcher's earlier rationale for the research.

<u>**Methodology and Critical approach**</u>

Because I believe it will be important for the teachers in the partnership to begin expressing their learnings about the partnership both for growth in the partnership and deepening individual learning, the qualitative model has been chosen to conduct the research.

The engagement of the teachers across the divide of their own society and culture will be an important element in reciprocal learning. Seale defines research as "part of a dynamic reflexive engagement with the social and cultural worlds" (Seale 2004:1). In this, I understand that the experiences of the individuals are subjective and takes this into account in the data analysis and interpretation.

I am aware of the qualitative interview "becoming a vehicle for social researchers to participate in the more general romantic celebrations of individualism and attempts to erase inequality and difference" (Seale 2004:106). But I am also aware that the

interviewees are black and white teachers, from different cultural and language backgrounds, and wanted to, as far as possible, make allowance for this.

At the same time, I am aware that my own culture, language and background is part of the interview context. I also hold more than one role in relation to the teachers being interviewed, coming from the resourced institution, sitting on the committee which evaluates the social responsibility programme, engaging as a facilitator in leadership development with all the teachers involved, and being a priest in a society which holds ministers of religion in reasonably high regard. Consequently it is possible that there are power dynamics which could interfere with the collection of data. There have been times when I as researcher have reminded - particularly the under-resourced teachers - that in a particular situation I am not 'Umfundisi' (preacher), but facilitator, fellow teacher or researcher.

However, I as researcher would hold to the idealist view that tends to judge the interview as a process of data generation rather than collection, and that "the researcher is often regarded as a co-producer of the data, which are produced as a result of an interaction between researcher and interviewee(s)" (Mason, 1996:36, as cited in Seale, 2004:181).

Research Method

For this research, data has been collected through personal interviews with the teachers involving the partnership, recorded in writing onto an interview schedule, and captured electronically for the purpose of grouping responses. Pseudonyms have been used for both interviewees and the names of the schools.

Literature compiled by the two schools on their partnership programme has enabled the researcher to form a background stating the purpose of the partnership and helped in compiling aspects of the interview schedule

<u>Sample for data collection</u>

Eight mathematics teachers were intended in the original sample. Four of these are from the resourced school, who hosts the overall programme, and who are the facilitators of the sessions. Four teachers come from the under-resourced school, and they generally travel to St Agnes College for the sessions, while leaving their own classes to be minded by teachers at UHS. All of these teachers have been involved in the partnership in some way since it's inception, though only two of the teachers from the resourced school have been involved almost continuously. Only one teacher is involved at every level of the facilitation, as she is the co-ordinating teacher for the mathematics partnership. She teaches part time in a brother independent school to St Agnes, and is paid by the Social Responsibility Programme to facilitate the mathematics teacher partnership.

Of the eight teachers originally intended to be interviewed, only seven were interviewed. The fourth mathematics teacher from St Agnes who had facilitated at the inception of the partnership felt unable to participate, as she did not remember the details of her early involvement, although she has begun to facilitate lessons in a broader, new partnership once again. The interviewees are described in the data analysis in Section 4.

There is a difference between the overall Social Responsibility Programme co-ordinated by the College and the mathematics partnership investigated in this paper.

The partnership forms part of the bigger programme, which incorporates two mathematics teacher partnerships, a registered ABET facility offering basic skills upgrade in a number of areas - including computer literacy, English language literacy, a programme for children, and upgrading science literacy. These are grouped under the St Agnes Education in Partnership Program (STEPP) programme. In addition, two teachers at the school are employed to co-ordinate a social responsibility programme for the pupils of the College, who are encouraged have weekly contact in one of a number of community projects.

The wider programme is co-ordinated by a near full-time co-ordinator employed by the College, and operates as a department, raising its revenue from the commercial world as well as being supported by the College, and the Foundation Fund of the College.
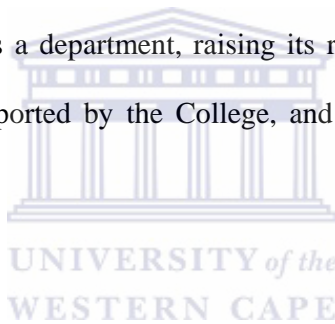
Interviews

Seale (2004) describes three possible relationships between sample and population. The second one listed is: "A relationship designed to provide a close-up, detailed or *meticulous view of particular* experience (his italics). This could be as narrow as selecting the life and narrative of a particular person for scrutiny, or a small set of people. This approach allows for the in-depth examination of a particular set of social processes in a particular context" (Seale, 2004:187, adapted from Mason, 1996:91-2)

A semi-structured interview lasting approximately one hour was conducted with each of seven mathematics teachers in the partnership. An interview schedule of forty-five questions guided the researcher in a relaxed interview session conducted (see

appendix B) in either an office or staff room at the teacher's schools, their home in two cases, my home in another, and a university board room in another. In each case, the interviewee was asked to agree to the space, and signed a research consent form, as did the researcher. I am happy therefore that informed consent was obtained from interviewees.

Semi-structured interviews "are often used to encourage an interviewee to talk, perhaps at some length, about a particular issue or range of topics" (Seale, 2004:181). The interviews were guided, though relaxed conversations around the questions, in which the researcher's role was qualified to ensure clarification from other roles the interviewees may have attached to the researcher. All the teachers answered the same questions, though the researcher clarified the questions according to which group in the partnership the respondent was from. Interviews were recorded in the form of notes, and the relevant questions transferred to electronic copy for grouping responses and analysis.

Interview settings

Two of the interviews for the UHS teachers were conducted in the only administration office on their far-flung rural school campus - now dotted with twelve new, brick classrooms and admin buildings - not yet commissioned.

The office is shared by the principal, who was away for the day, and the secretary who needed to come into the space from time to time, as well as teachers needing to use the photocopy machine. At the start of the interviews, the teachers and pupils were at morning tea break. There was clearly interest in the staff room about the

interviews, which had been set up by telephone to coincide with the two teacher's free lessons. In the time since the interviews were completed, the new administration building has been opened, which has adequate, private office space for the staff, the principal and secretary. As I visit the school regularly, and am on first name terms with the staff, some discussion happened in my presence as to the use of the principal's office, along with some banter around the fact that I, Umfundisi[3], was dressed in a very casual way. I reminded the group that I was in a different role, and was a student researcher for the week.

