Chapter 9: DISCUSSION OF THE RESULTS

Discussion of the results obtained in this research are presented by hypothesis or proposition, with each hypothesis or proposition being re-stated at the beginning of the relevant section. However, as a starting point, the interdependencies between the investigated entities as they have emerged from this study are presented in Figure 9.1.
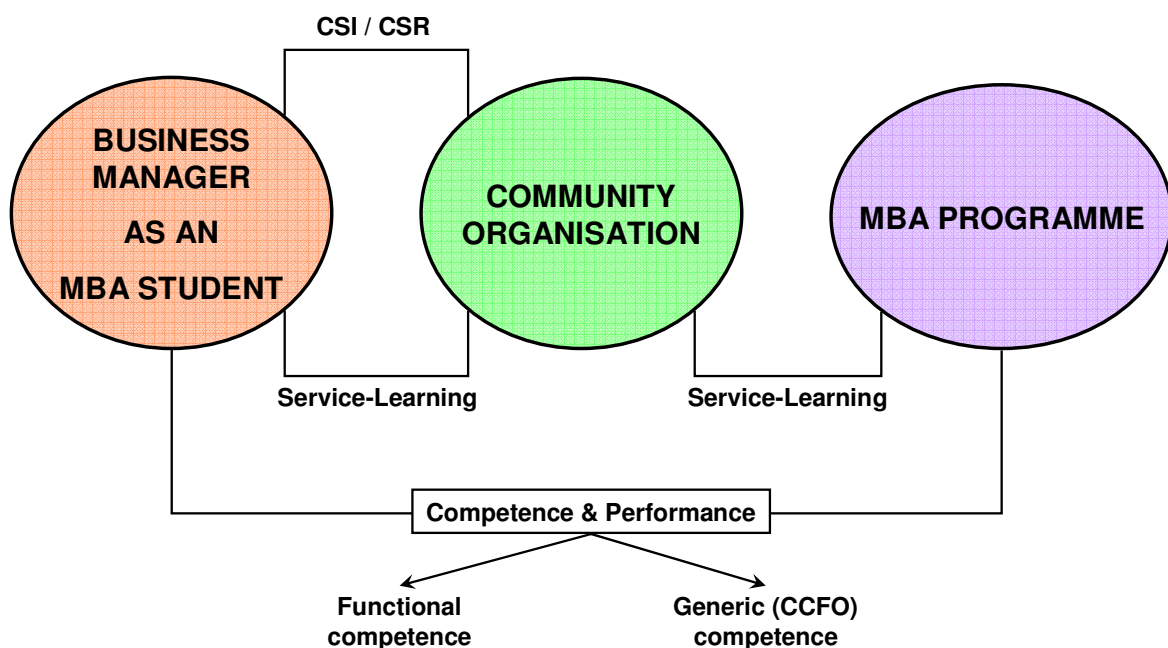

Figure 9.1   The interdependencies between the business manager as an MBA student, the community organisation and the MBA programme as an outcome of this study.

Figure 9.1 maintains the key elements of the research as identified through the literature. However, the results suggest that a slightly different configuration may better illustrate the relationships and potential future benefits resulting from the study. The MBA students as managers are still involved in projects with community organisations through participating in Service-Learning courses in their MBA programmes. As a

result of the workplace learning experienced, they build greater management competence, which in turn can lead to better workplace performance, as described in Carmichael and Sutherland (2005).

The competence that they acquire is both functional and generic, as demonstrated by the results obtained in the study, and the literature strongly suggests that the key skills required to be an effective manager relate more to the generic skills, as represented by the CCFOs than to functional skills.

Furthermore, since the students reported a high level of personal growth an appreciation of the work of community organisations, as well as sensitivity to the poverty affecting the majority of South Africans, it is possible that many of them will initiate and / or sustain CSR and CSI projects within their organisations. Should they do so, they will be contributing further to growth and development in South Africa.

The results relating to each hypothesis and proposition are discussed in the following pages, with the representation of Figure 9.1 in mind.

9.1   Hypothesis 1.1 The importance of the CCFOs to the business sector

H_0: **There are no significant differences between the relative importances of SAQA's CCFOs to players in the business sector;**

H_A: **There are significant differences between the perceived relative importances of SAQA's CCFOs to players in the business sector.**

As already published from data gathered earlier in this research, the CCFOs were all found to be important to the career capital of MBA students and that they have different perceived relative importances in the business world (Carmichael and Sutherland 2005; Carmichael and Stacey 2006). The expanded and re-analysed dataset of 142 respondents, (including delegates from Senior Executive Programmes over a number of years, again all practicing managers), confirmed the initial findings, with only one minor change in the sequence of importances, that being systems thinking being marginally more important than communication, whereas in the initial study, the

sequence was reversed. Other than that, the sequence of importances was the same as found previously.

Interestingly, the meta-inquiry sequence of importances of the seven assessable CCFOs was quite different, with the exception of the most important and least important CCFOs, to that of the management sample of 142 respondents. These differences may reflect a shift in priorities as one moves up the corporate ladder, since the meta-inquiry sample consisted only of top level executives, and although the sample was too small to draw any definitive conclusions, these differences may be worth exploring in further research efforts. The differences are illustrated in Table 9.1.

