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**The Effectiveness of Co-operative Education Programmes for  
Developing Students' Awareness of the Importance of Generic  
Competencies**

A study on Post-Secondary General Preparatory Programmes (PSGPP) and  
Private Sector Programmes (PSPSP)  
At the Institute of Public Administration (IPA), Dammam Branch,  
Saudi Arabia

**By**

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**A Thesis Submitted in Fulfilment of  
the Degree of Doctor of Philosophy**

**Learning and Teaching Centre,  
Faculty of Education,  
University of Glasgow, UK**

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## **DEDICATION**

To my mother, wife, and children, to my brothers and sisters, I would like to say: we are all partners in this work.

Especial thanks to my wife Dr. Abeer Flemban, for many things. I really proud of you.

## ACKNOWLEDGEMENTS

What a 'soft' feeling I hold toward people here in Glasgow and in Saudi Arabia. This very small part of my thesis seems to be the hardest. It requires a high standard of soft skills such as: interpersonal understanding, conceptual thinking, and emotional intelligence.

Here, I would like to start with a special thank you to my supervisor Professor Bob Matthew for his guidance, superior dealing, and continued encouragement through my study. I would like to extend thanks to my second supervisor Dr. Vicky Gunn for her great effort with me through the last six months. I would like to thank the Institute of Public Administration, Dammam branch. Especially I am obliged to the General Manager Mr Samir Almugren, for his continued support and all the facilities provided during the data collection stages. Another thank you is given to all my colleagues in the IPA, especially Saied Algamdi and Saad Algahtani, for their concern. I also want to thank the LTC staff for their help and kindness. I would like to express my gratitude to Dr. Abdulrahman Alnofaiee and Professor Paddy O'Donnell for their help with my statistical analysis. I would like to thank Miss Sophie Agrell for the proofreading of the thesis.

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## **DECLARATION**

I declare that this thesis is my own work and has not been published or submitted in support of any degree or qualification.

Mohammed Bajunaid

## ABSTRACT

The research problem of this study was based on the existing skills gap between education and employment in Saudi Arabia. The Institute of Public Administration like other educational institutions has established Co-operative education programmes (Co-op) in order to build a partnership with the private sector. Co-op was one of the objectives of the state's sixth development plan (1414 – 1420h), (1995 – 2000) and is used to increase education sufficiency and improving its quality. It is argued that, to meet the future demands for appropriately skilled managers and workers, ongoing collaboration and consultation with industry is required to ensure the goals of all primary stakeholders - students, educators and industry employers - are met (Walo, 2000).

The primary objective of the study was to explore the effectiveness of the Co-operative education programmes, which are provided by private sector companies and some government agencies under the supervision of the Institute of Public Administration, in developing the students' awareness of the importance of generic competencies required for IPA's Post-secondary Diploma degree for graduates entering the workplace.

Through a quantitative and qualitative study, this research compared the perceptions held by employers, teachers and students (before and after participating in the Co-op) about the importance of the generic competencies required for IPA's post-secondary graduates entering workplace today, and employers' and teachers' perceptions of the most important competencies required to be developed in the graduates. A survey questionnaire adapted from the research tool used in studies by Hodges and Burchell (2003) and Lin (2005), based on Spencer and Spencer's work (1993) was administered to 38 of IPA's eastern province's organisations which participated in IPA's Co-op programme in the last 3 years, 38 teachers from IPA's Dammam branch, and 99 students from IPA's Post-secondary programmes (before and after participating in the Co-op). Employers were interviewed as a further qualitative component to give more depth to the study. The frequency distribution, independent samples t-test, one-way ANOVA plus post-hoc Scheffe, Kruskal-Wallis test plus post-hoc Mann-Whitney, and 'Direct Ranking' statistical methods were used to identify the differences between the participant groups. The findings revealed that there is a good agreement between the four groups on the importance of a broad range of competencies.

The study has revealed the impact of Co-operative education programmes. This was clear for example when students (after participating in the Co-op) joined employers in ranking English language (writing), English language (speaking), and English language (overall) among the ten most important competencies, and their awareness of the importance of competencies remained high across a broad range of competencies. This study has also shown the importance placed on ethical competencies by educators and industrial professionals.

The study has also shown that employers', teachers', and students' perceptions of the importance of competencies were affected by their different demographic characteristics. The study showed that all groups perceived both hard and soft competencies as important, and there was consistency between the four groups in favouring soft competencies over hard competencies. The results showed that there was an agreement between employers and teachers in the need to improve IPA's Post-secondary graduates' performance in the competency of English language (overall), as a priority as well as some ethical competencies, and the hard competency of computer literacy. The study showed that Post-secondary Programme (PSP) was ranked in first place as the most important source that developed students' awareness of the importance of competencies, whether in an individual area or under the two categories hard and soft. Second was home/family/community, third came the Co-op Programme, fourth was school, and self-taught came in the last rank

The study clearly reflected the effectiveness of IPA's Post-secondary Programmes in developing students' awareness of the importance of competencies, and the impact of home/family/community in this objective. The study also asserted that Co-operative education programme was effective as well; based on its short-term impact in comparison to the long-term influence expected by other sources. The study revealed a lack of effort in schools directed to developing students' awareness of the importance of competencies. The results in general revealed the positive impact of Co-operative education in developing students' awareness of the importance of competencies to be closer to the requirements of employers.

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## **Chapter 1: Introduction**

### **1.1 Background and Context of the Study**

The world of work around the globe is changing rapidly as industry becomes increasingly knowledge-based, requiring more highly skilled labour. A well-educated workforce is essential for countries to be able to compete in the global economy (Wagner, 2006).

Education and training contribute to an individual's personal development, increase her/his productivity and income at work, and facilitate everybody's participation in economic and social life. It follows that education and training can also help individuals to escape poverty by providing them with the skills and knowledge to raise their output and generate income. Investing in education and training is therefore an investment in the future; knowledge and skills are the engine of economic growth and social development (UNESCO & ILO, 2002). The development of workers' competencies has long been recognised as the key to economic growth (OECD, 2005).

Many countries and communities are investing in education and training to ensure that they can be competitive in the global economy. Of significant importance is the attempt to raise the skills of the least skilled. For example, policy experts have stated that Germany spends a much larger proportion of its education budget to raise the skills of the least skilled than the United States (Wright, 1995). Successful attempts are shown in some other countries, such as Sweden and Norway. For example: young adults (ages 20 to 25) in these two countries who have completed some college or university education perform better than their peers in the United States who also have completed some college or university education on multiple assessments of skills (Wagner, 2006).

The concern with education in the Kingdom of Saudi Arabia started since it was founded by King Abdulaziz bin Abdelrahman Al-Saud in 1932. At that time, education was not accessible to everyone and was limited to individualised instruction at religious schools in mosques. These schools taught Islamic law and basic literacy skills. By the end of the century, Saudi Arabia had a nationwide educational system providing free training from preschool through university to all citizens. Male and female education is completely segregated.

While the study of Islam remains at its core, the modern Saudi educational system provides quality instruction in diverse fields of modern and traditional arts and sciences. This diversity helps meet the Kingdom's growing need for highly educated citizens to participate on its rapid progress. Formal primary education began in Saudi Arabia in the 1930s. In 1951, the country had 226 schools with 29,887 students. In 1954, the Ministry of Education was established. The first university, which is now known as King Saud University, was founded in Riyadh in 1957. Today, Saudi Arabia's nationwide public educational system comprises eight universities, more than 24,000 schools, and a large number of colleges and other educational and training institutions. Different types of education are provided in Saudi Arabia. General study, which starts formally from elementary education, intermediate, and finally secondary or high school, which is commonly called the 'Tawjihyah'.

Technical education includes industrial, commercial and agricultural schools. An Intermediate School Certificate is required for admission. Courses lead to the Secondary Industrial School Diploma, the Secondary Commercial School Diploma and the Secondary Agricultural School Diploma.

There are also Technical Assistant Institutes, which offer two-year vocational courses in Architectural Drawing, Construction Supervision, Health Supervision, Road Supervision, Surveying and Water Supervision leading to the Certificate of the Technical Assistant Institute. Health Institutes and Nursing Schools offer three-year courses leading to the Health Institute Diploma or the Certificate of Technical Nursing.

Higher education is provided by universities, an Institute of Public Administration, and teachers' colleges and girls' colleges. The Higher Education Council makes proposals relative to the overall policy of higher education and supervises the application of the state policy in scientific research.

In its modern history, the Kingdom of Saudi Arabia has experienced enormous economic development that has affected every aspect of contemporary life. During the course of this development, a number of challenges have appeared. One of the most critical challenges has been in the training of a national workforce with a high level of competency in a variety of fields, a good sense of responsibility, and a high degree of productivity. All of

these attributes are essential in that individuals need to acquire such skills and attributes in order to co-operate and to maintain the pursuit of development in the Kingdom (The Manpower Council, 1997).

Al-Dekhayyel & Abdulgabar (2002) reported that the challenges in the training of the Kingdom's national workforce have been brought about by the following developments:

- A fast growing population, considered as having one of the highest rates in the world. This unanticipated rapid increase in population has resulted in declining per capita income in Saudi Arabia. At the height of the oil boom in the 1980s, the Kingdom's per capita income was around \$17,000. By 2003 this figure had declined to about \$8,200, lagging far behind most of the other Gulf oil producers (Looney, 2004).
- Advances in technology in the workplace, which are changing the organisation of work and demand the continuous updating of skills.
- The need to employ Saudi nationals in economic and industrial activities (Saudization).

The Institute of Public Administration, like other educational institutions, has undertaken a number of development initiatives to address the challenges. One of these initiatives is to stimulate the private sector as a complementary stakeholder in the provision of relevant and high quality graduates from its General Preparatory Programmes (GPP) (Pre-service) in accordance with the Kingdom's development goals and priorities. Therefore, the Institute established co-operative education programmes (Co-op) in order to build a partnership with the private sector.

Some countries such as the United States, Canada, and the United Kingdom, have established themselves as leaders in this field. However, other developing countries (for example: Brazil, Jamaica, Indonesia, Malaysia, Republic of South Africa, Romania and Thailand) have introduced co-operative education as an integrated part of their educational and training programmes (Aleis & Alabdulahfez, 2002).

The introduction of co-operative education in the Kingdom dates back to 1969 when King Fahd University of Petroleum and Minerals introduced a co-operative education programme in association with Saudi Aramco (the national petroleum company). The University introduced the programme for the students in colleges of Applied Engineering, Industrial Management, and Computer Sciences, with a work-based component as an integral part of these academic programmes. The University thus became a leader in this field of co-operative education in the Kingdom, and during this ‘experiment’, the University acted as a model for the introduction of co-operative education in other institutions throughout the country (Alabdulahfez, 1999).

The application of co-operative education was one of the objectives of the Saudi Arabia sixth development plan (1414 – 1420h), (1995 – 2000). The private sector is required to raise its contribution to educational services in general education, technical education, training in all its kinds or higher education (Ministry of Education, 2007). It is argued that, to meet the future demands for appropriately skilled managers and workers, ongoing collaboration and consultation with industry is required to ensure the goals of all primary stakeholders - students, educators and industry employers – are met (Walo, 2000).

## **1.2 Benefits of Co-op**

The embedding of real-world practice or co-operative education opportunities within the academic curriculum becomes a hallmark of a contemporary professional programme. It provides the all-important contextual knowledge for allowing students to begin being and feeling like a professional or professional identity formation (Holt et al. 2004). Grosjean (2003) (as cited in Holt et al. 2004) gave more emphasis on this identity for students during the Co-op. He says that in the workplace, disciplinary knowledge is constructed in the milieu of practice - it is not learning then doing, but rather learning by doing; not learning theory for practice, but learning theory in practice; not learning about a profession, but learning to be a professional. Grosjean added that the process of constructing professional knowledge in Co-op, then, can be seen as a complicated mixture of disciplinary identity, values, rhetorical purposes, and technical content.

McFadden, Jansen, and Towell (1999) (as cited in Gabric & McFadden, 2001) have suggested that increased interaction between the business community and the academic

community will be a major trend in the new millennium. However, they reported that, according to research, the relationship between students and the academic community is still stronger and longer than the other two links (between students and the business community; between the business community and the academic community). This is because students are exposed to faculty perceptions through their classroom experiences over several years. Some students also build connections with faculty members through student organisations. Faculty members tend to communicate to students their perceptions of the needs of the business community. Faculty perceptions may bias students' opinions.

On the other hand, the link between the students and the business community is the weakest of the three links, as most undergraduate students have little interaction with the business community prior to graduation. Gabric & McFadden (2001) argued that students may gain some exposure during work-related experiences such as internships, or perhaps through interacting with business managers briefly during classroom experiences. For example, practitioners may volunteer to speak in classes or students may be required to interface with the business community as part of a class project. Other ways that students interact with the business community include student membership and involvement in professional organisations and plant tours of both manufacturing and service facilities. However, the relationships that develop during these encounters tend to be short in duration and limited in depth and scope.

According to Garavan & Murphy (2001), employers perceive the following as significant values of the Co-op:

- Enhanced student self-confidence, self-concept and improved social skills.
- Enhancement of practical knowledge and skills.
- Enhanced employment opportunities.
- Attainment of necessary skills to supplement theoretical training.
- Enhancement of the induction process when the student joins the labour market.

In fact, Co-op as a kind of work experience has a great value for students. Cooper, Lawson & Orrell (2003) have stated that this value lies in the opportunities it presents for students to:

- Apply and develop classroom learning or theoretical concepts in work settings.
- Clarify or determine career directions.
- Identify and utilise the generic skills they are developing as a result of being a University student in a work setting.
- Become ‘work literate’.
- Establish contacts and gain experience in the workforce.

Hurd and Hendy (1997) suggest a number of reasons why employers wished to participate in practical learning programmes. These reasons include the following:

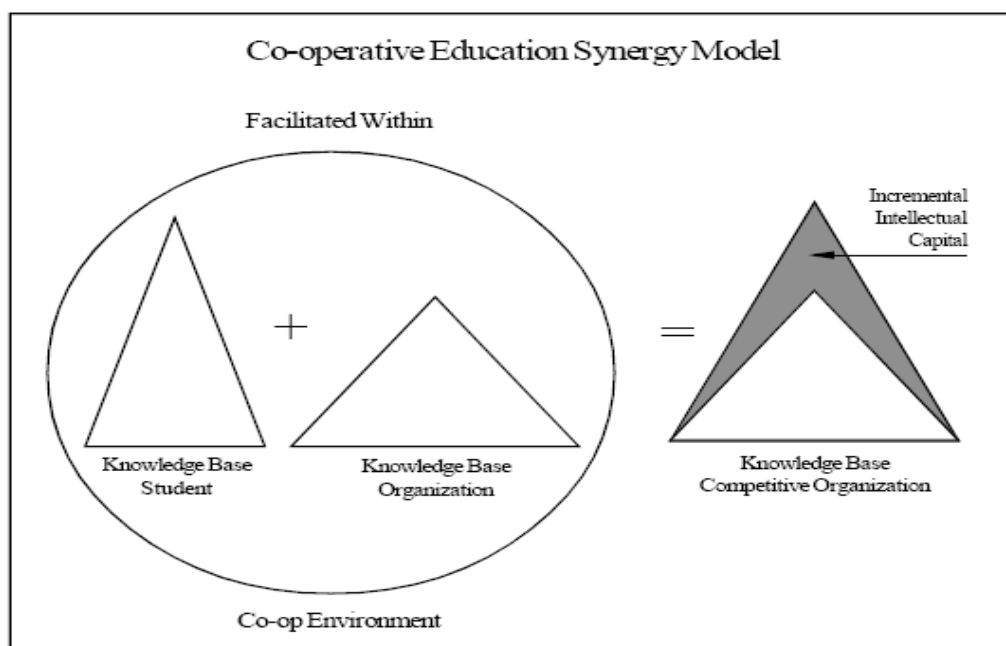
- To develop an improved company image and achieve greater awareness of the company among the community.
- As a relatively inexpensive and simple means of recruiting new employees who may be attracted back to the company after graduation if desired.
- To increase employee productivity by employing students who are fresh and keen to learn and achieve, and to supply the company with “new blood” and fresh ideas.

In examining the role of co-operative education in developing the Intellectual Capital of organisations, Raheja & Raheja (1999) have suggested five main benefits that organisations gain from participating in the Co-operative education programmes. These benefits were documented in the literature as the following:

- Opportunity to identify and recruit full-time employees (Nielson & Porter, 1983).
- Increased productivity of full-time employees due to the positive influence of Co-op students who are known to be highly motivated (Brown, 1984).

- Improved cost-effectiveness by releasing professional employees from sub-professional work (Wilson, 1985).
- Good source for quality employees because they undergo screening prior to acceptance in the Co-operative education programme (Phillips, 1978).
- Enhanced community profile through participation in co-operative education programmes (Wiseman & Page, 1983).

The Synergy Model, shown in Figure 1, illustrates the incremental Intellectual Capital realised by organisations that partner with co-operative education.



**Figure 1. Co-operative Education Synergy Model (Source: Raheja & Raheja, 1999)**



### **1.3 Co-op in the Institute of Public Administration (IPA)**

As reported in the IPA's Annual Summary Report (2003/2004):

The Institute of Public Administration (IPA) was established on 1961, by Royal Decree No. (93), dated 24/10/1380H (Hijra) as an autonomous corporate body with a headquarters in Riyadh. It was necessary, due to expansion in training, research, and consultation needs, to establish three branches: the IPA branch in Dammam started its work on 13/10/1393H (1973); the Jeddah branch started its work on 8/1/1394H (1974); and a third branch for women was established in Riyadh on 1/11/1403H (1983). The Dammam branch of the IPA forms the basis of this research.

The purpose of the Institute is to promote the efficiency of government civil servants and prepare them academically and practically to carry out their responsibilities, to use their authority to ensure a high level of administration and to support the bases for developing the national economy. The institute also participates in administrative reorganisation of government agencies and offers advice on administrative problems presented to it by the ministries and public organisations. In addition, it conducts research projects related to administration and cements cultural relationships in the field of public administration through the following:

- Developing and performing instructional training programmes for various types of employees.
- Conducting scientific administrative research and studies, directing and supervising them at the Institute and in collaboration with key officials in the ministries, government organisations, and their branches wherever field research is being carried out.
- Collecting, tabulating, and classifying the administrative documents in the Kingdom.
- Holding conferences on administrative development for top management levels of government personnel.

- Hosting Arab, regional, and international conferences on matters related to public administration in the Kingdom, and participating in similar conferences abroad.
- Publishing research and administrative data and exchanging them with relevant organisations in the Kingdom, the Arab world and other countries.
- Encouraging scientific research in administrative affairs and allocating study grants and royalties for this.
- Offering the IPA staff academic and training scholarships in administrative affairs in order to promote their administrative efficiency.

The Dammam branch of the IPA introduced co-operative education programmes in 1992. The consideration of co-operative education programmes at the institute began as many similar educational programmes worldwide realised the need for practical training as a means to establish harmony between the role of educational institutions and the needs of the labour market.

The Co-op programme is an educational plan whereby a student, after completing courses at the IPA, then begins a training period in his/her major field of interest in one of the organisations which are participating in IPA's Co-op programmes. This programme enables the student to integrate classroom instruction with practical and valuable on-the-job work experience with industry, government agencies or other employers. At the end of the training period, the "Co-op" student is usually ahead of the "regular" student in that he not only has a degree, but also has work experience in his area of professional interest. The Institute of Public Administration takes care to ensure that students are placed in the right jobs that provide them with opportunities to learn new technologies, and gain valuable contacts with professionals. Students continue to earn the basic salary of SR1000 during the Co-op terms.

There are two main possible internship arrangements:

- Alternate Arrangement - student works full-time at the organisation. (Co-op in Saudi Arabia is a full-time work that takes place for only one period of time).

- Parallel Alternate Arrangement - student works part-time while attending school part-time (Florida Institute of Technology, 2007).

The length of Co-op training for IPA's Post-secondary students varies between the programmes (majors) as shown in Table 1.

**Table 1. Length of Co-op Programmes**

<b>Programm</b>	<b>Weeks</b>
Hospital Administration	10
Executive Secretary	6
Sales	10
Accounting	10
Computers	17

The requirements and conditions of the training are as the following:

1. The Co-op programme is required to be taken by all Post-secondary students.
2. Each student entering the programme has two supervisors, one from the IPA, and the other from the organisation he trains in. (Note: all students are male).
3. The two supervisors discuss the student's training objectives, prepare the training plan, its timetable and review possible departments of employment.
4. During the training period, the campus supervisor visits the place of training to talk with both the student and the employer concerning the work assignment and any situations that may have arisen.
5. A work report is required of each student at the end of the work period. This report includes general and brief information about the organisation he trained in. The report should discuss in detail the duties the student has undertaken during the training, comments and suggestions for the two sides, the organisation and the IPA. This report should be written in an academic style.

At the end of the Co-op, the student is assessed by the following means:

1. An evaluation of the student from the organisation's supervisor during the training period. (40%)
2. An evaluation of the student from the IPA's supervisor during the training period. (20%)
3. A report which is submitted by the student to the IPA's supervisor at the end of the training period. (40%)
4. The student must get at least (60%) to pass the Co-op training as a part of the graduation requirements of the IPA.

#### **1.4 Overview of the Study**

The research problem of the study was based on the existing skill gap between education and employment in Saudi Arabia. Courtis & Zaid (2002) found that early employment problems arise because of an expectations gap between employer and employee. Courtis & Zaid added that the gap is a result of deficiencies in the educational package and from a lack of practical ability.

Many higher educational institutes in Saudi Arabia were founded in recent years to provide co-operative education programmes as a part of academic study to ensure a supply of skilled workers to the workforce. However, the role of Co-op is not limited to skills development required for a student's major or future profession. Students need to develop their awareness of the importance of a number of generic competencies required for the workforce nowadays. This recognition will help them to give attention to soft skills as well as hard skills to enhance their lifelong learning and future career. This emphasis on developing students' awareness of the importance of generic competencies is shown throughout educational literature. For example, in 2001, the University of Luton conducted a survey amongst its tourism undergraduate students, looking at students' assessment of the skills, knowledge and personality characteristics that they believe will give them a competitive edge in securing employment in tourism. The results showed that the University not only needed to develop students' skills, but that students also needed to take steps to improve their ability to self assess and be aware of their own skill levels (Petrova & Ujma, 2005). Making students aware of and sensitive to the employability skills to be developed are the first stages in developing employability skills (Hind, 2006). This case study presents the results from an original survey and the subsequent steps taken

to improve students' skills awareness and development in order to improve their employability prospects within their intended industry.

In Saudi Arabia, no studies have described the level of involvement for organisational partners in co-operative education programmes (Abdulaziz, 2004), nor explored the effectiveness of co-operative education programmes in developing students' awareness of the importance of competencies needed in the workplace.

While Al-Megren (1996) analysed the perceptions of private sector firms toward the quality of the vocational education system in Saudi Arabia, Al-Romi (2001) analysed the school-to-work transition process by exploring employer expectations concerning the success of the general high schools in terms of preparing their graduates for the Saudi labour market. However, Abdulaziz (2004) examined the effectiveness of co-operative education programmes in secondary industrial institutes (SII) in Saudi Arabia as perceived by their organisational partners. The study perceived the impact of the 'Co-op' through five variables: the presence of a training plan, the role of the 'Co-op' coordinator, the frequency of communication contacts between the schools and the SIIs, the characteristics of students in terms of their technical skills and work ethic, and finally, the characteristics of the organisational partners (Abdulaziz, 2004).

Some papers have been published about co-operative education in Saudi Arabia. For example, Aleisa & Alabdullhafez (2002) conducted a study about the successes and challenges of co-operative education in the Riyadh College of Technology. The study described the introduction of co-operative education at the College from the perspectives of workplace professionals of the various enterprises involved in taking on students, faculty from the College who supervised students enrolled in the programme, and students who have completed work placements in the past few years. This examination of co-operative education's strengths and weaknesses was an attempt to enable the College to compare the work-based learning programme against internationally accepted standards for co-operative education, as a key to success in closing the gap between the employability of the graduates and the workplace demands.

This study differs from these previous studies, as it focuses its main purpose on exploring the effectiveness of the Co-operative education programmes for developing students'

awareness of the importance of generic competencies required for IPA's Post-secondary Diploma degree Graduate entering the workplace. Therefore, the study examines the different perceptions of the importance of generic competencies held by students (before and after participating in the Co-op), as well as educators and employers. Employers' perceptions of the importance of workplace competencies are significant, as they are familiar with key skills required for most jobs in the labour market. Furthermore, the employers in this study participated in the Co-op. Therefore, they give clear perceptions of something they know well. Likewise, this study explores teachers' views as they relate to the development of students' work ability in educational institutions. To accomplish the purpose of this study a set of objectives were identified.

## **1.2 Objectives of the Study**

### **Objective One: Ranking the importance of competencies for IPA's post-secondary graduates entering the workplace.**

The ranking of the importance of competencies by the three stakeholders (employers, teachers, and students) can show mismatches between perceptions. Identification of any such differences would enable educators to identify competencies requiring greater emphasis in the curriculum. The ranking of the importance of competencies by students (after participating in the Co-op) can identify the extent to which Co-operative education programmes might assist in developing students' awareness of the importance of competencies so as to be closer to what employers require.

### **Objective Two: Analysing participants' perceptions of importance of competencies.**

Analysis of participants' perceptions of the importance of competencies will identify significant differences between the four groups, and within the demographic characteristics of each group. This would be useful to explore the level of differences in the importance of competencies between the participants, and whether their perceptions are affected by demographic characteristics.

**Objective Three: Comparing the importance of hard and soft competencies: particularly differences in perceptions between employers, teachers and students (before and after participating in the Co-op)**

Under this objective, the study will explore the differences in participants' perceptions of the importance of hard and soft competencies, and their justification of the selection. A mix of qualitative and quantitative data will clarify the importance of the two categories, and why they are required in the workplace. This objective can also identify the extent to which Co-operative education programmes might have an impact on developing students' awareness of the importance of competencies under the two categories (hard and soft) so as to be closer to what employers require.

**Objective Four: Identifying the most important competencies required to be developed in IPA's post-secondary graduates entering the workplace.**

This objective examines the level of agreement between employers and teachers about the most important competencies required to be developed by the graduates. It is an additional effort to identify the deficiency in the performance of the competencies by IPA's Post-secondary graduates.

**Objective Five: Identifying the most important sources which developed students' awareness of the importance of competencies.**

Through this objective, the study examines students' perceptions of the most important sources that have developed their awareness of the importance of generic competencies and where Co-op is ranked amongst them.

### **1.3 Limitations of the Study**

This study had the following limitations:

- The population frame for this study included 38 selected companies which were participating in IPA's Co-op, Dammam branch in the year 2005. Also included in the study were all IPA's teachers in Dammam branch (38 people). Students' representatives were 99 people from five programmes: Hospital Administration, roll

1(N=20), Executive Secretary, roll 12 (N=26), Accounting, roll 16 (N=16), Sales, roll 15 (N=24) and Computers, roll 1 (N=13). Gender is an issue - evidence relates only to males, therefore, generalizing across the genders is problematic.

- The author had no control over those who responded. A subjective analysis of those responding leads to the conclusion that the respondents are a representative sample of all employers, teachers, and students involved in the IPA's Co-op programmes in 2005.
- Data provided by employers, teachers, and students represented opinions at a particular point in time.
- The data collected represents the views of the respondents in 2005 and this may subsequently have changed.
- The findings from this study have been compared to other published studies in an effort to generalise the conclusions from this work.

#### **1.4 Significance of the Study**

This study examined the perceptions of employers, teachers, and students (before and after participating in the Co-op) of the importance of generic competencies required for IPA's post-secondary graduates entering the workforce. The study tried to evaluate the effect of Co-op programmes in developing students' awareness of the importance of competencies.

This research study is expected to be important to higher education institutions and workforce employers, particularly those involved in Co-op programmes. Academic teaching staff, especially IPA's teachers in the Dammam branch, will be interested in employers' perceptions of the importance of generic competencies and the relationship between hard and soft competencies for designing the curriculum and educational activities. Students' perceptions of the most important sources in developing students' awareness of the importance of generic competencies is another aspect provided by this study to evaluate the effectiveness of Co-op, Post-Secondary Programme (PSP), Home/family/community, School, and Self-taught. This research will also be interesting to human resource managers, recruiters, and researchers in general.



## 1.5 Definition of Key Terms

Some of the key terms used in this thesis are defined at this stage.

**Tawjihyah:** the final year of general secondary school.

**Competency:** an underlying characteristic of an individual that is causally related to criterion-referenced effective and/or superior performance in a job or situation (Spencer & Spencer, 1993).

**Generic competencies:** a combination of competencies providing a strong basis for further learning. This indicates that the term generic competencies includes more than just learning abilities in a strict sense (Heijke, Meng & Ris, 2003).

**Hard Competencies:** the basic (and generally technical) resources which are required to perform an activity. These resources are generally expressed in terms of Knowledge, Skills and Abilities (KSA) (Bourse et al., 2002).

**Soft Competencies:** “correspond to personal behaviours, personal traits and motives” (Bourse et al., 2002, P. 67).

**Behavioural skills:** skills are built up from personal characteristics such as principles, attitudes, values and motives. These skills, in contrast to cognitive skills, are a function of an individual’s personality (Birkett, 1993).

**Cognitive skills:** cognitive skills are such as technical knowledge, skills and abilities - such skills being a function of the job requirements (Birkett, 1993).

**Hard skills:** skills associated with technical aspects of doing jobs and usually include the gaining of knowledge (Page, Wilson, & Kolb, 1993).

**Soft skills:** soft skills are skills often referred to as interpersonal, people, or behavioural skills, and place more emphasis on personal behaviour and managing relationships between people. Soft skills are primarily affective or behavioural in nature, and have been

associated with a person's Emotional Quotient (EQ) (Caudron, 1999; Kemper, 1999; McMurchie, 1998).

**Superior performance:** level of performance distinguished by demonstration of certain motives, values, traits and attitudes, in other words, by appearance of good behavioural skills in addition to technical abilities (Spencer & Spencer, 1993).

**Motives:** the things a person consistently thinks about or wants that causes action.

Motives 'drive, direct, and select' behaviour toward certain actions or goals and away from others (McClelland, 1971 as cited in Spencer & Spencer, 1993, p. 9).

**Traits:** physical characteristics and consistent responses to situations or information. For example, reaction time and good eyesight are physical traits.

**Self-concept:** a person's attitude, values or self-image. For example, self-confidence, a person's belief that he or she can be effective in almost any situation, is part of a person's self-concept.

**Social role:** a pattern of individual behaviours that is reinforced by membership of a social group or organisation; this is the 'outer' self: you can be either a leader or a follower, for example, or initiate change or resist it (Kramar & O'Neill, 1999).

**Self-image:** an individual's conception of his or her identity, personality, and worth as a person. The 'inner' self: you can see yourself as a leader, or a motivator and developer of people, or simply a cog in the corporate machine; self-image is an issue for performance management only when it is expressed as an observable behaviour (Kramar & O'Neill, 1999).

**Co-operative education:** a unique form of education that integrates classroom theory with practical, planned and supervised work experiences in the public and private sectors. It allows students to acquire essential practical skills by being exposed to the reality of the working world, thus enhancing self-confidence and career direction. Co-op is a partnership among students, educational institutions and employers with specific responsibilities for each party (Dobbelstein & Taylor, 2004).

## **Chapter 2: Literature Review**

### **2.1 Introduction to the literature review**

As the main purpose of this study is to explore the effectiveness of the Co-operative education programmes for developing students' awareness of the importance of generic competencies required by graduates entering the workplace, it seems to be useful to address the theoretical underpinnings of Co-operative education programmes. In other words, why Co-op programmes are considered more effective than traditional programmes; constructivism and social constructivism as theoretical challenges to more traditional forms of learning. In this chapter, the researcher introduces the definitions of competencies and skills; their two kinds (soft and hard), and how these are valued differently as more or less important within the literature. The chapter also expresses approaches to learning in Higher Education, and how they relate to competency development in 'Co-op' programmes.

### **2.2 Critical review of the theoretical underpinning of Co-operative education programmes**

According to Stanton (1988), Education plus Work equals Co-op, which is short for Co-operative education, a programme that links the classroom with the workplace to provide an education with career relevance. Stanton sees that Co-op builds on the partnership between students, schools, and employers. All share the responsibility to make the programme work; all benefit from its successes.

Co-operative education may be seen as the close cooperation between both higher education institutions and the world of work (Dobbelstein & Taylor, 2004)

Co-operative Education was developed in 1906, at the University of Cincinnati by an engineering faculty member Herman Schneider (University of Cincinnati, 2004).

However, according to Groenewald (2003), the origins of Co-operative education can be traced back to the training for the building of the pyramids in Egypt.

The term Co-operative education may have originated in the USA, but the concept or idea did not. The practice of cooperative education can be traced back to 1903 in Northern England where what was called a ‘sandwich education programme’ was introduced at Sunderland Technical College and even in other parts of the world, such as India and South Africa (Groenewald, 2003, 2004).

Co-operative education is, however, well documented in the United States. In 1909, Northeastern University began using Co-op in their engineering programme, becoming the second institution to do so in the country. By 1919, Antioch College had adapted the Co-op practices for their liberal arts curricula. In 1922, Northeastern University emphasised its commitment to Co-op by extending it to the College of Business Administration. As new colleges opened at Northeastern, such as the College of Liberal Arts (1935) and College of Education (1953), they became Co-op schools as well. By the 1980s, Northeastern was the acknowledged leader in Co-op education across the world, a distinction that remained throughout the 1990s (K 12 Academics, 2008).

It was called “Co-operative Plan of Education” because it emphasized cooperation between both educators and employers. Co-operative education is a unique form of education that integrates classroom theory with practical, planned and supervised work experiences in the public and private sectors. It allows students to acquire essential practical skills by being exposed to the reality of the working world, thus enhancing Self-confidence and career direction. Co-op is a partnership among students, educational institutions and employers with specific responsibilities for each party. Co-operative education typically occurs when a learner is placed into the actual working environment by a higher education institution - developing a project for industry while studying towards a degree (Dobbelstein and Taylor, 2004 and Taylor, 2002). Previously, the focus on Co-op as work-based learning has been in finding the means to improve the effectiveness of formal learning. Today the concern is seen at work itself that it is supported with adequate contents and methods which allows learning to arise from action and problem-solving within a working environment (Gray, 2001).

