Afr. J. Lib, Arch. & Inf. Sc. Vol. 19, No. 1 (2009) 1 - 12

Utilisation of Communities of Practice in the Humanities at the Universities of KwaZulu-Natal Zululand, South Africa

Patrick Ngulube

Department of Information Science,
P. O. Box 392,UNISA 0003,
University of South Africa

ngulup@unisa.ac.za

and

Bongekile Mngadi

Information Studies Programme
University of KwaZulu-Natal, South Africa

mngadib1@ukzn.ac.za

Abstract

Higher education institutions need to value and nurture the knowledge of, and support social interactions among, academics if they are to maintain a competitive edge. The utilization of communities of practice is one strategy that may be used to foster social interaction and enhance performance of an institution through collaboration and knowledge sharing. A study was conducted to establish the extent to which communities of practice were defined and utilised to facilitate the sharing of knowledge among academics in the humanities at the University of KwaZulu-Natal and the University of Zululand. Questionnaires, focus groups and a semi-structured interview were used to collect data. The study revealed that some academics at the two institutions utilised communities of practice to share knowledge. Lack of support from the institutions and organizational culture prevented some academics from belonging to communities of practice. The study also established that both institutions did not have a policy on communities of practice.

Keywords

Communities of practice, higher education institutions, knowledge management, knowledge communities

Introduction and Background

Higher education institutions (HEIs) world-wide are expected to address national needs and problems. The quality of knowledge generated within HEIs is becoming increasingly critical to national goals (Brennam and Shah, 2000; Welsh Higher Education and Economic Development Task and Finishing Group, 2004). However, HEIs are confronted with many changes and challenges driven by the unprecedented global, social and economic forces of the knowledge economy (Guruz, 2003; UNESCO, 2004). These changes and challenges are, in one way or another, motivating HEIs to rethink the ways in which they operate and do business. In turn, academics in HEIs are being challenged by their institutions to share good practice and continuously learn to improve the quality and content of their knowledge.

Organisations have found that it is the expertise,

know-how and skills of their staff that give them the edge to succeed in highly complex and demanding environments (Van Wyk, 2005). Knowledge is considered as a key resource that can enable organisations, including academic institutions, to enhance performance. There has always been increasing pressure on academic staff to keep up with new trends and developments within their fields of specialisation and to become more knowledgeable and creative (Abrahams and Melody, 2004). Thus, the knowledge that academic staff possess needs to be nurtured and valued, because it is through paying attention to their collective knowledge that institutions of higher learning can improve their teaching, research and community service.

Communities of Practice (CoPs) have been defined as self-organising groups of people connected by a shared interest in a task, problem, job or practice (O'Hara, Alani and Shadbolt, 2002). CoPs may create an environment conducive to the transfer and sharing of tacit knowledge among individuals in an institution through social interaction (Denning, 2000; Hildreth and Kimble, 2004; Hildreth, Kimble and Wright, 2000; Maponya, 2005; Mosia and Ngulube, 2005). Knowledge is embodied, embedded, encultured and encoded, to use Blackler's (1995) terms, and its transfer is largely through social interaction and learning among individuals. Put differently, CoPs constitute the foundation of knowledge management because it is through them that knowledge is created and turned into action (Smith and McKeen, 2003). Knowledge communities are probably one of the best practical means of developing and leveraging tacit knowledge, and many commentators see them as a way forward (Sallis and Jones, 2002). That partly explains why CoPs are increasingly becoming popular in many organisations. Organisations can decide on which CoPs to develop and nurture after identifying them and determining their scope and vision.

Ever since the concept of CoPs was first proposed by Jean Lave and Etienne Wenger (Lave and Wenger, 1991), it has attracted a lot of interest from organisations and academics alike. Many organisations have made CoPs a key component of their KM strategy (Hildreth and Kimble, 2004) because they regard them as a means of developing social capital, nurturing new knowledge, stimulating innovation and sharing knowledge within an organisation (King, 2002; Tight, 2004; Wenger, 1998a). If the importance of CoPs is accepted, it then becomes crucial for institutions of higher learning to create, support and sustain an environment that would encourage academics to have a shared vision and build mutual relationships and partnerships, for instance around issues of teaching, research and community service across departments, schools and faculties. It is the view of Wenger (1998a) that "knowing what others know, what they can do, and how they can contribute is key to improving performance among individuals and the institution."

Nature and Benefits of Communities of Practice

A Community of Practice (CoP) is seen as a group of people with a common interest who work together informally in a responsible, independent way to promote learning, solve problems or develop new ideas (Storck and Hill, 2000; Wenger and Snyder, 2000). For the purpose of this discussion, CoPs will be described as groups of like-minded people who regularly work together, developing collective knowledge and shared "sense making" of what they do and how they do it (Weick, 1979 cited in Mosia and Ngulube, 2005). In communities of practice, knowledge is often shared through what Hildreth, Kimble and Wright (1998) referred to as an "apprenticeship system", that is, through shared practice and situated learning. Many organisations support and develop CoPs as part of their KM strategy due to the benefits they provide in facilitating knowledge processes such as knowledge creation, transfer, sharing and dissemination.