Table 9.1   Differing perceptions of the relative importances of the assessable CCFOs between the meta-inquiry sample and the research sample

Critical Cross-Field Outcome	Meta-inquiry position of importance (n=10)	Management sample position of importance (n=142)
Solving problems	1	1
Working with others	2	3
Communicating	3	5
Managing oneself	4	6
Managing information	5	2
Systems thinking	6	4
Using technology	7	7

The purpose of the meta-inquiry was to confirm, with a group of top level business executives, that the CCFOs were important business competencies. Although practicing and / or experienced managers had participated in the previous studies, the opinion of the top level leaders was sought to add validity to the findings. Their comments regarding the inclusion of outcomes relating to the five educational aim CCFOs should be investigated in further research. As one of the executives pointed out, "If a university is going to create an environment that encourages entrepreneurial thinking, then students should acquire and be able to show entrepreneurship skills on completion of their MBA".

The assessable CCFOs are listed in the review of the literature, Table 2.1 and the entire list of CCFOs as legislated are represented in Appendix 10.

The other recommendation emerging from the meta-inquiry was that a further addition be made to the list, viz. "making decisions based on sound, fact-based reasoning". For clarity, the first CCFO is stated as "identifying and solving problems in which responses display that responsible decisions using critical and creative thinking have been made" (Isaacs 2000:41).

The reason for the split was that the group felt that decision-making should be separated from critical thinking because the two were of such great importance separately, that combining them diluted this fact. Also, having them together implied that one necessarily lead to the other, which they considered to be a faulty assumption.

This view, however, does not have a strong historical foothold; in the early Porter and McKibbin study (1988) faculty respondents felt that "decision making" should receive 76% of the attention in an MBA programme (against an existing 32%). However, "problem solving" was not mentioned in this study, so the two concepts may have been considered interchangeable, although this is not stated. Boyatzis *et al* (1995) focused on the need for pragmatism and interpersonal skills, and Mintzberg (2004a) concentrates on interpersonal skills in many and varied forms. "Decision making" also does not appear often in the list provided in Table 2.1.

The findings here confirmed that the perceived differences in the importances of the CCFOs reached statistical significance (alpha = 0.05) in at least one comparison for each CCFO. It is clear that the students' desired outcomes from MBA study (n=54), as reported in Carmichael (2005), encompass or can be related to a number of the CCFOs – including the educational aim CCFOs such as developing cultural awareness, as illustrated in Figure 2.11.

The fact that "use technology" has consistently ranked the lowest of the CCFOs could be a result of the commonplace use of, especially in the case of managers, computers in their day to day work, and it is likely that managers feel that they are sufficiently competent with this technology. However, analysis of student assignments, where computer skills (as the CCFO "use technology") were judged by the researcher, indicated that errors were common, and that self-reported expertise was often not

supported by demonstrated expertise. These findings are reported in the discussions on Proposition 3.2 and to a minor extent in Proposition 3.4. The development of the competency of "use technology" was significantly the lowest (alpha=0.05) in terms of development in all aspects of the study. Tables 5.4, 5.5 and 5.6 illustrate.

In the context of development and economic viability on the African continent in general, the consistently low rating accorded to this particular competency is alarming, particularly as it does not contradict previous findings (Luiz 2006 in Luiz (ed) 2006. In this latter publication, Luiz cites examples from different sources indicating that as much as three quarters of the growth seen in industrialised economies can be attributed to technological innovations and usage, that in developing countries other than those in Africa, the contribution of technology to economic growth is only 14%, and in Africa was found to be 0%. He emphasises his point by stating that:

> This may well be the most telling reality of Africa's marginalisation as it finds itself increasingly unable to participate in this technology-driven economy and with future prospects looking grim. If technology does indeed hold the key to future growth, then it can either be an instrument of greater prosperity or greater inequality and how countries prepare for this will determine the outcome.

Luiz (2006 in Luiz (ed) 2006)

South Africa desires participation in the global economy, and need to develop the skills to compete at this level (Pityana 1999), highlighting the importance of the skills development legislation. Mintzberg (2006) has examined the implementation of skills development programmes in developing countries and questions whether western management and leadership practices are effective in these contexts. He considers that development endeavours would be more effective if they begin within the countries' borders, taking into account local situations, economic forces and social structures, and growing from there, to encompass relevant global practices. The fact that South Africa's skills development legislation was adapted from international models and imposed legislatively onto the business and educational sectors may have some relevance in its slow and ineffective implementation, having been beset by difficulties and obstacles (SAQA 2005).

Returning to the CCFOs; another point of interest is the high ranking achieved by "information management" – another strong emphasis from Mintzberg (2004a), against the low and statistically significantly different (alpha=0.05) ranking of "use technology" as can be seen in Figure 5.2 and Table 5.3. It appears that there is a perceptual gap in the use of computer technology to manage information, and that this may be something to be developed further in MBA study, since the management of information is seen by all stakeholders to be of high importance. Furthermore, computer technology is central to all management functions (Boyatzis *et al* 1995), particularly the control and governance functions (King 2002). Governance and ethics are also areas requiring much attention in Africa (Luiz 2006) and parallel development of these skills could lower barriers to international investment in African countries, including South Africa.

As stated in Chapter two, knowledge management and information technology underpin business strategy development (King 2002), competencies today's knowledge economy cannot do without (Nordstrom and Ridderstrale 2002). A great deal of communication, including the transfer of learning, takes place via the medium of e-mail and the Internet, especially in geographically dispersed and global organisations.