### 2.2.1 Constructivism and Social Constructivism

This is a very important subject to be discussed in this study, as the basis for Co-operative learning is founded in constructivist theory. According to constructivism, knowledge is discovered by students and transformed into students' concepts. It is again reconstructed and expanded through new learning experiences (Panitz, 1997).

Constructivism, now widely favoured as a way of understanding teaching and learning environments, also raises questions about the worth and validity of different kinds of knowledge and knowing (Cullen, et al., 2002).

Constructivism is a theory about how we come to know what we know (Llewellyn, 2005). The foundation of it, according to Llewellyn, is that children, adolescents, and even adults construct or make meaning about the world around them based on the context of their existing knowledge. Llewellyn explained the nature of learning in 'Constructivism'. He said "We do this by reflecting on our prior experiences". In this way, each of us "constructs" our own mental models, or schema, as we activate our experiences to develop new conceptual structures. In a constructivist point of view, the learner is constantly filtering incoming information based on his or her existing conceptions and preconceived notions to construct and reconstruct his or her own understanding. Thus, the meaning of "knowing" is an active, adaptive, and evolutionary process. Co-operative education programmes can facilitate the acquisition of cognitive, social or communicative competencies in student participants. Students in work situations are paying attention to the problem which has to be solved, not to the fact which they are learning, as it is common in the traditional education at school. This means that the constructivist perspective is distinct from behaviourism, which was introduced (1913) by the American psychologist John B. Watson. It is built on the premise that learning is an acquisition or change in observable behaviour initiated through stimuli and responses. This way of learning is considered useful when applying positive and negative reinforcements, but it does not account for the cognitive aspect of learning. Objectivism, occasionally paired with behaviourism, presumes that all knowledge exists externally and independently from the learner, and that learning consists of imparting that body of knowledge from one person to another. Contrary to behaviourists' and objectivists' views, constructivists do not agree with the idea that students "absorb" information from the teacher, nor do

constructivists believe that knowledge is imparted, acquired or transmitted from one individual to another. Constructivists believe that learning is self-regulating and socially mediated as the student actively engages, interacts, and operates within the confines of his or her environment. Learning, to the constructivist, is focused on cognitive, not behavioural, processes.

Constructivism has had a long history in American education, influenced by the developmentalist notions of 18th century French philosopher Jacques Rousseau and, later, the theories of John Dewey, G. Stanley Hall, and Arnold Gesell (Stone, 1996, as cited in Matthews, 2003).

In Dewey's philosophy of constructivism, truth and logic are instruments used by people to solve problems. These instruments must change as human problems change. For Dewey (1916), there is no objective, eternal truth and no need for the rote memorisation that was the hallmark of American schools in the early 1900s. Education is not an affair of 'telling' and being told, but an active and constructive process (Simon, 1999). The workplace as a real learning environment can provide a great deal of meaning, which helps student participants in the Co-op to be aware of the importance of generic competencies required by employers, and develop them continually. However, Matthews (2003) sees constructivism as applied to education as a relatively recent phenomenon primarily derived from the work of Swiss developmental psychologist Jean Piaget (1973) and Russian psychologist Lev Vygotsky (1978).

Galloway (2001) stated that the work of Lev Vygotsky and other developmental psychologists has become the foundation of much research and theory in developmental cognition over the past several decades, particularly of social development theory. Galloway sees that Vygotsky's theories stress the fundamental role of social interaction in the development of cognition, and he believed strongly that community plays a central role in the process of making meaning.

Vygotsky's theory has been applied to children. However, it would seem that application of this theory could extend to adult learning as well (Sheerer, 1997).

In order to understand Vygotsky's theories on cognitive development, two of the main principles of Vygotsky's work must be understood: the More Knowledgeable Other (MKO) and the Zone of Proximal Development (ZPD). The MKO is somewhat self-explanatory; it refers to someone who has a better understanding or a higher ability level than the learner, with respect to a particular task, process, or concept. Although the implication is that the MKO is a teacher or an older adult, this is not necessarily the case. Many times, a child's peers or an adult's children may be the individuals with more knowledge or experience.

Galloway argued that the MKO need not be a person at all. He justified that by saying that some companies, to support employees in their learning process, are using electronic performance support systems. He mentioned that electronic tutors have also been used in educational settings to facilitate and guide students through the learning process. Galloway sees that the key to MKOs is that they must have (or be programmed with) more knowledge about the topic being learned than the learner does.

Vygotsky (1978) defines the ZPD as the distance between the "actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (p. 86). Vygotsky believed that when a student is at the ZPD for a particular task, providing the appropriate assistance (scaffolding) will give the student enough of a "boost" to achieve the task. Once the student, with the benefit of scaffolding, masters the task, the scaffolding can then be removed and the student will then be able to complete the task again on his own.

Scaffolding is term derived from Vygostky's theories on learning. Based on the idea that individual learners have a 'zone of proximal development' – a bounded margin in which what they can learn in a particular timeframe is limited. Scaffolding refers to the supports the teacher provides to help the learners carry out a task. It may for instance require a teacher to carry out parts of the overall task that the learner cannot yet manage. It involves a kind of co-operative problem-solving effort by teacher and learner in which the express intention is for the learner to assume as much of the task as possible on his or her own, as soon as possible.

Theories of 'constructivist' learning reveal that students are not the only players in their own learning. They build their own understanding from various sources and make this learning a very personal construct. The assistance provided to students from teachers in educational institutions and supervisors in the Co-op programmes represents the role of what Vygostky called 'more knowledgeable other' (MKO) in this study.

Constructivist teachers create classroom conditions that invite students to construct their own knowledge by determining students' prior knowledge and building on it. They are facilitators who mediate between learners' current and emerging understandings. Students also during their Co-op training construct their own understanding and knowledge of the workplace, through experiencing things and reflecting on those experiences.

Constructivism modifies the role of the teacher so that teachers help students to construct knowledge rather than reproduce a series of facts. The constructivist teacher provides tools such as problem-solving and inquiry-based learning activities so that students can formulate and test their ideas, draw conclusions and inferences, and convey their knowledge in a collaborative learning environment. The teacher must understand the students' pre-existing conceptions and guide the activities to address this knowledge and then build on it. Constructivist teachers encourage students to assess how the activity is helping them gain understanding. By questioning themselves and their strategies, students become expert learners as they learn how to learn. The students then have the tools necessary to become lifelong learners. In IPA's Co-op, a supervisor assigned by the organisation plays the role of the teacher, guides the student's work and helps the student fit into the organisation, is close to him to answer his questions and provide all the support he needs during work. However, the student can get the assistance he needs from the people he works with, and the facilities provided in the work environment. This support can help students to dress and to conduct themselves according to the standards of the employer, and understand the importance of competencies required for the workplace.



### **2.2.2 Conceptions of attributes and competencies and their relationship to Co-op programmes**

The concept that students develop generic attributes through education and that these should be measured and reported has become a worldwide phenomenon in the past ten years. It has developed as the result in part of three major trends:

- The increasing perspective that education is a lifelong development.
- A greater focus on the direct relationship between education and training and the employment of graduates.
- The development of outcome measures of education and training which in universities has arisen out of the quality improvement movement and its focus on measurable outcomes as a means of judging the efficacy of the education process (Cummings, 1998).

Universities need not only to create opportunities for students to develop graduate attributes in generalist degrees; they should also impress on students the relevance of these attributes to their careers. Students need to develop an awareness of graduate attributes and their relevance early in their studies so that they can take full advantage of opportunities for developing them in the curriculum, as well as in extracurricular activities and employment experience (Brawley, Jensen, Kofod and Whitaker 2003). This is more likely to occur in a curriculum underpinned by constructivist notions of learning.

#### **General Definitions of Competency**

To understand the competencies focused on for this thesis, one has to be aware that defining what competencies 'are' has become increasingly problematic. Different authors argue for divergent stances. For example, Bourse et al. (2002) reported that the concept of competency is commonly associated with other concepts such as knowledge, skill, ability, know-how, experiment, aptitude, capacity, personality feature, behaviour, etc. Bourse and his colleagues argued that the analysis of the literature allows making explicit three fundamental characteristics of competency concept: the resources, the context and the

objective. Bourse et al. (2002) also reported that competency resources are structured into categories and sub-categories. They suggested three fundamental categories of resources. These are: knowledge, know-how, and behaviours.

Knowledge is something which we acquire and store intellectually. It concerns everything that can be learned in the education system. Knowledge could be theoretical or practical.

Know-how is related to personal experience and working conditions, and is acquired by doing, by practice. Bourse et al. (2002) see 'know-how' as a synonym for skills. Thus, they are used to perform the task in its routine or familiar situations. Skills are not enough to ensure success in non-routine or unfamiliar circumstances nor to distinguish the superior performance.

Bourse et al. (2002) see both knowledge and know-how (skills) as being equally important; as they grow together so the competency of the individual grows.

The third resource of competency is 'behaviours'. These (as defined by Bourse et al., 2002) are individual characters (or characteristics) which lead someone to act or react in a certain way under certain circumstances. Bourse et al. (2002) argued that behaviours often condition the way knowledge and know-how (skills) are put into practice, as this category includes human traits, qualities and attitudes such as: initiative, creativity, self-confidence, communication, etc.

Bourse et al. (2002) stated that competency always comes out with reference to a given context. They argued that the competency context can be restricted to a station or to a system and its external environment.

The objective of a competency is a goal, which is reached by accomplishment of one or more missions or tasks.

Kanungo and Misra (1992), however, have defined skill as the ability or capability to engage in specific behaviours, including overt behaviours and cognitive activities, to accomplish specific routine tasks. On the other hand, competency was the ability to engage in nonroutine cognitive and intellectual activities. Kanungo and Misra added that skills are learned from training and experience. In contrast, competencies are used to cope

with uncertainty in the environment. Competencies are transferable across a wide array of situations, and are generic in that they apply to many different types of jobs.

From the review of the literature, Hoffmann (1999) has mentioned three main positions taken toward a definition of the term competency as the following:

1. Observable performance, citing Boam and Sparrow, 1992; Bowden and Masters, 1993.
2. The standard or quality of the outcome of the person's performance, citing Rutherford, 1995; Hager et al., 1994.
3. The underlying attributes of a person, citing Boyatzis, 1982; Sternberg and Kolligian, 1990.

There are further various definitions of competency reported in the literature. Spencer & Spencer (1993) define competency from an industry view point, as an underlying characteristic of an individual that is causally related to criterion-referenced effective and/or superior performance in a job or situation. UNIDO (2002) sees competency in a similar manner, in which competency is a set of skills, related knowledge and attributes that allow an individual to perform a task or an activity within a specific function or job. Parry (1998) does not go far in defining competency. He looks on it as a cluster of related knowledge, attitudes, and skills that affects a major part of one's job.

Hauenstein (2000) had a wider view for the concept. He defined competency as a category or grouping of related behaviours/activities, sorts of knowledge, technical skills, or motivations, which represent the behavioural, technical, and motivational requirements for successful performance in a given role or job. They are not the requirements for the perfect person or exceptional performer, nor are they a description of personal traits.

Clearly, researchers' efforts in integrating competency's terms and definitions (Lin, 2005) have resulted in many definitions of competency. It has been defined in the literature from several perspectives. It was originally used in the field of education to describe trainee teacher behaviours (Bowden and Masters, 1993) and became widely known in the

management field through the work of Boyatzis (1982). A review of the literature by Burgoyne (1993) as cited in (Hoffmann, 1999; Lin, 2005) shows that a variety of scholars and practitioners have used the term, each with their own meanings:

- Psychologists were concerned with the concept as a measure of ability (Sternberg and Kolligian, 1990) and whether the observable performance of a person represented his/her underlying traits or capacity.
- Management theorists applied a functional analysis to define how organisational goals were to be best achieved through improved individual performance (Burgoyne, 1993).
- Human Resource Managers viewed the concept as a technical tool to implement strategic direction through the tactics of recruitment, placement, training, assessment, promotion, reward systems and personnel planning (Burgoyne, 1993).
- Educationists attempted to relate the idea of work preparation and professional recognition with that of a broad education. (Bowden and Masters, 1993).
- Politicians including those involved in the political process such as Trade Unions, employer groups and political parties, particularly in the U.K. and Australia, have used the concept as means of improving the efficiency of the labour market.

However, from the literature available, the definition of the competency concept seems to converge towards the following definition: competency is the effect of combining and bringing into play its resources (i.e. knowledge, know-how, and behaviours) in a given context to achieve an objective or fulfill a specified mission (Le Boterf, 1997; Levy-Leboyer, 1996, as cited in Bourse et al., 2002).

### 2.2.2.1 Employability, Competency and Capability

In today's labour market, having a degree does not guarantee a well-paying job or perhaps, any job at all. To gain employment in a particular field an individual needs to give more attention to employability competencies.

Knight and Yorke (2003) define employability as a set of achievements, understandings and personal attributes that make individuals more likely to gain employment and be successful in their chosen occupations. Most of these achievements, understandings and personal attributes are not just important for employment – they are essential for academic development within the university and for day-to-day life beyond. Because employability is a lifelong learning, it helps an individual to ensure both qualification and competencies meet changing demands in the workplace.

There are some different views of terms such as competency and capability in the literature. Stephenson (1997) sees capability as the integration of knowledge, skills, personal qualities and the ability to learn to deal effectively with familiar and unfamiliar situations or tasks. Stephenson states that competency delivers the present based on the past, while capability imagines the future and helps to bring it about. Competency is about dealing with familiar problems in familiar situations (Hodges & Burchell, 2003).

However, Rudman (1995) similarly views capability as a precursor to competency, where an individual has the capability to perform a specific task because he or she possesses the necessary knowledge and skills, but may not become fully competent in the task until he or she gains some experience.

This seems to be a fundamental difference in understanding and defining the terms capability and competency in the literature. Hodges & Burchell (2003), for example, used the term competency to include capability and characteristics (such as knowledge, technical skills and personal qualities) that an individual may utilize in performing tasks or actions in unfamiliar as well as familiar situations. Thus, Hodges & Burchell seem to agree with Rudman's analysis of competency and capability. However, Fraser and Greenhalgh (2001) see competency as what 'individuals know or are able to do in terms of knowledge, skills and attitudes'. They define capability as the 'extent to which an individual can apply,

adapt and synthesise new knowledge from experience and so continue to improve their performance', thus appearing to take the Stephenson viewpoint.

In this study, a competency is considered as a set of knowledge, know-how (skills), behaviours used in a given context to achieve an objective or fulfil a specified mission to the expected standard in familiar and unfamiliar situations. The standard expected will vary with experience and responsibility and take into account the need to keep up to date with changes in practice (Eraut, 1998). It is used to cope with uncertainty in the environment, while a skill is used to perform the task in its routine or familiar situations. Capability is not discussed further in this study.

### **2.2.2.2 Definitions of Generic Competencies**

It is important to state here that the literature is unclear about the definitions of skills and competencies (Grant, 2006). Cooper, Robertson, and Tinline (2003) have confirmed that there is no commonly accepted definition of a competency and almost all of the competencies given in typical generic or organisation-specific systems are capable of being interpreted in several different ways and are not linked clearly to specific acts. Cooper, Robertson, and Tinline added that even more thoughtful writers who deal with competencies seem to be uncertain about whether they are dealing with behaviour, predispositions to behave, skills, knowledge or some combination of many of these concepts.

Key competencies are thought to be generic in the sense that they underpin (and facilitate) the acquisition of more specific competencies (Hager, 1996).

Generic competencies can be defined as a combination of competencies providing a strong basis for further learning. This indicates that the term generic competencies includes more than just learning abilities in a strict sense (Heijke, Meng & Ris, 2003).

Kearns (2001) like many authors used the term "generic skills" and defined it as the skills which can be used across a large number of different occupations. They include the key competencies but extend beyond these to include a range of other cognitive, personal and interpersonal skills, which are relevant to employability. Curry & Sherry (2004) have

stated in their introduction that generic skills are transferable skills, and they can be described as “skills developed in one situation which can be transferred to another situation” (p.7). Yorke (2004) sees transferable skills as a key component of students’ employability, where employability is defined as: a set of achievements – skills, understandings and personal attributes – that make graduates more likely to gain employment and be successful in their chosen occupations, which benefit themselves, the workforce, the community and the economy (Yorke, 2004, p.7). Transferability of the generic competencies and skills is about the capacity of each workplace to utilise and develop the competencies and skills of the employees (Hager, Athanasou, and Gonczi, 1994).

Generic skills are known – worldwide – by a number of terms, one of them is “key competencies” or “generic competencies”. (See terms used in various countries to describe generic skills in Table 2).

**Table 2. Terms used in various countries to describe generic skills**

<b>Country</b>	<b>Description</b>
United Kingdom	Core skills, key skills, common skills
New Zealand	Essential skills
Australia	Key competencies, employability skills, generic skills
Canada	Employability skills
United States	Basic skills, necessary skills, workplace know-how
Singapore	Critical enabling skills
France	Transferable skills
Germany	Key qualifications
Switzerland	Trans-disciplinary goals
Denmark	Process independent qualifications

NCVER (2003), page 2.

The previous definitions of generic skills seem to equate to generic competencies. However, in this study, generic competencies are different from generic skills. Our understanding of generic skills is those skills which can be moved to another situation or occupation as a basic to perform a specific job or part of a job, in its routine situation.

Tranter & Warn (2003) found general arts and science courses facing the challenge of enrolments numbers shifting to vocationally specific courses such as management-related courses. They argued that as generic competencies underpin the continued relevance of a balanced and liberal education in higher education, graduates should develop a whole range of generic competencies rather than a subset. This finding gives more emphasis to co-operative education to do so, as liberal education needs social environment to apply the theoretical ideas and gain valuable experience.

### **2.2.2.3 Competency Domains**

Birkett (1993) classified competencies into two categories, cognitive and behavioural, and suggested that attributes which are drawn on to perform tasks competently consist of cognitive skills, such as technical knowledge, skills and abilities - such skills being a function of the job requirements. Behavioural skills, on the other hand, are built up from personal characteristics such as principles, attitudes, values and motives. These skills, in contrast to cognitive skills, are a function of an individual's personality. Derouen and Kleiner (1994) divide competency into technical, human and conceptual components. They further divide the technical component into professional and managerial elements and expand the conceptual category to include mental competency, which consists of the ability to identify and solve problems, to memorise and create, for example.

Siriwaiprapan (2000) (as cited in Lin, 2005) found that an employee's competencies in the workplace could group into five common domains of an individual development: self, social, organisational, cognitive, and job competency. Siriwaiprapan said that the self-competency domain represents employees' beliefs, attitudes, values, and personality characteristics. The social competency domain represents basic abilities for social interaction and communication. The organisational competency domain represents organisation-specific knowledge, such as business types, organisational cultures, policies, procedures, goals and objectives, and etc. The cognitive competency domain represents the ability to learn and to perform analytical thinking, planning, and problem solving, which enable an individual to take responsibility for handling contingencies that may arise. Finally, the job competency domain represents the knowledge, theory, methods, and skills to perform a specific job in an efficient way.



#### 2.2.2.4 Hard and soft competencies

Bourse et al. (2002) defined hard and soft competencies as the following:

Hard Competencies identify the basic (and generally technical) resources which are required to perform an activity. These resources are generally expressed in terms of Knowledge, Skills and Abilities (KSA).

Soft Competencies correspond to personal behaviours, personal traits and motives.

However, hard and soft is a common classification of skills used in the literature.

Hard skills are skills associated with technical aspects of doing jobs and usually include the gaining of knowledge (Page, Wilson, & Kolb, 1993). Hard skills are mostly cognitive in nature. Spencer & Spencer (1993) perceived technical skills and knowledge as 'Threshold' competencies as a description of their necessity to an individual to perform a job with a minimum level of effectiveness (p.15). Hard skills are basically equivalent to cognitive skills as categorised by Birkett (1993).

Soft skills are skills often referred to as interpersonal, people, or behavioural skills, and place more emphasis on personal behaviour and managing relationships between people. Soft skills are primarily affective or behavioural in nature, and have been associated with a person's Emotional Quotient (EQ) (Caudron, 1999; Kemper, 1999; McMurchie, 1998). Kemper reported that EQ is regarded as a blend of innate characteristics and human/personal/interpersonal skills. Caudron has stated that as emotional intelligence can have a significant impact on the work output; employers would be willing to help employees develop the competencies that contribute to EQ. He added that employers may be going about it the wrong way.

There is increasing emphasis in the literature on the importance of soft competencies, which are seen as complementary to hard competencies and are required for success in the workplace (Ashton, 1994; Caudron, 1999; Georges, 1996; Mullen, 1997; Strebler, 1997). Superior performers are seen to have high EQ as well as high Intelligence Quotient (IQ) ratings (Kemper, 1999; McMurchie, 1998). It is also suggested that there is a lack of

emphasis placed on the development of soft competencies by many educational institutions (Rainsbury, Weil, & Oyelere, 2002).

It is common in the literature to use term ‘skill’ as a base of ‘competency’. For example, Spencer & Spencer (1993) states that superior performers are not distinguished only by the technical skills, but by the demonstration of certain motives, values, traits and attitudes, in other words, by appearance of good behavioural skills in addition to their technical ability. However, it is common for employers to neglect the development of soft competencies because of the difficulty in their measurement, or difficulty in demonstrating a link between them and desired work outcomes (Zegwaard & Hodges, 2003; Arnold, & Davey, 1994; Mullen, 1997). Another reason businesses may be unwilling to place emphasis on the development of soft competencies, is that these competencies are seen to be more difficult to develop than hard or technical competencies (Caudron, 1999). However, career improvement requires more than the specialized knowledge and the technical competencies of one’s job (Bandura, 1986). Forfás (2003) (as cited in Curry & Sherry, 2004) stated that there is a need for Irish higher institutions to address soft skills development for students. It also recommended that the development of soft skills should form an explicit and integral part of the national policy agenda. The consideration of the importance of soft competencies has recently become phenomenon. Dorsey (2004) says:

“These are hard times, we need soft skills if we are to survive and thrive in the times that are here now and the times to come”. (p. 19).

In this study, hard competency is considered as a set of resources (knowledge, know-how (skills), behaviours) in a given context to achieve a technical or cognitive objective to the expected standard in familiar and unfamiliar situations. Soft competency is a set of resources (knowledge, know-how (skills), behaviours) in a given context to achieve an interpersonal, people, or behavioural objective to the expected standard in familiar and unfamiliar situations.

### **2.2.2.5 Dictionary of Competencies and Links to Other Competencies**

Spencer & Spencer (1993) identified a set of generic competencies that they claim account for 80-95% of the distinguishing features of superior performers in technical and

managerial positions. These competencies, listed in Appendix 1, form the basis for this study.

In this section, the researcher presents descriptions for these competencies and the other additional competencies added for this study. The links of the competencies to other competencies were included in the work of Spencer & Spencer, and it was considered important to give more clarity to the competencies' concepts. Table 3 shows the 31 competencies used for this study and their descriptions and links to other competencies.

**Table 3. Competencies used for the study and descriptions and links to other competencies\***

Competency	Description	Links to Other Competencies
1. Achievement orientation	Task accomplishment, seek results, innovation, competitiveness, impact, standards, efficiency	Initiative, information seeking, analytical or conceptual thinking, and flexibility.
2. Concern for order, quality and accuracy	Monitoring, concern for clarity, reduce uncertainty, keeping track	Achievement orientation, directiveness, developing others, and analytical thinking.
3. Initiative	Persistence, not giving up easily, Seizing opportunities	Achievement orientation, impact and influence on others, relationship building, technical expertise, customer service orientation, developing others, and team leadership.
4. Information seeking	Getting information from many sources	Initiative, conceptual thinking, analytical thinking, interpersonal understanding, technical expertise, customer service orientation, and teamwork and cooperation.
5. Interpersonal understanding	Empathy, listening, sensitivity to others, diagnostic understanding, awareness of others feelings	Information seeking, impact and Influence on others, customer service orientation, developing others, organisational awareness, teamwork and cooperation, relationship building, initiative, and flexibility.

6. Ability and willingness to learn	Desire and aptitude for learning, learning as a basis for action.	Initiative, technical expertise, information seeking, achievement orientation, relationship building, interpersonal understanding, teamwork and cooperation, flexibility, organisational awareness, self-confidence, problem solving, energy & passion computer literacy, and attendance and timekeeping.
7. Customer service orientation	Making extra efforts to meet customer needs, discovering and meeting customer's underlying needs, following on questions, requests, complaints	Information seeking, interpersonal understanding, initiative, achievement orientation, conceptual or analytical thinking, technical expertise, and relationship building.
8. Impact and Influence on others	The intention to persuade others in order to have a specific impact or effect on them	Interpersonal understanding, organisational awareness, analytical or conceptual thinking, flexibility, initiative, relationship building, developing others, teamwork and cooperation, and team leadership.
9. Organisational awareness	Understanding the power relationships in the organisation or in other organisations (customers, suppliers, etc.)	Information seeking, relationship building, impact and influence on others, teamwork and cooperation, and team leadership.
10. Relationship building	Working to build or maintain friendly, warm relationships or networks of contacts with people who are, or might someday be, useful in achieving work-related goals	Interpersonal understanding, impact and influence on others, initiative, and customer service orientation.
11. Developing others	A genuine intent to foster the learning or development of the others and an appropriate level of need analysis are implied in each positive level of Developing Others.	Interpersonal understanding, conceptual thinking, achievement orientation, and initiative.
12. Directiveness	Assertiveness, decisiveness, use of power, taking charge, firmness of standards, group control and discipline	Achievement orientation, impact and influence on others, self-confidence, and initiative.
13. Teamwork and cooperation	Fostering group facilitation and management, conflict resolution, motivating others, creating a good workplace climate	Interpersonal understanding, impact and influence on others, and self-confidence.
14. Team leadership	The intention to take a role as leader of a team or other group, being in charge, vision, concern for subordinates, build sense of group purpose, group motivation	Impact and influence on others, achievement orientation, relationship building, and organisational awareness.
15. Analytical thinking	Understanding a situation by breaking it apart into smaller pieces, reasoning, practical intelligence, planning skills, problem analysing, systematic	Information seeking, initiative, impact and influence on others, customer service orientation, technical expertise, and achievement orientation.

16. Conceptual thinking	Understanding a situation or problem by putting the pieces together, Pattern recognition, insight, critical thinking, problem definition, can generate hypotheses, linking	Information seeking, initiative, impact and Influence on others, customer service orientation, technical expertise, and achievement orientation.
17. Technical expertise	Job related technical knowledge and skills, depth and breadth, acquires expertise, donates expertise	Information seeking, analytical thinking, conceptual thinking, achievement orientation, impact and influence on others, and team leadership.
18. Self-control	Stamina, resistance to stress, staying calm, high Emotional Quotient, resisting temptation, not impulsive, ability to calm others	Directiveness, impact and influence on others, and teamwork and cooperation.
19. Self-confidence	Strong self concept, internal locus of control, independence, ego strength, decisiveness, accepting responsibility	Supports the continued and effective use of all competencies.
20. Flexibility	Adaptability, ability to change, perceptual objectivity, staying objective, resilience, behaviour is contingent	Interpersonal understanding, customer service, impact and influence on others, and all managerial competencies.
21. Organisational commitment	Align self and others to organisational needs, business mindedness, self sacrifice	Conceptual thinking, flexibility, and self-confidence. Organisational commitment generally, does not support specific competencies: It makes the connection between the individual's efforts and the organisation's needs.
22. Problem solving	Actively solving identified problems, carrying on through to completion	Needs effective use of all competencies, and supports the continued and effective use of them.
23. Personal planning and organisational skills	Ability to organize self and others, effective time management, organizing and completing tasks effectively and efficiently	Organisational awareness, technical expertise, achievement orientation, impact and influence on others, relationship building, technical expertise, customer service orientation, developing others, and team leadership.
24. Energy & passion	A positive 'can-do' attitude, high energy levels, enthusiasm, pro-active, strong drive	Achievement orientation, impact and Influence on others, relationship building, technical expertise, customer service orientation, developing others, and team leadership. Energy & passion, in general, supports the continued and effective use of all competencies.

25. Computer literacy	Ability to operate a number of packages, having information management awareness	Information seeking, technical expertise. Computer literacy has become vital in all jobs, and supports the continued and effective use of most competencies.
26. Written communication	Relevant skills/appropriate use of: emails, internal memos, internal and external reports, letters to clients	Information seeking, customer service orientation, relationship building, and technical expertise. Written communication has become essential in all jobs.
27. English language (overall)	Proficiency in spoken and written English	Information seeking, customer service orientation, relationship building, and technical expertise. English language has become essential in the workplace nowadays.
28. English language (writing)	Writing messages/files notes legibly using correct grammar, punctuation and spelling	As above.
29. English language (speaking)	Speaking clear English, using tactful and appropriate language in the workplace	As above.
30. Attendance, and Timekeeping	Coming to work and leaving on time (punctuality), investing time to benefit the organisation	Achievement orientation, impact and influence on others, technical expertise, customer service orientation, developing others, and team leadership.
31. Confidentiality at work	Using organisation information appropriately; (keeping private information that could negatively affect the organisation)	Impact and influence on others, relationship building, technical expertise, and team leadership.

- These Competencies are based on the model of Spencer & Spencer features of superior performers 1993 (Competencies 1-20) and other literature, (Meade & Andrews, 1995; Sweeney & Twomey, 1997; Rainsbury, Hodges, Burchell & Lay, 2002; Hodges & Burchell, 2003) (Competencies 21-26) + five additional competencies added for this study (Competencies 27-31).

### 2.2.2.6 UK and US perspectives in Definition of Competencies

The literature explores differences in the conceptualisation of competencies between the USA and the UK. Garavan & McGuire (2001) provided a profile of a conceptualisation of the differences. They have stated that the USA perceives competency to be related to the individual and whether he/she possesses the skills and knowledge to perform a specific job or role. The UK approach is arguably broader and the perception of competencies is not only related to the attributes of job-holders, but also refers to a range of guidelines and personal effectiveness issues required to get a job done.

Garavan & McGuire noted that within the UK approach, competencies are viewed as standards for job functions and professions, whereas, in the US approach, the behaviour of excellent performers is considered the basis for the development of tests of relevant competencies. Generally, both UK and US perspectives view competencies as being related to characteristics of individuals. The European perspective on competencies is similar to that adopted in the UK. Orstenk (1997) & Oliveara-Rees (1994) suggest, for example, that in Germany competencies are conceptualised in terms of the capacity of individuals to perform within a function or a profession and the focus is therefore on the qualification or certification they receive. Qualifications are viewed as denoting an official certification of knowledge, skill and attitude.

Garavan & McGuire concluded that both UK and US approaches differ fundamentally in their pedagogical perspective and assumptions about the learning process. The US approach places emphasis on a cognitive perspective of learning, whereas the UK and certainly the European variant place emphasis on a constructivist view of learning. Both approaches offer alternative explanations of the context of competencies, their interaction with work and their measurement. Cognitive approaches place a lot of emphasis on objective measurement, whereas constructivist approaches give emphasis to the subjective and motivational dimensions of competency.

#### **2.2.2.7 Competency Models**

This section presents two models which are very useful in understanding the nature of an individual's competencies in order to go forward to develop them by training.

For this thesis, a model is defined as "an imitation or an abstraction from reality that is intended to order and simplify our view of that reality while still capturing its essential characteristics" (Forcese & Richer, 1973).

#### **Iceberg Model of Competency**

The Iceberg Model of competency has important implications for workplace learning (Garavan & McGuire, 2001). Spencer and Spencer (1993) defined competency as "an underlying characteristic of an individual that is causally related to criterion-referenced

effective and/or superior performance in a job or situation” (P. 9). The underlying characteristic includes five types of competency characteristics; those are “motives, traits, self-concept, knowledge, and skills” (p. 9-10).

**Motives:** the things a person consistently thinks about or wants that causes action. Motives ‘drive, direct, and select’ behaviour toward certain actions or goals and away from others (McClelland, 1971 as cited in Spencer & Spencer, 1993, p. 9). For example, achievement-oriented people consistently set challenging goals, take personal responsibility for accomplishing them, and use feedback to do better.

**Traits:** physical characteristics and consistent responses to situations or information. For example, reaction time and good eyesight are physical trait competencies.

**Self-concept:** a person’s attitude, values or self-image. For example, self-confidence, a person’s belief that he or she can be effective in almost any situation.

**Knowledge:** information a person has in specific content areas. For example: a surgeon’s knowledge of nerves and muscles in the human body.

**Skill:** the ability to perform a certain physical or mental task. For example: a dentist’s physical skill to fill a tooth without damaging the nerve.

According to Spencer and Spencer (1993), the type of level of a competency has practical implications for human resource planning. They classified human competencies into two categories: visible and hidden competencies. Knowledge and skill competencies tend to be visible and on the surface, while characteristics, like self-concept, trait, and motive competencies are more hidden and deeper, as they are closer to personality (See Figure 2). Garavan & McGuire (2001) went further in expressing the iceberg model. They stated that knowledge and skills form the tip – at the bottom of the iceberg, the less visible elements of competencies exist and these control surface behaviours. They added that the attributes include social role, self-image, traits and motives, and social role and self-image exist at a conscious level, whereas a person’s traits and motives lie further below the surface and closer to the core (See Figure 3). Kramar & O’Neill (1999) define social role and self image as the following:

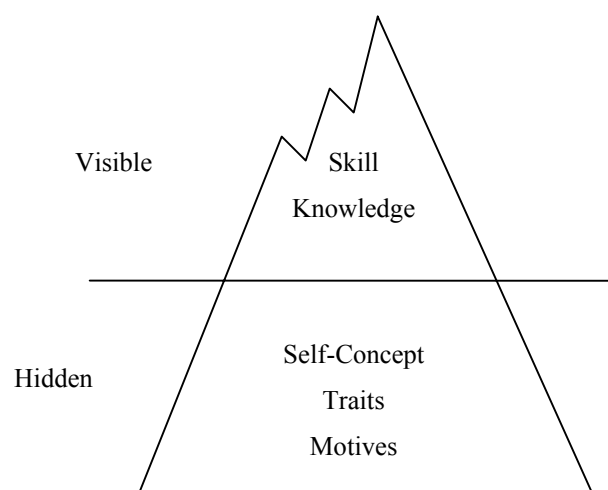


**Social role:** a pattern of individual behaviours that is reinforced by membership of a social group or organisation; this is the ‘outer’ self: you can be either a leader or a follower, for example, or initiate change or resist it.