The foregoing characterisation of CoPs distinguishes them from teams. CoPs are different from teams in that they are informal and voluntary, and they are not initiated by the organisation's management. CoPs function outside formal organisational boundaries and hierarchies (Smith and McKeen, 2003). On the other hand, teams are formed at the behest of the organisation in order to accomplish given tasks, and their life span does not normally go beyond a given project. Informal networks that develop in most organisations should not be confused with CoPs, as they have different characteristics (Allee, 2000; Wenger, McDermott and Snyder, 2002). According to these authors, members of informal networks collect and pass information as compared to CoPs that build and exchange knowledge. Furthermore, informal

networks comprise friends and business acquaintances with mutual interests, whereas members of CoPs are self-selected volunteers who identify with a subject matter and a given expertise (see Wenger, 1998b).

CoPs can confer immense benefits to individuals or organisations. Some of the benefits that have been highlighted include (Fontaine and Millen, 2004; Hislop, 2005; Lesser and Storck, 2001; Newell et al., 2002; Smith and McKeen, 2003):

- improving the performance of organisations;
- helping organisations to develop new ideas;
- fostering innovation in organisations; that is, knowledge is exchanged and combined in new ways;
- encouraging and facilitating learning, collaboration and knowledge-sharing within organisations;
- increasing and developing social capital among individuals;
- finding and locating best practices in organisations;
- increasing individual skill and know-how;
- improving the exchange and flow of knowledge in an organisation;
- improving the individual's sense of belonging in organisations; and
- sharing of expertise and knowledge between members.

Communities of Practice in Higher Education Institutions

As explained above, CoPs have the potential of enhancing performance and stimulating growth and innovation. In that regard, CoPs have been widely used by many organisations and higher education institutions worldwide (King, 2002; Hildreth, Kimble and Wright, 1998). There are a number of CoPs that have been formed within the context of higher education. For instance, Illinois State University formed CoPs to foster scholarship of teaching and learning (Illinois State University, 2005). Another instance where a CoP has been established is at Rockhurst University, where a CoP is concerned with mentoring new academics (Rockhurst University, 2005). In addition, the University Continuing Education Association in the United States formed thirteen CoPs organised around a professional function or critical issue of quality assurance (University Continuing Education Association, 2006). The members of the CoPs are concerned with evaluating programmes and preparing for accreditation.

In the case of South Africa, there are a few examples of CoPs in higher education institutions, but only two cases are discussed here for illustrative purposes. There is a collaborative project that involves the Cape Peninsula University of Technology, the Western Cape Education Development, the University of York, the University of Cape Town, and a number of schools in the Cape Town area called Critical Research and Development. The project members formed a CoP in which educators, curriculum developers, researchers and educator advisors work together to provide educators with the skills and insights necessary for them to develop their learners. The focus of this CoP is the shared responsibilities for the development of learning and teaching materials to support critical thinking in educators (Cape Peninsula University of Technology, 2006). Academics at the University of KwaZulu-Natal (UKZN) within the School of Sociology and Social Studies formed the Writing Initiative to Support Academics (WISA) (Maponya, 2006). WISA was initiated by academics in 2005 as a community of practice to support each other in terms of writing and publishing research articles. WISA enables academics to share their experiences and ideas on ways to get articles published in reputable journals.

Some groupings that exist in the institutions of higher learning in South Africa are not labelled as "communities of practice", but they do have characteristics of CoPs. Some groupings or forums that already exist can be transformed or supplemented to establish communities of practice if they are identified and clearly defined.

Research Objectives

The present study aimed at identifying and establishing the extent to which communities of practice were defined and utilised within higher education institutions to advance teaching, research and community service. Despite the growing body of research on CoPs, little is known about how CoPs

are utilised in the humanities disciplines in South African universities. Unlike their counterparts in the natural sciences, humanities scholars tend to be loners and they work in isolation (Katz, 2007; Rieder, n. d). Research collaborations, knowledge-sharing, intellectual debate and exchange are limited in the humanities. In that regard, this study chose the humanities for investigation to find out if there was structured or unstructured collaboration between researchers in the humanities through the utilisation of communities of practice. The study focused on the humanities at the University of Kwazulu-Natal (UKZN) and the University of Zululand (Unizul) as a case study. To address the central research problem, the following questions were formulated:

- Do communities of practice exist within the humanities at the two institutions? If so, how are they defined and utilised?
- What role do communities of practice play within the humanities at the two institutions?
- Are they recognised and supported within various levels of the institution?
- How can communities of practice be fostered in the humanities?

Data Collection Methods

This section presents the research story. The assumption is that the production of valid knowledge hinges upon the method of research used (Ngulube, 2005). However, many researchers have tended to focus on the findings and implications of their studies without giving details of the methods used (Hernon and Schwartz, 2002). The consumers of the research products have a right to know how the study was conducted.