The importance and business applications of the assessable CCFOs have already been published (Carmichael and Sutherland 2005; Carmichael and Stacey 2006) and the findings from the expanded dataset do not contradict these data and discussion points.

MBA students in South Africa are experienced and / or practicing managers, a factor of great importance to significant writers on management education such as Mintzberg and colleagues (2004a, 2004b, 2004c, 2004d, Gosling and Mintzberg 2004), on the basis that managers can only truly develop in the workplace, not in the classroom.

Thus, of concern in the light of these confirmed findings, is the lack of evidence that the CCFOs are being consciously integrated into MBA curricula, despite the legislated requirement that they should be (RSA 1995; Isaacs 2000), coupled with their high face validity. Common sense alone should dictate that they be embedded within practiced pedagogies.

9.2   Hypothesis 1.2 the relationship between CCFO development through Service-Learning and their importance in the business sector

H$_0$: There is no positive correlation between the perceived development of SAQA'S CCFOs through Service-Learning and the perceived requirements of players in the business sector for the CCFOs

H$_A$: There is a positive correlation between the perceived development of SAQA'S CCFOs through Service-Learning and the perceived requirements of players in the business sector for the CCFOs

As already published in Carmichael and Sutherland (2005) as well as in Carmichael and Stacey (2006), MBA students did perceive that the CCFOs were developed during their MBA studies, and that there was found to be a positive correlation between the perceived importance of a particular CCFO and the extent to which it was perceived to be developed. The expanded dataset (n=142) re-analysed at a later stage in the research and presented in Chapter 5 confirmed this relationship, as well as the fact that solving problems was perceived to be the most important CCFO, and using technology perceived to be the least important.

However, it should be borne in mind that the same respondents completed both the importance and the development sections of the questionnaire, giving rising to the possibility that either of the variables could have been independent and either dependent. Thus, it is possible that the perception of greater development was influenced by faculty, in that they only taught what they, the faculty, perceived as important and it is also possible that selective learning took place and students only learned what they, the students, considered important.

The essence of Hypothesis 2 was to establish whether Service-Learning practitioners perceived that the CCFOs were developed during the Service-Learning courses that they taught, since it had already been established (Carmichael and Sutherland 2005) that they were developed through other pedagogies applied at WBS. Since it has been legislated that all CCFOs be embedded in all South African qualifications (Isaacs 2000), it was important to establish the link, even if tenuous, in this exploratory study.

It must be remembered that none of the Service-Learning respondents taught MBA classes, since no practitioners other than the researcher and one colleague existed in South Africa, that most of them taught in the areas of medicine and education and that most classes taught were undergraduate. However, despite these uncontrolled confounding variables, coupled with the small sample size, there was found to be a positive correlation (albeit weaker than that for business school students, see Figure 5.4) between the CCFOs desired in the business sector and the CCFO outcomes achieved from Service-Learning courses.

By adding a column showing the Service-Learning practitioners' perceived CCFO development findings to Table 8.1, seen in Table 8.2, it can be observed that they are closer to the perceived requirements of the 10 top level executives in the meta-study than to the perceived requirements of the management students sample. Although the numbers are too small to draw any conclusions, the similarity of the sequence may be worth investigating further, and establishing through quantitative research what top South African executives expect from MBA graduates and how they perceive the absolute and relative importances of the CCFOs.

It is also hoped that other business schools in South Africa will introduce Service-Learning into their MBA curricula and add to this existing database both to benefit their local economies and build up a substantial database from which to extract statistically significant findings.

Table 9.2 Table 9.1 with the Service-Learning practitioners' perceived level of development of the assessable CCFOs added in the right hand column

Critical Cross-Field Outcome	Meta-inquiry position of importance (n=10)	Management sample position of importance (n=142)	Service-Learning practitioner sample level of development (n=32)
Solving problems	1	1	2
Working with others	2	3	1
Communicating	3	5	4
Managing oneself	4	6	3
Managing information	5	2	5
Systems thinking	6	4	6
Using technology	7	7	7

Triangulating data for the development of the CCFOs during an MBA course can be drawn from the analysis of student assignments as well as the findings from the CHESP questionnaire presented in Chapters 7 and 6 respectively. The findings from Chapter 6 are presented after those from Chapter 7 here as the former give a holistic view of the students self-assed benefit to the community organisations (and indirectly the communities) that they worked in, whereas the latter relate specifically to CCFO development.

The student assignment analysis reflected the Bloom (1956) level of cognitive outcome for each CCFO, and is an indication of what actually happened during two MBA Service-Learning courses (data aggregated). Figure 7.3 illustrates the percentage of assignments where the Bloom level achieved was four or greater by CCFO. Here, the sequence of development frequency was:

1. Work with others
2. Solve problems
3. Systems thinking
4. Communication
5. Self management
6. Information management
7. Use technology

The students' self reported benefits to their recipient community organisations were significantly (alpha=0.01) positive in terms of the following statements:

- I learnt from the community in which I worked
- The service provider [community organisation] benefited from the work I did
- The community benefited from the work I did

The highly significant findings (the stringent alpha of 0.01 is seldom used in social research) here suggest that the student groups found ways to work together for the benefit of others, as indicated by their statements in Tables 7.36 and 7.40, such as "development of real teamwork ability and getting the best from others in the syndicate" and "this is the first time that we *really* worked together as a team [in our syndicates], even though we screamed at each other a lot in the beginning".