It was distracting being interrupted in the office, but this was the most privileged, and quietest place on the campus, where classroom noise is easily heard between rooms without ceilings, and children are crowded into classrooms. People coming in to the office apologized for interrupting. Nevertheless, the conversational space between researcher and interviewee was relaxed and it was clearly only me who felt the lack of privacy I would normally enjoy in my own environment. I had provided cool-drinks and cakes, but the interviewees, both women, though obviously relaxed, were not comfortable to eat and drink during the interview. It is possible this could have been because of the tradition of black women often not eating with guests, but I did not pursue it, being aware of Zulu culture. It did however alert me to the fact that power relations, even if in cultural respect in some way, may have been present during the **interview**. I have alluded to this in the data analysis.

The other UHS teacher was interviewed at her comfortable home - because she was to be away on a course for the week - and was uninterrupted. The fourth UHS interview

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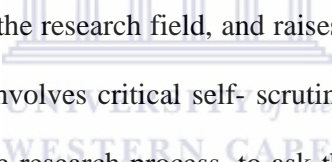[3] Umfundisi is the Zulu language word for preacher/ priest

was at the Pietermaritzburg local UNISA campus, where the teacher was on a course for the week. We were given the Board Room for our exclusive use.

The three St Agnes teachers in the partnership choose to be interviewed in places away from the busyness of the school campus, but also at times to suit their programmes. One was interviewed in my home close to the campus in the quiet up-market superb of Hilton, without interruption, and in a contrasted stillness to the UHS campus. Another interview happened in the teacher's home in Hilton, after her lessons, where she was marking maths papers and minding her child. The third interview happened in the staffroom of the prestigious Hilton College – an independent, brother school to St Agnes. This is where the co-ordinating teacher for the partnership teaches part time. It was an interrupted environment, and somewhat frustrating, with people coming in and out, but in contrast to the interruptions of the UHS office. I decided to discard using a voice recorder in the interview because of the interruptions. Nevertheless, it was private enough to focus on the interview.

The interviews – even with their relative interruptions - were a sharp reminder of the divide which was one foci of the research between these two historically different schools. But also, of the desire of the partners to commit themselves to the process, despite their very different contexts. Each of the three St Agnes teachers commented on the divide between the context of where they lived and worked, and it's effect on reciprocity. All the UHS teachers commented on the divide of resources between their relative institutions.

Reflection on interview process

My own emotions as researcher around the fairly intense days of the interviews were apparent in my daily reflections. They ranged from pleasure at having the space to engage in research for the week, pensiveness at the complexity of arranging and traveling to interviews, a deep sense of gratitude for being allowed into the private lives, motives, vulnerability and commitment of these partners, and intense anger at the historic divide in education caused by apartheid in South Africa. I was aware of my desire to want to build and offer more into this complex field of continuing adult education of teachers. And as I listened to the stories of black teachers desperate to make a difference in their situations, and share in the resourced space of their colleagues and partners in resourced education, I was aware of some of my motives for choosing this field for research.

These reflections are part of the research field, and raises awareness around questions of reflexivity. "Reflexivity involves critical self- scrutiny on the part of researchers, who need, at all stages of the research process, to ask themselves about their role in the research" (Seale, 2004: 184). He goes on to say that "in the immediate context of the interview, reflexivity involves reflection on the impact of the researcher on the interaction with the interviewee" (Seale, 2004:184). These issues are part of what Seale heads as questions of power, difference and ethics, and, makes me a co-producer of the data, rather than merely an observer or data capturer.

Section 4

Data Analysis: Presentation and Comment

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<u>**Introduction**</u>

This chapter analyses the main findings of the research. It develops an analytical perspective on how learning has occurred in the partnership between the two schools.

<u>**The respondents**</u>

The data collected was from seven teachers. Four from the mathematics department of UHS school, and three from the mathematics department of St Agnes College. Until very recently, the four teachers making up the mathematics side of the UHS Sciences department all shared in the partnership. The HOD has subsequently left.

Matseliso, 36, has been a teacher for eleven years, two of these at UHS, teaching grades eleven and twelve, and she has been part of the partnership since 2005. She is currently studying through a correspondence university to qualify as an ABET practitioner. Her involvement in the broader programme has also developed her computer skills at certificate level. Zizile, 42, is the mathematics HOD at UHS, teaches mathematics literacy to grade elevens, and is currently doing an advanced diploma in mathematics literacy by distance learning. She has been part of the partnership since it's inception in 2004. Lweendo, 36, has been a teacher in the UHS maths department for four years, in the partnership for two, teaches core maths to grade nine and natural science to grade eight. She has recently graduated as an ABET practitioner. Rethabile, 46, has been a teacher for twenty-two years, teaching

core maths, and then mathematics literacy since it was introduced at UHS and over the past two years to grade eight and ten children.

These UHS teachers regarded their training as having been in adequately and appropriately resourced teachers training institutions, albeit training institutions solely for black teachers in South Africa, and all note a difference between the resources with which they trained and the inadequately resourced schools of which they are now part .

The St Agnes teachers in the partnership are part of a larger eight-team mathematics department. All of them teach in resourced schools, and were trained in previously more privileged universities.   Four of them were involved with the partnership initially, with three being willing to be interviewed.   The fourth believed her involvement was too minimal and distant in time to be able to comment, although she is now again teaching a module in the partnership.

Cathy, 42, has been a teacher for twenty years, teaching mathematics since she qualified and currently teaches grade twelve learners part time.   She completed her honours degree part time soon after her basic degree. Barbara, 43, has taught for twenty two years and currently teaches part time at a local independent brother school to St Agnes, and is employed by St Agnes social Responsibility Programme to co-ordinate the mathematics partnership facilitation. She also teaches gymnastics to teenagers. She has a Commerce degree, and has been part of the mathematics partnership since its inception.   Michael, 30, was inspired to teaching through a history teacher while at school himself, has taught mathematics for eight years, has a

passion for enabling teachers of mathematics literacy, has written and published a series of mathematics literacy text books, and sets mathematics examinations for the IEB. He has been part of the partnership for two years.