Using the survey research design, this study assessed the extent to which communities of practice were defined and utilised within higher education institutions to foster learning and facilitate the sharing of knowledge among academics in the humanities at UKZN and Unizul. The study used questionnaires, focus groups and a semi-structured interview as data collection methods. The use of two or more methods in a single study is called triangulation (Aina, 2002; Babbie and Mouton, 2001; Botes, 2003; Kelly, 1999). The rationale for using multiple methods is that, although no single method is perfect, if different methods lead to the same answer, then greater confidence can be placed in the validity of the conclusions (Ngulube, 2005). The use of questionnaires in conjunction with interviews was identified as useful methods of gathering data on knowledge management activities in organisations (Webb, 1998).

The study population comprised 442 academics in the humanities at UKZN and 114 at Unizul. The humanities were defined as those branches of knowledge that concern themselves with human beings and their culture (New Encyclopaedia Britannica, 2005). A sample of the population was studied. The academic staff databases at the two institutions constituted the sampling frame for the study. Proportional stratified sampling was used to ensure that each institution was equally represented according to its population of academic staff as advised by Leedy and Ormrod (2005).

The survey data should be treated with some caution. The sample that was studied was quite small as a result of a low response rate of 33%. According to Babbie and Mouton (2001), the consensus in survey research was that a response rate of 50% was considered adequate for analysis, while 60% was good and 70% was considered to be very good. However, authorities are not agreed on what constitutes an adequate response rate. Shipman (1997) argued that, although Hite (1994) used a response rate of 4.5% in his study, the normal figure is between 20% and 30%. On the other hand, Payne and Payne (2004) pointed out that the typical response rate for self-completion surveys was 33%. Our response rate was within the margins stipulated by the literature.

The fact that the characteristics of the respondents who participated in the study resembled those of the original sample provided confidence in analysing the data to make some generalisations of the findings. The fact that the data from the questionnaire was corroborated by data from interviews also provided more confidence that the recommendations of the study were going to be sound and reasonable. Item non-response was not observed in the current study.

Data from the questionnaires was supplemented by focus group discussions and an interview. Focus

groups discussions were considered important for this study, in order to obtain shared viewpoints on issues related to communities of practice, their formation and the way they were understood and used in academia. Focus group participants were purposely selected based on their experiences and involvement in communities of practice. Two focus group interviews were conducted: one at Unizul, and the other at the Pietermaritzburg campus of UKZN. Each focus group comprised 10 participants as advised in the literature (Krueger, 1994; Mosia and Ngulube, 2005), with each discussion lasting about one and half hours.

A semi-structured interview was conducted with the Deputy Vice- Chancellor (DVC) for Research, Knowledge Production and Partnerships at UKZN, to get his views on communities of practice in institutions of higher learning. An initially planned interview with the Research Director at Unizul had to be abandoned because she was on sabbatical leave.

Results and Discussion

This section presents the major findings of the study. Results from data collection procedures were treated in aggregate, as the data collection tools complemented each other. The combined results gave the researchers an insight into the extent to which communities of practice were defined and utilised in the humanities at UKZN and Unizul.

Understanding of Communities of Practice

Communities of practice are described as a "network of people who share a common interest in a specific area of knowledge or competence and are willing to work and learn together over a period of time to develop and share that knowledge" (Wenger and Snyder, 2000). Only 24 (46.2%) respondents at UKZN and seven (18.4%) at Unizul understood a CoP 'correctly' as a "group of people with common interest" (Table 1).

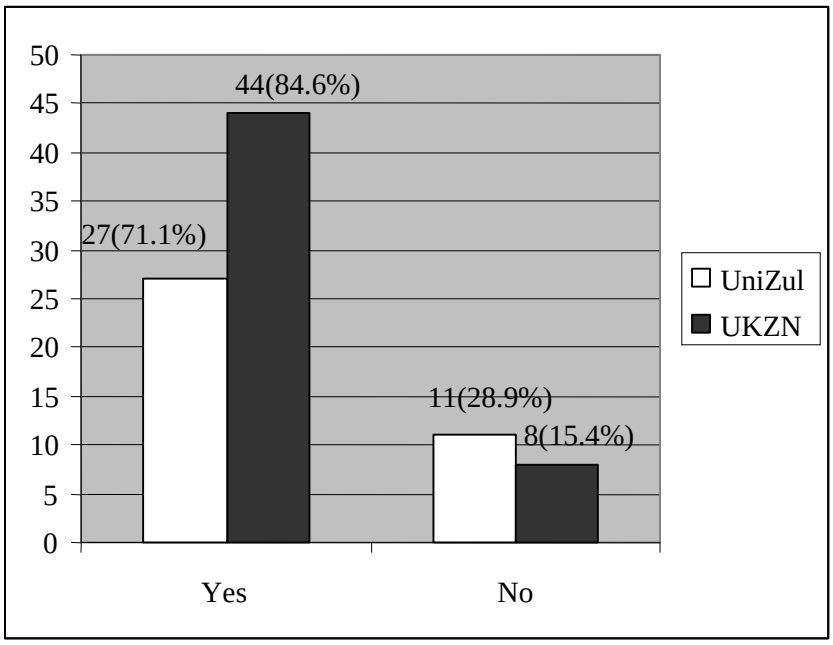
Table 1 shows further that about 10% and 20% of the respondents from Unizul and UKZN respectively considered CoPs to be support groups, a notion that can probably be reconciled with the notion of a group set up to pursue a common interest. Furthermore, nearly 90% of the respondents from Unizul understood or perceived CoPs as groups comprising 'academics in a team set up to accomplish a task', and as many as 25% of those from UKZN shared the same viewpoint. It can be argued that this task-oriented understanding of CoPs is related to the 'common interest' view, and experiences gained as task group members. However, one may also argue that there is a fundamental difference between 'a common interest' that may persist and motivate a group over a long period of time and 'a task' that may drive a group for only a short period. Finally, it is also clear from the table that very few respondents (7.9% and 7.7% from Unizul and UKZN respectively) considered CoPs to be merely social groups (which often have common interests) or as groups wherein members have 'respect for each another'.