This last statement is a particularly telling one, both in terms of development of the CCFO "work with others", which was developed to the greatest extent from the

students' perspective, as well as possibly providing an alternative methodology to the syndicate development process utilised at WBS (and possibly other business schools) to build team-working ability.

Proof for "*really* worked together as a team" is highlighted in the balance of the quote, in "even though we screamed at each other a lot in the beginning". This suggests a description of the "storming" phase of the team development model described by Sidler and Lifton (1999:17), which describes the five sequential stages as forming, storming, norming, performing then supporting. These authors indicate the importance of work teams going through all of these phases in order to be effective and reach the maintenance phase in which the group self manages and can become highly productive.

Failure to allow groups to evolve through the phases results in individuals not being aware of each others' strengths and capabilities, not addressing and overcoming conflict, insufficient establishment of their rules of engagement, poor clarification of their roles, objectives and activities, poor decision-making and consensus-reaching processes and / or synergistic working relationships, depending on which stage the group reaches.

Sidler and Lifton (1999) imply that teams reaching and maintaining the supporting stage will achieve effective communication, information management and problem-solving skills, thereby acquiring competence in at least three more of the CCFOs. Therefore, although the priorities of CCFO development have been different between students, Service-Learning practitioners and business executives, this may not be of great importance, if CCFO developments are linked to one another.

However, what may be more important is that, if Service-Learning results in such strong group working abilities, it may benefit business schools, students and the business sector (as employers of MBA graduates) to introduce the pedagogy early in the curriculum, so that other CCFOs may be systematically developed throughout the programme.

An important observation by de Vita (2001) regarding the effectiveness of group work in business management classes is that of the relevance and the nature of the task to be undertaken. He points out that written reports or other paper-based group assignments fail because writing is fundamentally an individual, not a group activity. Students' usual

course of action is simply to divide the writing task into parts and each member completes their part, which is then combined (but seldom integrated) into a final document for submission. It becomes patently clear that neither group formation nor group work (nor therefore group learning) actually takes place in such situations. This may have implications for group work based activities in a range of other educational contexts.

However, if group work tasks are structured around broad participation involving discussions and debate around planning, structural, strategic and operational issues relating to the project, then "the process of professional development . . . in which practitioners learn using theoretical and practice-based resources reflexively and critically facilitates the development of cohesive groups and higher order cognitive skills" (de Vita 2001:26 and 28).

Taking this approach also makes it more difficult for individual members to participate less than their fair share. Over time, other authors (Raskoff 1997; Rama 2000; Papamarcos 2005) have emphasised the importance of this issue in the construction of Service-Learning projects.

Although the Service-Learning practitioner sample was relatively small, they did report that the CCFOs were developed during Service-Learning courses. This was supported by the analysis of student assignments (Figures 7.2 and 7.3 and Tables 7.3 to 7.9), particularly as it was demonstrated that there was a strong positive correlation between the depth of reflection and the extent of learning as measured by Bloom's taxonomy of cognitive outcomes (Tables 7.29 to 7.31 and Appendix 11).

The literature (listed and referenced as per Table 2.3) has also indicated strong development of CCFO types of competencies from management and MBA Service-Learning courses. These include leadership, teamwork, social awareness and social responsibility, dealing with complexity, uncertainty and problems, making decisions, critical, creative and strategic thinking, how to leverage technology, communication, interpersonal skills and conflict management, building awareness and management of cultural diversity, better academic or subject matter learning, corporate citizenship, developing a deeper sense of ethical issues and their own values, how to integrate

theory with action, a stronger will to take action, and developing a sense of the importance of lifelong learning.

Since these competencies have been shown to be developed in management students at both undergraduate and postgraduate level, in a variety of degree types, including some MBA programmes, it would not be unreasonable to anticipate that these same competencies could be developed in South African MBA students should Service-Learning be widely implemented in local business schools. Should this take place, MBA graduates could become better managers with a strongly developed sense of civic responsibility (Kenworthy U'Ren 2003), able and willing to participate in building local economies towards meeting national development objectives, and having participated in higher educational transformation initiatives.

9.3 Proposition 2.1 The scope of "community organisations"

The scope of "community organisations" relevant to the South African context extends beyond the non-profit sector

The overriding perspective emerging from the comments is that the term "community organisation" in South Africa needs to be loosely, flexibly and contextually interpreted.

Based on both the analyses of Service-Learning practitioners' comments and the choices of organisations to work with made by students the basis for selection of community organisations for Service-Learning interventions should primarily be values based rather than status based; if a need exists and intervention will be of value to the organisation in assisting it to alleviate poverty or stimulate economic participation, then it should be considered for selection.

A strong emergent theme was the leaning towards community benefit, rather than legal status of not-for-profit, and this applied both locally and internationally, a demonstrated in Tables 6.1, 6.2 and 6.3 for Service-Learning practitioners' input and Table 6.4 for students' input.

In South Africa, this could create opportunities for greater economic impact, since it would allow the inclusion of SMMEs and BEE organisations, the former constituting a

high percentage of both the formal and the informal sectors of the economy (DTI 2005), and the latter because it would support government strategy for the emancipation of previously disadvantaged groups and individuals within the national population.

Statistics South Africa (STATSSA) (2005) and Benton (2005) have estimated that there are approximately 1,7 million non-VAT registered business in South Africa and that the SMME (STATSSA 2005: xxx) sector is of "critical importance to South Africa's ability to address the serious problem of unemployment".