These are the teachers and adult learners in the UHS/St Agnes partnership over the past two years. Their work together has been an inspiration to teachers of other under-resourced schools who have since asked to join the programme, and a larger group of mathematics teachers from neighboring UHS schools who now also come to St Agnes for skills upgrading.

Partnership as a basis for learning through sharing

Before an analysis can be made about whether or how learning occurs in the partnership, the presence of a partnership should be affirmed. The analysis of the data collected reveals that the teachers in this mathematics partnership certainly see themselves as partners, and that this partnership has begun to facilitate a process between two groups of teachers from very different backgrounds teaching in differently resourced contexts. The teacher's response to themselves as partners is typified by three responses across the divide: "Most definitely, within partnership of different roles, both a learner and imparter of knowledge. Yes, because in a partnership some contribute more in real life" (Zizile, 2007). "Like in a family, familyness means not all contribute in the same way….but it doesn't make them any less of a family". (Matseliso and Zizile, 2007). Cathy (2007) said: "Yes I do think it is a partnership..… this is ongoing for a number of years, and both are learning by giving and getting".

Partnership in community development involves the dimension of purpose. "The purpose of a partnership is to share resources in addressing common issues and to merge resource bases to create something new" (Hogue (1994), cited in Mitchell and Rautenbach (2006:104)). The common issue for these teachers is the educational advancement of their learners in a complex and unequally resourced society and world, but once into the flow of relaxed conversation during interviews, the teachers from both schools allude to their desire to learn through more exposure to teaching in one another's contexts: "Maybe once/month learners or one class should be taught by the other teacher – that is, the one from UHS or St Agnes.   That is, we could swop teachers, and teach the lesson that was planned for them that day anyway." (Matseliso, 2007). "Going to teach at UHS is an experience of teaching totally out of my comfort zone.   A rural school of eighty-nine kids and chalk and board only. It gave me a view into the reality of teaching in South Africa and where the need really is. While I was there, I felt like a teacher, whereas at St Agnes anyone could achieve what I do in the classroom, because the children are resourced"(Michael, 2007).

These teachers have begun to share through relying on one another for knowledge and skill and have begun to learn across the historic South African educational divide through increasingly forming relationships on which they have come to rely over the two years of the partnership.   The black teachers need and rely on the relationship more than their white colleagues. Clearly this is the result of the historical divide between their communities.

The statements about how they are learning from one another are not yet easily expressed, because the forum of their meeting is designed for input and sharing

around mathematics, and no doubt because of hidden power dynamics which give power to resourced partners. However, they see the possibility for growth toward something new and more embracing: "I would not want to change the programme we have, but we need to focus on not maths only…but other subjects need to benefit also – like in English" (Zizile, 2007).

The resourced teachers have been prompted through this research exercise to express their internalized learning from their under-resourced colleagues, and the teachers – both black and white see a growing mutuality in their partnership. Through expressing what changes in the partnership would make it a more effective learning environment, they are beginning to do what Hogue (2004) is suggesting in merging resource bases to create something new.

Findings show that the partnership is at a place where a platform must be made for sharing the learning being experienced, but hitherto internalized. "We, UHS, give them the ability to understand black teachers and black people better" (Matseliso, 2007).

These kinds of responses reveal that the teachers have learned in this partnership across the divide of resources and historical inequality by: Being given an added view into the current reality of teaching in South Africa; being inspired by learning – for the UHS teachers; that sharing learning with others only emerges much later in their career, and maybe as a result of this partnership's prompting.

Responses further show learning as being prompted to an awareness, for the white teachers of how they went about their teaching from the perspective of making them question the pace at which they proceed in the classroom, and a check about whether slower children really understand mathematics concepts. In all cases it caused them to reflect on their classroom practice.

The partnership prompting for the black teachers was a boost in personal confidence as a teacher, and a reflection on the way they went about teaching mathematics concepts as well as their own understanding of the concepts.

All the teachers intimated their belief that partnerships do not have to be equal, but that they are defined by attitude. The white teachers are clear about what they give, and also clear about what they receive. They believe that honesty, openness, and giving and receiving most contribute to learning in a partnership. They quote the benefit for themselves as learning humility through the black teachers' attitude and determination to continue. The black teachers believe that exchanging ideas, sharing frustrations, being open to weaknesses and being sure one can get something from the other, is what contributes to partnership. The black teachers as yet struggle to express what they give into the partnership, but do not feel uncomfortable with it.

These kinds of responses show that this partnership is poised on the edge of creating something new in addressing common issues and merging resource bases (Hogue 2004, as cited in Mitchell and Rautenbach, 2005), if the partners begin to express their internalized learning. One of the resourced teachers, expressed what changes would make the partnership a more effective learning environment as: "us resourced teachers

being at UHS for part of the teaching input, and being out of our comfort zone at St Agnes" (Cathy, 2007).

Mitchell and Rautenbach's (2005) reference to the caution issued by a former Deputy Vice Chancellor of the University of Natal around service learning highlights the research issue around reciprocal learning, and also the need to research how the concept of partnership is understood. The partnership needs to express and prompt it's growth toward further commitment, and challenge the resourced organization, because it holds the power for the change to happen. This is borne out by Michael: "What the partnership now needs is a greater commitment from all involved......me, Barbara, our department head, the head and the outsiders involved. UHS are committing as much as they can. If the St Agnes teachers would go out there, it would make it more effective. We are limited by the St Agnes side to get involved" (Michael, 2007).
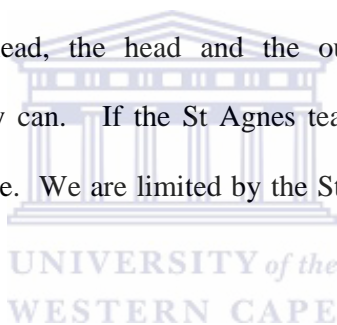
The conclusion is drawn that learning and growing towards reciprocal learning involves aspects of cost - which partners who are in control of partnerships by virtue of being resourced do not expect. This cost is bound up in the risk to move forward. The power to change what happens in the partnership lies chiefly in the hands of resourced partners.