The above results show that the concept of CoPs was understood differently and variously by the respondents. The focus group discussions also revealed that there were a number of CoPs at both institutions, but that they were defined differently. This is not surprising, however. In fact, Wenger (1998b) argued that "Communities of Practice are everywhere." What may differ is the way people define and utilise them.

Table 1: Definitions of Communities of Practice by the Respondents

Participation in Communities of Practice

The researchers defined to the respondents what a community of practice was and asked them if they belonged to a community of practice both within and



outside the organisation. Most respondents at UKZN and Unizul indicated that they belonged to communities of practice. Figure 1 depicts the results.

Figure 1: Respondents Participating in Communities of Practice.

Wenger, McDermott and Snyder (2002) provided a five-stage framework that may be used for determining the level of growth and evolution of CoPs (see CoP levels of maturity, Lee and Neff, 2004). The five stages that represent the lifecycle of a CoP are potential, coalescing, maturing, stewardship and transformation. The formation of the community occurs at Stage 1 (potential) and Stage 2 (coalescing). At this point, the scope of the domain of interest to the members is defined, common ground is established, the value of sharing domain knowledge is recognised and trust to discuss practice problems is developed. Integration takes place during Stage 3 (maturing) and Stage 4 (stewardship). The boundary of the community is defined, and the community establishes a unique identity and gets recognition from the organisation. The transformation of the community happens at Stage 5. At this point, some communities disappear or split into distinct communities or merge with others, or become fully recognized as part of the organisation (Chua, 2002).

Data from focus group discussions at both institutions was used to gauge the level of growth of the existing CoPs using the lifecycle of a CoP framework of Wenger, McDermott and Snyder (2002). It is evident that most CoPs at the two institutions were between Stage 1 and Stage 2 because some of them did not have names. That means they were still working towards establishing common ground and building relationships. Focus group participants also highlighted that they lacked space to build social networks, and that institutional support was limited. Most social networks were at the level of a discipline. Participants at both institutions indicated that they were reluctant to share knowledge or to participate in communities of practice because of the system and organizational culture that promoted individualism.

The semi-structured interview with the Deputy Vice-Chancellor (DVC) for Research, Knowledge Production and Partnerships at UKZN, which covered institutional policy on communities of practice, support of academics by the institutions and forms of support, knowledge sharing and means of sharing knowledge made available to academics, confirmed the results of the focus group discussions. The interview also revealed that the university did not have a policy on CoPs. One wonders how CoPs may develop and get defined if the organisation is not fully committed to them. Indeed, at Unizul, focus group participants indicated that CoPs needed to be cultivated by designing a policy on communities of practice. Information on Unizul policy issues relating to CoPs was not available, as the Research Director was on sabbatical leave.

The literature reveals that CoPs can take different forms depending on the structure of an organisation (Wenger, 1998a; Van Wyk, 2005). At UKZN, most respondents 27 (51.9%) indicated that they belonged to CoPs within their institution; whereas at Unizul, 13 (34.2%) respondents indicated that they belonged to CoPs outside their organisation. Six (11.5%) respondents at UKZN indicated that they belonged to CoPs both within and outside the

organisation.

Although CoPs can function within an organisational unit, they can span across organisational units, or even span different companies or organisations (Wenger, 1998a; Van Wyk, 2005). Effective CoPs are generally restricted to a certain locality (Teigland and Wasko, 2006). That is the case because members of a CoP continually communicate directly in face-to-face situations, and their knowledge sharing processes involve mutual engagement, collaboration, and sharing stories and experiences. The use of information and communication technologies such as electronic mail and the Internet has witnessed the emergence of virtual communities of practice. It is more difficult to establish relationships and develop trust in a virtual space than in face-to-face circumstances. Thus, the effectiveness of virtual communities of practice as a knowledge sharing mechanism remains to be seen. It is our contention that "warm bodies" establish better social networks through face-to-face contact than technology-based interaction. The focus group discussions revealed that the majority of the participants preferred a face-to face mode of interaction to a technology-based one.

Purposes and Value of Communities of Practice

Communities of practice are powerful both for sharing and achieving organisational results (Allee, 2000). As discussed above, they provide employees with a sense of belonging to the organisation and a collective social context in which they can develop and utilise their knowledge in serving the organisation. Furthermore, Hislop (2005) pointed out that CoPs provide a vital source of innovation in the organisations. In that regard, it was important to find out the purpose of CoPs that the respondents belonged to.