In a more recent survey of the labour market (STATSSA 2006: xix), it was reported that "discouraged work seekers are an important element of the labour market in South Africa". People in this category are those unemployed individuals who have not taken steps to find employment – in South Africa there were 3.2 million such individuals in September 2006. It may be that introducing Service-Learning into MBA studies would provide a pool of talent who could, through supporting community organisations, re-energise this sizeable pool of non-economically active individuals.

9.4 Proposition 2.2: The business needs of community organisations

The business needs of community organisations include skills development, expert support and basic management functions

The research findings supported the proposed profile of business needs of community organisations. Data were obtained from NPOs specifically through direct questioning of the selected sample, and also from a more general profile of community organisations, represented by students' selections of organisations in which to work, from students completion of certain parts of the CHESP Questionnaire (Appendix 7) the results of which are presented in Tables 6.10 to 6.13, and indirectly through feedback submitted from the community organisations in which the students worked, regarding the business related appropriateness and usefulness of their interventions. Most, but not all of the student interventions were in registered NPOs.

Of the NPOs specifically questioned, 26 of the 32 (81%) had 50 or fewer employees, and just under half of these had 10 or fewer employees, which would classify them as

SMME organisations, which make up much of the South African economy (DTI 2006b; STATSSA 2005). The implication of having very few employees in a particular organisation is that individuals often play several roles and thus need a range of skills with which to manage that organisation, particularly with increasing legislative requirements (RSA 1997b, 2000c) for accountability reporting – both financial and project related.

Although most funding (Figure 6.1) for these organisations came from donations, gifts, government subsidy and CSR (48%), implying that the management expertise required would centre mainly around resource allocation, project management and reporting, 25 (78%) of the NPOs generated at least part of their income from the sale of goods and / or services and fundraising events, both of which would be expected to require additional organisational and other skills specific to their fundraising activities.

Although one cannot draw firm conclusions about business skills required in NPOs from the NPO study, since only 19 of the 34 organisations who participated completed this section, the findings suggest that Proposition 2.2 may have some validity, although clearly this would need to be confirmed through further research. However, support for the specific management requirements of NPOs comes from Drucker (1990) in his classification of these organisations' primary needs being related to leadership, managing performance and managing people and relationships, all of which were identified by the respondents in this study.

Table 6.6 lists the frequency of mention of the self-reported skills required by NPOs, as well as the frequency of mention of skills needing development. The most common required skill was identified as "people skills and communication" (also one of the CCFOs, and the one reported to be the most frequently developed by students on the Service-Learning courses conducted). However, the skill appeared to be in place in most of the NPOs as it was mentioned by only three NPOs as needing to be developed.

The major skills shortfalls highlighted in Table 6.6 are indeed those relating to general management, a variety of human resource management issues such as performance management, change management and conflict resolution and accounting and financial planning and management. All these areas, as well as most of the other competencies listed are in MBA curricula, and some are specifically CCFOs, such as communication

including writing skills, creativity and use of (computer) technology. Also both strategic planning and operations management would encompass systems thinking, governance would link to good citizenship and information management would underpin virtually all of the organisational needs, as elucidated in Carmichael and Stacey (2006).

What is not clear is the reason that so few (55%) NPOs completed the section relating to skills requirements. The results indicate that lack of awareness of the NPO Act (RSA 1997b, 2000c) and its requirements is unlikely to be the reason, since 94.1% of respondents said that they were aware of the Act and 88.2% admitted to being compliant (Table 6.8). It may be that admission related bias was a factor, and in future research, would need to be controlled for.

A higher percentage of organisations (23 of the 34, or 68%) completed the section relating to how they would use consultants, should they have free access to a range of skilled individuals. The respondents were more certain and specific in their responses to this question – the answers to which (Table 6.7) can be seen to be closely aligned to the skills needed section, with a strong focus on general management and human resources requirements. This was borne out by the students' activities, as 64% of their interventions (Table 6.9) were to facilitate strategic planning and brainstorming sessions with the community organisations in which they worked.

9.5 Proposition 2.3: Service-Learning benefits to community organisations

Community organisations derive business benefits from MBA Service-Learning students

The data collected were both from the community organisations in which the students conducted their work, and from the students themselves. The ODD interventions conducted with community organisations were carried out by syndicate groups acting in the role of consultants. The maximum possible number of respondents was 26, and 25 responses were received, this in itself suggesting a positive response from these organisations. The results are presented in Tables 6.10 and 6.11. Twenty of the 25

(80%) responding organisations unequivocally affirmed that they had benefited from the students' work, and the remaining five benefited partially.

It is clear from the responses to the second question that benefits to the community organisation were not only linked to the usefulness of the advice or tools that were developed during the intervention, since 15 (60%) reported that they were able to use the advice or tools co-created, 4 (16%) were able to use them partially and 6 (24%) were referring them to the Board for approval to use them. None of the organisations reported that the advice and / or tools were not useful at all.

Although not asked directly, 18 (72%) of the community organisations felt that the time that the students were able to spend with them was too short, and that projects should either be allowed a longer period, or alternatively that follow up activities should take place. Four organisations did not comment and two felt that the students only partially understood their needs and that more time would not have been useful. Although this number is small, it does highlight the importance of proper briefing of the student groups, and follow up before the end of the project.