Benefits of the partnership

The partnership grew out of the wider social responsibility programme between these schools. The benefits of partnership have become increasingly apparent through the interaction of the teachers. The original goals for the partnership as stated by UHS

were described as entering St Agnes entering into a sincere and personal partnership with Umdodo High School.

Likewise, the St Agnes programme objective was stated as assisting the UHS department to improve their pass rate. It was also aimed at sharing expertize in these subjects, and sharing the experiences of these two different worlds. The focus was on mathematics and physical science. The recorded UHS pass rate in mathematics since the inception of the programme is indicated in tables 1-5 in appendix A.

The statistics show that the change in pass rate among the senior grades increased over three years. The grade 10 pupils pass rate has increased and then flattened out, but it has improved to the current 38% with a varying number of children writing the examination. The matriculation pass rate has risen from 0% to 38% over three years of the partnership.
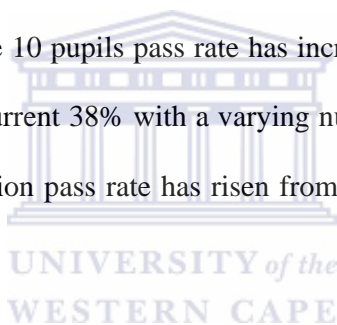
In mathematics literacy, which was introduced as a subject option through the partnership after training the teachers, the average pass rate within the grade has improved, possibly indicating greater teacher confidence over the two years, but it has dropped among the same pupils over their two years of learning the subject.

As far as sharing expertize in these subject(s), and sharing the experiences of the two worlds – one historically and financially resourced, the other not, the UHS teachers report benefits as improvement in results of mathematics learners and therefore meeting their objective, and that they are a maths family, and happy together. Cathy, affirms how the benefits of learning together is that they share experiences of two

different worlds: "It's a life principle – not just about giving. I'm learning humility through their positiveness despite the difficulties"(2007).

Achieving the stated aim is apparent even at this relatively early stage, but clearly the learning has gone deeper than anticipated. It lies in what is achieved when people relate across barriers. The learnings are life lessons.

Learning through power relations in the partnership

The partnership between UHS and St Agnes could easily suffer the negative effects of benevolent attitude and activity because of knowledge, physical, historical and financial resources. It has however balanced a tendency to negative power relations by an inclination to healthy partnership through its stated aims, as well as the practice of the partners.
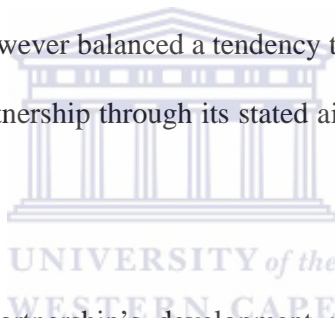
The current stage in the partnership's development requires a shift between the partners to enable open communication and objective input on the nature of power relations. The teachers varied in their response as to whether one partner in the partnership holds more power than the other. Among the UHS teachers, two respondents believed that power was shared because the learning sessions were mutually controlled. Matseliso (2007) responded: "No – because we discuss and agree on these things. St Agnes are not pushing things down our throats".

Three teachers saw power as availability of resources for teaching, one saw power residing in money as a resource. The teachers from the resourced school commonly see knowledge as power. Barbara (2007) says: "I have power to some degree – I ask

and they deliver. "I import the knowledge, and you must decide to take it".   In my culture I don't always see it as power, they have power over themselves".
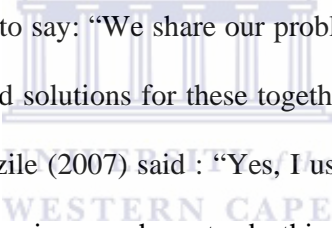
The teachers saw themselves as holding power in the partnership through their access to resources. One teacher suggested that the power base would shift if they went to the under-resourced rural school to do the facilitation of learning rather than meeting at the venue which is highly resourced. "Possibly if we went to them and not had them at our campus, ours is more comfortable. Would I feel so confident if it were not my surroundings?"(Cathy 2007). This is the general sense in which Wenger (1998) describes a domain – which is enabling a partnership to evaluate and challenge the issues facing it and tabulate the learning.

Confidence in relation to power bears mentioning. Identified as a main feature in operating as a learner, or in a teaching environment, Graven (2004) deems that confidence in learning has a direct bearing on context of where and how teachers studied initially, as well as their current work place environment. Resourced or under resourced workplace environment holds a key in power relations, and if knowledge is seen as power, it has a direct bearing on confidence.   The black teachers, in answer to a question about their training situations, believed their training environments were adequately resourced to equip them for teaching in the best possible way at the time of their teacher training. Hence, we might say that power relations in this partnership seem more to be negatively reinforced through comparison of adequately versus inadequately resourced teaching environments, more than they do through power being exercised in the partner relationships as such.

The nature of the reciprocal learning

It is evident from the data that the teachers have learned from each other. All the teachers in the partnership could see themselves in the role of learner. The responses show that the teachers recognize learning from each other, even though the white teachers seemed not to have verbalized their learning to their black colleagues as yet. The black teachers affirm a change in the way they approached their own teaching. This was reflected in a movement from fear to personal confidence; combining their own method with what they learned as a shared activity; changing the way they went about teaching.

Matseliso (2007) was happy to say: "We share our problems and frustrations, and they theirs, and we try to find solutions for these together". Regarding learning from shared learning activities, Zizile (2007) said : "Yes, I used a little of my method and theirs too. When you're learning you have to do this – it's what makes you grow. Shared activity…is the way I did it".

The white, more resourced teachers who were in the role of facilitator in the learning partnership, testify to an increased awareness of the reception of lessons by their own resourced learners once back in the classroom. One expressed it like this: "I became more aware of my weaker students in class, and their inability in the subject/terminology – and thought – maybe mine also don't understand it? Maybe our kids should move at a slower pace?"(Barbara, 2007).

This awareness - of the possible struggle of their own weaker students after engaging in learning activities in the partnership, caused Michael, an author of mathematics literacy text books, to note that his learning was seeing how the activities influenced his understanding for the need of mathematics literacy as a subject, as well as influencing the way he wrote text books and set examinations. Barbara testified to the learning being an appreciation of her current resourced situation, and for Cathy, a growth in her sense of needing to slow down and look at the context from which learners came.