Twenty four (46.2%) respondents at UKZN and 17 (44.7%) at Unizul indicated that the purpose of their CoPs was to improve their research outputs. Table 2 presents the rest of the results. The fact that the observed total value on the utility of CoPs to the organisation and individual is lower than the expected total may seem to suggest that the respondents did not perceive CoPs as valuable, but the difference between the observed and the expected values may be partly explained by the fact that some respondents were not familiar with CoPs and were not aware of the benefits of belonging to a CoP.

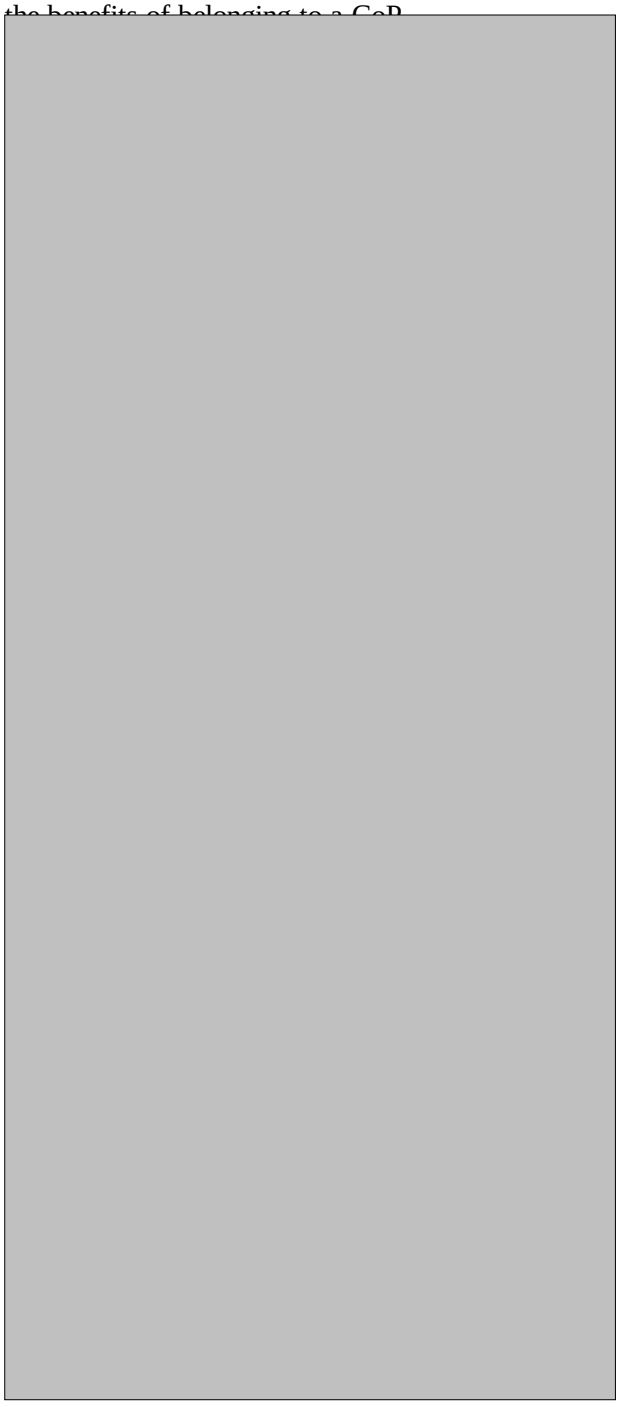


Table 2: Purposes and Value of Communities of Practice

The literature shows that communities of practice provide value for the organisation in which

they operate, the community and the individuals that are part of them (Fontaine and Millen, 2004). The researchers wanted to discover the value of these communities to the two universities under study, the respondents and the communities they belonged to. In order to identify these values, respondents were asked if they had benefited from belonging to a CoP.

Although the results given in Table 2 do not seem to be positive, it is evident that among other things the respondents gained new knowledge and skills by belonging to CoPs. The literature has also demonstrated that belonging to a CoP is beneficial. Fontaine and Millen (2004) conducted a study of 10 global organisations in 2001 and 2002 and discovered that individuals gained from participating in CoPs as they helped them to perform the organisational tasks more easily, and individuals were useful to the communities they belonged to.

The study also wanted to find out if these CoPs were work-related. Respondents were asked about the issues they discussed in their CoPs. Most respondents at UKZN 36 (69.2%) and Unizul 29 (76.3%) indicated that they discussed issues relating to how to conduct research and how to improve research outputs. This confirms that although they only indicated the individual's benefits, the institutions were also benefiting from their involvement in CoPs. For instance, if research outputs were increased the institution would gain recognition and financial support from the Department of Education. The results confirmed that the CoPs were a source of competitive advantage and a source of learning at the two institutions because academics shared knowledge around work-related issues or a specific practice (Brown and Duguid, 2000; Teigland and Wasko, 2006).