It also points to a potential attitudinal problem of students engaged in Service-Learning activities, in that they may feel superior to the organisations in which they work, and do not fully engage with them wanting merely to get the job done and the project completed. However this is partially offset by the fact that 15 (60%) of the organisations volunteered, that the student groups behaved in a very professional manner.

The students self-reports in Table 6.13, indicate a significant (alpha=0.01) finding that they learnt from the community and that they perceived that both the community organisation and the community benefited from the work that they carried out.

9.6   Proposition 3.1: MBA students' course content learning

MBA students' course content learning in Service-Learning courses meets educational standards

Course content learning (ie the academic requirements of the ODD course) was assessed in a number of ways. The first was through analysis of student syndicate

assignments, although the link between what they wrote and presented in class and what they actually did may have been subject to self-reporting bias.

The link between the ODD interventions, course content learning and CCFO learning may not have been made in the minds of all students. The brief to the students was to reflect on the development of the CCFOs as they undertook their ODD assignments in the community organisations of their choice (Appendix 6). Based on this, it would be expected that reference to the ODD interventions would be made in the individual reflective journal assignments, which were structured around CCFO development. In fact, only 50% of the female students and 23.6% of the male students (section 7.1.2) made explicit reference to the linkages between their academic learning and their CCFO learning.

A possible reason for this could be that the Service-Learning assignment may well have been the first time that the respondents were required to undertake a specific, structured reflective exercise in an academic setting, and they were unfamiliar with the process and requirements. Should this prove to be the case in future research, it may be a cause for concern regarding pedagogical practices in MBA education, since it suggests that the models of adult learning (Kolb et al 1971; Kirkpatrick 1979; Honey and Mumford 1992; Knowles and Holton 2000) are not being optimally applied.

However, it also suggests that there is great potential to improve teaching and learning practices in MBA degrees, overcoming some of the published shortcomings of MBA education, such as lack of practicality (Boyatzis *et al* 1995), narrow focus (Porter and McKibbin 1988; Mintzberg and Gosling 2002; Godfrey and Illes 2005) and teaching the wrong competencies (Mintzberg, 2004a).

Figure 7.1 represents the researcher's evaluation of the quality of the ODD process followed based on the students' assignments, although, as mentioned earlier, the assignments may not be a true reflection of the ODD process followed, and may only be a reflection of the writing skills of the syndicate – or even a particular syndicate member, since it is known that the typical approach to writing tasks for groups simply involves a division of labour, and not true group work.

Multiple raters of the students' work would have added validity to the assessment. However this was not carried out due to lack of resources, including other available

assessors. Student grades were not included for confidentiality reasons, and the fact that grades are normalised, limiting their criterion-based relevance.

A poor correlation has been reported between student grades and Service-Learning activities (Rama *et al* 2000), for the suggested reason that, since Service-Learning is likely to lead to higher order thinking skills (including reflexive abilities), its true impact cannot be measured using traditional assessments. The authors suggest substituting service (and presumably the almost mandatory reflection exercise and reflective journals) for examinations.

9.7 Proposition 3.2: MBA students' CCFO learning

MBA students learn the CCFOs through participating in Service-Learning courses

The findings to support this proposition were drawn from the Service-Learning practitioner questionnaire (Appendix 4), the analysed results of which may be seen in Table 5.6, and from direct analysis of students' individual assignments, in which the depth of learning for each CCFO was assessed using Bloom's taxonomy of cognitive outcomes (1956a) as a measuring instrument.

In the view of the Service-Learning practitioners, CCFOs are developed through Service-Learning, although this must be taken to be a general view, since none of the respondents were lecturers of MBA students. Table 5.6 represents the re-scaled data from the Likert questionnaire regarding development of the seven assessable CCFOs. The analysis shows that, in the opinion of the expert Service-Learning sample, the CCFOs "work with others", "solving problems" and "self-management" were significantly (alpha=0.05) positively developed and "use technology" was significantly (alpha=0.05) negatively developed.

From the 82 students' reflective journal assignment analysis it became apparent that their learning of the different CCFOs was not uniform. In fact, only 59 (72%) followed the specified format and reflected upon all of the CCFOs. The depth of reflection achieved for the different CCFOs can be seen in Table 7.2 and in Figure 7.2, where both the medians and modes for Bloom levels achieved are given. The CCFO "work with others" achieved the highest median (Bloom level 5, or synthesis) as well as mode

(Bloom level 6, or evaluation). "Solve problems" also achieved a modal value of Bloom level 6, with "use technology" once again being rated the lowest on both descriptive statistics.

These findings are consistent with the importances data analysed in Chapter 5 and summarised in Table 9.2, where "solving problems" and "work with others" were in the top 3 positions as far as the business leaders, the management sample and the Service-Learning practitioners were concerned, and "use technology" was rated last by all the groups.

The frequency distributions of Bloom levels achieved for each CCFO are represented numerically and graphically in Tables 7.3 to 7.9, along with the percentage of students achieving a Bloom level of 4 (analysis) or greater (synthesis and evaluation) for each CCFO. It is apparent that the most attention was paid to "work with others", where 52% of students achieved Bloom 4 or greater, and "solve problems" where the corresponding percentage was 49.15%. Only 15.25% of students achieved Bloom 4 or greater for "use technology". In fact, as shown in Table 7.10, 76.9% of students offered no reflection on "use technology" at all.

The frequency distribution of CCFOs at Bloom level 6, in Table 7.16, could be interpreted as a summary of the students' overall effort in respect of the value they placed on each of the CCFOs. In this respect, "work with others" and "solve problems" again achieved the highest scores, and "use technology" again the lowest.