It may be argued that confidence plays an important part in how the teachers have learned from their involvement together. Matseliso (2007) was clear about the issue of confidence: "If the teacher is afraid, it affects the learners' results, so it's about teacher confidence growth".
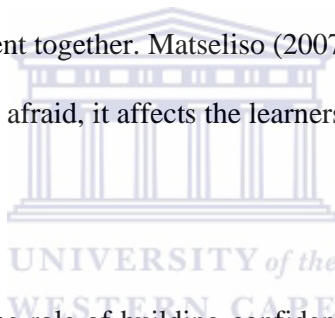
Graven (2004), writing on the role of building confidence in South African teachers, distinguishes the confidence she proposes, from a cognitive knowledge confidence and says, "rather confidence is part of an individual teacher's ways of learning through experiencing, doing, being, and belonging. As such it is deeply interconnected with learning as changing meaning, practice, identity and community" (2004:179).

This data has shown that as teachers learn to share resources, their own knowledge, teaching practice, and physical resources of facilities, under-resourced teachers can experience changes in what it means to be an educator in a broader sense. It comes

from being associated with and owning the identity of a more resourced facility, and the resultant change to their sense of belonging and their confidence is evident.

In such circumstances, there may also be the beginning of a merging of different CoP, giving the sense of belonging in a different way to a wider profession of teachers, rather than only a community which is historically under-resourced, and consequently lacking in the kind of confidence of which Graven talks.

Graven draws on, and provides a critique of Wenger's (1998) social practice perspective of learning as it relates to her work on confidence. It is useful in examining how motivation and confidence relate to teachers in CoP. Though quoted above in another context, Graven's quote bears mentioning again in this perspective. In examining how teachers from resourced and under-resourced work contexts learn she notes: "In this paper, confidence is considered both a product and process of the mathematics teachers' learning, and it is argued that as with Wenger's other four components (meaning, practice, identity and community) it is 'deeply interconnected' and 'mutually defining' " (2004: 179).

Matseliso (2007) linked the issues of confidence and resources saying: "No, resources can be there, but if the teacher lacks confidence it would'nt help really.   The interaction gives you knowledge and information as you learn from each other".

The critical place of resources in learning has been highlighted through this partnership. For the black teachers it's been the significant place of having resources

with which to teach, as well as the recognition that the greatest resource has been their personal continued learning.

The white teachers learned with increased compulsion that resources affect learning in a more powerful way than they could ever have imagined. The black teachers emphasize how the issue of availability of resources affects almost every aspect of their lives as teachers as well as that of their learners. This is further dealt with in the section on factors hindering learning below.

Understanding of learning in the partnership

The research shows that six out of seven teachers saw learning as some kind of relationship between capacity and experience, and hence underlines further that this partnership experience has strong connections into CoP. Their understanding of what learning is, gives information to what facilitated learning for them through their interaction in the partnership. Almost all the teachers defined learning as taking in knowledge, experiencing something through the knowledge, and applying it. That is, that new information is used in experiencing life, to equip for adapting and change. Only one respondent described learning purely as gaining knowledge.

Zizile's (2007) description combines capacity and experience: "It's when you equip the individual so that they can adapt in every situation and apply what they learned to solve whatever problem they have in that situation. It is to understand what's going on around them and take advantage of what's around them".

The teachers mostly believe they are learning from each other because of what has changed in them through their own learning, through their own learners' reception of knowledge in the classroom, and application of knowledge into their lives.

Wenger's contention that learning is the "interaction between what we take in as knowledge or theory and how we experience it in life in a meaningful way, seems to hold true for these teachers, both resourced and under-resourced" (Mennigke, 2007). Furthermore, both partners quote learning as knowing they share life with their colleagues in the partnership, and were unequivocal that there was a shared life through partnership with each other. "UHS/St Agnes is a community – very much so. There was a need, and out of that, relationships developed. The teachers have the same goal in mind" (Michael 2007). Matseliso (2007) confirms this view saying what makes the partnership a community is "working and sharing life experience on a daily basis…therefore we are a community".
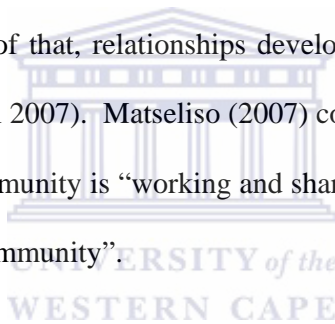
<u>Factors hindering reciprocal learning</u>

Resources or their absence, are highlighted as hindering learning in under - resourced schools. However, the value in this comparison is about the what the teachers have learned about themselves and one another through this historical hindrance.

Lack of Resources

Every respondent saw lack of resources in the black school teaching situation as a hindrance to teaching ability and efficacy. Barbara (2007) relates what she has learned: "I appreciate my now situation in a resourced school. I moan and groan, and

then see how lucky we are here. Our teachers are lucky. I explain to resourced kids how lucky they are."

Zizile (2007) however, put the issue of resources into a different context: "I cannot deny impact of resources, but what's important is contact between teacher and children. The excess number of learners in class contributes a lot. But the learners are the same as the children at resourced schools, the numbers in class differ, but the way they behave is the same as all children behave, just the numbers differ and the resources differ. However, be well prepared, and the resources are a bonus!"

Lack of confidence and curriculum

Lack of confidence is recorded by some of the black teachers as hindrance to learning. Matseliso(2007) turned the issue of resources and confidence into a learning experience, saying: "No, resources can be there, but if the teacher lacks confidence it wouldn't help really. The interaction of our partnership gives you knowledge and information- as you learn from each other".

Curriculum change in South Africa is currently a major factor in the confidence or lack of the same among secondary school teachers in general. Graven (2004) refers to this at length. The background of Graven's paper covers the current context of rapid curriculum change in South African education. I would contend that under-resourced teachers struggle more with these changes than their resourced counterparts. They therefore have, as yet undisclosed inner resources, to share with their resourced colleagues, who may also struggle with the changes, but for different reasons.