Institutional Promotion of Communities of Practice

Management needs to understand CoPs and foster their development. According to Wenger and Snyder (2000), "Although Communities of Practice are fundamentally informal and self-organising, they benefit from cultivation." CoPs need to be cultivated rather than to be controlled (Newell *et al*., 2002). Management facilitation is, "the first factor of a viable CoP" (Frost and Schoen, 2004). The majority of the respondents at UKZN 50 (96.2%) and Unizul 37 (97.4%) thought that CoPs need to be cultivated and promoted. Management should facilitate CoPs' activities without creating formal management structures to support them. The first step is for management to determine the communities that need to be developed and sustained. The CoPs that add value to the activities of an organisation should receive the first priority. Activities such as workshops, conferences and a shared space in the virtual platform may facilitate the cultivation and sustainability of CoPs. The results on ways that the respondents thought needed to be adopted by their institutions in order to cultivate and support CoPs are summarised in Table 3.

Table 3: Ways of Cultivating and Supporting Communities of Practice

The respondents were requested to suggest ways that they thought the institutions could foster CoPs and encourage learning and sharing of knowledge. Most respondents at Unizul felt that CoPs could be fostered if the institution designed a policy on CoPs. At UKZN, most respondents indicated that the work that CoPs were doing needs to be valued by the organisation. Not a single respondent at UKZN indicated that the institution needed to design a policy on CoPs, although it seems that the absence of policy for CoPs partly explained why the work of CoPs was not highly regarded at the institution.

Most participants claimed that they were involved in CoPs, and that their CoPs met face-to-face and used e-mails and the Internet to

communicate. However, they indicated that there were no platforms for knowledge sharing in their institutions, as they were only supported by their departments. The results also showed that some participants were reluctant to share knowledge because of the organisational culture. They stated that the organisational culture encouraged individualism, as people were rewarded individually.

Conclusions and Recommendations

The survey of academic staff in the humanities at UKZN and Unizul, the focus group discussions and the interviews with the DVC at UKZN resulted in several significant findings. Some respondents at the two institutions had an understanding of CoPs. Some respondents at both institutions indicated that they gained new knowledge and new skills by belonging to communities of practice. The literature reveals that newly gained skills can assist individuals to do their work with ease in the organisations and communities.

Almost all respondents at UKZN 50 (96.2%) and Unizul 37 (97.4%) felt that communities of practice need to be cultivated and promoted. Focus group discussions at Unizul revealed that communities of practice may be fostered if the institution designed a policy. At UKZN 15 (28.8%) indicated that the work that communities of practice were doing needed to be valued by the organization. Further, heavy workloads, family responsibilities, lack of support from the institution and time constraints limited the participation of academics in CoPs at the two institutions. Both institutions should support communities of practice by recognising the work they are doing, giving members the time to participate in activities and by creating an environment in which the value communities bring is acknowledged. Limited resources and organisational support and workload pressure were also identified by Garnett and Pelser (2007) as organisational barriers to creativity in South African institutions of higher education. The study found that neither UKZN nor Unizul had a policy on communities of practice; that academics were not rewarded for belonging to communities of practice; and that most CoPs existed at discipline level. Thus, one of the major constraints that inhibited academics from participating in CoPs was that both universities did not encourage knowledge sharing and collaboration.

The findings of this study support the following recommendations. Both universities need to cultivate and support CoPs in order to enhance their institutional productivity and competitive edge. Both institutions should draft a policy on communities of practice. Such policy should aim to provide incentives for participation in communities of practice by academics, and recognise and reward such participation in performance evaluation. Academics should also be encouraged to form inter-disciplinary CoPs. Finally, there is need for strategies to transform university institutions, culture and policies in the two universities, in order to encourage knowledge-sharing amongst academics in the country. Other HEIs in South Africa and elsewhere should take a cue from the findings and recommendations of this study and promote CoPs to enhance their institutional performance and innovation.

During this study, certain areas were identified that can provide opportunities for further research. Firstly, the emergence of communities of practice and knowledge sharing in higher education institutions (HEIs) is a relatively recent development, which is expected to evolve quickly over time. Due to this, and also because of the low response rate experienced in this study, it is suggested that a follow-up study be done at either or both universities after a few years. Secondly, other faculties or institutions than those covered by this study may have different perspectives and experiences on communities of practice. It is suggested, therefore, that similar studies should be considered for other faculties in the surveyed universities, or in other HEIs in the country. Thirdly, studies of the nature and effectiveness of inter-disciplinary or technology-based CoPs may also be useful.

Acknowledgements

This study was made possible by the generous funding

of the National Research Foundation (NRF) of South Africa.

References

Abrahams, L. C. and Melody, W. H. (2004) South African Higher Education in the Knowledge Economy: Visions and Vignettes Towards the Future. http://www.triplehelix5.com/pdf/A309_THC51pdf (accessed 19 March 2006).

Aina, L. O. (2002) Introduction to Research. In: Aina, L. O. (ed.), *Research in Information Sciences: An African Perspective*. Ibadan: Stirling-Horden Publishers, pp. 1-31.

Allee, V. (2000) Knowledge Networks and Communities of Practice. *Journal of the Organisation Development Network* 32(4). http://www.odenetwork.org/odponline/vol132n4/knowledgenets.html (Accessed 13 September 2005).