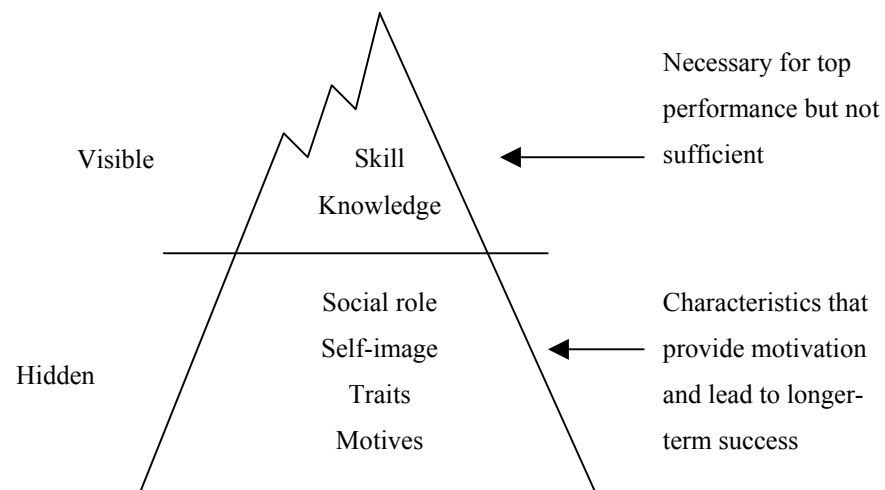
**Self image:** an individual’s conception of his or her identity, personality, and worth as a person. The ‘inner’ self: you can see yourself as a leader, or a motivator and developer of people, or simply a cog in the corporate machine; self-image is an issue for performance management only when it is expressed as an observable behaviour.

In the Iceberg model, motives, traits competencies and self-concepts are at the base of the personality iceberg and are more difficult to assess and develop. On the other hand, surface knowledge and skills competencies are relatively easy to assess and develop (Spencer and Spencer, 1993; Garavan & McGuire, 2001). However, Garavan & McGuire have argued that it is likely that effective performance is driven by characteristics at the lower levels of the Iceberg.

In this study, it seems clear that knowledge and skills, which are at the top level of the Iceberg, represent the hard type of competencies, while those attributes at the lower level are the soft competencies.



**Figure 2. Iceberg model (Source: McClelland, 1971)**



**Figure 3. Iceberg model (Source: Kramar and O’Neill, 1999)**

### **Johari Window Model**

The Johari Window model was called 'Johari' after combining the first names of Luft and Ingham, the inventors of this model in 1950s (Luft & Ingham, 1955). Today the Johari Window model is especially relevant due to modern emphasis on, and the influence of, 'soft' skills, such as behaviour, empathy, co-operation, inter-group development and interpersonal development. The Johari Window model is a simple and useful tool for illustrating and improving self-awareness. The Johari model was called a 'window' based on its four-square grid like a window with four panes. (An example is shown in Figure 4).

The four Johari window 'panes' are called 'regions' or 'areas' or 'quadrants'. Each contains and represents the information - feelings, motivation, etc – in terms of whether the information is known or unknown by the person, and whether the information is known or unknown by others in the team. The standard representation of a Johari window shows each quadrant the same size. However, the panes can be changed in size to reflect the relevant proportions of each type of 'knowledge' of a particular person in a given team situation.

The four regions, areas, quadrants, or perspectives are as follows:

Open area, open self, free area, free self, or 'the arena' - what is known by the person about him/herself and is also known by others. In the open area or the 'area of free activity', we found information about the person - behaviour, attitude, feelings, emotion, knowledge, experience, skills, views, etc – known by the person ('the self') and known by the team ('others'). The aim in any team is to develop the 'open area' for every member, because when we work in this area with others we are at our most effective and productive and the team is at its most productive too. This is because it is the space where good communications and cooperation occur, free from distractions, mistrust, confusion, conflict and misunderstanding.

Blind area, blind self, or 'blind spot' - what is unknown by the person about him/herself but which others know. The aim is to reduce this area by seeking or soliciting feedback from others and thereby to increase the open area. A funny example of this situation is my wife whom I told she snores. She did not think she did, but I knew she did. I told her that because she always, during my sleep, asking me to turn to the other side as an attempt to stop my snoring. My snoring is in my open area. It is really known by both of us; therefore, I should try to solve this problem by going to the doctor as my wife recommended, or at least keep responding to her request to turn to the other side. On the other hand, the fact that my wife snores is still in her blind area, and I guess that she is happy to keep this secret even from herself.

Hidden area, hidden self, avoided area, avoided self or 'facade' - what the person knows about him/herself that others do not know. Relevant hidden information and feelings, etc, should be moved into the open area through the process of 'self-disclosure' and 'exposure process'.

Unknown area or unknown self - what is unknown by the person about him/herself and is also unknown by others. The unknown area can be reduced in different ways: by others' observation (which increases the blind area); by self-discovery (which increases the hidden area), or by mutual enlightenment - via group experiences and discussion - which increases the open area as the unknown area reduces. (See figure 4)

## Johari Window model

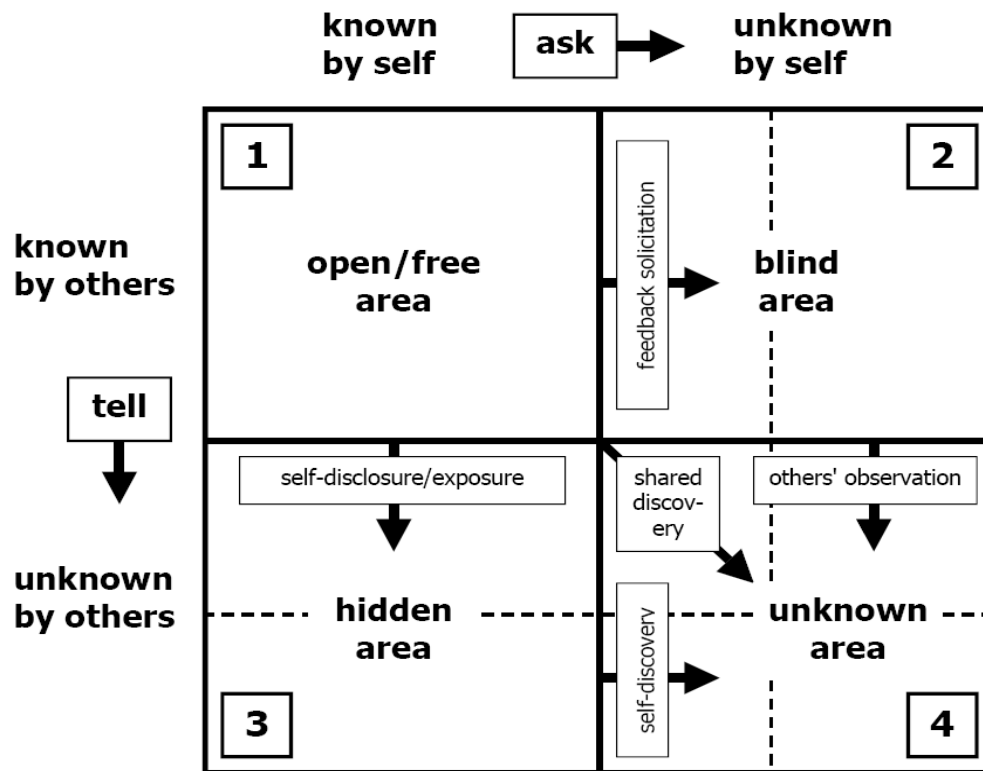


Figure 4. Johari Window (Luft & Ingham, 1955).

### Johari window model for new team member or member within a new team

The open area is small for a new team member or member in a new team because others know little about the new person. Similarly, the blind area is small because others know little about him/her. The hidden or avoided area is a relatively large one, while the unknown area is the largest.

### **Johari window model for established team member**

The open region for an established team member is large because others know a lot about him/her that he/she knows. Through disclosure and receiving feedback the open area has expanded and at the same time reduced the sizes of the hidden, blind and unknown areas.

### **Johari Window and Emotional Intelligence (EQ)**

Emotional Intelligence - EQ - is a relatively recent behavioural model, rising to prominence with Daniel Goleman's 1995 Book called 'Emotional Intelligence' (Goleman, 1995). The early Emotional Intelligence theory was originally developed during the 1970s and 80s through the work and writings of psychologists Howard Gardner (Harvard), Peter Salovey (Yale) and John Mayer (New Hampshire). Emotional Intelligence is increasingly relevant to organisational development and developing people, because the EQ principles provide a new way to understand and assess people's behaviours, management styles, attitudes, interpersonal skills, and potential. Emotional Intelligence is an important consideration in human resources planning, job profiling, recruitment interviewing and selection, management development, customer relations and customer service, and more.

The British organisational Consultant, Aton Chapman, reported that Emotional Intelligence (EQ) has wider concept than Intelligence Quotient (IQ) (Businessballs.com, 2007). It embraces:

- Understanding yourself, your goals, intentions, responses, and behaviour.
- Understanding others, and their feelings.

These two integrated aspects of intelligence have an affective role in the operation of developing individuals' interpersonal competencies. Arguably, educators and trainers in the Co-op workplace who have a high range of EQ will be more productive and successful. EQ can reduce stress for individuals and organisations, by decreasing conflict, improving relationships and understanding, and increasing stability, continuity and harmony.

In applying the Johari Window concept to skills development in the IPA's programmes, the students can be thought of as "self" while the teachers in classes and supervisors in the workplace are thought of as "others".

Building a relationship with another person requires both individuals to self-disclose. This can be difficult initially because there is always a threat that the other person may not like what is revealed and then reject us (Kamper, 2004). This view might be accepted in relationships in general, but not between students and teachers. In this situation, the teacher or trainer is ready to work with the student. So, he/she is willing to hear from him/her to give him/her the required assistance. Therefore, this should be made clear to the student by creating an environment that encourages self-discovery, and by promoting the processes of self-discovery, constructive observation and feedback among team members.

Teachers and employers take responsibility for reducing the blind area - in turn increasing the open area - by giving sensitive feedback and encouraging disclosure. Teachers and employers promote a climate of non-judgemental feedback, and group response to individual disclosure, and thus reduce fear. This (scaffolding) from employers and teachers to students according to Vygotsky (1978) will give the student enough of a boost to be able to understand the task on his own.

### **2.3 Approaches to learning in Higher Education and how they relate to competency development in Co-op programmes**

Higher education institutions around the world are required not only to continue to promote deep understandings of complex subject matter but also:

- To work with groups of students from a diversity of backgrounds;
- To give more attention to teaching, learning and assessment; and
- To support the development in students of a broad range of skills relevant to employment (Knight & Yorke, 2003).

Knight & Yorke (2003) have also stated that higher education systems should be accountable for the quality of the educational experiences that they offer and for the achievements of those who enter. They added that governments in many countries expect that higher education should add value to students so that they will become highly employable. However, teaching is a complex social activity. Becoming competent and proficient in the development of programmes and the subsequent teaching of them depends on many things, but particularly an understanding of how students learn (Nicholls, 2002).

### 2.3.1 Cognitive maturity

Cognitive development theories address the ways that students think and make meaning and the progression of their intellectual skills. Dissatisfaction with behaviourism's strict focus on observable behaviour led educational psychologists such as Jean Piaget and William Perry to demand an approach to learning theory that paid more attention to what went on "inside the learner's head". They developed a cognitive approach that focused on mental processes rather than observable behaviour.

Based on the work of Piaget (1952), cognitive development theories postulate sets of assumptions about how the way individuals think expands and increases in complexity as one moves through neurological development and environmental experiences. Unlike psychosocial development, cognitive development is viewed as a movement through stages, each stage building on the previous one. Based on this understanding of cognitive development, hard competencies are cognitive in their nature, so it would be possible for educational institutions to develop them through understanding of cognitive theories. However, the development of the hard competencies is more effective when applied in a social setting, like Co-operative education. This is because constructivists believe that learning is socially mediated and focused on cognitive, not behavioural, processes. In the late 1960s, Perry (1970) was the first to apply cognitive development theory to college students.

#### **Perry's theory of intellectual development**

The Perry model of intellectual development suggests that students' cognitive processes develop over time from simple thinking to a more complex evaluation of alternatives (Marra et al., 2000).

Perry's theory suggests that college students qualitatively change their perspectives on knowledge and learning in predictable ways as they proceed through the challenges of higher education. The Perry model has a range of "positions" from 1 to 9, each representing an increasingly complex and mature level of intellectual development. Essentially, the nine positions can be grouped into three overall stages. Students generally begin in a dualistic right-versus-wrong stage (positions 1 – 2), then progress to a

relativistic stage where all things are seen as having potentially equal value and correctness (positions 3 – 4), and then to a stage where they can make intellectual commitments and decisions within a relativistic context (positions 5 – 9).

Perry suggests that where a student is confronted by tasks requiring an understanding of the nature of knowledge beyond that of their current stage of intellectual development, they will simply not know what they are being asked to do. It is as if tutor and student are simply talking past each other, neither able to comprehend the nature of the other's understanding. This may explain why students often seem not to comprehend the nature of feedback that they are offered and why they seem unable to act upon it. Meyer and Land (2003) refer that to a lack of what they called 'threshold concepts'. 'Threshold concepts' is a different way of thinking about the development of the structure of a student's subject understanding. Meyer and Land's proposal consists in the identification of 'threshold concepts', which they suggest have five characteristics. First, they should be transformative, in that, once acquired, they should shift perception of the subject. Second, they should be irreversible. When an individual has begun to perceive the world in terms of a threshold concept, they would not return to their former, more primitive, view. Third, a threshold concept is integrative. That means that the concept has the capacity to expose the previously hidden interrelatedness of something. Fourth, a threshold concept is bounded. That is, it helps to define the boundaries of a subject area. If a threshold concept is relinquished, thinking begins to move outside or beyond the scope of the subject itself. Finally, it is potentially troublesome, in that a threshold concept may be far from 'common sense' understanding of the world and thus initially very difficult for learners to accept. In grasping a threshold concept the learner moves to a new perception of the world that may be in conflict with perceptions that previously seemed self-evidently true.

The idea of a threshold concept as introduced by Meyer and Land is useful as it offers a theoretical explanation of the problems that students face in developing their understanding of a subject and thus provides a basis for the development of diagnostic tools and curriculum design. It provides a link between approaches (deep or surface) to learning and the outcomes of learning. That is, students have an incentive to adopt surface approaches to learning when teaching is progressing on the incorrect assumption that students have understood a threshold concept. In the absence of this understanding students can only resort to learning surface routines in the hope that they can pass this off as real



understanding (Davies, 2006). This difficulty in understanding threshold concepts may leave the learner in a suspended state or ‘stuck place’. In preparing students for the workplace, it is important that programmes’ curriculum plans provide key concepts that industry demands, and teachers should use active ways of teaching to do so. However, these industry concepts, which are in our case related to developing graduates’ awareness of the importance of generic competencies, seem more logically to be developed in the workplace. Therefore, Co-operative education programmes play an effective role in students’ understanding of these fundamental concepts, and help them to progress in the workplace without difficulties and raise their productivity.

Meyer and Land (2003) introduced the idea of threshold concepts in teaching and learning. According to Meyer and Land (2003), threshold concepts represent “*a transformed way of understanding, or interpreting, or viewing something without which the learner cannot progress*”. Understanding threshold concepts provides a privileged view of a subject and vantage point for a deeper comprehension of a phenomenon. Threshold concepts are of interest to lecturers and learners in Higher Education because these concepts have the potential to resolve two teaching and learning related problems. First, threshold concepts have the potential to enhance learners’ capability to grasp the theoretical foundations of a subject instead of learning by rote. Second, threshold concepts could enable learners, not only to acquire formal knowledge of a discipline, but also to use this knowledge in everyday life experiences.

In their study based upon Perry’s theory of intellectual development in the 1960s, Palmer et al. (2000) found that intellectual development was facilitated when an instructor specifically developed activities that would initially meet students at their intellectual development level, and then challenge them in a supported environment to think in broader, more complex ways.

As this study was conducted on male students, it might be important here to refer to the work of Mary Belenky and her colleagues (1986) about women’s ways of knowing to see the difference from the male, as their study was as a comparison with Perry’s study. Despite the fact that Perry’s stages of intellectual/ethical development do not match exactly with those in Belenky et al, they are, however, adequate as a starting point in this discussion.

To assess how women view reality and draw conclusions about knowledge, the authors of *Women's Ways of Knowing* (Belenky et al., 1986) conducted structured interviews with 135 women who represented diverse age groups, life experiences, social classes, and educational experiences. They built their conceptual framework of women's knowing on Perry's (1970) model of intellectual development during the college years. Perry's study of male, Harvard undergraduates noted that students negotiated three major transitions or growth phases. During initial college experiences, they held dualistic views of the world and subject matter; at middle stages, they recognized and valued uncertainty and multiple perspectives but had difficulty evaluating them; and during final phases, they learned to weigh subject matter according to specific criteria and the relative merits of specific viewpoints. The transitions from one phase to another were often marked by crises and dramatic shifts in thinking patterns.

Belenky et al. (1986) reported that the women they interviewed appeared less dualistic during the early stages, were more cautious as they approached the middle stages that involved examining multiple perspectives, and learned to evaluate perspectives in terms of contexts, relationships, and commitments within a community. On the other side, Perry's male subjects had excelled in the development of separate knowing, which focuses on the maturation of traditional methods of objective, impersonal analysis and evaluation. Belenky et al argued that these young men learned to value the mastery of ideas and abstract principles, to distance themselves from the content they studied, and to establish themselves as experts. In contrast, many women learned most effectively by empathising with or understanding another person's viewpoint and by relating ideas and theories to personal events and meanings. These women, according to Belenky and her colleagues, were often uncomfortable with competitive learning environments that require individuals to set themselves apart from others, defend ideas, and debate opinions. This finding of the work of Belenky and her colleagues suggests that if the study had explored women students' perspectives on the importance of competencies, different generalizations might have been drawn.

### **Surface/Deep Strategic approaches in learning**

Marton and Säljö (1976) introduced the idea that when university students undertook an academic task they could adopt either a learning approach focused on understanding or a

learning approach focused on reproducing. Marton and Säljö's work (1976) was seminal in that it described a fundamental distinction in the manner in which students approached reading an academic article. They attempted to discover something about how university students approached the type of task they really engaged in on a day-to-day basis.

The students were asked to read an academic article, and told that they would be required to answer questions on it. Marton and Säljö's study (1976) found that some students experienced the text as a collection of discrete units of information that should be memorised in order to answer the anticipated questions. Marton and Säljö (1976) termed this the 'surface approach'. Other students treated the text as something that contained a structure of meaning. They searched for its underlying concerns, its implications, and its meaning to themselves. Marton and Säljö (1976) termed this the 'deep approach'. Students who approached the task using a deep approach understood more of the article, were better able to answer a range of questions about it, and were also able to remember its message more effectively.

Many studies have built upon Marton and Säljö's (1976) initial findings, and subsequent research has demonstrated that these different approaches to learning emerge across a wide range of academic tasks. Those studies have also found that students who are adopting deep approaches tend to have higher quality learning outcomes (Trigwell & Shale, 2004). Biggs, 1987; Entwistle, 1992 have suggested the need to term a third approach, that is strategic approach and noted that it is used in conjunction with a deep or surface approach to learning. Entwistle (1992) describes the strategic approach as the strategic approach drives from an intention to obtain the highest possible grades and involves adopting well-organised and efficient study methods.

The research over the past 25 years (Marton and Säljö, 1976; Marton, Hounsell and Entwistle, 1997; Prosser and Trigwell, 1998; Biggs, 1999) has seen learning and the learner become of central importance in the teaching/learning interaction - i.e. what the learner does has become more important for student learning than what the teacher does. This has led to the redefinition of teaching as the facilitation of student learning.

One of the outcomes of this shift has also been the redefinition of course objectives in terms of learning outcomes rather than of teaching inputs.

One of the major concepts to emerge from this research was the idea that students can take different approaches to learning. These approaches are not stable traits in individuals, although some students will tend towards taking a deep approach while others will tend towards taking a surface approach (Biggs, 1999). Rather, it is suggested that good teaching can influence students to take a deep approach, while poor teaching in the widest sense can pressure students to take a surface approach. Biggs defines good teaching as the encouragement of a deep approach to learning.

In a study to explore approaches to learning in the workplace, Geertshuis & Fazey (2006) found that learners using a predominantly surface approach to learning are less likely to have experienced training and are less likely to report a need for training despite having lower self-reported skill levels and less educational experience. When learners with a predominantly surface approach engage in training they are more likely than deep learners to do so as a consequence of social obligations. Learners using predominantly deep and strategic approaches by contrast have more extensive training and formal educational experience, identify more training needs and are likely to be intrinsically motivated.

The results presented here have a number of implications. Attention to approaches to learning may well be beneficial in ensuring an appropriate approach to training. It is apparent that the interpretation of self-assessment of skill levels and training needs may be improved if approaches to learning are taken into account. This result, according to Geertshuis & Fazey (2006) suggested that approaches to learning reflect underlying constructs that determine an individual's pattern of learning throughout her/his life and are not restricted in her/his exposure to university or even to formal education. Therefore, it would seem that managers should take an active part in monitoring training recruitment processes to ensure the need of different approaches to learning rather than approach to learning determines who is trained and in what.

As a result of the importance of approaches to learning in identifying the appropriate approach to training in the workplace, it is sensible to use the deep approach to learning in the co-operative education programmes. As the workplace is a social environment, and the learning in this space is through the medium of a real task, the deep method of learning appears here, especially with the understanding of the importance of the competencies needed for the workplace and acquisition of them. Zegwaard, Coll, & Hodges (2003)

argued that the ranking of importance of competencies, as perceived by recent graduates, seems to indicate they are in a transition zone, where their views are moving away from those held by students and becoming more like that of employers. It also appears that views of workplace competencies held by graduates are influenced by other effects (e.g. employment) after graduation.

Rainsbury, Hodges, Burchell & Lay (2002) had similar views of the impact of the workplace on the students' perceptions of importance of competencies. They said that an individual's perception of the importance of competencies is not static; rather it changes as the individual progresses from tertiary studies into the workplace. Rainsbury, Hodges, Burchell & Lay suggested that co-operative education programmes have an important role to play in providing students with relevant work experience so that their perceptions of the importance of a variety of competencies, most notably soft skills, more closely mirror the views of workplace professionals. Students can leave higher education (HE) without awareness of what they can do and without a framework to consciously develop their skills further. This is because the skills needed in the workplace are often not well recognised, understood or developed in conventional HE courses. HE appears to offer little support to help students transfer skills out of the university and into the workplace (Bennett et al., 2000). Most classroom learning activities involve knowledge which is abstract and out of context. Social interaction is a critical component of what is known as "situated learning" or what is called the process of "legitimate peripheral participation" when learners become involved in a "community of practice" which embodies certain beliefs and behaviours to be acquired. Situated learning is usually unintentional rather than deliberate, so it gives learners the opportunity to explore the reality through action and observation (Lave & Wenger, 1991).

According to Hager & Holland (2006) a person has to live out a pedagogy so that one is able to "acquire the self-image of a lifelong learner" (Knapper & Cropley, 2000, p 49). Several authors (Bowden & Marton, 1998, Barrie & Jones, 1999) have claimed that graduate attributes are best developed in the context of discipline knowledge (Hager & Holland, 2006). Higher Education Institutes, however, appear to offer little in the way of scaffolding or support to help students transfer skills out of the university and into the workplace (Bennett et al., 2000).

Rainsbury, Hodges, Burchell & Lay (2002) recommended that education professionals involved in co-operative education programmes tailor their courses to meet the needs of employers. This is so that students develop a better understanding of the requirements of the workplace with respect to the development of skills. Vaatstra & De Vries (2007) gave approval to this concern. They found that graduates from active learning environments perceived that the quality of the content of majors and of curriculum design are significantly related to the presence of generic and reflective competencies.

An important contribution that co-operative education programmes can make to students' future work life is to help them to understand that the requirements of the workplace simply differ from what they learn at institutions. This recognition can assist them to take responsibility for identifying their own learning needs and then pay more attention to achieve them, continuously (Hodges & Burchell, 2003).

### **2.3.2 Social and situational maturity of the individuals who have undertaken the Co-op programmes**

The list of generic competencies selected for this study has a social and situational aspect. These aspects are most clearly articulated in the soft competencies. For example: competencies such as relationship building, impact and influence on others, interpersonal understanding, and self-control all need social atmosphere and situations to be evaluated and improved. There were clear indications, because of the lack of job opportunities in the Saudi workplace, that graduates were focusing on the ability to fit into the work environment during the 'Co-op' and trying to be accepted as part of a work group, placing importance on their professional behaviour and ability to communicate. English language competencies also need these social and situational requirements to be developed. Wong Fillmore (1985) in her Social, Linguistic, and Cognitive Processes Model for the second language learning process approaches the subject matter from a sociological perspective, pointing out that second language learning would occur in social contexts. She states that learners figure out the system of rules of the new language and internalise it, discovering the speech segments that represent meanings and how they unite together to express complex thoughts. Wong Fillmore added that learners use the cognitive tools at their disposal, such as associative skills, memory, inferential skills and any other analytical skills they need to figure out the new language. The learners will search for ways to

communicate their thoughts and feelings through the second language in the same way they do with the members of their first-language community.

Clark (2000) reported that the Prism Model of Thomas & Collier, 1995 of second language learning involves four dimensions; these are sociocultural, linguistic, academic and cognitive processes. According to their multidimensional approach, all of the components contribute to language learning. Thomas & Collier see that second language acquisition needs to be looked at as the very complex interdependent learning it is.

English as a foreign language was added by the researcher in three competencies: English language (overall), English language (speaking), and English language (writing). The researcher has classified them as soft competencies, based on the method that the Institute of Public Administration uses to teach English language to its students. The IPA's way of teaching English is to consider the nature of this competency. This requires an understanding of the cultural aspect, as well as needing a set of soft skills to be achieved, such as: interpersonal understanding, initiative, self-confidence, problem solving, and energy & passion. In the Institute of Public Administration (IPA), students must successfully pass a one-year intensive English programme. The English Language Centre (ELC) at the IPA is responsible for this intensive English programme. There are four sessions each academic year, each session lasting eight weeks. Teachers in the programme must have completed an MA in TESL/TEFL or Applied Linguistics, and the faculty of the ELC represents many different cultures and nationalities (Institute of Public Administration Website, 2007).

The English Language Centre considers that teaching is more than learner-centred and student-oriented. Therefore, it expects its teachers to help learners use the language suitably in their working contexts. This includes the insertion of soft skills in their teaching in a very explicit way (Menochelli, 2006). Nieragden (2000) has suggested that teachers have to be clear about the function of any language item that they want to point out. Any difference between a certain linguistic form and the speaker's intention can lead to confusion or misunderstanding. Nieragden added that teachers have to emphasise the interpersonal forces of language use in a work-oriented context - the soft skills. Through the syllabus and course books, teachers will have to try to achieve highly complex aims besides those of teaching words and structures.

Language does not transport pieces of one person's reality into another's – it merely prods and prompts the other to build up conceptual structures that, to this other, seem compatible with the words and actions the speaker or writer has used (Von Glasersfeld and Steffe, 1991). Therefore, there is no simple way to explain why some people are successful at second-language learning and some are not. Social and educational variables, experiential factors, and individual differences in attitude, personality, age, and motivation all affect language learning (Clark, 2000).

Hard skills are basic tools for the acquisition of English as a foreign language. They can be useful to learn vocabulary and grammar. However, soft skills are necessary in applying the EFL in work-based situations. Moving from classroom to workplace, and being able to use the language in workplace situations requires a set of soft or interpersonal skills, especially oral communication, which (according to Maes et al., 1997) have been identified as the most important skills in the workplace. Their study revealed that oral communication in English is the most important skill demanded by employers when it comes to recruiting new staff.

Patricia (2004) argued that using English as a working language within companies has many advantages; however it can result in communication problems. Vollstedt (2002), as cited in Patricia (2004) states that estimates show that up to 50 per cent of employee input in project teams and work groups is lost since workers do not have the foreign language competency or self-confidence to take part in discussions. Maes et al. (1997) consider oral communication to be one of the three most important competencies required of graduates.

Competencies such as confidentiality at work, attendance, and timekeeping, and concern for order, quality and accuracy are 'ethical' competencies which also need a social environment to be developed and be aware of their importance for the workplace. Lin (2005) asserted that employers today seek employees who are ethical – who do the right thing and make the right choices. Online Recruitment (2006) reported that employers are placing much more emphasis on the soft skills of school leavers such as communication skills and work ethic.

Sadri (2002) showed that interpersonal skills are considered to be important, with oral communication ranked as the most important competency for success in the corporate



environment. He suggested that this finding assists the recommendations of the Porter and McKibbin report (1988), of the American Assembly of Collegiate Schools of Business (AACSB) (2001), and of employers outside of this sample (Bullis, 2001). Sadri found that Ethics was also considered to be important by both employers and alumni. He stated that CSU Fullerton was considered to have taught ethics only moderately effectively (the competency was ranked fifth). He clarified that this lack of attention may be because ethics is a difficult and sometimes ambiguous topic to discuss in a classroom setting and, in today's politically correct environment, educators may find themselves shying away from such discussions. Sadri discussed the issue of how ethics should be included in the curriculum. He revealed that Stewart et al. (1996) found that students preferred to have ethics integrated into a number of different courses rather than having it as a stand-alone course. Brown (1994) suggests that role-plays are an appropriate vehicle for integrating ethical concerns into courses. Some authors as cited in Adams et al. (1998) were in agreement of the effectiveness of the real practical way in teaching business ethics by reporting that if the desired result of an ethics course is the student's being able to apply moral reasoning to actual work situations, students need to work with ethical dilemmas in order to develop skill in ethical reasoning (Bishop, 1992; Trevino and McCabe, 1994; McDonald, 1992).

As the focus shifts from 'employment' to 'employability', today's graduates will need to understand that their attitude to work is as important as the work itself. Furthermore, their ability and willingness to undertake professional development and training throughout their working life is not only expected, but will be required for lifelong work. As Zuboff (1988, p. 395) argued prophetically: "Learning is no longer a separate activity that occurs either before one enters the workplace or in remote classroom settings ... learning is not something that requires time out from being employed in productive activity; learning is at the heart of productive activity". An important contribution that co-operative education programmes can make to students' future work life is to help them to understand that the workplace is simply a different learning institution. It is a place where the curriculum is unstated and the learning outcomes unclear but, importantly, it is a place where students must take responsibility for identifying their own learning needs and then do something about it, continuously (Hodges & Burchell, 2003).

As cited in Hodges & Burchell (2003), Weisz (1999) found evidence of a link between degree programmes that included work-based co-operative education and graduate employment, and found that employers expect generic competencies to be developed prior to employment. Interestingly, Weisz noted little correlation between academic achievement and levels of generic skills, suggesting that employability is not necessarily related to academic ability.

Hodges & Burchell (2003) confirmed Weisz's finding when they found in their study that employers considered that it was important for graduates entering business roles to have some business work experience prior to completing their tertiary study. Most respondents (79%) considered work experience to be important with only 9% considering this to be unimportant, with the remaining 12% being neutral. Hodges & Burchell have argued that these results indicate that most employers want graduates to be more 'work-ready' and they believe that this can be achieved through work experience. They added that some employers indicated that there is a direct link between graduate competency levels and (a lack of) prior work experience. Hodges & Burchell (2003) concluded that cooperative education programmes can provide an important role in helping students to gain valuable work experience.

Weisz (1999), as cited in Hodges & Burchell (2003), has mentioned that there have been a number of studies reported in the literature that point to what employers consider to be important in graduates, but there is little recent research on employers' perceptions of the level of competency that graduates bring to the workplace. These findings also confirm research from an earlier study (Davison, Brown & Davison, 1993), which suggested that employers believe graduates have unrealistic expectations of life in the business world, and are generally poor in interpersonal skills. These findings then highlight the potential role co-operative education can play in the development of business graduates. While co-operative education programmes can provide an ideal vehicle to bridge the gap between the world of work and the world of education, curriculum developers must be vigilant and ensure that they understand the world of work, and thus the competencies demanded of business graduates.

Zegwaard, Coll, & Hodges (2003) found that recent graduates who had carried out Co-op placements had similar views to those who had not had Co-op placements; however,

graduates who had completed Co-op placements tend to rate competencies higher overall. Interestingly, graduates who had carried out Co-op placements seemed to rate competencies associated with being self-driven and focused more highly. Based on the demographics of those that responded, graduates who had completed Co-op placements had a higher proportion employed in science, and had a similar proportion go on to do graduate studies, than those who had not carried out Co-op placements.

In a case study, Fleming & Ferkins (2005) have established the benefits of work integrated learning for the employability of students in the sport and recreation industry. They reported the following:

- As employees, students who have undertaken a co-operative experience as part of their degree have been shown to have a better understanding of the demands of the industry, are more willing to volunteer for new roles and learn new skills that lead to advancement and success (Calway and Murphy, 2000).
- Research has shown that co-operative students in many discipline areas are more likely to be hired than graduates who had not undertaken a co-operative experience (Braunstein, 1999; Ricks and Van Gyn, 1997).
- Co-operative graduates usually remain longer in their first job and tend to progress faster (Fleming & Ferkins, 2005).

Royal Melbourne Institute of Technology (RMIT) Business School has included co-operative education (Co-op) as an integral part of seven (out of nine) degree programmes that it currently offers in the belief that these programmes add to graduate employability. This belief is supported by the results of the Graduate Destination Survey of 1998 which indicated that the graduates of these seven degree programmes had an employment rate of above 92% which was higher than competitor courses that did not include a Co-op programme (Weisz, 1999). According to Terraso (2003), two recent studies suggest that students who participate in Co-operative education programmes get their first job faster and at a higher starting salary than their peers. As he stated, that once they get that job, they receive better performance reviews, move up the ranks faster and receive more pay increases than new employees who have not Co-oped.

The first study conducted by Georgia Tech's Office of Assessment, between December 2001 and May 2003 showed an increase in starting salary for those participating in the Co-

op programmes. From more than 3,000 recent Georgia Tech graduates, the study found that 45 per cent of Co-op students had found jobs by graduation compared with 37.9 per cent of students who had no Co-op experience. In addition, the average starting salary for Co-op students who had job offers by graduation was \$48,555, a 7 per cent increase over those without Co-op experience.