Language

The activities within the learning partnership are conducted in English, and all the black teachers are second language English speakers. Furthermore, mathematics is taught in English in the under-resourced teachers' school, and the new FET curriculum focuses on word problems. So, like for their own learners, these teachers are reading the problems in English, then putting them into mathematics language, and only then solving the problems. Cathy (2007) reflects on this: "Yes resources affect teaching, as we teach with a data projector or OHP, using technology. And it's not just the maths, but the language. It's about how they teachers teach English maths to Zulu learners. Now FET is based on word problems – and they are reading it in another language. It's now read the problem – put it into maths language, then solve it".
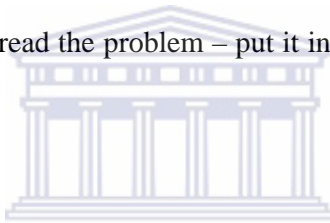
One of the black teachers in the partnership suggests that the mathematics partnership needs to evolve to an English partnership also, to enable growth to continue to happen in mathematics and in the general learning sphere. Hence this hindrance can be turned into a learning facilitated through a deliberately constituted CoP.

Facilitation within the partnership

It is evident that this partnership as a community of learning is able to motivate and challenge it's holding organization to a place of further commitment, to develop a new understanding of each partner's interests, capacities, and limitations (Holland, 2005:11).

Michael - who also acts as a facilitator in the partnership – questions if learning is not hindered by the lack of an outside facilitator to the programme. "There are two sides here. If we had an outsider, then it would be better in that there would be greater commitment and focus to the subject being taught, as it would be the prime focus. I don't ever feel I was totally committed - the academic head said that contact is fine with UHS provided it doesn't detract from St Agnes work. If it was my full time work, it would be different" (Michael 2007).

However, he balances his view by believing that it is easier to work as facilitator the more he knows the teachers on a personal level: " We're building personal relationship here, and get to know people, and that makes the experience better. As facilitator, the more I know them, the easier it is to work. So, within the school, doing it is very good" (Michael 2007).

Clearly this is a factor affecting the growth of how the teachers learn, because the resourced teachers at times feel torn between their prime focus as employees and their desire to deepen what could happen in the partnership. The experiences recorded by Holland (2005) and her colleagues in the report of the Community Outreach Partnership Centres of the HUD, show that partnerships will be difficult to implement and sustain unless the partnership reflects candidly on the motivations, goals, and expectations of each partner; articulates the historic tensions that might exist between campus and community; and develops a new understanding of each partner's interests, capacities, and limitations. These steps will help ensure that the partnership leads to mutual benefits, respect, equity, and reciprocity (Holland, 2005: 11). These partners need, therefore to give further consideration to the way forward, and their

commitment to the mutual benefit of the other, but it is also what Wenger (2007a) suggests as "setting strategic context, where, if the partnership wishes to develop as a CoP, it needs to find a legitimate place in the organization" (2007a :3).

Perceived value of current learning Communities

The responses consider the value of the school's formal structures to enable teachers to learn together. The data shows different situations: Michael reflects on this: "There are no formal structures in place in the school.   But there is huge value in them – as you can't grow if you're not part of a learning process." He continues, responding to a question on whether he believes his school is a learning community: "The teachers as a whole – no! The mathematics teachers, maybe. They are open to learning, but maybe they're in a place in life where it's not possible.   Of course, in government rules everybody is forced to be a learner now.   The fun element peeled away as its now a requirement of education"(Michael 2007).

By contrast, the UHS teachers reflect on whether their school is a community of adult learners. Rethabile (2007) says: "Yes, because we help each other.   If one is not confident to teach   something, then we help each other, so we swallow our pride and ask for help". The other UHS teachers agree saying that 95% of their teachers are ready to learn from each other at any time.

Both partners are communities of learning. One openly acknowledging it, the other not as yet. This is because the concept of a community which exists for ongoing learning has not yet been broached and taught, and applied. Potentially however, two communities of learning are CoP for which learning can become the focus.

Fulfillment of the intended learning aim of the partnership

Being together as adult learners has caused unexpected change for these partners. The intended activity of the partnership was originally described by the programme of both partners as: unpacking the approach, building the confidence, identifying and refining the skill and teaching the methodology. What they did not expect was their added growth as people through relationship.
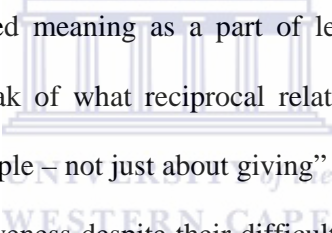
One teacher confirms three of these happening for her, including the pupil's test results improving. In answer to whether there is value in UHS teachers being partners in adult learning with other teachers, they report that "the partnership opened us up". She reflects : "We as blacks didn't do things as whites do. We're not open as you are. The partnership opened us up. Barbara and Michael understood us blacks and we have benefited more. We don't normally ask questions, but we will get there…we don't feel inferior to them"(Matseliso, 2007).

The UHS teachers generally list the value of existing in an adult learning partnerships as to improve their teachers, equip themselves in a professional way, and approach their subject from the right perspective. Lweendo (2007) responded like this: "You value many things when two adults talk. They understand each other, and we gain a lot in being in partnership with other adults because we're on the same level, and it's not just about education". For the under-resourced teachers therefore, they fulfill both their own, as well as the resourced teachers' intention for the partnership. For the resourced teachers, the reward seems to be unpacking their own approach, and questioning how to refine their methodology. Though not stated, my intuitive sense as researcher in the interviews is that these teachers had not originally expected the

prompts which came their way, nor how their understanding of the activity would be fulfilled.

<u>Unintended learning through the partnership</u>

 Defining involvement in a CoP as a "journey of the self, Wenger suggests that learning can be defined as a re-alignment of competence and experience – whichever leads the other"(Mennigke, 2007). An intuitive sense whilst engaging in the interviews with the resourced teachers was that they had neither originally expected the motivation which came their way, nor how their original understanding of the activities would be fulfilled.