As stated for other analyses, multiple ratings would have added value to the assessment interpretations, and this should be considered in further research to reduce the possibility of measurement or judgement bias.

9.8   Proposition 3.3: Service-Learning assessment methodologies

Reflection with reflective journals are considered to be the most effective assessment methodology for Service-Learning courses

Conclusions drawn regarding this proposition were triangulated between findings from the Service-Learning practitioners' questionnaire (Appendix 4), the answers to some of

the CHESP questionnaire (Appendix 7) and analysis of the depth of reflection judged from assessment of the students' individual assignments.

Service-Learning practitioners overwhelmingly (94% in Table 7.17) listed reflection and reflective journals as their preferred assessment method, although most did recommend that it not be the only method of assessment. Most popular were suggestions for additional assessments by individuals other than the lecturer (eg peers, the community organisations, supervisors and self-assessments), with recommendations for different types of assessment to be judged by the lecturer or Service-Learning practitioner facilitating the course being made with less frequency. It is not clear whether this was conscious or not, but would add multi-rater reliability to assessments, and would be of particular value in the introduction of Service-Learning to South African MBA studies, which has not been carried out previously.

Care was taken by the respondents to clarify that assessment should include all aspects of Service-Learning, ie academic learning, including project success, personal growth and understanding of social issues, and that reports should be judged on their academic structure and quality as well as their content. All of these factors were taken into account when analysing the students' assignments for this research.

As described earlier, it is important that Service-Learning assessments are designed to test the outcomes required from the course (Rama *et al* 2000), which may involve a significantly different mental model to be considered by Faculty members implementing such courses. This required shift may well be one of the reasons that institutionalisation of Service-Learning has proven to be highly problematic (Butin 2006).

Table 7.18 summarises students' perceptions of the assessment methodologies applied in this research as drawn from the CHESP questionnaire. The majority (73.1%) of the 51 respondents indicated that it was different to other MBA courses for several reasons, including a) the action learning aspects, which were most frequently (42.1% of the 38 affirmative responses) mentioned, b) the high level of personal growth experienced, particularly with respect to examining and shifting assumptions and the experience that they could make a positive difference in the lives of other, less fortunate people, c) the use of a reflective journal rather than an examination, and d) the fact that the community organisation had contributed to their final course mark.

Although some students did complain that the course took up too much of their time (negative comments in Table 7.37), the overall, significant (alpha=0.05) response was that it was perceived not to do so. It can also be seen in Table 7.37 that students did not perceive (alpha=0.01) that the course required more work than other courses, nor that it cost them more than other courses.

Analysis of the students' individual assignments (59 correctly completed submissions were analysed) to establish their reflective activities are represented in Figures 7.4 and 7.5 and Tables 7.19 to 7.25. The overall frequency distribution of the depth of reflection with respect to a particular CCFO is represented in Figure 7.4. The four levels of reflection were:

i. None, or no reflection demonstrated
ii. "what"; a description of what they had observed or experienced
iii. "so what?"; a description of what happened or was experienced *and* the implications thereof
iv. "now what"; a description of the two previous levels *plus* a portrayal of possible future actions

Figure 7.4 illustrates the assessment that 43.83% of students achieved a level 3 reflection ("so what?") and a further 33.41% achieved level 4 reflection, suggesting that most students did reflectively interrogate the Service-Learning experience as required. An analysis was also conducted of the depth of reflection per CCFO, shown in Tables 7.19 to 7.25, with an indication of the percentage of responses achieving a level 3 ("so what" or higher ("now what") reflection . Figure 7.5 illustrates that 89.8% of respondents achieved this level for "work with others", 83.1% did so for "solve problems", and that the lowest (55.9%) percentage of respondents achieved this level for "use technology".

9.9 Proposition 3.4: General academic quality of student assignments

The general academic quality of students' assignments reflects the integrated and appropriate use of references and follows a logical report structure

This aspect of students' assignments was assessed partly because it is an academic requirement, but also because it was identified by Service-Learning practitioners as

being an important aspect of overall assessment of such projects. It is clear that use of references in-text, primarily to contextualise the experience of the student within the framework of the literature, did lead to higher Bloom level achievement.

The distribution curve for students not including in-text references is quite different, and shows that the modal Bloom value achieved was only three. In Figure 7.6 "Y" indicates the use of in-text references and "N" indicates the lack of referral to references within the text of the assignment, whether or not the student had listed references at the end of the assignment.

9.10 Proposition 3.5: The relationship between depth of reflection and cognitive achievement

The depth of reflection by students is positively correlated with the extent of cognitive development as measured by Bloom's taxonomy for each CCFO

The Chi-square finding of a significant correlation (alpha=0.05) between the depth of reflection and Bloom level achieved (Appendix 11) is not a surprising one.

The shifting towards higher Bloom levels with increasing depth of reflection are demonstrated graphically in Figure 7.7. Where students did not reflect on a CCFO at all, the highest Bloom level achieved was level 2, whilst quite the opposite can be seen with the "so what" level of reflection, where 21.31% of respondents achieved Bloom 6.

Reflection is not only a stage in accepted models of adult learning (Kolb *et al* 1971; Kirkpatrick 1979; Honey and Mumford 1992), it is also considered good management practice (Mintzberg 1990, 1994, Mintzberg *et al* 2002), resulting in greater individual effectiveness and leadership development.