The second study conducted by the Center for Labor Market Studies at Northeastern University also found that students who 'Co-op' receive higher starting salaries than their non-Co-op peers. On top of that, it suggested that once they are on the job, Co-op students receive better performance reviews, faster promotions and better pay increases than co-workers without Co-op experience. The study looked at 11,000 employees, most hired between 1995 and 2000. The average starting salary for employees with Co-op experience was \$39,700 compared to \$37,600 for other employees hired straight out of college. That gap, they also noted, widens over time.

Fitzgerald (1985) (as cited in Harrison, 1986) has cited two studies to illustrate the distinction between traditional and alternative learning environments. One of these studies was conducted at the National Center for Research in Vocational Education and the other at the Northwest Regional Educational Laboratory (NWREL). Utilizing surveys of the general public, teachers, students, and employers, the National Center study asked about the source of learning for four competency skill groups: traditional job values and expectations, job advancement and promotion, taking charge, and finding one's place. All surveyed groups believed that all these competencies were learned on the job, although they did not agree that this should necessarily be so. Fitzgerald comments on the problem this finding creates, particularly for minority youth who cannot get hired because they lack employability skills and do not learn employability skills until they have a job.

The NWREL study examined the concept of youth responsibility. Questions attempted to define what it is, where it is learned, and how it is demonstrated. Students said they learned responsibility at home, at work, and at school, in that order. However, they felt they behaved most responsibly at work and least responsibly at school.

The common thread running through the research indicates that the workplace is the site of most learning concerning work. The implication is that since traditional classroom

instruction has not produced the desired outcomes, alternatives should be considered. Fitzgerald (1985) suggests the possibility of using experience-based career education as one such alternative. This method is possibly more effective because of its close ties to the workplace and its emphasis on the "real world". Fitzgerald calls for more research in this area to multiply and improve the alternatives.

Joseph and Joseph (1997) (as cited in Hodges & Burchell, 2003) reported that employers believe that educational institutions provide relevant employment experience for their business students but, remarkably, ascribe generic competencies a low level of importance. However, the level of competency expected of graduates by these employers fell well below their perceived level of importance, suggesting that employers expected these competencies would be developed elsewhere in the curriculum and not necessarily through industry involvement. Raymond, McNabb and Matthaei (1993), in a survey of teaching methods to develop competencies for the workplace, found both employers and students ranked co-operative education as the most important educational method, and pointed to a critical need for student thinking and ability to learn.

Harrison (1986) gives school a big responsibility in developing students' employability opportunities. He asserted that general employability skills must be taught at school thoughtfully, both through words and actions. Harrison placed much emphasis to the example. He says: "teacher who is habitually late to class is teaching students that punctuality is not important". (p. 3)

Harrison has mentioned that home can also play an integrated role with school to enhance students' responsibility.

Sadri (2002) suggests that more emphasis could be given in the curriculum to oral communication skills by moving away from the traditional classroom model in which the teacher speaks and the students listen. He added that school might benefit from activities such as discussions, group activities, role-plays, and classroom presentations that allow students to develop a variety of communication skills.

In identifying the significant role of Open Learning which allows students to be aware and maintain contact with life's problems, Dearnley & Matthew (2000) have stated that Coles

(1998) draws the attention to the work of Carl Rogers, who believed that learning would automatically take place if the conditions were right. These conditions, he claimed, require the student to be surrounded by life's problems.

Dearnley & Matthew (2000) suggested again that intrinsic motivators are very important to assist adult learners, and that an individual's interaction with the society will create an appropriate climate to develop his/her awareness of the importance of competencies and activate the intrinsic motivators. Dearnley & Matthew found in their study (2004), which has discussed the pilot phase of the previous study, that changing personal perceptions and knowledge drove intrinsic motivation and so impacted on social, professional and academic aspects of the participants' lives.

Smith (1999) has stated in his introduction that social learning theory posits that people learn from observing other people. By definition, such observations take place in a social setting (Merriam and Caffarella 1991: 134). Within psychology, initially it was behaviourists who looked to how people learned through observation. Later researchers like Albert Bandura (1977) looked to interaction and cognitive processes. Observation allows people to see the consequences of other's behaviours. They can gain some idea of what might flow from acting in this way or that.

Zimmer (1998) has stated that the application of knowledge and abilities in complex real-life situations becomes an integral part of the learning process. He added that subject is not only the point of concentration, but also the situation that should be dealt with and improved. He concluded that community education never just aims at the qualification of people, but also at a constructive dealing with the reality in which these people are living.

#### **2.4 Current Research on Perceptions of Competencies' Importance**

Lin (2005), in a PhD study, compared the differences between Taiwanese business teachers and business managers in their perceptions of the importance of competencies for business graduates entering the workplace and of the graduates' actual performance of those competencies. She found that the employers who were represented by managers perceived ability and willingness to learn as the most important competencies. This competency was also considered to be the most important in employers' perceptions in similar studies

(Hodges & Burchell, 2003; Coll, Zegwaard & Hodges, 2002a, 2002b; Burchell, Hodges & Rainsbury, 2001) and in the perceptions of students and graduates (Rainsbury, Hodges, Burchell & Lay, 2002). This finding seems to present further support for Stephenson's (1997) assertion that staying capable in a world of change requires confidence in one's ability to manage one's own learning. That is, in order to continue to be a valuable employee, an individual must be willing to learn new skills to keep pace with the rapidly changing world. However, Hodges & Burchell (2003) stated that employers consider that business graduates need to have high levels of competency in most areas.

Zegwaard, Coll & Hodges (2003) found that recent science and technology graduates and faculty members considered all the competencies as important. Likewise, Rainsbury, Hodges, Burchell & Lay (2002) found, overall, that both the students and graduates perceived all of the competencies are important. However, the graduates rated most competencies as more important than did the students. This finding, as Rainsbury, Hodges, Burchell & Lay stated, supports the emphasis of competency development seen in the literature (Boam & Sparrow, 1992; Boyatzis, 1982; Bowden & Marton, 1998; Birkett, 1993; Spencer & Spencer, 1993).

Zegwaard & Hodges (2003) found that graduates and faculty perceive that the workplace is changing rapidly and therefore, in order to remain competitive, the ability to change, adapt and learn new skills in the workplace is seen as vital.

In terms of which competencies were of least importance, Rainsbury, Hodges, Burchell & Lay (2002) found that students and graduates again were in agreement, rating directiveness, organisational awareness, developing others and impact and influence on others, as least important. Hodges & Burchell (2003) found that the competencies of organisational awareness, impact and influence on others, leadership, and developing others were considered least important for graduates early in their business careers by employers.

Zegwaard & Hodges (2003) found that graduates viewed organisational commitment as less important than other competencies. They argued that it seems is in response to a view that it is the norm to change jobs rather than staying at one organisation for the duration of ones career – a view shared by faculty.

Sadri (2002) has identified seven core business school competencies to see whether they are important to business graduates and to their employers. These competencies are: written communications, oral communications, computer skills, teamwork skills, cultural awareness, ethics, and functional-area competency. Sadri has referred to some studies reported the following:

The Business Higher Education Forum (1995) found that business graduates lack the ability to work well in teams.

Hofstede (1984, 1991, 1993) and Hall (1969, 1973, 1976, 1983) suggest that in low-context (cultures where written and spoken communications are heavily relied upon), individualistic cultures like that of the U.S., people are more concerned with the self than the group, and teamwork may be viewed as less important than the individual's skills in oral and written communications. However, Sadri found in his study that the high ranking of teamwork by employers suggests that teamwork is important to career success in the current global business environment. His findings, as he argued, support the increased emphasis on teamwork in business schools (Kravitz & Martin, 1986; Shepperd, 1993).

In terms of the importance of hard and soft competencies, many authors argued that successful work performance require a mix of both hard (cognitive) skills and soft (behavioural) skills (Ashton, 1994; Birkett, 1993; Caudron, 1999; George, 1996; Mullen, 1997). Hodges & Burchell (2003) were in agreement with this view; however, they found that employers place greater importance on soft skills.

Zegwaard, Coll, & Hodges (2003) found that despite soft and hard skills being ranked as important, both graduates and faculty perceive hard skills to be more important than soft skills. However, they were at odds on the importance of technical expertise, which faculty perceived as very important and graduates did not.

Hodges & Burchell (2003) suggested that employers desire to improve levels of soft competency for graduates such as: customer service orientation; order, quality and accuracy; interpersonal communication; and problem solving.



Rainsbury, Hodges, Burchell & Lay (2002) reported that the students and graduates clearly favoured soft skills. This suggests that students and graduates agree with Kemper (1999), McMurchie, (1998) and Spencer and Spencer (1993), that superior performers require competency in both soft and hard skills.

## **Chapter 3: Methodology**

### **3.1 Introduction**

This chapter outlines the research method used in this study. Participants' populations were identified. Research objectives are postulated. Questionnaire and interviews are the basic techniques that were used to collect data. The administration of these two techniques is also discussed. The limitations of this study are considered. Finally, the chapter outlines the approach to data analysis and ethical implications of the research.

### **3.2 Research Design**

This study utilised both quantitative and qualitative research methods. This was considered an advantageous blend as it allowed for a degree of triangulation, the development of complementary evidence from which a more holistic picture could be drawn, and the possibility of comparing differences in terms of qualitative statements and quantitative outcomes (Creswell, 1994; Green, Caracelli, & Graham, 1989). Creswell (1994) noted that a mixed-method study is a study combining at least one quantitative method and one qualitative method in data collection, analysis, and reporting findings.

In this study a questionnaire was administered as a self-report data-collection instrument which each research participant filled out. It was used as an appropriate method to obtain information about the thoughts, feelings, attitudes, beliefs, values, perceptions, personality, and behavioural intentions of research participants (Johnson & Christensen, 2004).

Johnson and Christensen asserted that a questionnaire is not restricted to a single research method. It can be used to collect data with multiple research methods (experimental, qualitative, correlational, etc.). The questionnaire's methodology enables standardisation of questions (Dillman, 2000) and was chosen for the following advantages which were reported in Doshy, 2005:

- Enable researcher to gather a reasonable amount of data in a short time.
- Can help to gather a reasonable amount of data and provide information which can be followed up.
- Provide a format making it easy to represent information.

- Suitable for collecting initial information on attitudes and perceptions.

The use of students' perceptions of the constructivist teaching/learning environment to measure effectiveness is not new (Yore et al., 1998). Fraser (1989) reviewed 60 studies of student perceptions of constructivist teaching environments. He argued that there were several advantages to using student perceptual measures rather than observational measures, including that student perceptions are based on many lessons or classes, while peer/expert observations are based on limited numbers of observations; the information obtained is the pooled judgment of all the students as opposed to the view of a single observer; and the student perception is based on the teacher's real behaviour and therefore more important than inferred behaviour based on observer judgment.

### 3.3 Research Populations

The populations used for this study consisted of three groups:

- IPA's Post-secondary students in Dammam brunch (N=99). Students were enrolled in 2003 and represent five programmes: Hospital Administration, roll 1(N=20), Executive Secretary, roll 12 (N=26), Accounting, roll 16 (N=16), Sales, roll 15 (N=24) and Computers, roll 1 (N=13).
- Employers (workplace enterprises in the eastern province of Saudi Arabia, which participated in the IPA's Co-op programmes) (N=38). The enterprises' representatives were familiar with hiring practices, attributes of IPA graduates entering the workplace, and industry perspectives on generic competencies. They were chosen by the management of their enterprises to represent the enterprises' views, based on their knowledge and experience of the IPA's co-operative education programmes in their organisations. The participants included resources professionals, managers of personnel departments and Co-op training supervisors who supervised students during the Co-op training.
- IPA's teachers in Dammam brunch (N=38). Teachers represent several departments: Public Administration, Accounting, Statistics, Office Management,

Hospital Administration, Materials Management, English Language, Library and Information and Private Sector Programmes.

### **3.4 Protection of Human Subjects**

The study was conducted in an ethical manner. The rights and privacy of study participants were adequately protected. All participants received a research package containing an introductory letter explaining the purposes of the study, its importance, and benefits. The researcher promised to keep the participants' identity and their organisation confidential. All returned questionnaires were destroyed after the data was used in this research. Ethical approval to collect data from participants in this study was successfully sought (See Appendix 1).

### **3.5 Instrumentation**

A questionnaire survey was developed by the researcher and conducted with three groups: employers, teachers, and students. The questionnaire consisted of four parts: (a) demographic characteristics of participants; (b) ranking of importance of competencies; (c) comparison of hard competencies and soft competencies; and (d) competencies required to be developed in IPA's post-secondary graduates (this part was only in the employers' and teachers' questionnaire). For the employers' group, the first section asked respondents to answer questions concerning the organisation's activity, organisation's size, length of participation in IPA's Co-op and participation in other organisations' Co-op. For the teachers group, the first section included questions concerning the teacher's age, nationality, qualification, department, overall experience, experience at IPA, and programme taught most. For the students' group, the section also included questions concerning their major, age, and work experience.

In parts 2, 3, and 4 of the questionnaire, 31 competencies were used based on the 20 generic competencies identified by Spencer & Spencer (1993) (who claim that they account for 80-95% of the distinguishing features of superior performers: See Appendix 2) together with others, namely: ability and willingness to learn; written communication; personal planning and organisational skills; energy & passion; problem solving; and computer literacy. These latter competencies were selected from literature (Meade &

Andrews, 1995; Sweeney & Twomey, 1997; Rainsbury, Hodges, Burchell & Lay, 2002) and were considered necessary in order to gain a more complete perception of graduates' competencies (Rainsbury, Hodges, Burchell, and Lay, 2002). Problem solving, and energy & passion, were added from the work of Hodges & Buchell (2003). This list of 26 competencies were mostly used in many studies which used the 20 generic competencies identified by Spencer & Spencer, 1993 (Lin, 2005; Hodges & Burchell, 2003; Coll, Zegwaard & Hodges, 2002a, 2002b; Burchell, Hodges & Rainsbury, 2001).

In this study, the list of 26 competencies was called "Standard" in order to make a clear and fair comparison with the other studies.

The following further five competencies were added by the researcher: English language (overall), English language (writing), English language (speaking), attendance and timekeeping, and confidentiality at work. English language is considered important in the workplace in Saudi Arabia today, especially in the private sector. It has become the language of most majors in higher education. Therefore, there was more emphasis on English language (writing), particularly by many companies as one of most important competencies required for hiring employees. English courses, provided for the IPA's post-secondary students in the first year for two full semesters, focus initially on general English, involving the skills of oral communication, reading, writing, and listening.

Attendance and timekeeping, and confidentiality at work, are two work ethical competencies that were added to the suggested competencies list as important values that are considered as essential factors of high performance and quality (Lin, 2005).

In the second part of the questionnaire, respondents were asked to rate the importance of each competency through the use of a six-point Likert scale, and provision was made for respondents to add additional competencies they felt were relevant.

In the third part, respondents were asked to determine which one of the two categories, hard and soft competencies, is more important, and give reasons for their choices. In the fourth part, employers and teachers were asked to identify the five most important competencies that required to be developed in the IPA's post-secondary graduates, and give reasons for their choices.

Students were approached twice, once before participating in the Co-op, and once after they completed the Co-op. In the second students' survey, students were asked to respond to another question. They were required to identify the most important sources that developed their awareness of the importance of competencies, and the rank of the Co-op amongst those sources.

### **3.6 Operational Definitions**

The participants were asked to rate the level of importance of 31 competencies for IPA post-secondary graduates entering the workplace. The competency categories were listed in random order in the questionnaire and included definitions for each of the 31 competencies. In the first part of the questionnaire, the participants were asked to complete demographic information. In the second part, the participants were asked to rate the importance of competencies, using the associated competency definitions. The ratings were based on a 6 point Likert scale. For the importance scale, a rating of 1 indicates the competency is most unimportant, 2 indicates very unimportant, 3 indicates unimportant, 4 indicates important, 5 indicates very important, and 6 indicates the competency is most important. The third part asked the participants to identify which one of the two categories of competencies (soft & hard) - in general - are more important. In the fourth part of the employers and teachers survey, the participants were asked to identify the five most important competencies that required to be developed in the IPA's post-secondary graduates, with giving reasons. On the other hand, the students (after Co-op) were asked – in the fourth part of the questionnaire – to rank the most important sources that developed their awareness of the importance of competencies from the following five sources: Co-op, Post-secondary Programme (PSP), home/family/community, school, and self-taught. Using a variance stable scaling program called RANKO, which presents the data as ranks in reverse order, 1 is assigned to the most important source and 5 to the least (Peter et al., 2004).

### **3.7 Why use a 6-point Likert Scale?**

One of the most common scaled-response format questions in survey design today is the Likert scale. It was developed by the American educator and organisational psychologist Rensis Likert in 1932 in an attempt to improve the levels of measurement in social

research through the use of standardised response categories in survey questionnaires (Infosurv, 2006).

In February 2006, Infosurv conducted a forum of market researchers to understand their preference between 5-point and 6-point Likert scales. Their conclusion was that most modern researchers agree that the neutral rating in a 5-point scale is needed when conducting survey research.

Of the researchers who participated in the Infosurv discussion, 71% expressed a preference for 5-point Likert scales, 12% preferred the 6-point scale, and 17% were neutral on the matter. Those researchers preferring the 5-point scale cited the following reasons:

- Survey respondents might truly feel neutral about a given topic, and presenting to these respondents a scale without a neutral midpoint can introduce respondent bias as respondents are forced to choose a more positive or negative response. Some researchers point out that in many cases respondents will accentuate the negative in an experience. In this study, this was not a concern for the researcher.
- Neutral is a legitimate opinion that exists among respondents. Generally speaking, if we solicit every opinion of the people that are surveyed, the neutral rating needs to be included in the scale. If we are not interested in the neutral opinion, we don't have to include it in the scale.
- With a 5-point scale you have a nice midpoint. The 3 rating is right in the middle and it indicates neutrality or mixed satisfaction. When calculating the mean weighted average you have a standard point of comparison. You will know instantly that an average rating of 3.4 is above neutral and a 2.8 is below.

Those researchers preferring the 6-point scale cited the following reasons:

- They prefer to have an even number of ratings in the scale to have respondents commit to either the positive or negative end of the scale. These researchers disagree with giving the respondent a neutral or ambivalent answer choice.

- They also argue that neutral answers are rare anyway because, in the majority of cases, only those who had a positive or negative experience/opinion will want to participate in a research study.
- If a respondent is very familiar with the subject, for example a student rating a professor's performance, a neutral rating may not be as necessary compared to a situation where you are asking the student to rate his school's financial aid policies. It could be argued that in the latter case the respondent could truly have a neutral attitude towards the subject at hand.

In this study, the researcher does not tend to give the respondents a neutral or ambivalent answer choice. He used the 6-point Likert scale to lead the respondents to commit to either the positive or negative end of the scale, as they were familiar with the subject of the survey.

### **3.8 Validity of the Instrumentation**

It is reported in the instrumentation section that the questionnaire that was used in this study was based on the list of 26 competencies that were mostly used in many studies which used the 20 generic competencies identified by Spencer & Spencer (1993), as a base for their studies (Lin, 2005; Hodges & Burchell, 2003; Coll, Zegwaard & Hodges, 2002a, 2002b; Burchell, Hodges & Rainsbury, 2001).

Lin (2005) has stated that Hodges and Burchell (2003) created the assessment tool primarily based on the research work of Harvey, Burrows, and Green (1992), Meade and Andrews (1995), Spencer and Spencer (1993), and Sweeney and Twomey (1997). Lin (2005) added that Hodges and Burchell used the instrument in many similar research studies and it demonstrated evidence of content validity (Burchell, Hodges, & Rainsbury, 2001; Coll, Zegwaard, & Hodges, 2003). The questionnaire used for this study was developed by the researcher, and included some different components to address the purpose of the study. 16 teachers, 16 employers, and a group of 26 students enrolled in secretarial programme, roll 13, year (2002) were asked to trial the questionnaire's validity. Teijlingen & Hundley (2001) stated that the pilot study procedures were to improve the internal validity of the questionnaire, and can include the following:



- Administer the questionnaire to pilot subjects in exactly the same way as it will be administered in the main study.
- Ask the subjects for feedback to identify ambiguities and difficult questions.
- Record the time taken to complete the questionnaire and decide whether it is reasonable.
- Discard all unnecessary, difficult or ambiguous questions.
- Assess whether each question gives an adequate range of responses.
- Establish that replies can be interpreted in terms of the information that is required.
- Check that all questions are answered.
- Re-word or re-scale any questions that are not answered as expected.
- Shorten, revise and, if possible, pilot again.

It took the students between 25 and 35 minutes to read the introductory letter and complete the questionnaire. Students provided a few comments on the meaning of hard and soft competencies. However, the three groups indicated that they had no difficulty understanding the questionnaire's instructions or the individual items. The researcher has mentioned some examples of the two categories hard and soft competencies associated with the definitions.

### **3.9 Reliability of the Questionnaire Survey**

Reliability is reported in terms of a Cronbach alpha coefficient, ranging between 0 and 1. The assumption underlying the reliability co-efficient is that items on a scale positively correlate with each other as they are measuring to some extent the same construct. The higher the coefficient (i.e. the closer to 1), the more reliable the scale. A coefficient of 1

indicates perfect reliability. It is considered that alpha should be greater than 0.70 to be reliable (Norusis 1993).

To test the reliability of the questionnaire, the responses of participants for the three pilot groups were analysed.

As it shown in Table 4, high coefficients of Cronbach alpha were obtained in all categories for the three groups, with the results ranging from 0.709 to 0.956. The coefficients of the overall instrument ranged from 0.909 to 0.964. All the reliability coefficients were greater than 0.70 and were regarded as highly reliable. As the survey instrument achieved a reliable ranking in a pilot test, it was assumed to be reliable and therefore used for the rest of the study.

**Table 4. Cronbach Alpha Coefficients of the Survey Instrument**

<b>Group</b>	<b>Categories</b>	<b>Competencies' number</b>	<b>Reliability Coefficient</b>
Employer	Hard competencies	15,16,17,23,25,26	0.835
	Soft competencies	1,2,3,4,5,6,7,8,9,10,11,12,13,14, 18,19,20,21,22, 24,27,28,29, 30,31	0.938
	Overall		0.926
Teacher	Hard competencies	As above	0.909
	Soft competencies	As above	0.956
	Overall		0.964
Student	Hard competencies	As above	0.709
	Soft competencies	As above	0.907
	Overall		0.909

### **3.10 Validity of the Competencies' Classification as Hard and Soft**

The data gathered in the students' responses (before Co-op) were used to establish the validity of the instrument in terms of competencies' designation as 'hard' or 'soft' competencies. Principal Component Analysis (PCA) was used to check whether the

classification of hard and soft competencies in the standard list, as used in this study, confirmed the findings of the original classification found in the literature.

On the other hand, Principal Component Analysis (PCA) was used to explore empirically whether the five newly added competencies were grouped with 'hard' or 'soft' competencies.

The researcher has applied Principal Component Analysis to the data obtained from students' responses, because PCA is a technique that requires a large sample size. Minimally Adequate Sample Size Principal component analysis should be the larger of 100 subjects or five times the number of items (Kline, 1994). Kline (1994) stated that it is usual to regard factor loadings as high if they are greater than 0.6 (the positive or negative sign is irrelevant) and moderately high if they are above 0.3.

### **3.11 Data Collection**

Data collection commenced in February 2005, and was completed in October 2005. Several steps were employed to ensure successful procedures in this data collection as it follows:

#### **Questionnaires**

First, the researcher reviewed IPA's directories of eastern province organisations which participated in IPA's Co-op programmes, to identify the organisations that had been participating in the previous three years.

A survey instrument was mailed with a covering letter to 72 organisations (the total population) in the eastern province of Saudi Arabia that had participated in IPA's Co-op for previous three years as they are more familiar with IPA's students and graduates. Sending the questionnaire by post was considered the best way to ensure a high level of response. The instrument was also distributed to 38 teachers at IPA's Dammam branch and 119 students in IPA's post-secondary programmes (before participating in the Co-op). The covering letter explained the purpose of the study, ensured anonymity, and requested participation in the study. The cover letter also gave directions for completing and

returning the questionnaire. Each copy of the questionnaire contained a code number for follow-up purposes only.

Two weeks after the initial mailing, on 29 February 2005, a second mailing was sent to industry representatives except two who had responded. This step was very important to ensure receipt of the questionnaire, in addition to asserting the importance of the study.

The employers group returned 44 questionnaires out of 72. 38 questionnaires were useable (with response rate of 53%), while 6 questionnaires were incomplete. All 38 questionnaires were returned from teachers and were valid for data analysis. Students (before Co-op) returned 106 useable questionnaires out of 119 (with response rate of 89%). 13 questionnaires were incomplete. The 106 students who filled out the questionnaire were asked to fill out part 2, after participating in the Co-op. The students returned 99 useable questionnaires (with response rate of 93%), as 7 questionnaires were incomplete. The high level of response by teachers and students, both before and after Co-op, was expected as the participants of the two groups were within the IPA, and the researcher could supervise the administration of the distributing and collection of the questionnaires, and answer any question raised by the participants.

The questionnaires of employers, teachers, and students (before and after Co-op) are shown in Appendices (4, 5, 6, and 7).

## **Interviews**

It was considered necessary to incorporate a further qualitative component to add to the depth of this study. The following interview questions were asked to explore the scope and nature of co-operative education programmes in developing graduates' awareness of importance of competencies:

In your experience after participating in IPA's Co-op programmes:

- Do you think that students' perceptions of the importance of competencies have changed?
- If yes, in what way have they changed?

- Are there any further comments or suggestions for improving students' awareness of the importance of generic competencies, through the Co-op or other related sources?

Seven industry professionals were selected randomly from the original 38 participants. The researcher e-mailed and phoned the selected participants to arrange face-to-face or phone interviews. Six of these participants were interviewed face to face and only one of them was interviewed by phone. The interviews lasted 50 minutes on average. All interviews were audio-taped and transcribed. These interviews were analysed and significantly added to the richness of the findings obtained from the analysis of the questionnaires. That is because the interview questions were focused on the impact of the co-operative education programmes on students' awareness of the importance of generic competencies by asking the employer interviewees about the change that might have occurred in students' perceptions of the importance of competencies (after participating in the Co-op) and whether this change was to give more importance to 'hard' or 'soft' competencies or to both as equal. The interview was also important to obtain some valuable comments to develop students' awareness of the importance of generic competencies, through the Co-op, or any further methods.

### **3.12 Data Analysis**

#### **3.12.1 Analysis of Quantitative Data**

There are a number of specialist software applications available to support quantitative data analysis. These include Minitab for Windows, SPSS for windows and SAS for Windows (David and Sutton, 2004). In this study SPSS v13 was used through the following statistical techniques:

- Frequency Distribution
- Mean Score
- One-way ANOVA

- Sheffe
- T-test
- Kruskal Wallis
- Mann-Whitney test

The researcher also has conducted 'Direct Ranking' by using a variance stable scaling programme called RANKO. RANKO presents the data as ranks in reverse order (Peter et al., 2004). Peter et al. explained that direct ranking consists of assigning integers to objects, indicating order of preferences or judgments. If there are k objects the integers will run from 1 to k, and a rank value of 1 is given the most desired object and k the least. Direct Ranking was used to identify the most important sources that developed students' awareness of the importance of generic competencies.

### **Frequency Distribution**

Descriptive statistics was the first procedure in data analysis. The researcher used the frequency distribution to organize the data and identify the number of individual scores in each category. The researcher also needed to compute percentages, which tell the proportion of cases contained within each frequency (Bryman & Cramer, 2001). In this study, frequency distribution tables were prepared to generate the results of the demographic employers, teachers, and students. Likewise, this method was used to rank the competencies that the participants perceived to be important, and those needed to be developed for students in the perceptions of employers and teachers.

### **Mean Score**

The mean is the most frequently used measure of central tendency (David & Sutton, 2004; Frankfort-Nachmias & Nachmias, 2000). It is an arithmetical average derived from adding up individual scores and dividing by the number of scores (Hittleman & Simon, 2006). The mean procedure is applied to compare averages (means) for different groups. In this study mean scores for importance of competencies will be compared between the perceptions of employers, teachers and students (before and after participating in the Co-

op), and before that the method will be used to rank competencies according importance for each group.

### **One-way ANOVA**

One-way analysis of variance (one-way ANOVA) is used to compare two or more group means. It is appropriate whenever you have one quantitative dependent variable and one categorical independent variable (Johnson & Christensen, 2004). Johnson & Christensen have reported that analysis of variance techniques use the F-distributions, so these techniques might be called F-tests. One-way ANOVA was used in this study to identify the level of significance of importance of competencies among employers, teachers, and students, as well as the demographic characteristics of these groups which had more than two categories (e.g. age of teachers). Before conducting ANOVA, it is necessary to check normality and homogeneity of variance within each group (Kerr et al., 2002). The normality means that each group is an independent random sample from a normal population. If  $n$  (cell size) for each sample is approximately equal, it increases the validity of assuming homogeneity (James, 1999). Levene's test is designed to test the null hypothesis that variances of the groups are the same. In this study Levene's test was used to test whether the variances of the groups are significantly different. If the value of significance was less than 0.05, ( $P > 95\%$ ) that means the assumption of (homogeneity) for ANOVA has been violated.

### **Sheffe**

McMillan and Schumacher (2001), as cited in (Lin, 2005) explained:

“When a researcher uses ANOVA to test the null hypothesis that three means are the same, the resulting statistically significant F ratio tells the researcher only that two or more of the means are different. Usually the researcher needs to employ further statistical tests that will indicate those means that are different from each other”. (p. 374)

If the F value ANOVA was significant ( $p < 0.05$ ), a post hoc analysis with Sheffe method was conducted to identify the significant differences between group means in an analysis of variance setting. The Sheffe F-test is the most often used multiple comparison technique to follow up a statistically significant value of ANOVA. It was used in this

study, as it is more statistically robust than the Tukey test (another post hoc test using with ANOVA) for complex comparisons provided in the study (Hinton, 2004).

### **T-test**

The t-test is the most regularly used method to assess the differences in mean between two groups (Priest, 2005). In this study the t-test analyses was used to identify the level of significance of importance of competencies among the demographic characteristics of employers, teachers and students which had two categories (e.g. age of students).

### **Kruskal Wallis test**

The Kruskal-Wallis test is a non-parametric alternative to the one-way ANOVA parametric test when the population distributions cannot be normal or when the data are ordinal-level rather than interval-level or ratio-level measurements (Bernstein & Bernstein, 1999).

Kruskal-Wallis was used in this study as a first choice when the size of each group is less than 10. Best & Kahn (2006) reported that many statisticians suggest that parametric tests be used, if possible, and that non-parametric tests be used only when parametric assumptions cannot be met.

### **Mann-Whitney test**

Because the Kruskal-Wallis test shows only that there is a significant difference in the means between the groups and does not show between which groups, the Mann-Whitney test was used as a post hoc test. This test makes comparisons between pairs and indicates which groups are different from which (Dytham, 2003).

### **3.12.2 Analysis of Qualitative Data**

Data analysis in qualitative research is complex. It is a time-consuming and difficult process, especially when the researcher faces massive amounts of field notes, interview transcripts, audio recordings, video data, reflections, or information from documents, all of which must be examined and interpreted (Ary et al., 2006).



Ary et al. see that the task of analysing qualitative data can appear overwhelming. However, they reported that this operation becomes manageable when broken down into the three stages: familiarisation and organisation, coding and recoding, and summarising and interpreting.

To become familiar with the data, the researcher had read and reread notes and transcripts, and listened repeatedly to the audiotapes. All data from the different types of sources were transcribed. In the coding and recoding stage, the researcher went through all the data and marked each unit (paragraph or sentence, etc.) with the appropriate code referring to one of the primary categories. The perspectives held by employers, teachers, and students (before and after Co-op) were the primary categories used to organise qualitative data in this study. The researcher then classified the data belonging to each group into the five main objectives of the study as detailed in Chapter 1. This category of organising qualitative data, according to Bogdan and Biklen (1998) (as cited in Ary et al., 2006) includes more specific ways of thinking that subjects may share, as well as their orientation toward particular aspects of a setting.

Through the summarising stage, the researcher made some statements about relationships and themes in the data. He began to narrow his focus onto the objectives of the study by transferring these categories or themes into meaningful statements to interpret the words and acts of the study's participants and explore important understandings from them regarding the study's objectives. Here, the researcher stated the importance of what he found, why it is important, and what can be learned from it.

In this study, qualitative data were collected from the following main sources:

- The third part of the four groups' questionnaires, which asked the respondents to give reasons after making a decision as to which one of the two categories - hard and soft competencies - is more important.
- The fourth part of the employers' and teachers' questionnaires had another qualitative question when the participants were asked to justify their choices of the five most important competencies that required to be developed in the IPA's post-secondary graduates.

- Interviews with employers were the third main source of qualitative data in this study. Employers were asked to make observations on the changes that occurred in students' awareness of the importance of competencies. In addition, employers were asked to provide further comments or suggestions for improving students' awareness of the importance of generic competencies, through the Co-op or other related sources.

### 3.13 Attitude Measurement

In his 2006 paper entitled 'Thoughts on attitude measurement', Norman Reid (2006) has stated that the concept of attitude has played an outstanding role throughout the history of social psychology (Ajzen & Fishbein, 1980) and numerous definitions of this concept have emerged. Perhaps there are too many definitions (Johnstone & Reid, 1981). Allport (1935, p. 820) (as cited in Reid, 2006) gave a definition which combines many early ideas when he talked about "a mental and neural state of readiness to respond, organised through experience, exerting a directive and/or dynamic influence on behaviour". His definition has stood the test of time and influenced many subsequent thinkers and researchers. Reid argued that the concept of attitude had further refinements including those made by Krech and Crutchfield (1948), Doob (1947), Katz and Sarnoff (1954) and Osgood *et al.* (1957). For example, in 1958 Rhine referred to an attitude as a "concept with an evaluative dimension and this drew attention to an important insight" (Rhine, 1958, p. 364).