Babbie, E. and Mouton, J. (2001) *The Practice of Social Research.* Cape Town: Oxford University Press.

Blackler, F. (1995) Knowledge, Knowledge Work and Organisations: An Overview and Interpretation. *Organisational Studies,* 16(6) 1021-1046.

Botes, A. (2003) Validity, Reliability and Trustworthiness: To Sum Up. In: Rossouw, D. (ed). *Intellectual Tools: Skills for the Human Sciences*. 2nd ed. Pretoria: Van Schaik, pp. 176-184.

Brennam, J. and Shah, T. (2000) Quality Assessment and Institutional Change: Experience from 14 Countries. *Higher Education,* 40 331-349.

Brown, J. S. and P. Duguid. (2000) *The Social Life of Information*. Boston: Harvard Business School Press.

Cape Peninsula University of Technology. (2006) Shuttleworth Foundation Funds Critical Research and Development Project. http://info.cput.ac.za/News.Php?aid=132 (accessed 14 May 2006).

Chua, A. (2002) Book review. *Cultivating Communities of Practice,* E. Wenger, R. McDermott and W Synder, Harvard Business School Press, Boston, 2002. *Journal of Knowledge Management Practice,* 3 4-7.

Denning, S. (2000) *The Springboard: How Storytelling Ignites Action in Knowledge-Era Organizations*. Boston: Butterworth-Heinemann.

Fontaine, M. A. and Millen, D.R. (2004) Understanding the Benefits and Impact of Communities of Practice. In: P.M Hildreth and C. Kimble. (eds.) *Knowledge Networks: Innovation through Communities of Practice.* Hershey: Ideal Group Publishing, pp. 1-13.

Frost, B. and Schoen, S. (2004) Viable Communities within Organisational Contexts: Creating and Sustaining Viability in Communities of Practice at Siemens AG. In: P.M Hildreth and C. Kimble. (eds.) *Knowledge Networks: Innovation through Communities of Practice.* Hershey: Ideal Group Publishing, pp. 133-141.

Garnett, A. and Pelser, T. (2007) Organisational Barriers to Creativity in South African Higher Education Institutions. *South African Journal of Higher Education* 21(1) 50-67.

Guruz, K. (2003) Higher Education in the Global Knowledge Economy. Paper presented at Brighton Conference on Higher Education, 7 July, 2003.

Hernon, P. and Schwartz, C. (2002) Editorial: The Word "Research": Having to Live with a Misunderstanding. *Library and Information Science Research* 24 (3) 207–208.

Hildreth, P. M., C. Kimble and P. Wright. (1998) Computer Mediated Communications and International Communities of Practice. In *Computer Mediated Communications and Communities of Practice. Proceedings of Ethicomp'98, March 1998*, 275-286. Erasmus University: The Netherlands.

Hildreth, P. M., Kimble, C. and Wright, P. (2000) Communities of Practice in the Distributed International Environment. *Journal of Knowledge Management* 4(1) 27-38.

Hildreth, P. M. and Kimble, C. (2004) Preface. In: P.M Hildreth and C. Kimble. (eds.) *Knowledge Networks: Innovation through Communities of Practice.* Hershey: Ideal Group Publishing, pp. viii-xxi.

Hislop, D. (2005) *Knowledge Management in*

Organisations. Oxford: Oxford University Press.

Illinois State University. (2005) Organizing to Foster the Scholarship of Teaching and Learning: Cluster Scholars. http://wwwcfkeep.org/upload/clustertravelgrant_second_call.doc (Accessed 20 March 2006).

Katz, S. (2007) Can Humanities Scholars Collaborate? *The Chronicle of Higher Education: The Chronicle Review*. http://chronicle.com/review/brainstorm/katz/can-humanities-scholars-collaborate (Accessed 18 June 2006).

Kelly, K. (1999) Calling it a Day: Reaching Conclusions in Qualitative Research. In: M. Terre Blanche and K. Durrheim. (eds.) *Research in Practice: Applied Methods for the Social Sciences*. Cape Town: University of Cape Town Press, pp. 421-437.

King, K. (2002) Knowledge Management in Concrete Form: Dealing with Knowledge in Institutions. 23rd International Course on Vocational Education and Teaching in Agriculture. http://www.ciea.ch/documents/sO2_kng.pdf (accessed 2 April 2006).

Krueger, R.A. (1994) *Focus Groups: A Practical Guide for Applied Research*. 2nd ed. Thousand Oaks: Sage.

Lave, J. and Wenger, E. (1991) *Situated Learning: Legitimate Peripheral Participation*. Cambridge: Cambridge University Press.

Lee, L. L. and Neff, M. (2004) How Information Technologies can Help Build and Sustain an Organisation's COP: Spanning the Socio-Technical Divide? In: P.M Hildreth and C. Kimble. (eds.) *Knowledge Networks: Innovation through Communities of Practice*. Hershey: Ideal Group Publishing, pp. 165-183.

Leedy, P. D. and Ormrod, J.E. (2005) *Practical Research: Planning and Design*. 8th ed. New Jersey: Pearson Education International.