The teachers have discovered meaning as a part of learning. Four responses bear repeating, because they speak of what reciprocal relationship has achieved in this partnership: "It's a life principle – not just about giving" (Cathy, 2007). " I'm learning humility through their positiveness despite their difficulties" (Cathy, 2007). " I could share life with one woman …..and became aware of what she dealt with every day. It is interaction with people and their personalities, communicating with people from different situations. I think they are phenomenal – they just continue with their jobs. I feel humbled by them and their situation" (Barbara, 2007). "It's about attitude, and do I see myself as learning also!"(Michael, 2007).

Section 5

Summary, Recommendations and Conclusion

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<u>Summary</u>

Does the reciprocal learning in the partnership provide a premise for establishing a Community of Practice?

CoP are "groups of people who share a passion for something that they know how to do, and who interact regularly to learn how to do it better" (Wenger, 2007b: 3).   The partnership was conceptualized as one where the main objective of this process was to assist the UHS department to improve the pass rate.   It was also aimed at sharing expertize in these subjects and sharing the experiences of these two different worlds. The focus was on mathematics and physical science. While therefore, the concept of a CoP was not vocalized as such, part of it's basic premise knowingly or unknowingly, included some CoP fundamentals.

The data collected during teacher interviews pays heed to all the foundational material for operating as a CoP - namely, "a group of practitioners, who share similar challenges, interact regularly, learn from and with each other, improve their ability to address their challenges"(Wenger, 2007b : 4).

The majority of the UHS and St Agnes teachers define community as a combination of living/being together in the same environment, interacting on the same issues and having the same objectives. Their combined perception of what makes a community what it is - is relationship.

The contention of this paper is that the minority of the UHS teachers in the partnership need to stretch their perception of community (learning) relationship to include a greater sense of mutuality around partnership in learning, but that they certainly see the partners as partners.   A next step in being able to define the partnership as a CoP, would seem to be following Wenger's five steps to cultivating CoP, after the strategic context has been further underlined and re-stated through the social responsibility arms of the two schools. These are to "educate, support, get going, encourage and integrate" (Wenger, 2007b: 3).

It should be noted however, that these steps would be seeking to further educate the partnership in the concept of a CoP to enable it to grow and strengthen it's value as a partnership.
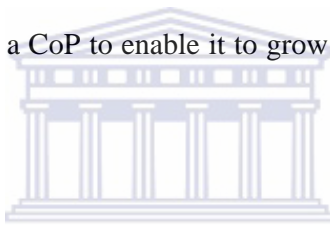
The St Agnes partners regard community as a space where people learn from each other, teach each other, are linked with each other, grow, share and help one another. For these, what makes that community a community is learning together and sharing.

Re-conceptualization of this partnership to create a community of practice

The research sought to test whether reciprocal learning was taking place between the teachers in this partnership. The conclusion is made that what the partners need in order to see themselves as a CoP, is to be helped to vocalize their mutual learning in a facilitated environment. Futhermore, some theoretical input on CoP , the challenge to improve their ability to address the challenges facing them as partners going forward, and the option of whether they in fact want to form such a CoP. This would constitute

a re-conception of the existing partnership to re-formulate these communities as a Community of Practice, with reciprocal learning as the stated aim.

The teacher's have a conception of changes, which in their opinion, would make the partnership a more effective learning environment. For the white teachers it would include greater commitment by their resourced school as a whole to the partnership. They also believe that the organizational structure of UHS needs to be looked at, and not just the teaching of mathematics. This is necessary because the assessment of learners with new FET syllabi, is hardly possible with the size of classes which teachers are currently handling. They believe that the learning would be enhanced if the resourced partners were at times out of their comfort zones, and teaching some lessons at the under-resourced black school. This would also help the re-conceptualization of the partnership, as sharing and reciprocity would be not just an expectation, but a reality.
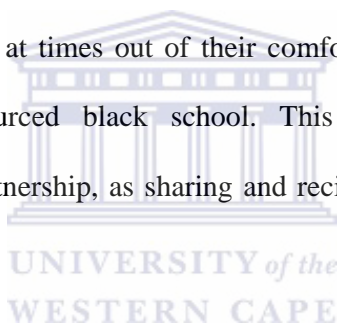
Likewise the black teachers would like to see their partner teachers exchanging schools from time to time, to teach a planned lesson in the partner school. They foresee other subjects, especially English language, benefiting from the partnership input, the children from the partner schools interacting in debate and sport. They believe the children of both partner schools know why the teachers go to the partner school for learning purposes.

These suggestions from the teachers echo Wenger's basis for cultivating CoP, in that CoP are a familiar experience, "but people need to understand how they fit in their work" (Wenger, 2007b:3). It is a process of education and integration and re-

conceptualization. "The formal organizations must have processes and structure to include these communities while honoring their root in personal passion and engagement" (Wenger, 2007b: 3).

Conclusion

This research indicates only some aspects of the issues in reciprocal learning, and reflects my, as yet limited understanding of the complexity of adult learning issues. It leads to the insight that a great deal more research is needed on my part to fully understand and contribute to the field of reciprocal learning among adults in partnerships, and especially in the composite area of adult learning in South Africa with it's history of deprivation.

The analysis of the data points to a partnership that has grown over almost three years. It is poised at a place of further growth toward healthy partnership, dependent upon how the teachers are encouraged and facilitated to express their experiences on a personal level, and whether they are willing to risk taking their partnership into the next phase of its life cycle. It therefore indicates that they would have to further share themselves as people, learn to express and act on their hopes, and participate as adult learners in Communities of Practice, as a means of guiding the partnership and their respective organizations forward.

The exploration into the nature of the learning has revealed a number of levels on which learning happens, testified to by the teachers interviewed, and tested against the literature in the review.

There can be little doubt that the competence of South African teachers in under-resourced situations is affected by more than one factor. While they may have considered their own training to be adequately resourced, the subjectivity of that belief and the conditions in which they operate in the classroom, re-orientate practice and ability often to the point of overcoming motivation. Potentially, this reduces confidence in teachers' ability to produce adequate student results, and is dis-empowering in self-image, self-assurance among their peers, their own students, and their ability to believe it could be different.

However, the work of this partnership and its recommendations toward further reciprocal learning, offer some salvific solutions from the potentially negative patterns of relating and learning, to situations of social co-participation. Such situations allow meaningful relationships and social engagements to provide the context for learning to take place in a truly reciprocal manner.