These contributions, according to Reid, have stressed that attitudes involve more than the cognitive and that, in particular, the 'evaluative dimension' proposed by Rhine has assumed greater importance in later work. Reid concluded that this is what distinguishes an attitude from other latent constructs. He explained his view by the following example:

A person may know, may have feelings or may experience. However, it is possible that these may lead to evaluation and subsequent decisions. Thus, for example, a school student may have studied some chemistry. In doing this, the student gains knowledge of chemistry and of the learning of chemistry. The person may come to have negative feelings towards chemistry and the acquisition of chemical ideas. Indeed, the behaviour demanded of the student in such studies may be objectionable. Overall, a negative attitude towards chemistry and study in chemistry has developed, such an attitude being expressed

in negative evaluations of aspects of chemistry learning. In turn, such an attitude may lead to the rejection of further studies.

According to Reid, many (e.g., Bagozzi & Burnkrant, 1979; McGuire, 1985) have noted that attitudes have three components:

- (1) a knowledge about the object, the beliefs, and ideas components (Cognitive);
- (2) a feeling about the object, like or dislike component (Affective); and
- (3) a tendency towards acting the object component (Behavioural).

Attitudes are an unobservable hypothetical construct, like any other constructs in psychology and education, but they can be inferred from observable behaviours and self-reports through measurement (Schwarz & Bohner, 2001). Schwarz & Bohner argue that a growing body of literature suggests that attitudes may be much less stable than has traditionally been assumed. They see that self-reports of attitudes are highly context-dependent and can be profoundly influenced by minor changes in question wording, question format or question order.

Answering an attitude question entails several tasks (Strack & Martin, 1987; Tourangeau, 1984, as cited in Schwarz & Bohner, 2001). Respondents (a) need to interpret the question to determine the attitude object and evaluative dimension the researcher has in mind. Next, they (b) need to retrieve relevant information from memory. In most cases, a previously formed judgment that meets the specifics of the question will not be accessible and they have to draw on information that seems relevant to the question at hand. Relevant information includes features of the attitude object, the respondent's apparent affective response to the object, as well as information about the respondent's own behaviour with regard to the object. Based on this information, respondents (c) need to compute a judgment. Having formed a judgment, they (d) can rarely report it in their own words but need to map it onto a set of response alternatives provided by the researcher. Finally, (e) respondents may want to edit their private judgment before they communicate it to the researcher for reasons of social desirability and self-presentation. Performance at each of

these steps is context dependent, yet this context dependency has implications for the notion that people hold enduring attitudes.

In this study, the researcher attempted to ask very clear and understandable questions. He wrote them in the questionnaire using simple Arabic language, with a covering letter explaining the purpose of the study. This procedure was important to help the respondents to interpret the questions easily, in order to identify the attitude object(s) and evaluative dimension(s) required by the researcher. To assist the respondents in recalling information relevant to the question from memory and forming a judgment on it, the researcher mapped most of the questions onto a set of choices. However, the respondents were asked some qualitative questions in the questionnaire as well as during the interviews (employers only) to report their judgments in their own words. All these procedures were applied to form the questionnaire for the pilot study. This pilot study was very helpful in obtaining a good understanding of the questionnaire's questions, and how they were interpreted. This resulted in some minor changes to the questionnaire used in the main study.

In terms of the scale which was used in this study, the researcher did not give the respondents a neutral or ambivalent answer choice. A 6-point Likert scale has been used. This was done so that the respondents had to commit to either the positive or negative end of the scale, as they were familiar with the subject of the survey (Infosurv, 2006).

Reid (2006) reported that despite the risk that self-reporting may be skewed by such things as a wish to give 'desirable' answers, experience with this technique (like the technique of Likert, 1932) shows that, under most conditions, respondents are remarkably honest and consistent in their responses, thus making the data reliable.

## **Chapter 4: Results**

### **4.1 Demographic Characteristics of Participants**

This study is focused on exploring the differences in importance of competencies between employers, teachers, and students amongst the demographic characteristics of participants of each group. This section presents different demographic characteristics of the three groups.

#### **4.1.1 Description of Employer Respondents**

##### **4.1.1.1 Activity of Employer-Participants**

Table 5 shows that the largest two groups of organisation-participants specialised in Manufacturing (11 companies, 28.9%), and Banks, Finance Institutions (9 companies, 23.7%). Third were those in Business Services and Hospitals and Medical Services (4 companies each, 10.5%). Fifth was Transportation (2 companies, 5.3%). Agriculture, Newspapers, Hotels, Community Services, Electricity, Materials Laboratories, Information Technology, and Wholesale and Retail Trade were the smallest groups (1 company, 2.6%).

**Table 5. Activity of Employer/Organisation-Participants (N=38)**

<b>Activity</b>	<b>Frequency</b>	<b>Per cent</b>
Manufacturing	11	28.9
Banks, Finance Institutions	9	23.7
Business Services	4	10.5
Hospitals and Medical Services	4	10.5
Transportation	2	5.3
Agriculture	1	2.6
Newspapers	1	2.6
Hotels	1	2.6
Community Services	1	2.6
Electricity	1	2.6
Materials Laboratories	1	2.6
Information Technology	1	2.6
Wholesale and Retail Trade	1	2.6

#### **4.1.1.2 Size of Employer/Organisation-Participants**

As shown in Table 6, most participants were from a company with 51-500 employees (15 companies, 39.5%). Second were those from a company with 11-50 employees (13 companies, 34.2%). The smallest group was those from a company that had more than 500 employees (10 companies, 26.3%).

**Table 6. Size of Employer/Organisation-Participants (N=38)**

<b>Employees</b>	<b>Frequency</b>	<b>Per cent</b>
51-500	15	39.5
11-50	13	34.2
>500	10	26.3

#### 4.1.1.3 Participation in IPA's Co-op

As Table 7 shows, 21 companies (55.3% of the total sample) had 5-10 years of participation in IPA's Co-op. Second were those with less than 5 years (10 companies, 26.3%). Third were those with 11-15 years (7 companies, 18.4%).

**Table 7. Participation in IPA's Co-op (N=38)**

Years	Frequency	Per cent
5-10	21	55.3
Less than 5	10	26.3
11-15	7	18.4

#### 4.1.1.4 Participation in other organisations' Co-op

Table 8 shows that 26 companies (68.4% of the total sample) had participated in other organisations' Co-op, while 12 companies had no previous experience (31.6%).

**Table 8. Participation in other organisations' Co-op (N=38)**

Participation	Frequency	Per cent
Yes	26	68.4
No	12	31.6

### 4.1.2 Description of Teacher Respondents

#### 4.1.2.1 Age of Teacher-Participants

As Table 9 shows, the largest number of teacher-participants were in the 35-44 age range (17 people, 44.7%). The second largest was in the 25-34 age range (11 people, 28.9%). The third was the age of range 45-60 (10 people, 26.3%).

**Table 9. Age of Teacher-Participants (N=38)**

Age group	Frequency	Per cent
35-44	17	44.7
25-34	11	28.9
45-60	10	26.3

#### 4.1.2.2 Nationality of Teacher-Participants

Table 10 shows that the largest group of teacher-participants was Saudi (27 people, 71.1%) Non-Saudi teachers were 11 people, 28.9%. As is shown in Table 11, the largest group of non-Saudi teachers was Jordanian (4 people, 10.5%). Second were American and Senegalese (2 people each, 5.3%). The smallest groups were Egyptian, Sudanese and Syrian (1 person each, 2.6%).

**Table 10. Nationality of Teacher-Participants Classified to Saudi and Non-Saudi (N=38)**

Nationality	Frequency	Per cent
Saudi Arabian	27	71.1
Non-Saudi	11	28.9

**Table 11. Nationality of Teacher-Participants (N=38)**

Nationality	Frequency	Per cent
Saudi Arabian	27	71.1
Jordanian	4	10.5
American	2	5.3
Senegalese	2	5.3
Egyptian	1	2.6
Sudanese	1	2.6
Syrian	1	2.6



#### 4.1.2.3 Qualification of Teacher-Participants

As shown in Table 12, teachers with a Masters level qualification represented the largest group (15 people, 39.5%) of the total sample. Teachers with a High Diploma (10 people, 26.3%) were the second largest group, and those with Bachelors (7 people, 18.4%) were the third. Teachers with Doctorate, PhD (6 people, 15.8%) were the smallest group.

**Table 12. Qualification of Teacher-Participants (N=38)**

<b>Qualification</b>	<b>Frequency</b>	<b>Per cent</b>
Masters	15	39.5
High Diploma	10	26.3
Bachelors	7	18.4
Doctorate, PhD	6	15.8

#### 4.1.2.4 Department of Teacher-Participants

Table 13 shows that the largest group of teacher-participants were from the Office Management department (11 people, 28.9%). Second were those from the English Language department (9 people, 23.7%). Third were those in public Administration (7 people, 18.4%). Private Sector programmes, Computers, Statistics, and Library and Information were fourth (2 people each, 5.3%). The smallest groups were from Accounting, Hospital Administration, and Materials Management (1 person each, 2.6%).

**Table 13. Department of Teacher-Participants (N=38)**

<b>Department</b>	<b>Frequency</b>	<b>Per cent</b>
Office Management	11	28.9
English Language	9	23.7
Public Administration	7	18.4
Private Sector Programmes	2	5.3
Computers	2	5.3
Statistics	2	5.3
Library and Information	2	5.3
Accounting	1	2.6
Hospital Administration	1	2.6
Materials Management	1	2.6

#### **4.1.2.5 Years of Overall Experience of Teacher-Participants**

As Table 14 shows, 16 teachers (42.1% of the total sample) had 16-20 years teaching experience overall. Teachers with 1-5 years experience were the second most frequent group (8 people, 21.1%). Two groups with 6-10 and 11-15 years experience came last at (7 people, 18.4%) for each group.

**Table 14. Years of Overall Experience of Teacher-Participants (N=38)**

<b>Years</b>	<b>Frequency</b>	<b>Per cent</b>
16-20	16	42.1
1-5	8	21.1
6-10	7	18.4
11-15	7	18.4

#### 4.1.2.6 Years of Experience (At IPA) of Teacher-Participants

As Table 15 shows, 15 teachers (39.5% of the total sample) had more than 1-5 years teaching experience at IPA. Two groups with 11-15 and >15 years experience came next at (8 people, 21%) for each group. The smallest group was those with 6-10 years (7 people, 18.4%).

**Table 15. Years of Experience (At IPA) of Teacher-Participants (N=38)**

Years	Frequency	Per cent
1-5	15	39.5
11-15	8	21
>15	8	21
6-10	7	18.4

#### 4.1.2.7 Programme Taught Most by Teacher-Participants

As shown in Table 16, Executive Secretary was the programme taught most by teachers (15 people, 39.5%). Sales programme was second (9 people, 23.7%). Third was Computers programme (3 people, 7.9%). Hospital Administration programme was taught less by teachers (2 people, 5.3%), while (7 people, 18.4%) had never taught any programme before.

**Table 16. Programme Taught Most by Teacher-Participants (N=38)**

Programme	Frequency	Per cent
Executive Secretary	15	39.5
Sales	9	23.7
Never taught any before	7	18.4
Computers	3	7.9
Hospital Administration	2	5.3
Accounting	2	5.3

### 4.1.3 Description of Students Respondents

#### 4.1.3.1 Major of Student-Participants

As Table 17 shows, the largest group of students was from the Executive Secretary programme (26 people, 26.3%). Sales programme was the second largest group (24 people, 24.2%). Third was Hospital Administration (20 people, 20.2%). Fourth was Accounting (16 people, 16.2%). Computers programme was the smallest (13 people, 13.1%).

**Table 17. Programme Major of Student-Participants (N=99)**

Programme	Frequency	Per cent
Executive Secretary	26	26.3
Sales	24	24.2
Hospital Administration	20	20.2
Accounting	16	16.2
Computers	13	13.1

#### 4.1.3.2 Age of Student-Participants

Table 18 shows that most students were in the 20-24 age range (86 people, 86.9%). 13 people (13.1%) were in the 25-29 age range.

**Table 18. Age of Student-Participants (N=99)**

Age	Frequency	Per cent
20-24	86	86.9
25-29	13	13.1

#### 4.1.3.3 Work Experience of Student-Participants

As shown in Table 19, 44 students (44.4% of the sample size) had work experience, while 55 (55.6%) had no work experience.

**Table 19. Work Experience of Student-Participants (N=99)**

<b>Work Experience</b>	<b>Frequency</b>	<b>Per cent</b>
No work experience	55	55.6
Work experience	44	44.4

#### 4.2 Objective One: Ranking of Importance of Competencies for IPA's Post-secondary Graduates Entering the Workplace

The researcher conducted two competency tests. One was without the following added competencies: English language (overall), English language (writing), English language (speaking), attendance and timekeeping, and confidentiality at work. Separating out the five competencies which were added by the researcher, was important for two reasons:

1. In order to make a clear and fair comparison with the other studies (Lin, 2005; Hodges & Burchell, 2003; Coll, Zegwaard & Hodges, 2002a, 2002b; Burchell, Hodges & Rainsbury, 2001), all of which used at least 24 out of the 26 standard competencies. The other ranking was for the five added competencies, in order to explore the importance level of these competencies from the respondents' point of view. The survey instrument contained the 31 competencies and a column for rating importance. In the importance scale, the degree of intensity was expressed by six ratings from most unimportant to most important. Importance mean ranges were defined as shown in Table 20.

**Table 20. Mean Level Definition**

<b>Regions</b>	<b>Importance</b>
5.50 and above	Most important
4.50-5.49	Very important
3.50-4.49	Important
2.50-3.49	Unimportant
1.50-2.49	Very unimportant
1.49 and under	Most unimportant

2. Isolating the list of 26 competencies from the five additional competencies was also important after applying Principal Components Analysis (PCA) as the five additional competencies were not grouped into the hard or the soft competencies, according to the classification shown in the standard competencies.

#### **4.2.1 Classification of the Generic Competencies According to Hard and Soft**

To confirm the classification of the standard competencies and to explore the classification of the suggested five competencies added by the researcher in this study, Principal Component Analysis tests were used. Principal Component Analysis is used to find latent variables or factors among observed variables. In other words, if the data contains many variables, Principal Component Analysis is used to reduce the number of variables through grouping variables that are related to the same theoretical concept (latent variable) together. Thus by using Principal Component Analysis we can produce a small number of factors (latent variables) from a large number of variables, which are capable of explaining the observed variance in the larger number of variables. The reduced set of factors are used for further analysis of causal relationships.

Principal Component Analysis, like factor analysis, involves three stages:

1. The first step, which usually researchers start with, is to determine the suitability of running Principal Component Analysis. The measures used to determine the suitability of Principal Component Analysis have been proposed by Kaiser (1974) and are based

on an index that compares correlation and partial correlation coefficients (these measures of sampling adequacy are also known by statisticians as Kaiser–Meyer–Olkin, or KMO statistics). KMO statistics take values between 0 and 1. When the values are high (close to 1) then the sum of the correlation coefficients is relatively large compared to the sum of the partial correlation coefficients. This suggests a pattern of correlation in the data confirming the suitability of using Principal Component Analysis. On the other hand, if the sum of the partial correlation coefficients is relatively large compared to the correlation coefficients, the relationships in the data are likely to be quite diffuse. This suggests a situation where it is unlikely that the variables will form distinct factors. Table 21 presents details of how KMO statistics can be interpreted.

**Table 21. Interpretation of the KMO Statistics**

<b>KMO statistic</b>	<b>Interpretation</b>
In the .90s	Marvellous
In the .80s	Meritorious
In the .70s	Middling
In the .60s	Mediocre
In the .50s	Miserable
Below .50	Unacceptable

**Resource:** Kaiser, 1974.

2. The second procedure involves factor extraction from the correlation matrix that is customarily based on the correlation coefficients of the variables. The goal of factor extraction is to determine the factors needed to represent the data.
3. Thirdly, the researcher chooses a rotation method in order to maximize the relationship between the variables and some of the factors. The rotation can be used to transform the factors to make them more easily interpretable.

### **Analysis of the Standard Competencies**

Before proceeding to explore the underlying patterns of the standard competencies, a Kaiser–Meyer–Olkin measure of sampling adequacy was used to determine the suitability

of Principal Component Analysis (data reduction procedure) for the standard competencies variables.

When applying Principal Component Analysis five subjects per item is recommended, with a minimum of 100 subjects, regardless of the number of items (Gorsuch,1983). However, the estimated KMO statistics of the standard competencies variables was 0.898, which can be described as "meritorious" (Hair et al 1995; Kaiser, 1974), indicating that the data obtained from the sample of 99 students (before Co-op) about the importance of the standard competencies was suitable for factor analysis. Most of the factor loadings were greater than 0.60, indicating a good correlation between the items and the factor grouping they belong to. There was no item loading less than 0.3. Kline (1994) stated that it is usual to regard factor loadings as high if they are greater than 0.6 (the positive or negative sign is irrelevant) and moderately high if they are above 0.3.

When the researcher asked the SPSS programme to divide the data of the standard competencies into two groups, by using Varimax rotation, the result showed that the two factors explains 50.4% of the variance in the data set with (eigenvalues =1 and above). The first factor accounts for 44.5% of the variance, the second 5.9% (See Table 22)



**Table 22. Factors of the Standard Competencies**

<b>Factors of Competencies</b>	<b>Loading</b>	<b>Eigen Value</b>	<b>Variance Explained</b>
<b>Factor 1: Soft competencies</b>		<b>11.6</b>	<b>44.5</b>
Impact and Influence on others	.789		
Customer service orientation	.696		
Organisational commitment	.695		
Developing others	.687		
Achievement orientation	.684		
Ability and willingness to learn	.675		
Team leadership	.642		
Organisational awareness	.639		
Flexibility	.631		
Initiative	.624		
Teamwork and co-operation	.614		
Relationship building	.605		
Interpersonal understanding	.601		
Information seeking	.576		
Energy & passion	.573		
Self-confidence	.619		
Concern for order, quality and accuracy	.545		
Problem solving	.542		
Self-control	.515		
Impact and Influence on others	.789		
<b>Factor 2: Hard competencies</b>		<b>1.5</b>	<b>5.9</b>
Technical expertise	.793		
Computer literacy	.782		
Conceptual thinking	.637		
Analytical thinking	.497		
Written communication	.499		
Personal planning and organisational skills	.559		
<b>Total variance explained</b>			<b>50.4%</b>

From the previous table, factor 1, soft competencies, explained 44.5% of the variance with an eigenvalue of 11.6. All the items that made up this factor grouping reflected the 20 soft competencies of the standard list.

Factor 2: Hard competencies, includes six items, and accounts for 5.9% of the variance in the data, with an eigenvalue of 1.5. The six items in this factor reflected all the hard competencies in the standard list.

This result indicated that Principal Component Analysis (PCA) has confirmed the classification of competencies as hard or soft suggested by the literature of the standard competencies' list, as used in this study.

### **Analysis of the Five Additional Competencies**

The estimates of KMO statistics of the five additional competencies variables was 0.760, which can be described as "middling" (Hair et al 1995; Kaiser, 1974), indicating that the data obtained from students (before Co-op) of the importance of the five additional competencies was suitable for factor analysis. All of the factor loadings were greater than 0.65, indicating high correlation between the items and the factor grouping they belong to (Kline, 1994).

The principal component analysis has grouped all the five additional competencies in only one group. Therefore, this result cannot be rotated. The results showed that this one factor explains 59% of the variance in the data, with an eigenvalue of **2.9**. (See Table 23)

**Table 23. Factors of the Five Additional Competencies**

<b>Factors of Competencies</b>	<b>Loading</b>	<b>Eigen Value</b>	<b>Variance Explained</b>
<b>Additional Competencies</b>		<b>2.9</b>	<b>59%</b>
English language (overall)	.869		
English language (writing)	.837		
English language (speaking)	.787		
Attendance and timekeeping	.676		
Confidentiality at work	.647		
<b>Total variance explained</b>			<b>59%</b>

## **Analysis of the Standard Competencies + the Five Additional Competencies**

### **A. Analysis of the Standard Competencies + the Five Additional Competencies into Possible Factors**

The estimates of KMO statistics of the 31 competencies variables was 0.890, which can be described as "meritorious" (Hair et al 1995; Kaiser, 1974), indicating that the data obtained from students (before Co-op) about the importance of the 31 competencies was suitable for factor analysis. The items were grouped into 7 factors. The results explained 68.6% of the variance in the data set with (eigenvalues =1 and above). The first factor accounted for 42.3% of the variance, the second 7.2.%, the third 4.5%, the fourth 3.2%, the fifth 3.6%, the sixth 3.4%, and the seventh factor accounted for 3.3% (See Table 24). Mostly, all of the items were loading on just two factors with loadings greater than 0.60, indicating high correlation between the items and the factor grouping they belong to (Kline, 1994). (See Table 25). Therefore, the researcher asked the SPSS programme to divide the data of the 31 competencies into two factors as the purpose of applying Principal Component Analysis was to explore the classification of the additional five competencies as hard or soft competencies.

**Table 24. Eigenvalues of the First 7 Factors and Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13.110	42.289	42.289	13.110	42.289	42.289	3.947	12.734	12.734
2	2.234	7.206	49.496	2.234	7.206	49.496	3.915	12.629	25.363
3	1.406	4.534	54.030	1.406	4.534	54.030	3.708	11.961	37.324
4	1.299	4.189	58.219	1.299	4.189	58.219	3.197	10.313	47.637
5	1.127	3.636	61.855	1.127	3.636	61.855	2.959	9.545	57.182
6	1.045	3.372	65.226	1.045	3.372	65.226	2.166	6.986	64.168
7	1.037	3.344	68.571	1.037	3.344	68.571	1.365	4.402	68.571
8	.895	2.887	71.458						
9	.847	2.733	74.191						
10	.734	2.366	76.557						
11	.710	2.292	78.848						
12	.681	2.196	81.044						
13	.631	2.037	83.081						
14	.523	1.686	84.767						
15	.502	1.620	86.387						
16	.475	1.533	87.921						
17	.445	1.435	89.356						
18	.422	1.360	90.716						
19	.380	1.227	91.943						
20	.342	1.105	93.048						
21	.321	1.037	94.085						
22	.320	1.033	95.117						
23	.231	.745	95.863						
24	.227	.733	96.595						

Extraction Method: Principal Component Analysis.

**Table 24 (continued)**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
24	.227	.733	96.595						
25	.203	.656	97.252						
26	.179	.578	97.830						
27	.168	.540	98.370						
28	.166	.535	98.905						
29	.131	.421	99.326						
30	.110	.355	99.681						
31	.099	.319	100.000						

Extraction Method: Principal Component Analysis.

**Table 25. Factors of Standard Competencies + the Five Additional Competencies**

Competency	Component						
	1	2	3	4	5	6	7
Self-confidence	.800			-.324			
Initiative	.773						
Achievement orientation	.767						
Energy & passion	.742						
Teamwork and co-operation	.730				-.329		
Flexibility	.726						.429
Relationship building	.719						
Ability and willingness to learn	.706						-.308
Customer service orientation	.699						-.345
Attendance, and timekeeping	.698				-.368		
Concern for order, quality and accuracy	.693						
Team leadership	.684				-.394		
Organisational commitment	.676	-.320					
Impact and Influence on others	.665		-.374				
Self-control	.654			-.327			
Problem solving	.652			.379		.317	
Confidentiality at work	.649						
Information seeking	.643			.323			
Analytical thinking	.640		.311	.312			
Conceptual thinking	.628		.468				
Personal planning and organisational skills	.623					.459	
Organisational awareness	.614						
Interpersonal understanding	.590			-.426			
Directiveness	.584					-.350	
Developing others	.574	-.302			.398		.363
Computer literacy	.549	.416	.318				
English language (writing)	.491	.703					
English language (overall)	.547	.614					
English language (speaking)	.520	.610					
Written communication	.422	.437		.354		-.360	
Technical expertise	.518		.555				

## **B. Analysis of the Standard Competencies + the Five Additional Competencies into Two Factors**

The estimates of KMO statistics of the 31 competencies variables was 0.890, which can be described as "meritorious" (Hair et al 1995; Kaiser, 1974), indicating that the data obtained from students (before Co-op) about the importance of the 31 competencies was suitable for Principal Component Analysis. The results explained 49.5% of the variance in the data set with (eigenvalues =1 and above). The first factor accounts for 42.3% of the variance, and the second 7.2.% (See Table 26). Most of the factor loadings were greater than 0.60, indicating high correlation between the items and the factor grouping they belong to (Kline, 1994). As it shown in Table 27, the addition of the five additional competencies to the 26 standard competencies has not resulted in grouping them into the hard or the soft competencies.

However, most of the soft competencies in the 26 standard competencies were grouped in the first factor. Two of the five additional competencies (attendance and timekeeping, and confidentiality at work) were in the first factor. Therefore, the researcher considered that as evidence to classify them as soft competencies. On the other hand, the three English language competencies came together in the second factor, with the following hard competencies: computer literacy, written communication, and technical expertise. However, the other three hard competencies came with the soft competencies in the first factor. Therefore, the researcher tended to classify English language (writing), English language (speaking), and English language (overall) as soft competencies according to the literature (See page 55). This classification of the three English language competencies as soft competencies did not affect the findings of this study as the researcher conducted two competency tests. One was without the five additional competencies which were added by the researcher. This procedure was important also to make a clear and fair comparison with the other studies (Lin, 2005; Hodges & Burchell, 2003; Coll, Zegwaard & Hodges, 2002a, 2002b; Burchell, Hodges & Rainsbury, 2001) which used the 26 standard competencies.

**Table 26. Eigenvalues of the First 2 Factors and Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13.110	42.289	42.289	13.110	42.289	42.289	10.470	33.776	33.776
2	2.234	7.206	49.496	2.234	7.206	49.496	4.873	15.720	49.496
3	1.406	4.534	54.030						
4	1.299	4.189	58.219						
5	1.127	3.636	61.855						
6	1.045	3.372	65.226						
7	1.037	3.344	68.571						
8	.895	2.887	71.458						
9	.847	2.733	74.191						
10	.734	2.366	76.557						
11	.710	2.292	78.848						
12	.681	2.196	81.044						
13	.631	2.037	83.081						
14	.523	1.686	84.767						
15	.502	1.620	86.387						
16	.475	1.533	87.921						
17	.445	1.435	89.356						
18	.422	1.360	90.716						
19	.380	1.227	91.943						
20	.342	1.105	93.048						
21	.321	1.037	94.085						
22	.320	1.033	95.117						
23	.231	.745	95.863						

Extraction Method: Principal Component Analysis.



**Table 26 (continued)**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
24	.227	.733	96.595						
25	.203	.656	97.252						
26	.179	.578	97.830						
27	.168	.540	98.370						
28	.166	.535	98.905						
29	.131	.421	99.326						
30	.110	.355	99.681						
31	.099	.319	100.000						

Extraction Method: Principal Component Analysis.

**Table 27. Factors of Standard Competencies + the Five Additional Competencies Classified into Two Factors**

Competency	Component	
	1	2
Organisational commitment	.746	
Achievement orientation	.739	
Team leadership	.724	
Impact and Influence on others	.698	
Teamwork and co-operation	.698	
Flexibility	.693	
Ability and willingness to learn	.668	
Energy & passion	.667	.328
Developing others	.648	
Concern for order, quality and accuracy	.647	
Customer service orientation	.646	
Personal planning and organisational skills	.646	
Initiative	.645	.430
Self-confidence	.635	.502
Analytical thinking	.630	
Organisational awareness	.607	
Self-control	.601	
Relationship building	.597	.405
Interpersonal understanding	.584	
Problem solving	.581	
Attendance and timekeeping	.577	.397
Information seeking	.572	
Confidentiality at work	.562	.324
Directiveness	.558	
Conceptual thinking	.546	.309
English language (writing)		.854
English language (overall)		.804
English language (speaking)		.787
Computer literacy		.632
Written communication		.588
Technical expertise	.314	.496

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 3 iterations.

### 4.2.2 Employers' Rating

Table 28 shows the estimated mean and standard deviation scores for Employers' perceptions of the importance of each competency in the standard competencies' list. As the table shows, the importance means of competencies were mostly above 4, ranging from 5.45 to 3.55.

Figure 5 illustrates the rating of the importance of competencies in order. No competency was seen as 'most important'. The following 16 competencies ranked as 'very important', in order, were: achievement orientation (5.45), concern for order, quality and accuracy (5.37), initiative (5.16), written communication (5.13), self-confidence (4.97), ability and willingness to learn (4.92), self-control (4.89), interpersonal understanding (4.82), flexibility (4.76), relationship building (4.74), energy & passion (4.71), information seeking (4.68), computer literacy (4.66), customer service orientation (4.61), organisational awareness (4.58), and personal planning and organisational skills (4.53). The last 10 ranked competencies were seen as important by employers: problem solving, organisational commitment, technical expertise, impact and influence on others (4.42), teamwork and cooperation (4.18), conceptual thinking (4.08), directiveness (3.87), developing others (3.79), analytical thinking (3.74), and team leadership (3.55).

Table 29 shows the estimated mean and standard deviation scores for employers' perceptions of the importance of the five added competencies among the original 26 competencies.

Figure 6 illustrates the rating of five additional competencies added for this study in order of importance. Confidentiality at work (5.61) was the only one ranked as 'most important', while the other four competencies were ranked as 'very important', with the following mean scores: attendance, and timekeeping (5.47), English language (writing) (5.29), English language (speaking) (5.11), English language (overall) (5.00).

In employers' ratings of the standard 26 competencies, the ten most important competencies, in order, were achievement orientation, concern for order, quality and accuracy, initiative, written communication, self-confidence, ability and willingness to learn, self-control, interpersonal understanding, flexibility, and relationship building.

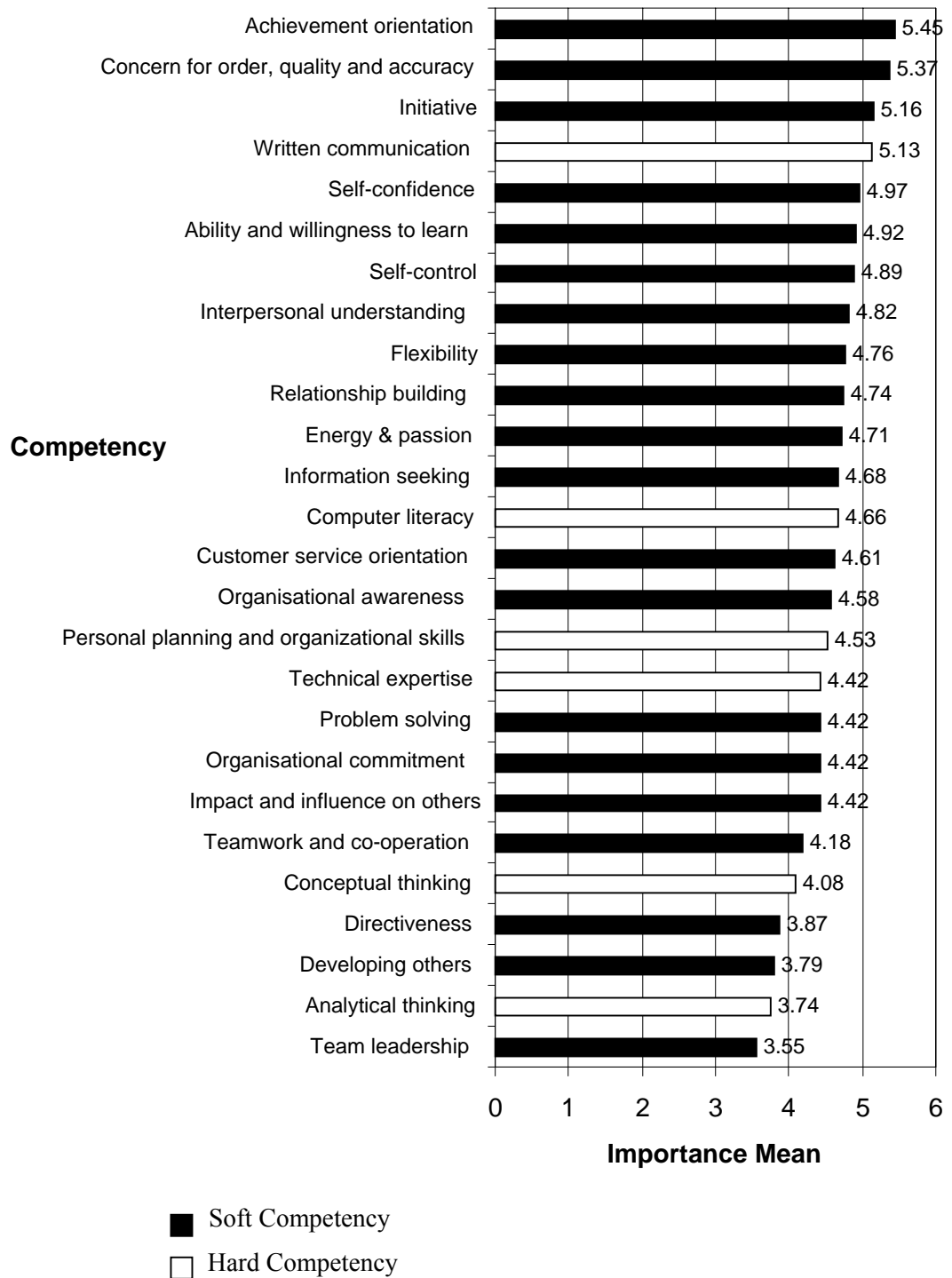
However the order of these competencies changed when we added the five suggested competencies.

The five least important competencies according to employers' perceptions were: team leadership, analytical thinking, developing others, directiveness, and conceptual thinking.

The ranking of the five additional competencies was as follows: confidentiality at work, and attendance and timekeeping came first and second, in that order. English language (writing) was fifth, English language (speaking), and English language (overall) were ranked eighth and ninth.