Lesser, E. L. and Storck, J. (2001) Communities of Practice and Organisational Performance. *IBM Systems Journal*, 40(4) 831-841.

Maponya, P. M. (2005) Fostering The Culture of Knowledge Sharing in Higher Education. *South African Journal of Higher Education*, 19(5) 900-911.

Maponya, P.M. (2006) Personal communication.

Mosia, L. N. and Ngulube, P. (2005) Managing the Collective Intelligence of Local Communities for the Sustainable Utilization of Estuaries in the Eastern Cape, South Africa. *South African Journal of Library and Information Science*, 71(2) 175-186.

New Encyclopaedia Britannica. (2005) *The New Encyclopaedia Britannica*. Chicago: Encyclopedia Britannica.

Newell, S., Robertson, M., Scarbrough, H. and Swan, J. (2002) *Managing knowledge work*. Basingstoke, Hampshire: Palgrave.

Ngulube, P. (2005) Research Procedures Used by Master of Information Studies Students at the University of Natal in Period 1982 to 2002 with Special Reference to their Sampling Techniques and Survey Response Rates: A Methodological Discourse. *International Information and Library Review* 37(2) 127-143.

O'Hara, K., Alani, H. and Shadbolt, N. (2002) Identifying Communities of Practice: Analysing Ontologies as Networks to Support Community Recognition. http://citeseer.ist.psu.edu/context/2061750/0 (Accessed 18 June 2006).

Payne, G. and Payne, J. (2004) *Key Concepts in Social Research*. London: Sage Publications.

Rieder, B. (n.d.) An Experimental Collaboration Tool for the Humanities: The *Procspace* System. http://procspace.net/berno/files/rieder_coop.pdf (Accessed 18 June 2006).

Rockhurst University. (2005). Mentoring Newer Scholars of Teaching and Learning. http://www.ckeep.org/html/shopshot.php?id=52928921 (accessed 20 March 2006).

Sallis, E. and Jones, G. (2002) *Knowledge Management in Education: Enhancing Learning and Education*. London: Kogan Page.

Shipman, M. (1979) *The Limitations of Social Research*. 4th ed. London: Longman.

Smith, H. A. and McKeen, J.D. (2003) Creating and Facilitating Communities of Practice. In: C. W. Holsapple. (ed.). *Handbook on Knowledge Management 1: Knowledge Matters*. Berlin: Springer, pp. 393-407.

Storck, J. and Hil, P.A. (2000) Knowledge Diffusion

through "Strategic Communities". *Sloan Management Review* 41(2) 63–74.

Teigland, R. and Wasko, M. M. (2006) Electronic Networks Of Practice And Communities Of Practice. In: S. Dasgupta. (ed.). *Encyclopedia of Virtual Communities and Technologies*, Hershey: Ideal Group Publishing, pp. 188-192.

Tight, M. (2004) Research into Higher Education: An A-Theoretical Community of Practice? *Higher Education Research and Development* 23(4) 395-411.

UNESCO. (2004) Higher Education in a Globalized Society. UNESCO Education Position Paper. http://unesdoc.unesco.org/images/0013/001362/136247e.pdf (Accessed 2 February 2006).

University Continuing Education Association. (2006) Communities of Practice. http://www.ucea.edu/pages/cophome.html (accessed 18 June 2006).

Van Wyk, B. J. (2005) Communities of Practice: An Essential Element in the Knowledge Management Practices of an Academic Library. PhD. Dissertation. Pretoria: University of Pretoria.

Webb, S. (1998) *Knowledge Management: Linchpin of Change-Some Practical Guidelines*. London: Aslib.

Welsh Higher Education and Economic Development Task and Finishing Group. (2004) Knowledge Economy Nexus: Role of Higher Education in Welsh. Available: http://www.welsh.gov.uk/subtradeindustry/content/know-econ-nexus-e.pdf. (Accessed 19 March 2006).

Wenger, E. (1998a) Communities of Practice Learning as Social Systems. http://www.co-i-l.com/coil/knowledge-garden/cop/1ss.shtml (accessed 3 September 2005).

Wenger, E. (1998b) *Communities of Practice: Learning, Meaning, and Identity.* Cambridge: Cambridge University Press.

Wenger, E and Snyder, W.M. (2000) Communities of Practice: The Organizational Frontier. *Harvard Business Review* 78(1) 139-145.

Wenger, E., McDermott, R. and Snyder, M.W. (2002) *Cultivating communities of practice: a guide to managing knowledge.* Boston, Mass.: Harvard Business School Press.

* **Prof. Patrick Ngulube** is Professor in the Department of Information Science at the University of South Africa. He holds a PhD (Information Studies) from the University of Natal and MScISc from the Addis Ababa University. He is the Editor-in-Chief of the *South African Journal of Libraries and Information Scien* and Editor of the *ESARBICA Journal.*

His research interests are in knowledge management, indigenous knowledge systems, records management and preservation of information resources.

* **Miss Bongekile Pretty Mngadi** is a Metadata Librarian ı-Natal, South Afı egree in Informati sity of KwaZulu- s are in knowledg ards and digitizatio