Critical reflection following implementation of a project or activity is essential for learning to occur and for attitudinal changes to take place (Kolb 1984; Mintzberg 1990, 1994; Dumas *et al* 2000; Knowles *et al* 2000). As such, reflection as a management activity is inextricably linked to the concept of the learning organisation (Senge 1990; Senge *et al* 1994). If MBA students are not taught to reflect, they would have no reason to take the practice back to the workplace with them and would be the poorer for it.

The findings from this study have clearly shown the strong correlation between depth of reflection and cognitive achievement, particularly as it relates to the CCFOs, or, as given by Dumas *et al* (2000:232), " . . . the people skills, the creativity, the negotiation skills, an aptitude for teamwork and the ability to speak and write with clarity – in short, the skills required of a good manager". One cannot avoid observing that he does not include any functional skills in his proclamation, linking this fact in the same publication, to a comment about the short half life of knowledge, particularly in fields relating to technology.

It seems clear that, by teaching students *how* to think, business schools can deliver managers to the world of business who are able and willing to take responsibility for maintaining their own competence in a rapidly changing world.

9.11   Proposition 4.1: MBA students' learning styles

MBA students' Honey and Mumford learning style profiles will not conflict with the reflection requirements of Service-Learning.

The Learning Style profiles of MBA students at seven South African business schools showed that the Activist style had a more normally shaped distribution than the other three styles (Reflector, Theorist or Pragmatist), which were all skewed to the left, showing a higher than expected number of high scores. On a scale of 0 to 10, these latter three profiles all had their median and modal values at 8, whereas the Activist style had a median of 5 and a mode of 6.

The higher the score, the stronger the learning style preference, although it is possible for flexible learners to score high (or low) on any or all styles. The analysis reveals that MBA students are stronger learners in the Reflector, Theorist and Pragmatist styles than they are in the Activist style.

Applying the weighting scale for each style to the different numerical scores, the profile of the participating MBA students showed that 12% scored 8 or higher for Activist, 57.7% scored 8 or higher for Reflector, 54% scored 8 or higher for Theorist and 54.3% scored 8 or higher for Pragmatist.

The highest score being for Reflectors suggests that MBA students would generally not have a problem with the reflection requirements for Service-Learning activities. The next highest score, for Pragmatists, would support the fact that managers need to be practical in their work, so it is not surprising that they would tend to score highly on the style.

9.12 Proposition 4.2: MBA students personal growth and insights

MBA students experience personal growth and new perspectives from attending a Service-Learning course and are able to articulate insights to contribute to further MBA Service-Learning course development.

The students' comments from the CHESP Questionnaire (Appendix 7) regarding the planning of the course, presented in Table 7.36 were overwhelmingly positive, with 84% agreeing and only 9.6% stating that it was not well planned. The instructions for the assignments may be viewed in Appendix 6.

The most useful comments for future development related to the acceptance of the action learning approach, as reflected in statements such as "I learnt through the authentic process of OD implementation, by theory, practice and classroom discussion". Statements such as this are in line with previous findings (Rama *et al* 2000:668); "Students identified the following features as contributing to their learning; trying out the work themselves, having real responsibility, listening and talking with people at the site, having clear directions, feeling challenged and applying learning to new settings".

Although some of the negative comments related to being confused and not knowing what to do, it is possible that these respondents simply did not read the instructions given. This supposition is supported by the findings presented in section 7.4, relating to Proposition 3.4, where it was calculated that only 62.5% of students followed the instructions for the write up of the reflective journal as required.

Of all the 72 assignments submitted, only one did not make some reference to personal growth. This is in line with previously reported findings (Eyler *et al* 1997), particularly relating to personal value systems.

9.13   Summary

The findings from this study have laid a foundation for the implementation of Service-Learning into campus-based MBA programmes in South Africa.

The generic management meta-competencies embodied in SAQA's critical cross-field outcomes were found to be important to the business sector and were developed through the Service-Learning pedagogy applied in the study. Students demonstrated that they had learned the CCFOs and the required course content more effectively through the action learning, practical implementation of their assignments. They also generally took readily to the reflective activities, and the results indicated that deeper reflection lead to greater learning.

Community organisations of different types identified that many of their business needs were met through the MBA students' interventions, in which they acted in the capacity of consultants. These organisations also indicated that they would like to see further Service-Learning implementations from business schools.

Despite the apparently overwhelming findings in favour of introducing Service-Learning into MBA programmes, institutionalisation of the methodology has proven to be challenging (Furco 2001, 2002; Butin 2006). It is anticipated that this would be particularly difficult in higher education institutions where the culture is predominantly positivistic and research that takes anything other than a modernistic stance is viewed with suspicion, if not hostility. Furco (2001, 2002) does, however offer approaches to institutionalising Service-Learning into higher education institutions, even at those institutions that are primarily research focused (Furco 2001). Key aspects are to build critical mass, to build quality and quality assurance into Service-Learning courses and to sustain institutionalisation efforts. These activities rest on alignment with institutional missions and goals, the establishment of community-based partnerships, academically based rewards and incentives and structural issues around Service-Learning courses.

In South Africa, MBA degrees are professional, not academic qualifications, and it is hoped that the pragmatic approach taken in this study will not compromise its potential contribution to an improvement, of whatever magnitude, to the quality of life of South African and citizens of other developing countries.