**Table 28. Importance of Standard Competencies as Perceived by Employer-Participants (N=38)**

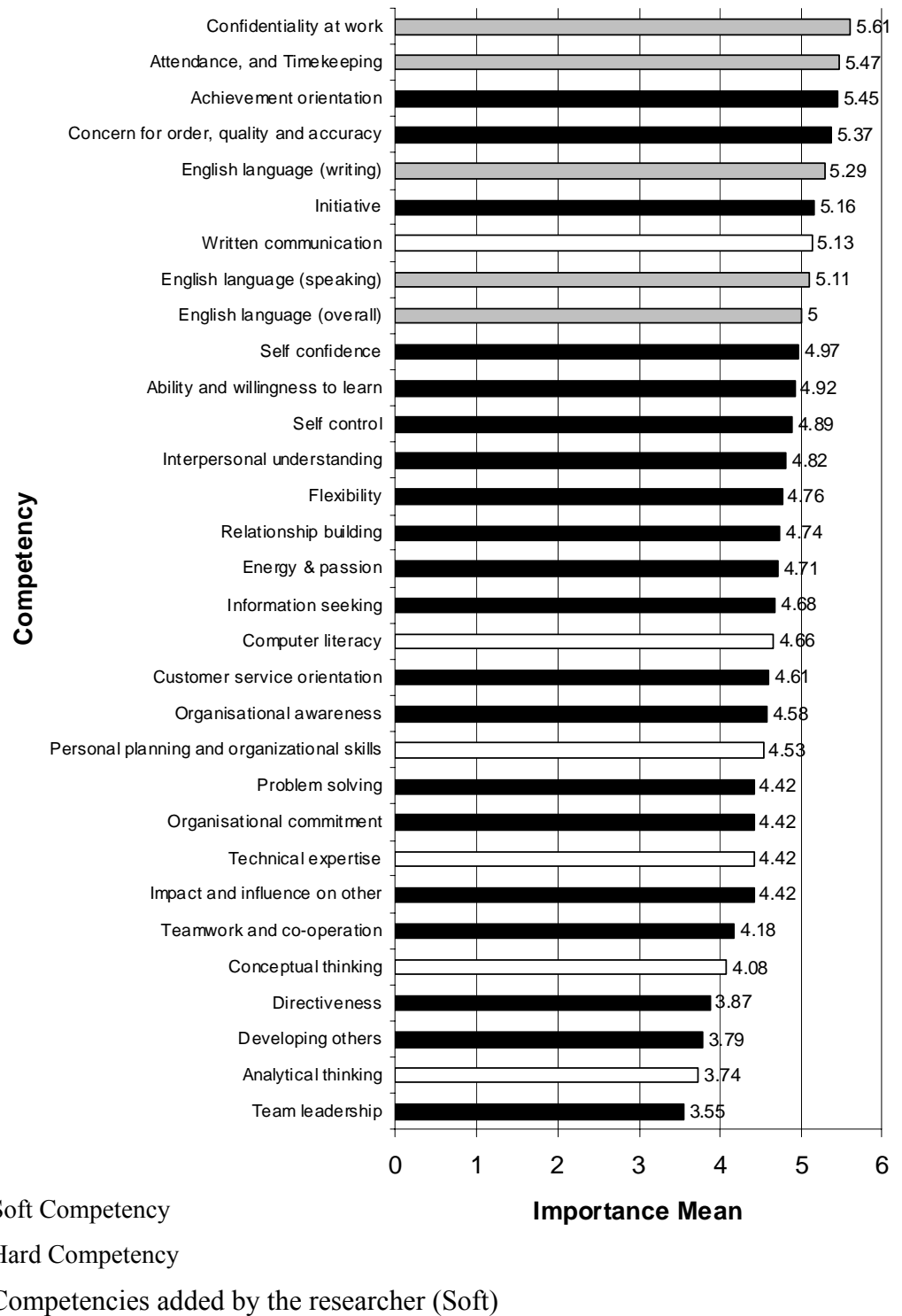
Competency	M	SD	Ranking within category	Ranking overall (26 Comp.)
<i>Hard Competencies</i>			(6 Comp.)	
<b>Analytical thinking</b>	3.74	1.671	6	25
<b>Conceptual thinking</b>	4.08	1.634	5	23
<b>Technical expertise</b>	4.42	1.500	4	17
<b>Computer literacy</b>	4.66	1.582	2	13
<b>Written communication</b>	5.13	1.143	1	4
<b>Personal planning and organisational skills</b>	4.53	1.572	3	16
<i>Soft Competencies</i>			(20 Comp.)	
<b>Achievement orientation</b>	5.45	.950	1	1
<b>Concern for order, quality and accuracy</b>	5.37	.913	2	2
<b>Initiative</b>	5.16	1.053	3	3
<b>Information seeking</b>	4.68	1.141	11	12
<b>Interpersonal understanding</b>	4.82	1.227	7	8
<b>Ability and willingness to learn</b>	4.92	1.477	5	6
<b>Customer service orientation</b>	4.61	1.516	12	14
<b>Impact and Influence on others</b>	4.42	1.426	14	17
<b>Organisational awareness</b>	4.58	1.426	13	15
<b>Relationship building</b>	4.74	1.408	9	10
<b>Developing others</b>	3.79	1.663	19	24
<b>Directiveness</b>	3.87	1.742	18	22
<b>Teamwork and cooperation</b>	4.18	1.943	17	21
<b>Team leadership</b>	3.55	1.781	20	26
<b>Self-control</b>	4.89	1.134	6	7
<b>Self-confidence</b>	4.97	1.052	4	5
<b>Flexibility</b>	4.76	1.195	8	9
<b>Organisational commitment</b>	4.42	1.926	14	17
<b>Problem solving</b>	4.42	1.671	14	17
<b>Energy &amp; passion</b>	4.71	1.541	10	11



**Figure 5. Employers' rating of the importance of standard competencies for IPA's post-secondary graduates entering the workplace (N=38)**

**Table 29. Importance of Standard Competencies + Additional Competencies for this Study as Perceived by Employer-Participants (N=38)**

Competency	M	SD	Ranking within category	Ranking overall (31 Comp.)
<i>Hard competencies</i>			(6 Comp.)	
Analytical thinking	3.74	1.671	6	30
Conceptual thinking	4.08	1.634	5	27
Technical expertise	4.42	1.500	4	22
Computer literacy	4.66	1.582	2	18
Written communication	5.13	1.143	1	7
Personal planning and organisational skills	4.53	1.572	3	21
<i>Soft competencies</i>			(25 Comp.)	
Achievement orientation	5.45	.950	3	3
Concern for order, quality and accuracy	5.37	.913	4	4
Initiative	5.16	1.053	6	6
Information seeking	4.68	1.141	16	17
Interpersonal understanding	4.82	1.227	12	13
Ability and willingness to learn	4.92	1.477	10	11
Customer service orientation	4.61	1.516	17	19
Impact and Influence on others	4.42	1.426	19	22
Organisational awareness	4.58	1.426	18	20
Relationship building	4.74	1.408	14	15
Developing others	3.79	1.663	24	29
Directiveness	3.87	1.742	23	28
Teamwork and cooperation	4.18	1.943	22	26
Team leadership	3.55	1.781	25	31
Self-control	4.89	1.134	11	12
Self-confidence	4.97	1.052	9	10
Flexibility	4.76	1.195	13	14
Organisational commitment	4.42	1.926	19	22
Problem solving	4.42	1.671	19	22
Energy & passion	4.71	1.541	15	16
<b>English language (overall)</b>	<b>5.00</b>	<b>1.185</b>	<b>8</b>	<b>9</b>
<b>English language (writing)</b>	<b>5.29</b>	<b>.956</b>	<b>5</b>	<b>5</b>
<b>English language (speaking)</b>	<b>5.11</b>	<b>1.158</b>	<b>7</b>	<b>8</b>
<b>Attendance, and Timekeeping</b>	<b>5.47</b>	<b>.979</b>	<b>2</b>	<b>2</b>
<b>Confidentiality at work</b>	<b>5.61</b>	<b>.946</b>	<b>1</b>	<b>1</b>



**Figure 6. Employers' rating of the importance of standard competencies + additional competencies for this study for IPA's post-secondary graduates entering the workplace (N=38)**



### 4.2.3 Teachers' Rating

The estimated mean and standard deviation scores for teachers' perceptions of the importance of each competency in the standard list are shown in Table 30. The importance means of competencies were all greater than 4, ranging from 5.39 to 4.13.

Figure 7 illustrates the rating of the importance of the standard competencies in order. No competency was seen as 'most important'. The following 22 competencies ranked as very important, in order, were: concern for order, quality and accuracy (5.39), computer literacy (5.32), customer service orientation (5.18), self-confidence, self-control, ability and willingness to learn (5.08), energy & passion (5.05), written communication, teamwork and cooperation, interpersonal understanding (5.00), flexibility (4.95), relationship building, achievement orientation (4.89), organisational commitment (4.84), personal planning and organisational skills (4.79), initiative (4.76), problem solving (4.74), impact and influence on others (4.71), information seeking (4.68), organisational awareness (4.66), team leadership (4.58), and technical expertise (4.50). The last 4 competencies ranked as 'important' by teachers were: developing others (4.42), analytical thinking (4.29), conceptual thinking (4.26), and directiveness (4.13).

Table 31 shows the estimated mean and standard deviation scores for teachers' perceptions of the importance of with the five additional competencies added for this study.

Figure 8 illustrates the rating of the importance of the five competencies in order. All the five competencies were ranked as 'very important', with the following mean scores: attendance and timekeeping (5.45), confidentiality at work (5.34), English language (writing) (5.08), English language (overall) (4.89), and English language (speaking) (4.79).

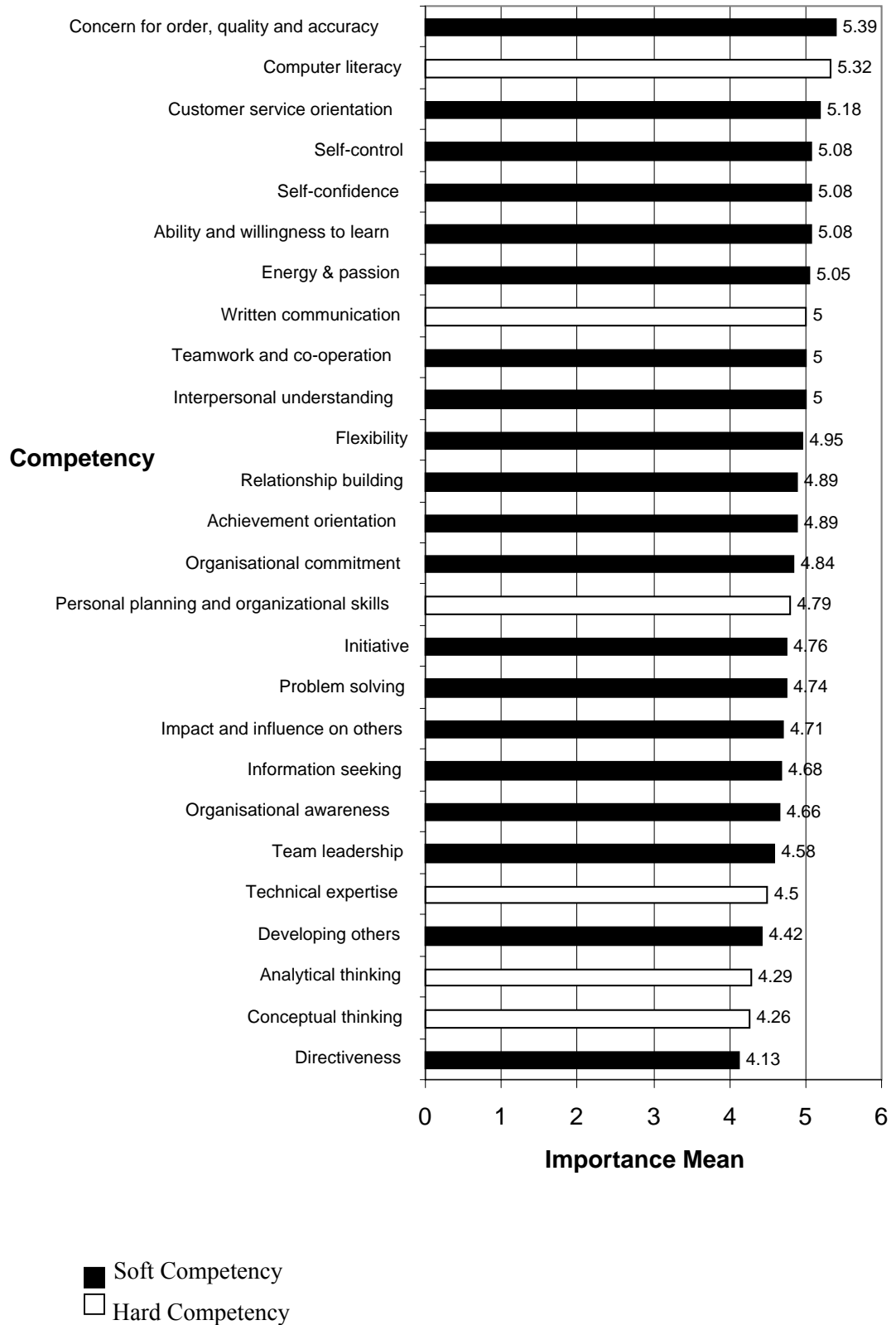
In teachers' ratings of the standard competencies' list, the ten most important competencies, in order, were: concern for order, quality and accuracy, computer literacy, customer service orientation, self-control, self-confidence, ability and willingness to learn, energy & passion, written communication, teamwork and cooperation, and interpersonal understanding.

The least important competencies in teachers' perceptions were: directiveness, conceptual thinking, analytical thinking, developing others, and technical expertise.

When the five additional competencies were added, the teachers' point of view was as follows: attendance, and timekeeping came first, confidentiality at work was third. English language (writing) came fifth, while English language (overall) was ranked fifteenth, and English language (speaking) was nineteenth.

**Table 30. Importance of Standard Competencies as Perceived by Teacher-Participants for IPA's post-secondary graduates entering the workplace (N=38)**

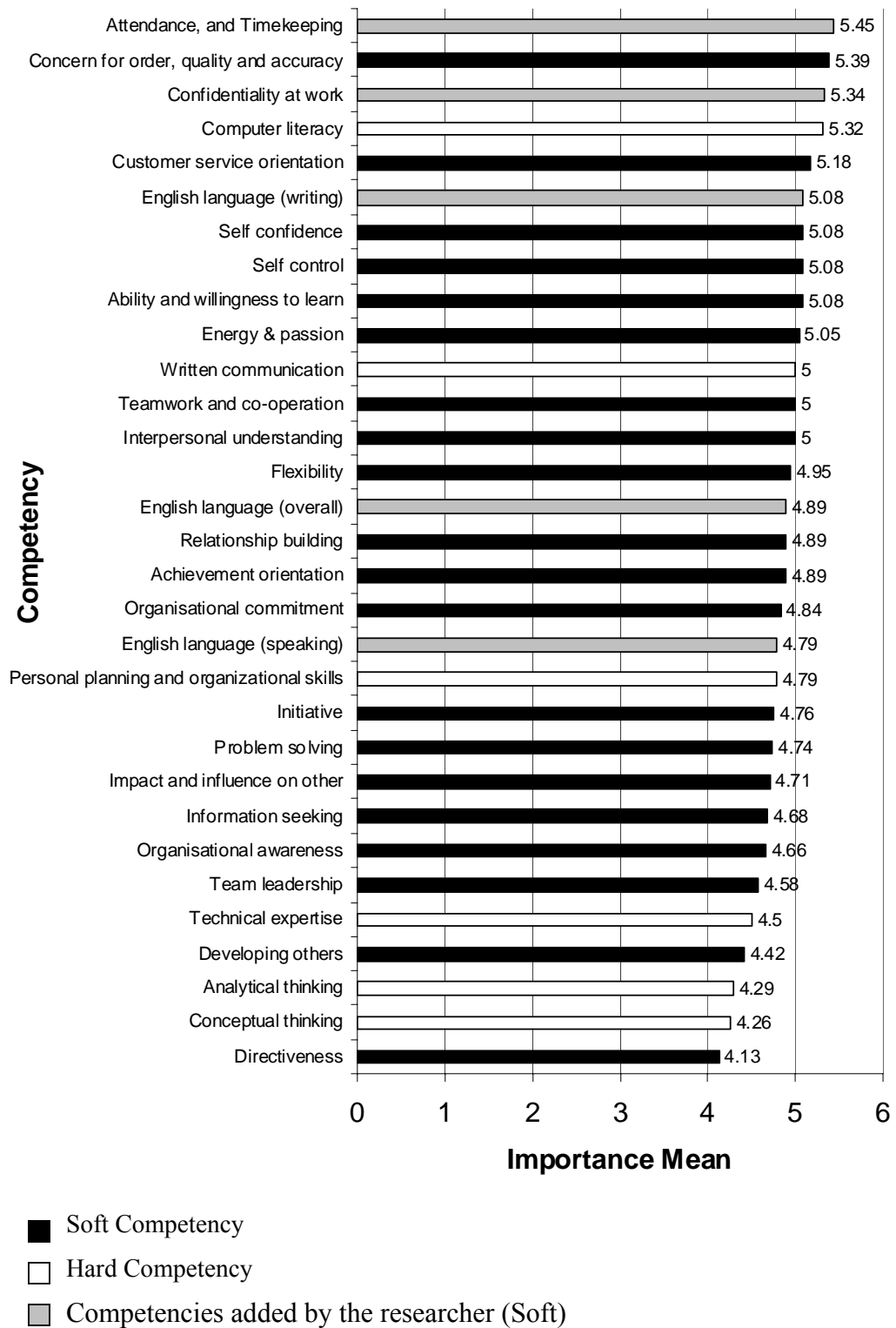
Competency	M	SD	Ranking within category	Ranking overall (26 Comp.)
<i>Hard competencies</i>			(6 Comp.)	
Analytical thinking	4.29	1.469	5	24
Conceptual thinking	4.26	1.267	6	25
Technical expertise	4.50	1.573	4	22
Computer literacy	5.32	.702	1	2
Written communication	5.00	.986	2	8
Personal planning and organisational skills	4.79	1.298	3	15
<i>Soft competencies</i>			(20 Comp.)	
Achievement orientation	4.89	1.203	10	12
Concern for order, quality and accuracy	5.39	.916	1	1
Initiative	4.76	1.101	13	16
Information seeking	4.68	1.276	16	19
Interpersonal understanding	5.00	1.040	7	8
Ability and willingness to learn	5.08	1.171	3	4
Customer service orientation	5.18	.982	2	3
Impact and Influence on others	4.71	1.160	15	18
Organisational awareness	4.66	1.258	17	20
Relationship building	4.89	1.060	10	12
Developing others	4.42	1.244	19	23
Directiveness	4.13	1.143	20	26
Teamwork and cooperation	5.00	1.185	7	8
Team leadership	4.58	1.368	18	21
Self-control	5.08	1.148	3	4
Self-confidence	5.08	.969	3	4
Flexibility	4.95	.985	9	11
Organisational commitment	4.84	1.197	12	14
Problem solving	4.74	1.107	14	17
Energy & passion	5.05	.804	6	7



**Figure 7. Teachers' rating of the importance of standard competencies for IPA's post-secondary graduates entering the workplace (N=38)**

**Table 31. Importance of Standard Competencies + Additional Competencies for this Study as Perceived by Teacher-Participants (N=38)**

Competency	M	SD	Ranking within category	Ranking overall (31 Comp.)
<i>Hard competencies</i>			(6 Comp.)	
Analytical thinking	4.29	1.469	5	29
Conceptual thinking	4.26	1.267	6	30
Technical expertise	4.50	1.573	4	27
Computer literacy	5.32	.702	1	4
Written communication	5.00	.986	2	11
Personal planning and organisational skills	4.79	1.298	3	19
<i>Soft competencies</i>			(25 Comp.)	
Achievement orientation	4.89	1.203	13	15
Concern for order, quality and accuracy	5.39	.916	2	2
Initiative	4.76	1.101	18	21
Information seeking	4.68	1.276	21	24
Interpersonal understanding	5.00	1.040	10	11
Ability and willingness to learn	5.08	1.171	5	6
Customer service orientation	5.18	.982	4	5
Impact and Influence on others	4.71	1.160	20	23
Organisational awareness	4.66	1.258	22	25
Relationship building	4.89	1.060	13	15
Developing others	4.42	1.244	24	28
Directiveness	4.13	1.143	25	31
Teamwork and cooperation	5.00	1.185	10	11
Team leadership	4.58	1.368	23	26
Self-control	5.08	1.148	5	6
Self-confidence	5.08	.969	5	6
Flexibility	4.95	.985	12	14
Organisational commitment	4.84	1.197	16	18
Problem solving	4.74	1.107	19	22
Energy & passion	5.05	.804	9	10
<b>English language (overall)</b>	<b>4.89</b>	<b>1.158</b>	<b>13</b>	<b>15</b>
<b>English language (writing)</b>	<b>5.08</b>	<b>.941</b>	<b>5</b>	<b>6</b>
<b>English language (speaking)</b>	<b>4.79</b>	<b>1.094</b>	<b>17</b>	<b>19</b>
<b>Attendance, and Timekeeping</b>	<b>5.45</b>	<b>.950</b>	<b>1</b>	<b>1</b>
<b>Confidentiality at work</b>	<b>5.34</b>	<b>1.169</b>	<b>3</b>	<b>3</b>



**Figure 8. Teachers’ rating of the importance of standard competencies + additional competencies for this study for IPA’s post-secondary graduates entering the workplace (N=38)**

#### 4.2.4 Students' Rating (before Participating in the Co-op)

Table 32 shows the mean and standard deviation scores for students' perceptions (before participating in the Co-op) of the importance of each competency in the standard competencies list. As is shown in the table, the importance means of the competencies were mostly above 5, ranging from 5.55 to 4.77.

Figure 9 illustrates the rating of the importance of competencies in order. Concern for order, quality and accuracy was the only competency seen as 'most important' by students (before participating in the Co-op). The following 25 competencies ranked as 'very important', in order, were: ability and willingness to learn (5.49), self-confidence (5.45), interpersonal understanding (5.41), initiative (5.40), relationship building, customer service orientation (5.34), self-control (5.29), impact and influence on others (5.27), computer literacy, teamwork and cooperation (5.26), achievement orientation (5.22), energy & passion (5.21), team leadership (5.18), problem solving (5.17), personal planning and organisational skills (5.14), organisational commitment, organisational awareness (5.03), technical expertise (5.01), written communication, developing others (5.00), analytical thinking (4.95), information seeking (4.92), conceptual thinking (4.86), flexibility (4.78), and directiveness (4.77).

Table 33 shows the estimated mean and standard deviation scores for students' perceptions (before Participating in the Co-op) of the importance of the different competencies with the five additional competencies added for this study.

Figure 10 illustrates the rating in order of importance of the competencies including the five additional competencies. All the five competencies were ranked as 'very important', with the following mean scores: attendance and timekeeping (5.45), confidentiality at work (5.34), English language (writing) (5.08), English language (overall) (4.89), and English language (speaking) (4.79).

In students' rating (before participating in the Co-op) of the standard competencies' list, the ten most important competencies, in order, were: ability and willingness to learn, self-confidence, interpersonal understanding, Initiative, relationship building, customer service orientation, self-control, impact and influence on others, computer literacy, and teamwork and cooperation.

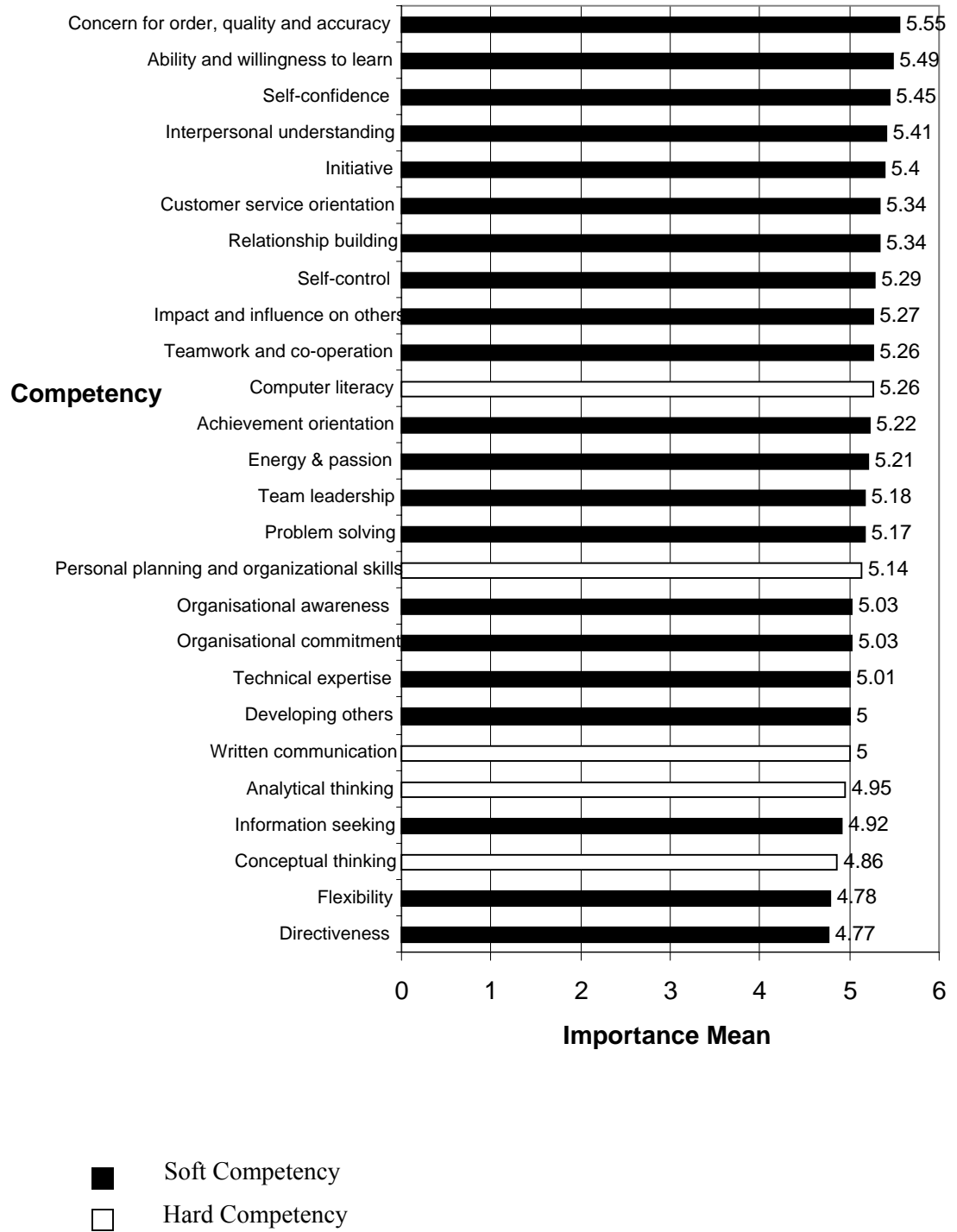
The five least important competencies of those on the standard list in students' perceptions (before participating in the Co-op) were: directiveness, flexibility, conceptual thinking, information seeking, and analytical thinking.

The ranking of the five additional competencies in students' point of view (before Co-op) was as follows: attendance and timekeeping came third, confidentiality at work was seventh. English language (writing) came nineteenth, while English language (overall) was ranked twenty seventh, and English language (speaking) was twenty ninth.



**Table 32. Importance of Standard Competencies as Perceived by Student-Participants (before participating in the Co-op) (N=99)**

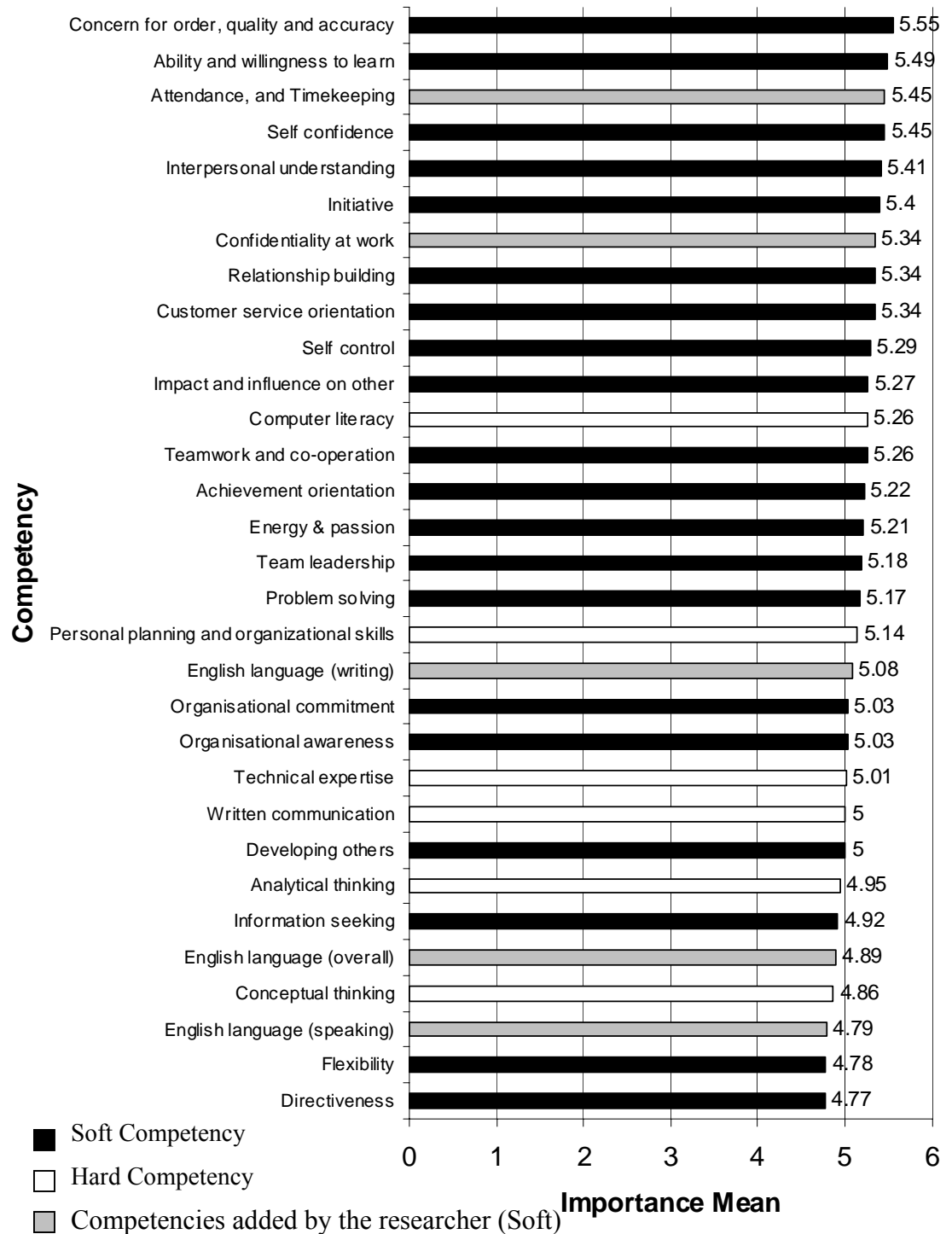
Competency	M	SD	Ranking within category	Ranking overall (26 Comp.)
<i>Hard competencies</i>			(6 Comp.)	
Analytical thinking	4.95	1.073	5	22
Conceptual thinking	4.86	1.112	6	24
Technical expertise	5.01	1.336	3	19
Computer literacy	5.26	1.016	1	10
Written communication	5.00	.986	4	20
Personal planning and organisational skills	5.14	.892	2	16
<i>Soft competencies</i>			(20 Comp.)	
Achievement orientation	5.22	1.065	11	12
Concern for order, quality and accuracy	5.55	.786	1	1
Initiative	5.40	.868	5	5
Information seeking	4.92	1.007	18	23
Interpersonal understanding	5.41	.857	4	4
Ability and willingness to learn	5.49	.862	2	2
Customer service orientation	5.34	.894	6	6
Impact and Influence on others	5.27	.843	9	9
Organisational awareness	5.03	.974	15	17
Relationship building	5.34	.835	7	7
Developing others	5.00	.969	17	20
Directiveness	4.77	1.105	20	26
Teamwork and cooperation	5.26	.921	10	10
Team leadership	5.18	1.004	13	13
Self-control	5.29	.860	8	8
Self-confidence	5.45	.812	3	3
Flexibility	4.78	.954	19	25
Organisational commitment	5.03	1.025	15	17
Problem solving	5.17	.948	14	15
Energy & passion	5.21	.884	12	14



**Figure 9. Students' rating (before participating in the Co-op) of the importance of standard competencies for IPA's post-secondary graduates entering the workplace (N=99)**

**Table 33. Importance of Standard Competencies + Additional Competencies for this Study as Perceived by Student-Participants (Before Participating in the Co-op) (N=99)**

Competency	M	SD	Ranking within category	Ranking overall (31 Comp.)
<i>Hard competencies</i>			(6 Comp.)	
Analytical thinking	4.95	1.073	5	25
Conceptual thinking	4.86	1.112	6	28
Technical expertise	5.01	1.336	3	22
Computer literacy	5.26	1.016	1	12
Written communication	5.00	.986	4	23
Personal planning and organisational skills	5.14	.892	2	18
<i>Soft competencies</i>			(25 Comp.)	
Achievement orientation	5.22	1.065	13	14
Concern for order, quality and accuracy	5.55	.786	1	1
Initiative	5.40	.868	6	6
Information seeking	4.92	1.007	21	26
Interpersonal understanding	5.41	.857	5	5
Ability and willingness to learn	5.49	.862	2	2
Customer service orientation	5.34	.894	7	7
Impact and Influence on others	5.27	.843	11	11
Organisational awareness	5.03	.974	18	20
Relationship building	5.34	.835	7	7
Developing others	5.00	.969	20	23
Directiveness	4.77	1.105	25	31
Teamwork and cooperation	5.26	.921	12	13
Team leadership	5.18	1.004	15	16
Self-control	5.29	.860	10	10
Self-confidence	5.45	.812	3	3
Flexibility	4.78	.954	24	30
Organisational commitment	5.03	1.025	18	20
Problem solving	5.17	.948	16	17
Energy & passion	5.21	.884	14	15
<b>English language (overall)</b>	<b>4.89</b>	<b>1.158</b>	<b>22</b>	<b>27</b>
<b>English language (writing)</b>	<b>5.08</b>	<b>.941</b>	<b>17</b>	<b>19</b>
<b>English language (speaking)</b>	<b>4.79</b>	<b>1.094</b>	<b>23</b>	<b>29</b>
<b>Attendance, and Timekeeping</b>	<b>5.45</b>	<b>.950</b>	<b>3</b>	<b>3</b>
<b>Confidentiality at work</b>	<b>5.34</b>	<b>1.169</b>	<b>7</b>	<b>7</b>



**Figure 10. Students' rating (before participating in the Co-op) of the importance of standard competencies + additional competencies for this study for IPA's post-secondary graduates entering the workplace (N=99)**

#### 4.2.5 Students' Rating (after Participating in the Co-op)

Table 34 shows the estimated mean and standard deviation scores for students' perceptions (after participating in the Co-op) of the importance of each competency in the standard competencies list. As it presented in the table, the importance means of competencies were mostly above 5, ranging from 5.55 to 4.63.