The research shows that the partnership already has the basic elements of a Community of Practice. The insights gleaned from the data and subsequent analysis, underline the learning already taking place through this interaction, and makes a contribution to the development of a social learning theory perspective. It does so through the existing learning situations, and the desire for more meaningful co-participation, "the sense of individual and collective identity, and a delicate process involving interpersonal dynamics, trust, and mutual commitment – and resulting in a new social entity" (Wenger, 2007a:1).

In conclusion, this paper has described an adult learning practice between two historically - different KwaZulu - Natal schools. It is about educators learning across a divide. Like many other South Africans, they grew up believing the divide should not be negotiated. The partnership reflects growth in their confidence, knowledge and ability, but the partners' interaction has begun to negotiate the divide between knowing and being the world, and as such it contributes adequately to social learning theory.

Recommendations

1. It is recommended that the teachers in the partnership need to re-conceptualize the nature of their engagement through a learning exercise in a workshop aimed at introducing the concept of Communities of Practice. This should be a natural progression from their current positive view of themselves as a community engaged in reciprocal learning, as well as encourage the individual schools to develop Communities of Practice as a means for mutual support across their academic spectrum.

Part of this learning exercise should be an evaluation of how learning has taken place in the partnership, the vocalizing of the hopes and aspirations of the partners, as well as how learning could be further developed among teachers as adult learners within departments of their own schools.

2. It is further recommended that the partners and their schools explore the implications of extending the current brief of the partnership, or to establish other

partnerships as Communities of Practice. The purpose of other partnerships would be to include, for example, an English language partnership to enable better facilitation in mathematics literacy as highlighted in the data analysis.

3. Another recommendation is to extend the learning from this partnership into the current work of leadership development in the partner schools, so they can better contribute to holistic ongoing adult learning among secondary school teachers.

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A. Tables

Tables of pass rate in mathematics at UHS 2005 – 2007

Table 1.	*2005*	*Core Mathematics*			
Grade	**Number student writing**	**Number students passed**	**Number students failed**	**% pass**	**% fail**
8	183	113	70	62	38
9	155	104	51	67	33
10	77	26	51	34	66
11	120	19	101	16	84
12	74	24	50	32	68

Table 2	*2006*	*Core Mathematics*			
Grade	**Number student writing**	**Number students passed**	**Number students failed**	**% pass**	**% fail**
8	200	180	20	90	10
9	186	164	22	88	12
10	66	51	15	77	23
11	115	44	71	39	61
12	82	21	61	26	74

Table 3	*2007*	*Core Mathematics*			
Grade	**Number student writing**	**Number students passed**	**Number students failed**	**% pass**	**% fail**
8	179	12	167	7	93
9	151	58	93	38	62
10	51	46	5	90	10
11	91	42	49	46	54
12	76	29	47	38	62

Table 4	*2006*	*Maths Literacy*			
Grade	**Number students writing**	**Number passed**	**Number failed**	**% pass**	**% Fail**
10	105	42	63	40	60

Table 5	*2007*	*Maths Literacy*			
Grade	**Number students writing**	**Number passed**	**Number failed**	**% pass**	**% Fail**
10	159	114	45	72	28
11	106	22	84	21	79

Tables provided by HOD mathematics at UHS

B. Research interview schedule

RESEARCH INTERVIEW SCHEDULE

for UHS/St Agnes Interviews

Name:_____
Interview No:_____
Date:_____

1. Age?

2. Race?

3. Gender?

4. Where do you live in relation to your place of work?

5. Since when have you been a teacher?

6. Why did you become a teacher?

7. In your view, did your training institution have adequate and appropriate resources to train you as a teacher in the best possible way?

8. What has been your most challenging teaching experience?

9. What are your roles and responsibilities in your current position?

10. Are you currently studying towards any qualifications?

11. Since when have you participated in the UHS/St Agnes partnership?

12. Do you regard your participation in the partnership as enhancing your qualifications?

Improving skill in core mathematics/mathematics literacy by re-visiting teaching method in a learning group.(Group with Barbara and Michael)

13. Who were the facilitators?

14. Who were your colleagues in the activity?
_____

15. Describe the activity
_____

16. Did the way you approached teaching lessons change as a result of the activity?
_____

17. What did you learn by doing this activity as a group?
_____
_____

18. Would the learning be different if UHS and St Agnes had similar resources?
_____
_____
_____

19. Were there benefits of observing a St Agnes teacher teaching in their own school context?
_____

D. Drawing from a specific teaching/learning activity 2
Planning ahead for lessons, syllabus and timetable.

20. Who were the facilitators?
_____

21. Describe the activity
_____

22. Who also participated in the activity with you?

23. Was it your practice before the activity, to plan lessons and syllabi in advance?
_____

24. How did you go about it previously?

25. What difference did the activity make in the way that you now plan?
_____

26. How did the planning activity influence your confidence in relation to your mathematics teacher colleagues?
_____

27. Has your involvement in the planning activity influenced the way the school does planning?
_____

28. How has the planning activity influenced the way you interact in the partnership?
_____

29. What was the benefit of learning to plan ahead as teachers who operate in very different contexts from one-another?
_____

E. Reflections on learning
30. What do you regard as learning?

31. Was learning this way better than if a facilitator (independent of the 2 schools) were to have facilitated the learning?

32. What value is there in UHS teachers being partners in adult learning with other teachers?

33. Would you see the UHS teachers as a community of learners?

34. What do regard as community?

35. What makes it community?

36. If this partnership for you is not community- how do we make it community?

37. What are the factors which most contribute to individual learning?

F. Reflections on learning in partnership

38. Do you feel UHS and St Agnes are partners?

39. What factors most contribute to partners learning from each other in a partnership?

40. In your view, was there any benefit in learning together in the maths partnership of the two schools?

41. Would you consider that one partner in the partnership holds more power that the other?

42. If you do, what would change the balance of power in the partnership relationship?

43. What have you enjoyed about the partnership?

G. Recommended changes

44. How do you see the partners (maths teachers) both offering something distinctive into the relationship?

45. What changes would make the partnership a more effective learning environment?

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UWC
September 2007