Figure 11 illustrates the rating of the importance of competencies in order. The two competencies seen as 'most important', in order, were: self-confidence (5.55), and computer literacy (5.52). The following 24 competencies ranked as 'very important', in order, were: concern for order, quality and accuracy (5.49), ability and willing to learn (5.40), initiative (5.39), customer service orientation (5.36), interpersonal understanding (5.35), energy & passion (5.33), teamwork and cooperation (5.31), self-control (5.29), achievement orientation (5.28), relationship building (5.24), organisational commitment (5.19), problem solving (5.17), flexibility (5.14), technical expertise (5.12), personal planning and organisational skills (5.10), team leadership (5.07), impact and influence other (5.06), information seeking (5.05), written communication (5.02), analytical thinking (5.00), conceptual thinking (4.98), organisational awareness (4.94), developing others (4.86), and directiveness (4.63).

Table 35 shows the estimated mean and standard deviation scores for students' perceptions (after participating in the Co-op) of the different competencies including the importance of the five competencies added for this study.

Figure 12 illustrates the rating in order of importance of the competencies including the five competencies. Four out of the five competencies were ranked as 'most important', with the following mean scores: English language (overall) (5.70), confidentiality at work (5.60), attendance and timekeeping (5.59), and English language (speaking) (5.58). English language (writing) was ranked as very important with a (5.45) mean score.

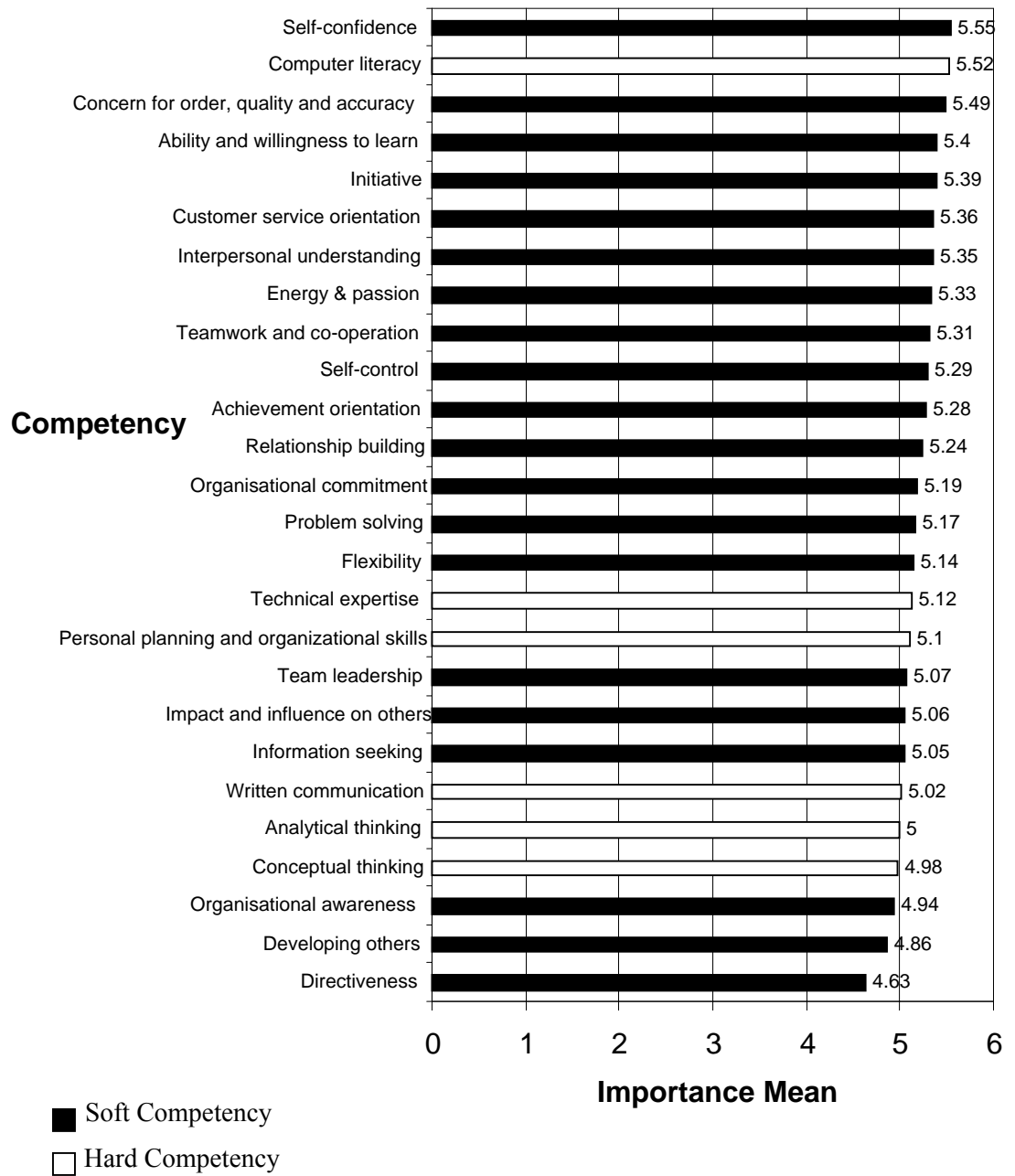
In students' ratings (after participating in the Co-op) of the standard competencies list, the ten most important competencies, in order, were: self-confidence, computer literacy, concern for order, quality and accuracy, ability and willing to learn, initiative, customer service orientation, interpersonal understanding, energy & passion, teamwork and cooperation, and self-control.

The five least important competencies of those on the standard list in students' perceptions (after participating in the Co-op) were: directiveness, developing others, organisational awareness, conceptual thinking, and analytical thinking.

The ranking of the five additional competencies in students' point of view (After Co-op) was as the following: English language (overall) was first, Confidentiality at work came second, Attendance, and Timekeeping was third, English language (speaking) came fourth, while English language (writing) was ranked eighth.

**Table 34. Importance of Standard Competencies as Perceived by Student-Participants (After Participating in the Co-op) (N=99)**

Competency	M	SD	Ranking within category	Ranking overall (26 Comp.)
<i>Hard competencies</i>			(6 Comp.)	
Analytical thinking	5.00	1.010	5	22
Conceptual thinking	4.98	.969	6	23
Technical expertise	5.12	1.154	2	16
Computer literacy	5.52	.908	1	2
Written communication	5.02	.947	4	21
Personal planning and organisational skills	5.10	.920	3	17
<i>Soft competencies</i>			(20 Comp.)	
Achievement orientation	5.28	.893	10	11
Concern for order, quality and accuracy	5.49	.774	2	3
Initiative	5.39	.855	4	5
Information seeking	5.05	.919	17	20
Interpersonal understanding	5.35	.951	6	7
Ability and willingness to learn	5.40	.957	3	4
Customer service orientation	5.36	1.083	5	6
Impact and Influence on others	5.06	.935	16	19
Organisational awareness	4.94	1.028	18	24
Relationship building	5.24	1.031	11	12
Developing others	4.86	1.069	19	25
Directiveness	4.63	1.274	20	26
Teamwork and cooperation	5.31	.877	8	9
Team leadership	5.07	.972	15	18
Self-control	5.29	.972	9	10
Self-confidence	5.55	.836	1	1
Flexibility	5.14	.857	14	15
Organisational commitment	5.19	1.104	12	13
Problem solving	5.17	.915	13	14
Energy & passion	5.33	.808	7	8

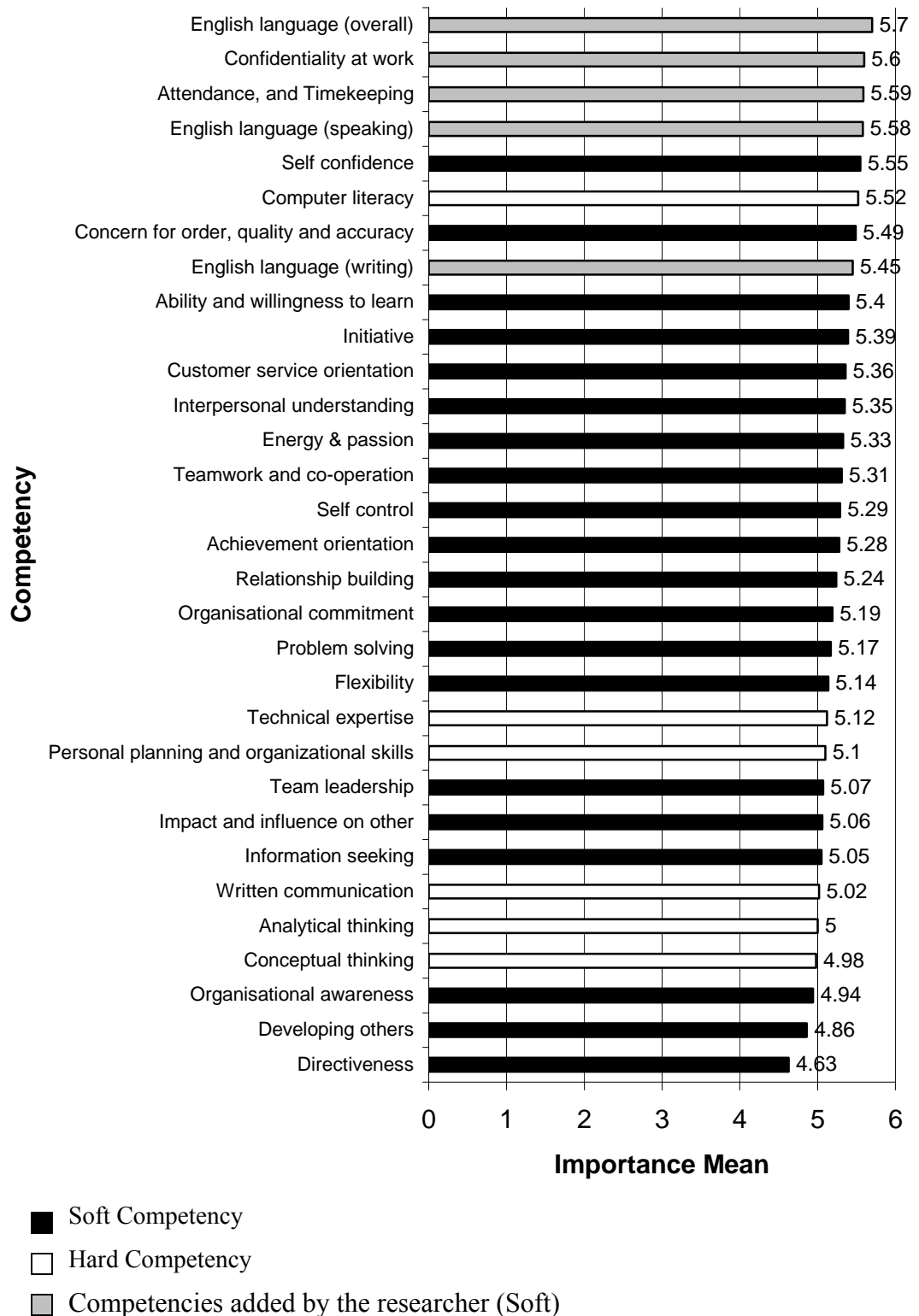


**Figure 11. Students' rating (after participating in the Co-op) of the importance of standard competencies for IPA's post-secondary graduates entering the workplace (N=99)**



**Table 35. Importance of Standard Competencies + Additional Competencies for this Study as Perceived by Student-Participants (After Participating in the Co-op) (N=99)**

Competency	M	SD	Ranking within category	Ranking overall (31 Comp.)
<i>Hard competencies</i>			(6 Comp.)	
Analytical thinking	5.00	1.010	5	27
Conceptual thinking	4.98	.969	6	28
Technical expertise	5.12	1.154	2	21
Computer literacy	5.52	.908	1	6
Written communication	5.02	.947	4	26
Personal planning and organisational skills	5.10	.920	3	22
<i>Soft competencies</i>			(25 Comp.)	
Achievement orientation	5.28	.893	15	16
Concern for order, quality and accuracy	5.49	.774	6	7
Initiative	5.39	.855	9	10
Information seeking	5.05	.919	22	25
Interpersonal understanding	5.35	.951	11	12
Ability and willingness to learn	5.40	.957	8	9
Customer service orientation	5.36	1.083	10	11
Impact and Influence on others	5.06	.935	21	24
Organisational awareness	4.94	1.028	23	29
Relationship building	5.24	1.031	16	17
Developing others	4.86	1.069	24	30
Directiveness	4.63	1.274	25	31
Teamwork and cooperation	5.31	.877	13	14
Team leadership	5.07	.972	20	23
Self-control	5.29	.972	14	15
Self-confidence	5.55	.836	5	5
Flexibility	5.14	.857	19	20
Organisational commitment	5.19	1.104	17	18
Problem solving	5.17	.915	18	19
Energy & passion	5.33	.808	12	13
English language (overall)	5.70	.630	1	1
English language (writing)	5.45	.824	7	8
English language (speaking)	5.58	.716	4	4
Attendance, and Timekeeping	5.59	.670	3	3
Confidentiality at work	5.60	.781	1	2



**Figure 12. Students' rating (after participating in the Co-op) of the importance of standard competencies + additional competencies for this study for IPA's post-secondary graduates entering the workplace (N=99)**

#### **4.2.6 Analysis of the Similarity and Difference of Participants' Perceptions in Ranking the Most and Least Important Competencies**

##### **Students (before and after participating in the Co-op) versus employers**

Students (before participating in the Co-op) and employers were similar in their ranking for 7 of the ten most important competencies on the standard list. As noted, these competencies were concern for order, quality and accuracy, ability and willingness to learn, self-confidence, interpersonal understanding, initiative, relationship building, and self-control. The other 3 of the ten most important competencies perceived by students (before Co-op) were: customer service orientation, impact and influence on others, and, ranked equally, teamwork and cooperation and computer literacy, both of which ranked 10<sup>th</sup>. These competencies were ranked 14<sup>th</sup>, 20<sup>th</sup>, 21<sup>st</sup>, and 13<sup>th</sup>, in order, by employers. The other 3 of the ten most important competencies as perceived by employers were: achievement orientation, written communication, and flexibility. These competencies were ranked 12<sup>th</sup>, 21<sup>st</sup>, and 25<sup>th</sup>, in order, by students (before participating in the Co-op). (See figures 5 & 9).

After participating in the Co-op, students' perceptions of the ten most important competencies from the standard list remained similar to their perceptions before Co-op. In 6 of the ten most important competencies there was agreement between the employers and students (after participating in the Co-op). These competencies were: self-confidence, concern for order, quality and accuracy, ability and willingness to learn, initiative, interpersonal understanding, and self-control. The other 4 of the ten most important competencies on the standard list in students' perceptions (after Co-op) were: computer literacy, customer service orientation, energy & passion, and teamwork and co-operation. These competencies were ranked 13<sup>th</sup>, 14<sup>th</sup>, 11<sup>th</sup>, and 21<sup>st</sup>, in order, from employers' point of view. (See figures 5 & 11).

Students (before participating in the Co-op) ranked two of the five additional competencies among the ten most important. These competencies were: attendance and time keeping (3<sup>rd</sup>), and confidentiality at work (7<sup>th</sup>). Employers ranked all the five additional competencies among the ten most important with the following order: confidentiality at work (1<sup>st</sup>), attendance and time keeping (2<sup>nd</sup>), English language (writing) (5<sup>th</sup>), English language (speaking) (8<sup>th</sup>), and English language (overall) (9<sup>th</sup>).

Students' perceptions (after Co-op) of the importance of the additional five competencies were similar to employers' as they ranked all of them among the ten most important competencies with the following order: English language (overall) (1<sup>st</sup>), confidentiality at work (2<sup>nd</sup>), attendance and time keeping (3<sup>rd</sup>), English language (speaking) (4<sup>th</sup>), and English language (writing) (8<sup>th</sup>). (See figures 6, 10 & 12). This is an interesting result, as it seems a reflection of the impact of the Co-op in developing students' awareness of the importance of competencies.

### **Teachers versus employers**

The comparison between employers and teachers in ranking the importance of competencies for IPA's Post-secondary graduates entering the workplace revealed that there was an agreement on six of the ten most important competencies in the standard list. These competencies were: concern for order, quality and accuracy, written communication, self-confidence, ability and willingness to learn, self-control, and interpersonal understanding. The other four of the ten most important competencies of the standard list seen by employers were: achievement orientation, initiative, flexibility, and relationship building. These competencies were ranked 13<sup>th</sup>, 16<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> in order, in teachers' perceptions. The other four of the ten most important competencies perceived by teachers were: computer literacy, customer service orientation, energy & passion, and teamwork and co-operation. These competencies were ranked 13<sup>th</sup>, 14<sup>th</sup>, 11<sup>th</sup>, and 21<sup>st</sup> in order, in employers' perceptions. (See figures 5 & 7)

In the importance of the additional five competencies added for this study, teachers ranked three of them among the ten most important competencies. These competencies were: attendance and timekeeping (1<sup>st</sup>), confidentiality at work (3<sup>rd</sup>), English language (writing) (6<sup>th</sup>). By this result, teachers were in agreement with employers who gave these three competencies advanced ranks (3<sup>rd</sup>, 2<sup>nd</sup>, and 8<sup>th</sup>, respectively). This agreement between employers and teachers is important for their cooperation in preparing students for the workplace.

### **Students (before and after participating in the Co-op) versus teachers**

Students (before participating in the Co-op) and teachers were in agreement on eight out of the ten most important competencies on the standard list. These competencies were:

concern for order, quality and accuracy, ability and willingness to learn, self-confidence, interpersonal understanding, customer service orientation, self-control, teamwork and co-operation, and computer literacy. The other two of the ten most important competencies perceived by students (before Co-op) were: initiative, relationship building, and impact and influence on others, which ranked 10<sup>th</sup> with relationship building. These competencies were ranked 16<sup>th</sup>, 12<sup>th</sup>, and 18<sup>th</sup>, in order, in teachers' perceptions. The other two of the ten most important competencies perceived by teachers were energy & passion, and written communication. These two competencies were ranked 13<sup>th</sup>, and 21<sup>st</sup>, in order, from students' point of view (before participating in the Co-op). (See figures 7 & 9).

There was similarity between teachers and students (after participating in the Co-op) on nine out of the ten most important competencies on the standard list. These competencies were: self-confidence, computer literacy, concern for order, quality and accuracy, ability and willingness to learn, customer service orientation, interpersonal understanding, energy & passion, teamwork and co-operation, and self-control. The other most important competency perceived by students (after Co-op) was initiative. This competency was ranked 16<sup>th</sup> in teachers' perceptions. The other most important competency from teachers' point of view was written communication. This competency was ranked 21<sup>st</sup> in students' perceptions (after Co-op). (See figures 7 & 11)

In the importance of the additional five competencies added for this study, teachers ranked three of them among the ten most important competencies. These competencies were: attendance and timekeeping (1<sup>st</sup>), confidentiality at work (3<sup>rd</sup>), English language (writing) (6<sup>th</sup>). Students (before Co-op) perceived only two of the additional five competencies as being among the ten most important competencies. These were attendance, and timekeeping (3<sup>rd</sup>), confidentiality at work (7<sup>th</sup>). Students (after Co-op) were closer to teachers and even closer to employers when they perceived all the five additional competencies as being among the ten most important competencies just as employers did. (See figures 7, 9, 11 & 13).

### **Ranking of Least Important Competencies**

In terms of identifying the five least important competencies on the standard list, employers and teachers were in agreement on four competencies. These competencies

were: Analytical thinking, Developing others, Directiveness, and Conceptual thinking. Team leadership was the other least important competency as perceived by employers. This competency was ranked 6<sup>th</sup> among least important competencies in teachers' perceptions. The other competency that was seen as least important in teachers' perceptions was Technical expertise. This competency was ranked 10<sup>th</sup> among least important competencies in employers' perceptions. (See figures 5 & 7).

Employers and students (before and after participating in the Co-op) were similar in their perceptions of three of the five least important competencies on the standard list. These competencies were directiveness, conceptual thinking, and analytical thinking. (See figures 5, 9 & 11). This is an important finding to what has been found in the literature.

Students (before Co-op) ranked two of the additional five competencies added for this study among the five least important competencies. These competencies were English language (speaking), and English language (overall). The interesting result is that these two competencies came 4<sup>th</sup>, and 1<sup>st</sup>, in order of the ten most important competencies in students' perceptions (after Co-op). (See figures 10 & 12).

The other interesting result is that students (after participating in the Co-op) were in agreement with employers in selecting four out of the five least important competencies. These competencies were directiveness, developing others, conceptual thinking, and analytical thinking. Organisational awareness was the other least important competency in students' perceptions (after Co-op). This competency was ranked 12<sup>th</sup> of the least important competencies in employers' perceptions. The other least important competency in employers' perceptions was team leadership. This competency was ranked 9<sup>th</sup> least important competency from students' point of view (after participating in the Co-op). (See figures 5, 9 & 11). This is a remarkable change and can be attributed to the impact of the Co-op.

### **4.3 Objective Two: Analysis of Participants' Perceptions of Importance of Competencies**

This section presents the statistical differences regarding importance of competencies between employers, teachers, and students (before and after participating in the Co-op). The demographic characteristics of participants were analysed to see if there were any differences. Results were obtained by conducting independent-samples t test or one-way ANOVA or Kruskal-Wallis H test. The post-hoc Scheffe procedure or Mann-Whitney U test were employed to re-examine statistically greater differences between participant demographic characteristics and importance of competencies. The findings revealed that participants' perceptions were affected by their demographic characteristics. These differences and their implications will be considered in the discussion chapter.

#### **4.3.1 Employers' Demographic Characteristics and Perceptions of the Importance of Competencies**

##### **4.3.1.1 Organisation's Activity and Perceptions of Importance of Competencies**

In the present study, a majority of employer-participants were from organisations working in manufacturing, and banks, finance institutions. The number of participants from other types of organisations was very small; therefore, this data was not statistically appropriate to be analysed. (See Table 5)

##### **4.3.1.2 Organisation's Number of Employees and Perceptions of Importance of Competencies**

As shown in Table 36, participants from an organisation with 51-500 employees scored significantly higher ( $p < 0.05$ ) than those from an organisation with 11-50 employees in the importance of directiveness. In the importance of confidentiality at work, participants from an organisation with 51-500 employees scored significantly higher ( $p < 0.05$ ) than those from an organisation with 11-50 or more than 500 employees.

**Table 36. ANOVA for Organisation's Number of Employees and Perceptions of Importance of Competencies**

Competency	Number of Employees						F or H	Sig	Scheffe or Mann-Whitney
	(1)		(2)		(3)				
	11-50		51-500		>500				
	(N= 13)		(N= 15)		(N= 10)				
	M	SD	M	SD	M	SD			
Achievement orientation	5.38	.870	5.33	1.175	5.70	.675	.476	.625	
Concern for order, quality and accuracy	5.38	.650	5.27	1.163	5.50	.850	.190	.828	
Initiative	5.38	.870	4.93	1.387	5.20	.632	.637	.535	
Information seeking	4.77	1.013	4.33	1.397	5.10	.738	1.442	.250	
Interpersonal understanding	4.77	1.363	4.73	1.438	5.00	.667	.149	.862	
Ability and willingness to learn	4.23	1.833	5.07	1.387	5.60	.516	2.795	.075	
Customer service orientation	4.08	1.656	5.00	1.414	4.70	1.418	1.341	.275	
Impact and Influence on others	4.31	1.182	4.53	1.552	4.40	1.647	.084	.919	
Organisational awareness	4.08	1.256	4.87	1.506	4.80	1.476	1.247	.300	
Relationship building	4.62	1.387	4.93	1.280	4.60	1.713	.232	.794	
Developing others	3.00	1.528	4.20	1.740	4.20	1.476	2.395	.106	
Directiveness	2.92	1.605	4.60	1.682	4.00	1.563	3.749	.033*	Scheffe 2>1
Teamwork and cooperation	3.31	1.932	4.73	1.981	4.50	1.650	2.185	.128	
Team leadership	3.08	1.656	3.87	1.959	3.70	1.703	.720	.494	
Analytical thinking	3.31	1.437	3.93	1.792	4.00	1.826	.643	.532	
Conceptual thinking	3.92	1.498	4.20	1.740	4.10	1.792	.096	.908	
Technical expertise	4.08	1.320	4.60	1.639	4.60	1.578	.506	.607	
Self-control	4.54	1.391	4.87	1.060	5.40	.699	1.701	.197	
Self-confidence	4.85	1.214	4.93	.961	5.20	1.033	.325	.724	
Flexibility	4.77	1.301	5.00	.926	4.40	1.430	.746	.482	



Table 36 (continued)

Competency	Number of Employees						F or H	Sig	Scheffe or Mann-Whitney
	(1)		(2)		(3)				
	11-50		51-500		>500				
	(N= 13)		(N= 15)		(N= 10)				
	M	SD	M	SD	M	SD			
Organisational commitment	3.54	2.222	4.80	1.656	5.00	1.633	2.249	.121	
Problem solving	3.54	1.898	5.00	1.254	4.70	1.567	3.193	.053	
Personal planning and organisational skills	3.62	1.895	5.07	1.100	4.90	1.287	4.836	.089	
Energy & passion	4.15	1.772	4.87	1.407	5.20	1.317	1.467	.245	
Computer literacy	4.00	1.826	5.00	1.512	5.00	1.155	1.782	.183	
Written communication	5.15	1.214	5.07	1.387	5.20	.632	.042	.959	
English language (overall)	4.46	1.713	5.33	.724	5.20	.632	1.513	.469	
English language (writing)	5.23	1.423	5.33	.724	5.30	.483	.039	.962	
English language (speaking)	4.85	1.625	5.27	.961	5.20	.632	.491	.616	
Attendance and timekeeping	5.15	1.405	5.67	.724	5.60	.516	1.072	.353	
Confidentiality at work	5.15	1.463	6.00	.000	5.60	.516	7.413	.025*	Mann-Whitney 2>1,3

Note. Kruskal-Wallis H test used for personal planning and organisational skills, English language (overall), and confidentiality at work; One-way ANOVA used for all other competencies.

\*p>.05, \*\*p>.01

#### **4.3.1.3 Organisation's Participation in IPA's Co-op and Perceptions of Importance of Competencies**

In Table 37 the statistics show that participants from an organisation with 5-10 years participation in IPA's Co-op rated the importance of team leadership, and conceptual thinking, significantly higher ( $p < 0.05$ ) than those from an organisation with 11-15 years. Participants from an organisation with less than 5 years participation in IPA's Co-op rated the importance of conceptual thinking significantly higher ( $p < 0.05$ ) than those from an organisation with 11-15 years.

**Table 37. Kurskal Wallis ANOVA for Organisation's participation in IPA's Co-op and Perceptions of Importance of Competencies**

Competency	Participation in Co-op (years)						Chi-Square	Sig	Mann-Whitney
	(1)		(2)		(3)				
	<5		5-10		11-15				
	(N= 10)		(N= 21)		(N=7)				
	M	SD	M	SD	M	SD			
Achievement orientation	5.30	1.059	5.57	.926	5.29	.951	1.053	.591	
Concern for order, quality and accuracy	5.20	.789	5.48	.981	5.29	.951	1.771	.413	
Initiative	5.10	.876	5.33	.966	4.71	1.496	1.601	.449	
Information seeking	5.00	.667	4.71	1.007	4.14	1.864	.753	.686	
Interpersonal understanding	5.20	.789	4.76	1.221	4.43	1.718	.810	.667	
Ability and willingness to learn	4.90	1.595	5.10	1.375	4.43	1.718	1.089	.580	
Customer service orientation	4.40	1.506	4.76	1.578	4.43	1.512	1.229	.541	
Impact and Influence on others	4.40	.843	4.38	1.627	4.57	1.618	.565	.754	
Organisational awareness	5.00	1.054	4.33	1.592	4.71	1.380	1.109	.574	
Relationship building	5.30	.823	4.48	1.569	4.71	1.496	1.761	.415	
Developing others	3.90	1.792	3.52	1.569	4.43	1.813	2.047	.359	
Directiveness	3.40	2.011	3.90	1.609	4.43	1.813	1.396	.498	
Teamwork and cooperation	4.20	1.932	4.67	1.742	2.71	2.059	4.958	.084	
Team leadership	3.80	1.687	4.00	1.517	1.86	1.864	6.337	.042*	2>3
Analytical thinking	4.00	1.633	4.10	1.446	2.29	1.799	5.666	.059	
Conceptual thinking	4.80	1.229	4.29	1.419	2.43	1.813	7.400	.025*	1,2>3
Technical expertise	4.80	1.229	4.67	1.197	3.14	2.116	4.009	.135	
Self-control	5.10	1.197	4.90	1.044	4.57	1.397	.775	.679	
Self-confidence	5.40	.843	5.00	1.049	4.29	1.113	4.692	.096	
Flexibility	5.10	.994	4.76	1.179	4.29	1.496	1.501	.472	

Table 37 (continued)

Competency	Participation in Co-op (years)						Chi-Square	Sig	Mann-Whitney
	(1)		(2)		(3)				
	<5		5-10		11-15				
	(N= 10)		(N= 21)		(N=7)				
	M	SD	M	SD	M	SD			
Organisational commitment	4.40	2.011	4.76	1.758	3.43	2.225	2.078	.354	
Problem solving	4.80	1.549	4.52	1.569	3.57	2.070	1.878	.391	
Personal planning and organisational skills	4.40	1.265	4.81	1.470	3.86	2.193	1.559	.459	
Energy & passion	3.90	1.729	5.14	1.315	4.57	1.618	5.709	.058	
Computer literacy	4.00	1.826	4.95	1.465	4.71	1.496	2.893	.235	
Written communication	4.60	1.578	5.33	.856	5.29	1.113	2.123	.346	
English language (overall)	4.20	1.687	5.24	.831	5.43	1.134	4.186	.123	
English language (writing)	4.70	1.418	5.48	.602	5.57	.787	4.276	.118	
English language (speaking)	4.40	1.647	5.33	.730	5.43	1.134	4.641	.098	
Attendance and timekeeping	5.00	1.563	5.67	.577	5.57	.787	1.830	.401	
Confidentiality at work	5.10	1.595	5.76	.539	5.86	.378	2.451	.294	

\*p&gt;.05, \*\*p&gt;.01

#### **4.3.1.4 Participating in Other Organisations' Co-op and Employers' perceptions of importance of competencies**

As shown in Table 38, achievement orientation, concern for order, quality and accuracy, and initiative, were perceived as significantly more important for Post-secondary graduates entering workplace by employers participating in other institutes' Co-op programmes compared with those with no previous experience.

**Table 38. An Independent-Samples t Test for Employers Participating in Other Organisations' Co-op and perceptions of Importance of Competencies**

Competency	Participation in Co-op				t	Sig
	Yes		No			
	(N= 26)		(N= 12)			
	M	SD	M	SD		
Achievement orientation	5.27	1.079	5.83	.389	-2.354	.024*
Concern for order, quality and accuracy	5.19	1.021	5.75	.452	-2.334	.025*
Initiative	4.88	1.143	5.75	.452	-2.518	.016*
Information seeking	4.62	1.169	4.83	1.115	-.542	.591
Interpersonal understanding	4.81	1.132	4.83	1.467	-.059	.953
Ability and willingness to learn	5.19	1.167	4.33	1.923	1.431	.173
Customer service orientation	4.77	1.366	4.25	1.815	.981	.333
Impact and Influence on others	4.27	1.458	4.75	1.357	-.965	.341
Organisational awareness	4.50	1.476	4.75	1.357	-.497	.622
Relationship building	4.69	1.408	4.83	1.467	-.283	.779
Developing others	3.85	1.592	3.67	1.875	.305	.762
Directiveness	3.96	1.612	3.67	2.060	.480	.634
Teamwork and cooperation	4.31	1.892	3.92	2.109	.571	.571
Team leadership	3.65	1.648	3.33	2.103	.510	.613
Analytical thinking	3.81	1.575	3.58	1.929	.380	.706
Conceptual thinking	4.00	1.523	4.25	1.913	-.434	.667
Technical expertise	4.46	1.392	4.33	1.775	.242	.810
Self-control	4.85	1.047	5.00	1.348	-.384	.703
Self-confidence	4.96	.916	5.00	1.348	-.103	.918
Flexibility	4.65	1.018	5.00	1.537	-.826	.414
Organisational commitment	4.62	1.722	4.00	2.335	.816	.426
Problem solving	4.54	1.421	4.17	2.167	.543	.595
Personal planning and organisational skills	4.81	1.266	3.92	2.021	1.406	.180
Energy & passion	4.85	1.347	4.42	1.929	.697	.496
Computer literacy	4.77	1.451	4.42	1.881	.634	.530
Written communication	5.08	1.230	5.25	.965	-.429	.670
English language (overall)	5.19	.749	4.58	1.782	1.138	.276
English language (writing)	5.31	.618	5.25	1.485	.130	.899
English language (speaking)	5.19	.801	4.92	1.730	.527	.607
Attendance and timekeeping	5.54	.647	5.33	1.497	.595	.556
Confidentiality at work	5.73	.533	5.33	1.497	.894	.389

\*p>.05, \*\*p>.01

### **4.3.2 Teachers' Demographic Characteristics and Perceptions of Importance of Competencies**

#### **4.3.2.1 Age of Teachers and Perceptions of Importance of Competencies**

In examining the difference between age groups and the perception of the importance of certain competencies there was significant difference ( $p < 0.01$ ) in the perceived importance of self-confidence. In this competency, teachers age 25-34 and 35-44 had significantly higher mean scores than those aged over 44. (See Table 39).

**Table 39. ANOVA for Age of Teachers and Perceptions of Importance of Competencies**

Competency	Age (years)						F or H	Sig	Scheffe or Mann-Whitney
	(1)		(2)		(3)				
	25-34 (N= 11)	SD	35-44 (N= 17)	SD	>44 (N= 10)	SD			
Achievement orientation	4.91	1.136	4.94	1.435	4.80	.919	.042	.959	
Concern for order, quality and accuracy	5.45	.820	5.59	.795	5.00	1.155	1.355	.271	
Initiative	5.00	1.095	4.76	1.147	4.50	1.080	.526	.595	
Information seeking	5.00	.894	4.71	1.448	4.30	1.337	.784	.465	
Interpersonal understanding	5.00	1.265	5.00	.935	5.00	1.054	.000	1.000	
Ability and willingness to learn	5.36	.674	4.94	1.435	5.00	1.155	.451	.640	
Customer service orientation	5.36	1.206	5.18	.728	5.00	1.155	.347	.709	
Impact and Influence on others	5.27	1.104	4.59	1.064	4.30	1.252	2.135	.133	
Organisational awareness	5.27	1.104	4.35	1.222	4.50	1.354	1.994	.151	
Relationship building	5.09	.944	4.76	1.091	4.90	1.197	.304	.739	
Developing others	5.00	1.095	4.18	1.286	4.20	1.229	1.745	.189	
Directiveness	4.64	1.027	3.76	.970	4.20	1.398	2.081	.140	
Teamwork and cooperation	4.91	1.221	5.00	1.173	5.10	1.287	.064	.938	
Team leadership	5.36	1.286	4.24	1.251	4.30	1.418	2.802	.074	
Analytical thinking	4.36	1.433	4.06	1.519	4.60	1.506	.433	.652	
Conceptual thinking	4.55	1.293	4.06	1.391	4.30	1.059	.485	.620	
Technical expertise	4.73	1.421	4.59	1.583	4.10	1.792	.451	.640	
Self-control	5.45	1.214	5.12	1.054	4.60	1.174	1.509	.235	
Self-confidence	5.55	.688	5.24	.664	4.30	1.252	6.001	.006**	Scheffe 1,2>3
Flexibility	5.27	.905	5.06	.899	4.40	1.075	2.427	.103	



Table 39 (continued)

Competency	Age (years)						F or H	Scheffe Or Mann-Whitney
	(1) 25-34 (N= 11)		(2) 35-44 (N= 17)		(3) >44 (N= 10)			
	M	SD	M	SD	M	SD		
Organisational commitment	5.00	1.414	4.88	.993	4.60	1.350	.298	.744
Problem solving	5.00	1.095	4.94	.827	4.10	1.370	2.428	.103
Personal planning and organisational skills	5.00	1.414	4.76	1.437	4.60	.966	.244	.785
Energy & passion	5.27	.786	5.18	.636	4.60	.966	2.363	.109
Computer literacy	5.45	.688	5.47	.624	4.90	.738	2.590	.089
Written communication	4.91	1.221	5.29	.849	4.60	.843	1.685	.200
English language (overall)	5.09	1.446	5.06	.748	4.40	1.350	1.259	.296
English language (writing)	5.36	.674	5.24	.664	4.50	1.354	3.109	.211
English language (speaking)	5.09	.944	4.82	1.015	4.40	1.350	2.901	.068
Attendance and timekeeping	5.36	1.027	5.65	.606	5.20	1.317	.392	.822
Confidentiality at work	5.55	.688	5.35	1.498	5.10	.994	.369	.694

Note. Kruskal-Wallis H test used for English language (writing), attendance and timekeeping; One-way ANOVA used for all other competencies.

\*p>.05, \*\*p>.01

### 4.3.2.2 Nationality of Teachers and Perceptions of Importance of Competencies

When nationality and importance were contrasted of, the independent-samples t test showed that significant differences ( $p < 0.05$ ) were found in computer literacy, and English language (speaking). As shown in Table 40, Saudi teachers had higher mean score than non-Saudis in both competencies.

**Table 40. An Independent-Samples t Test for Nationality of Teachers and Perceptions of Importance of Competencies**

Competency	Saudi (N= 26)		Non-Saudi (N= 12)		t	Sig
	M	SD	M	SD		
Achievement orientation	5.00	1.038	4.64	1.567	.841	.406
Concern for order, quality and accuracy	5.52	.802	5.09	1.136	1.138	.274
Initiative	4.85	1.064	4.55	1.214	.774	.444
Information seeking	4.89	1.086	4.18	1.601	1.581	.123
Interpersonal understanding	5.04	1.091	4.91	.944	.340	.736
Ability and willingness to learn	5.15	.907	4.91	1.700	.441	.667
Customer service orientation	5.22	.934	5.09	1.136	.369	.714
Impact and Influence on others	4.89	1.050	4.27	1.348	1.510	.140
Organisational awareness	4.81	1.178	4.27	1.421	1.212	.233
Relationship building	4.78	1.086	5.18	.982	-1.068	.293
Developing others	4.48	1.312	4.27	1.104	.464	.645
Directiveness	4.07	1.107	4.27	1.272	-.481	.634
Teamwork and cooperation	4.96	1.192	5.09	1.221	-.298	.767
Team leadership	4.67	1.387	4.36	1.362	.614	.543
Analytical thinking	4.22	1.368	4.45	1.753	-.437	.664
Conceptual thinking	4.22	1.155	4.36	1.567	-.308	.760
Technical expertise	4.67	1.544	4.09	1.640	1.024	.313
Self-control	5.15	1.199	4.91	1.044	.577	.568
Self-confidence	5.22	.934	4.73	1.009	1.449	.156
Flexibility	5.04	.854	4.73	1.272	.742	.470
Organisational commitment	4.85	1.292	4.82	.982	.078	.939
Problem solving	4.74	1.023	4.73	1.348	.034	.973
Personal planning and organisational skills	4.81	1.360	4.73	1.191	.186	.853
Energy & passion	5.19	.681	4.73	1.009	1.628	.112
Computer literacy	5.48	.580	4.91	.831	2.427	.020*
Written communication	5.11	1.013	4.73	.905	1.091	.283
English language (overall)	5.00	1.074	4.64	1.362	.875	.387
English language (writing)	4.89	.974	4.55	1.368	2.828	.092
English language (speaking)	5.30	.669	4.55	1.293	.875	.024*
Attendance and timekeeping	5.48	.893	5.36	1.120	.343	.734
Confidentiality at work	5.48	1.014	5.00	1.483	1.157	.255

\* $p > .05$ , \*\* $p > .01$

#### **4.3.2.3 Qualification of Teachers and Perceptions of Importance of Competencies**

As shown in Table 41, Kruskal-Wallis statistic (chi-square) showed significant differences ( $p < 0.05$ ) between teachers' qualifications and their perceptions of importance of competencies in team leadership. Teachers with a Bachelor degree had higher mean score than those with PhD, Masters, and Diploma.

**Table 41. Kruskal Wallis ANOVA for Qualification of Teachers and Perceptions of Importance of Competencies**

Competency	(1)		(2)		(3)		(4)		Chi-Square	Sig	Mann-Whitney
	Doctorate, PhD		Masters		High Diploma		Bachelor				
	(N=6)		(N=15)		(N=10)		(N=7)				
	M	SD	M	SD	M	SD	M	SD			
Achievement orientation	4.67	1.966	5.00	1.069	5.00	.943	4.71	1.254	.297	.961	
Concern for order, quality and accuracy	5.50	.837	5.20	1.146	5.60	.516	5.43	.976	.435	.933	
Initiative	4.50	1.049	5.00	1.195	4.60	1.075	4.71	1.113	1.689	.639	
Information seeking	4.50	2.074	4.60	1.056	4.60	1.350	5.14	.900	1.166	.761	
Interpersonal understanding	5.50	.548	5.07	.884	4.90	1.197	4.57	1.397	2.044	.563	
Ability and willingness to learn	4.67	1.966	5.07	1.100	5.20	1.033	5.29	.756	.140	.987	
Customer service orientation	5.50	.548	5.07	1.100	5.20	.632	5.14	1.464	1.149	.765	
Impact and Influence on others	4.50	1.378	4.67	1.175	4.50	.972	5.29	1.254	3.350	.341	
Organisational awareness	4.33	1.366	4.53	1.407	4.60	1.174	5.29	.951	2.241	.524	
Relationship building	5.33	.816	4.80	1.265	4.80	.919	4.86	1.069	1.311	.727	
Developing others	4.50	1.049	4.40	1.404	4.10	1.197	4.86	1.215	1.467	.690	
Directiveness	4.50	1.225	4.07	1.223	3.60	.843	4.71	1.113	4.659	.199	
Teamwork and cooperation	5.33	.816	5.00	1.363	4.90	.994	4.86	1.464	.811	.847	
Team leadership	4.33	1.366	4.53	1.457	4.00	1.247	5.71	.756	9.513	.023*	4>1,2,3
Analytical thinking	4.17	2.137	4.40	1.404	4.20	1.229	4.29	1.604	.228	.973	
Conceptual thinking	4.00	1.789	4.33	1.234	4.10	.994	4.57	1.397	1.010	.799	
Technical expertise	4.17	2.137	4.33	1.543	4.30	1.494	5.43	1.134	3.741	.291	
Self-control	5.00	1.095	4.73	1.223	5.50	.707	5.29	1.496	4.363	.225	
Self-confidence	5.17	.753	4.67	1.175	5.40	.699	5.43	.787	3.988	.263	
Flexibility	4.50	1.225	4.87	1.060	5.20	.632	5.14	1.069	1.733	.630	

Table 41(continued)

Competency	(1)		(2)		(3)		(4)		Chi-Square	Sig	Mann-Whitney
	Doctorate, PhD		Masters		High Diploma		Bachelor				
	(N=6)		(N=15)		(N=10)		(N=7)				
	M	SD	M	SD	M	SD	M	SD			
Organisational commitment	5.17	.753	4.53	1.356	5.10	.738	4.86	1.676	1.299	.729	
Problem solving	4.67	1.366	4.47	1.187	4.70	.823	5.43	.976	4.244	.236	
Personal planning and organisational skills	5.00	1.265	4.40	1.298	4.80	1.135	5.43	1.512	5.321	.150	
Energy & passion	4.83	.753	4.87	.990	5.10	.316	5.57	.787	4.387	.223	
Computer literacy	5.17	.983	5.20	.676	5.40	.516	5.57	.787	1.900	.593	
Written communication	5.00	.894	4.67	.900	5.60	.516	4.86	1.464	6.425	.093	
English language (overall)	4.83	1.472	4.87	.915	4.90	.876	5.00	1.826	1.695	.638	
English language (writing)	5.00	1.549	5.00	.926	5.00	.667	5.43	.787	2.214	.529	
English language (speaking)	4.83	1.472	4.80	.941	4.50	1.179	5.14	1.069	1.884	.597	
Attendance and timekeeping	5.17	1.329	5.53	.915	5.60	.699	5.29	1.113	.664	.882	
Confidentiality at work	5.00	2.000	5.13	1.246	5.70	.675	5.57	.535	1.799	.615	

\*p&gt;.05, \*\*p&gt;.01

#### **4.3.2.4 Teachers' Departments and Perceptions of Importance of Competencies**

In this study, a majority of teacher-participants were from the following three departments: Office Management, English Language and Public Administration. The number of participants from other departments was very small; therefore, this data was not statistically appropriate to be analysed. (See Table 13)

#### **4.3.2.5 Experience (overall) of Teachers and Perceptions of Importance of Competencies**

As shown in Table 42, there were no significant differences between teachers' experience (overall) and their perceptions of the importance of any competency.

**Table 42. Kurskal Wallis ANOVA for Years of Experience (overall) of Teachers and Perceptions of Importance of Competencies**

Competency	Experienc (years)								Chi-Square	Sig
	(1)		(2)		(3)		(4)			
	1-5		6-10		11-15		>15			
	(N= 8)		(N= 7)		(N=7)		(N=16)			
	M	SD	M	SD	M	SD	M	SD		
Achievement orientation	4.75	1.165	4.86	1.864	4.71	.951	5.06	1.063	1.506	.681
Concern for order, quality and accuracy	5.50	.926	5.57	.535	5.57	.535	5.19	1.167	.472	.925
Initiative	4.63	1.061	5.14	1.215	4.29	.951	4.88	1.147	3.202	.389
Information seeking	5.13	.835	4.57	1.813	4.29	1.380	4.69	1.195	1.467	.690
Interpersonal understanding	4.75	1.389	5.57	.535	4.43	1.134	5.13	.885	4.610	.203
Ability and willingness to learn	5.38	.744	5.00	1.826	4.71	1.113	5.13	1.088	1.637	.651
Customer service orientation	5.25	1.389	5.57	.535	5.00	.577	5.06	1.063	3.563	.313
Impact and Influence on others	5.25	1.165	4.71	1.380	4.29	.951	4.63	1.147	3.833	.280
Organisational awareness	5.13	.991	4.86	1.676	4.29	.951	4.50	1.317	2.783	.426
Relationship building	4.88	.991	5.57	.535	4.29	.756	4.88	1.258	6.924	.074
Developing others	4.63	1.302	4.86	.900	3.71	1.380	4.44	1.263	3.171	.366
Directiveness	4.50	1.195	4.14	.900	3.43	.787	4.25	1.291	4.007	.261
Teamwork and cooperation	4.88	1.356	5.29	.756	4.57	.976	5.13	1.360	3.097	.377
Team leadership	5.50	.926	4.29	1.704	4.00	1.155	4.50	1.366	6.799	.079
Analytical thinking	4.00	1.690	4.29	1.799	3.86	1.215	4.63	1.360	2.005	.571
Conceptual thinking	4.38	1.408	4.29	1.799	3.86	.690	4.38	1.204	1.555	.670
Technical expertise	4.88	1.885	4.00	1.633	4.57	1.397	4.50	1.549	1.896	.594
Self-control	5.25	1.389	5.43	1.134	5.14	.690	4.81	1.223	3.442	.328
Self-confidence	5.25	.886	5.29	.756	5.29	.756	4.81	1.167	1.356	.716
Flexibility	4.88	1.246	5.14	1.069	4.71	.488	5.00	1.033	1.824	.610

Table 42 (continued)

Competency	(1)		(2)		(3)		(4)		Chi-Square	Sig
	1-5		6-10		11-15		>15			
	(N= 15)		(N= 7)		(N=8)		(N=8)			
	M	SD	M	SD	M	SD	M	SD		
Organisational commitment	4.88	1.553	4.86	.900	5.14	.690	4.69	1.352	.519	.915
Problem solving	5.00	1.512	4.43	.787	4.86	.690	4.69	1.195	2.246	.523
Personal planning and organisational skills	5.25	1.488	4.43	1.134	4.71	1.113	4.75	1.390	3.217	.359
Energy & passion	5.38	.916	4.71	.488	5.00	.000	5.06	.998	3.352	.341
Computer literacy	5.50	.756	5.29	.756	5.57	.535	5.13	.719	2.739	.434
Written communication	4.88	1.356	5.14	.900	5.71	.488	4.69	.873	6.691	.082
English language (overall)	4.63	1.996	5.00	.577	5.00	1.000	4.94	.929	.280	.964
English language (writing)	5.00	1.414	5.29	.488	5.14	.900	5.00	.894	.346	.951
English language (speaking)	4.75	1.488	4.86	.690	4.57	1.397	4.88	.957	.461	.927
Attendance and timekeeping	5.00	1.309	5.43	.976	5.71	.488	5.56	.892	1.913	.591
Confidentiality at work	5.50	.535	5.00	1.915	5.86	.378	5.19	1.223	2.200	.532



#### **4.3.2.6 Experience (at IPA) of Teachers and Perceptions of Importance of Competencies**

As shown in Table 43, Participants with 1-5 and 6-10 years experience at IPA scored the importance of relationship building significantly higher ( $p < 0.05$ ) than those with 11-15 years.

**Table 43. Kurskal Wallis ANOVA for Years of Experience at IPA of Teachers and Perceptions of Importance of Competencies**

Competency	Years at IPA								Chi-Square	Sig	Mann-Whitney
	(1)		(2)		(3)		(4)				
	1-5		6-10		11-15		>15				
	(N= 15)		(N= 7)		(N=8)		(N=8)				
	M	SD	M	SD	M	SD	M	SD			
Achievement orientation	4.60	1.404	5.57	.787	4.50	1.069	5.25	1.035	6.028	.110	
Concern for order, quality and accuracy	5.27	.961	5.71	.488	5.25	1.035	5.50	1.069	1.400	.705	
Initiative	4.60	1.121	5.43	.787	4.13	.991	5.13	1.126	6.769	.080	
Information seeking	4.53	1.457	5.29	.951	4.13	1.356	5.00	.926	3.673	.299	
Interpersonal understanding	4.87	1.125	5.57	.535	4.25	1.165	5.50	.535	7.834	.050	
Ability and willingness to learn	5.07	1.387	5.71	.488	4.50	1.195	5.13	.991	4.778	.189	
Customer service orientation	5.20	1.014	5.71	.488	4.63	1.188	5.25	.886	5.722	.126	
Impact and Influence on others	4.73	1.438	5.14	.690	4.13	.991	4.88	.991	3.429	.330	
Organisational awareness	4.73	1.387	5.29	1.113	4.13	.991	4.50	1.309	4.395	.222	
Relationship building	5.20	.941	5.43	.535	4.13	.835	4.63	1.408	8.593	.035*	1,2>3
Developing others	4.60	1.183	5.00	.816	3.63	1.302	4.38	1.408	4.990	.173	
Directiveness	4.47	1.187	4.43	1.134	3.38	.744	4.00	1.195	5.966	.113	
Teamwork and cooperation	5.13	1.125	5.43	.787	4.25	1.282	5.13	1.356	5.045	.168	
Team leadership	5.07	1.223	4.71	1.380	3.75	1.282	4.38	1.506	5.913	.116	
Analytical thinking	4.33	1.718	5.00	1.155	3.75	1.165	4.13	1.458	3.626	.305	
Conceptual thinking	4.40	1.502	5.00	1.155	3.75	.707	3.88	1.126	5.829	.120	
Technical expertise	4.60	1.639	4.43	1.397	4.38	1.408	4.50	2.000	.513	.916	
Self-control	5.13	1.187	5.71	.488	4.88	.991	4.63	1.506	4.117	.249	
Self-confidence	5.07	.884	5.43	.787	5.00	1.069	4.88	1.246	1.149	.765	
Flexibility	4.87	1.125	5.57	.535	4.50	.756	5.00	1.069	5.701	.127	

Table 43 (continued)

Competency	Years at IPA								Chi-Square	Sig	Mann-Whitney
	(1)		(2)		(3)		(4)				
	1-5 (N=15)		6-10 (N=7)		11-15 (N=8)		>15 (N=8)				
M	SD	M	SD	M	SD	M	SD				
Organisational commitment	4.87	1.246	5.14	.900	4.88	.991	4.50	1.604	.508	.917	
Problem solving	5.00	1.195	4.57	.976	4.63	.916	4.50	1.309	1.967	.579	
Personal planning and organisational skills	5.00	1.309	4.86	1.069	4.50	1.195	4.63	1.685	1.351	.717	
Energy & passion	5.13	.915	4.86	.378	4.75	.707	5.38	.916	3.316	.345	
Computer literacy	5.13	.834	5.57	.535	5.38	.744	5.38	.518	1.575	.665	
Written communication	4.80	1.082	5.29	.756	5.38	1.061	4.75	.886	3.698	.296	
English language (overall)	4.73	1.534	5.14	.690	4.75	1.165	5.13	.641	.415	.937	
English language (writing)	4.87	1.125	5.43	.535	4.88	1.126	5.38	.518	1.307	.728	
English language (speaking)	4.73	1.223	5.00	.816	4.38	1.408	5.13	.641	2.094	.553	
Attendance and timekeeping	5.20	1.146	5.71	.756	5.75	.463	5.38	1.061	1.979	.577	
Confidentiality at work	5.13	1.302	5.71	.756	5.75	.463	5.00	1.604	3.240	.356	

\*p&gt;.05, \*\*p&gt;.01

#### **4.3.2.7 Programme Taught Most by Teachers and Perceptions of Importance of Competencies**

This data was not statistically appropriate to be analysed as a majority of teacher-participants were teaching Executive Secretary and Sales programmes. The number of participants who taught other programmes was very small. (See Table 17)

#### **4.3.3 Students' Demographic Characteristics and Perceptions of Importance of Competencies**

##### **4.3.3.1 Students' Major and Perceptions of Importance of Competencies**

As shown in Table 44, there were no significant differences between students' majors and their perceptions of the importance of any competency.

**Table 44. ANOVA for Major of Students and Perceptions of Importance of Competencies**

Competency	Major										F or H	Sig
	(1)		(2)		(3)		(4)		(5)			
	Hospital Administration		Executive Secretary		Accounting		Sales		Computers			
	<u>(N= 20)</u>		<u>(N= 26)</u>		<u>(N= 16)</u>		<u>(N= 24)</u>		<u>(N=13)</u>			
M	SD	M	SD	M	SD	M	SD	M	SD			
Achievement orientation	5.40	.821	5.12	1.243	5.19	1.047	5.08	1.060	5.46	1.127	.465	.761
Concern for order, quality and accuracy	5.40	.754	5.58	.578	5.50	.894	5.63	.770	5.62	1.121	.274	.894
Initiative	5.40	.883	5.27	.827	5.75	.447	5.25	.944	5.54	1.127	1.062	.380
Information seeking	5.05	.945	5.08	.845	4.75	1.183	4.79	.932	4.85	1.345	.460	.765
Interpersonal understanding	5.50	.889	5.46	.761	5.38	.719	5.38	.875	5.31	1.182	.136	.969
Ability and willingness to learn	5.65	.671	5.46	.761	5.63	.719	5.38	1.013	5.38	1.193	.422	.792
Customer service orientation	5.15	.875	5.38	.941	5.56	.629	5.46	.833	5.08	1.188	.871	.484
Impact and Influence on others	5.25	.550	5.23	.815	5.19	.981	5.46	.833	5.15	1.144	.406	.804
Organisational awareness	5.00	.858	5.15	.925	5.19	1.047	4.83	.963	5.00	1.225	.452	.771
Relationship building	5.20	.696	5.42	.703	5.69	.479	5.33	1.007	5.00	1.155	1.464	.219
Developing others	5.05	.826	4.92	.935	5.44	.727	4.83	1.090	4.85	1.214	1.136	.345
Directiveness	4.60	1.231	4.92	.935	5.00	.894	4.67	1.204	4.62	1.325	.522	.720
Teamwork and cooperation	5.25	.910	5.00	.849	5.63	.619	5.29	.999	5.31	1.182	1.170	.329
Team leadership	5.05	.999	5.12	1.071	5.50	.632	5.21	1.021	5.08	1.256	.546	.702
Analytical thinking	4.85	.933	4.88	.952	5.31	1.014	4.83	1.239	5.00	1.291	.593	.669
Conceptual thinking	4.95	1.099	4.62	1.203	5.25	.931	4.67	1.090	5.00	1.155	1.077	.372
Technical expertise	5.05	1.432	4.65	1.468	5.50	1.033	5.04	1.334	5.00	1.225	1.008	.407
Self-control	5.05	1.050	5.35	.689	5.63	.619	5.21	.833	5.31	1.109	1.083	.370
Self-confidence	5.25	.716	5.42	.758	5.69	.602	5.58	.830	5.31	1.182	.911	.461
Flexibility	4.80	.894	4.81	.801	5.19	.981	4.67	.963	4.38	1.193	1.404	.239

Table 44 (continued)

Competency	Major										F or H	Sig
	(1)		(2)		(3)		(4)		(5)			
	Hospital Administration		Executive Secretary		Accounting		Sales		Computers			
	<u>(N= 20)</u>		<u>(N= 26)</u>		<u>(N= 16)</u>		<u>(N= 24)</u>		<u>(N=13)</u>			
M	SD	M	SD	M	SD	M	SD	M	SD			
Organisational commitment	5.05	1.050	5.08	.891	5.19	.834	4.83	1.204	5.08	1.188	.329	.858
Problem solving	5.00	.795	5.31	.970	5.31	.793	5.13	1.035	5.08	1.188	.423	.792
Personal planning and organisational skills	5.40	.754	5.00	.849	5.13	.806	5.04	.955	5.23	1.166	.683	.605
Energy & passion	5.30	.801	4.81	.849	5.56	.629	5.33	.868	5.23	1.166	2.265	.068
Computer literacy	5.05	1.234	5.46	.582	5.56	.629	5.08	1.283	5.15	1.144	1.481	.830
Written communication	4.65	1.040	5.12	.952	5.44	.512	4.71	1.301	4.77	1.301	1.788	.138
English language (overall)	5.40	.940	5.35	.977	5.56	.629	5.63	.711	5.23	.832	.667	.616
English language (writing)	5.20	1.005	5.42	.902	5.63	.619	5.63	.711	5.08	.760	.930	.450
English language (speaking)	4.95	1.234	5.15	.967	5.50	.632	4.96	1.197	4.92	.862	1.537	.198
Attendance and timekeeping	5.70	.470	5.42	.857	5.38	1.258	5.58	.584	5.54	.660	.525	.717
Confidentiality at work	5.50	1.147	5.69	.471	5.69	.873	5.54	.658	6.00	.000	7.468	.113

Note. Kruskal-Wallis H test used for computer literacy, confidentiality at work; One-way ANOVA used for all other competencies.

#### **4.3.3.2 Students' Age and Perceptions of Importance of Competencies**

As shown in Table 45, the independent-samples t test showed that significant differences were found between students' perceptions of importance of competencies dependant on their age. Students aged 25-29 gave higher scores ( $p < 0.01$ ) than those aged 20-24 in the following competencies: ability and willingness to learn, analytical thinking, and self-control. Students aged 25-29 gave higher scores ( $p < 0.05$ ) than those aged 20-24 in the following competencies: organisational awareness, teamwork and cooperation, flexibility, and English language (overall).

**Table 45. An Independent-Samples t Test for Age of Students and Perceptions of Importance of Competencies**

Competency	Age (years)				t	Sig
	20-24		25-29			
	<u>(N= 86)</u>		<u>(N= 13)</u>			
	M	SD	M	SD		
Achievement orientation	5.17	1.087	5.54	.877	-1.151	.253
Concern for order, quality and accuracy	5.52	.822	5.69	.480	-.721	.473
Initiative	5.40	.885	5.46	.776	-.255	.799
Information seeking	4.91	1.013	5.00	1.000	-.309	.758
Interpersonal understanding	5.38	.870	5.62	.768	-.907	.366
Ability and willingness to learn	5.42	.901	6.00	.000	-5.987	.000**
Customer service orientation	5.35	.878	5.31	1.032	.154	.878
Impact and Influence on others	5.26	.870	5.38	.650	-.512	.610
Organisational awareness	4.95	1.005	5.54	.519	-2.052	.043*
Relationship building	5.37	.827	5.15	.899	.877	.382
Developing others	4.94	.998	5.38	.650	-1.546	.125
Directiveness	4.77	1.124	4.77	1.013	-.005	.996
Teamwork and cooperation	5.20	.956	5.69	.480	-2.937	.006**
Team leadership	5.14	1.031	5.46	.776	-1.079	.283
Analytical thinking	4.85	1.101	5.62	.506	-4.168	.000**
Conceptual thinking	4.79	1.149	5.23	.725	-1.338	.184
Technical expertise	5.01	1.350	5.00	1.291	.029	.977
Self-control	5.21	.883	5.85	.376	-4.514	.000**
Self-confidence	5.43	.834	5.62	.650	-.765	.446
Flexibility	4.70	.971	5.31	.630	-2.191	.031*
Organisational commitment	5.02	1.051	5.08	.862	-.175	.861
Problem solving	5.14	.972	5.38	.768	-.868	.388
Personal planning and organisational skills	5.12	.900	5.31	.855	-.719	.474
Energy & passion	5.16	.893	5.54	.776	-1.436	.154
Computer literacy	5.24	1.051	5.38	.768	-.463	.645
Written communication	4.91	1.134	5.08	.641	-.526	.600
English language (overall)	5.38	.870	5.85	.376	-3.299	.002*
English language (writing)	5.38	.856	5.62	.650	-1.103	.273
English language (speaking)	5.05	1.084	5.38	.506	-.934	.353
Attendance and timekeeping	5.49	.822	5.77	.439	-1.202	.232
Confidentiality at work	5.63	.783	5.85	.376	-.985	.327

\*p&gt;.05, \*\*p&gt;.01



### 4.3.3.3 Students' Work Experience and Perceptions of Importance of Competencies

Table 46 shows that students' work experience made significant difference to their perceptions of importance of competencies. Students who had work experience gave higher score ( $p < 0.05$ ) than those who never worked before studying at the IPA, in the following competencies: team leadership, English language (overall), English language (writing), and English language (speaking).

**Table 46. An Independent-Samples t Test for Work Experience of Students and Perceptions of Importance of Competencies**

Competency	Yes (N= 44)		No (N= 55)		t	Sig
	M	SD	M	SD		
Achievement orientation	5.20	1.069	5.24	1.071	.147	.883
Concern for order, quality and accuracy	5.64	.865	5.47	.716	-1.030	.306
Initiative	5.34	.914	5.45	.835	.645	.520
Information seeking	4.86	1.069	4.96	.962	.489	.626
Interpersonal understanding	5.39	.868	5.44	.856	.287	.775
Ability and willingness to learn	5.52	.876	5.47	.858	-.286	.776
Customer service orientation	5.32	1.006	5.36	.802	.250	.803
Impact and Influence on others	5.27	.973	5.27	.732	.000	1.000
Organisational awareness	4.93	1.065	5.11	.896	.899	.371
Relationship building	5.30	.930	5.38	.757	.509	.612
Developing others	4.86	1.069	5.11	.875	1.256	.212
Directiveness	4.89	1.039	4.67	1.156	-.955	.342
Teamwork and cooperation	5.32	.934	5.22	.917	-.535	.594
Team leadership	5.41	.948	5.00	1.018	-2.048	.043*
Analytical thinking	4.98	1.171	4.93	.997	-.229	.819
Conceptual thinking	4.73	1.169	4.95	1.061	.972	.334
Technical expertise	4.93	1.516	5.07	1.184	.519	.605
Self-control	5.34	.834	5.25	.886	-.495	.622
Self-confidence	5.41	.871	5.49	.767	.497	.621
Flexibility	4.84	1.077	4.73	.849	-.587	.558
Organisational commitment	4.98	1.000	5.07	1.052	.459	.647
Problem solving	5.18	1.040	5.16	.877	-.094	.925
Personal planning and organisational skills	5.02	1.023	5.24	.769	1.186	.238
Energy & passion	5.09	1.030	5.31	.742	1.224	.224
Computer literacy	5.41	.844	5.15	1.129	-1.287	.201
Written communication	5.07	1.087	4.82	1.073	-1.145	.255
English language (overall)	5.66	.680	5.27	.912	-2.413	.021*
English language (writing)	5.64	.685	5.24	.902	-2.433	.017*
English language (speaking)	5.34	.834	4.89	1.133	-2.200	.030*
Attendance and timekeeping	5.61	.689	5.45	.857	-1.000	.320
Confidentiality at work	5.73	.499	5.60	.894	-.844	.401

\* $p > .05$ , \*\* $p > .01$

#### **4.3.4 Analysis of Differences Between Employers, Teachers and Students (Before and After Participating in the Co-op) in Perceptions of Importance of Competencies**

As Table 47 shows, 21 competencies out of 31 recorded significant differences between the four groups in the perception of the importance of various competencies. Student-participants (before and after participating in the Co-op) scored initiative higher ( $p < 0.01$ ) than did teachers, while students' perceptions (before and after Co-op) of importance were higher ( $p < 0.01$ ) than employers' for interpersonal understanding, customer service orientation, and self-confidence. Students (before participating in the Co-op) scored ability and willingness to learn higher ( $p < 0.05$ ) than did employers and teachers. Students (before participating in the Co-op) scored impact and influence on others higher ( $p < 0.01$ ) than employers and teachers, while students (after participating in the Co-op) scored impact and influence on others, and developing others higher than employers on those two competencies ( $p < 0.01$ ). Students (before participating in the Co-op) scored relationship building ( $p < 0.05$ ), and directiveness ( $p < 0.01$ ) higher than did employers and teachers, while students (after participating in the Co-op) scored higher than teachers. Students (before participating in the Co-op) scored teamwork and cooperation higher ( $p < 0.05$ ) than employers. Teachers and students (after participating in the Co-op) scored team leadership ( $p < 0.01$ ) higher than employers, while students (before participating in the Co-op) scored it higher than employers and teachers. Students (before and after participating in the Co-op) scored the following competencies higher than employers and teachers: analytical thinking, conceptual thinking, English language (overall) ( $p < 0.01$ ), and problem solving ( $p < 0.05$ ). Students (before participating in the Co-op) scored technical expertise higher ( $p < 0.05$ ) than employers, while after participating in the Co-op they scored it higher than both teachers and employers. Students (after participating in the Co-op) scored computer literacy higher ( $p < 0.01$ ) than employers, teachers, and students (before participating in the Co-op). The only significant difference between students (before and after participating in the Co-op) was found in flexibility. Students (after participating in the Co-op) scored this competency higher ( $p < 0.05$ ) than before participating in the Co-op. Students (after participating in the Co-op) scored English language (writing) ( $p < 0.05$ ), and English language (speaking) ( $p < 0.01$ ) higher than teachers.

The data illustrates the mismatches of perceptions of the importance of competencies between employers, teachers, and students before and after participating in the Co-op.

These very important results have been discussed in chapter five, in the light of the main purpose of this study which is the impact of the Co-op in developing students' awareness of the importance of competencies. Some interesting implications are drawn from these significant differences between the four groups.

**Table 47. ANOVA for Employers, Teachers and Students (Before and After Participating in the Co-op) and Perceptions of Importance of Competencies**

Competency	(1) Employers (N= 38)		(2) Teachers (N= 38)		(3) Students Before Co-op (N= 99)		(4) Students After Co-op (N= 99)		F or H	Sig	Scheffe or Mann-Whitney
	M	SD	M	SD	M	SD	M	SD			
	Achievement orientation	5.45	.950	4.89	1.203	5.22	1.065	5.28			
Concern for order, quality and accuracy	5.37	.913	5.39	.916	5.55	.786	5.49	.774	.593	.620	
Initiative	5.16	1.053	4.76	1.101	5.40	.868	5.39	.855	5.260	.002**	3,4>2
Information seeking	4.68	1.141	4.68	1.276	4.92	1.007	5.05	.919	3.518	.318	
Interpersonal understanding	4.82	1.227	5.00	1.040	5.41	.857	5.35	.951	4.658	.003**	3,4>1
Ability and willingness to learn	4.92	1.477	5.08	1.171	5.49	.862	5.40	.957	8.101	.044*	3>1,2
Customer service orientation	4.61	1.516	5.18	.982	5.34	.894	5.36	1.083	12.756	.005**	3>1; 4>1
Impact and Influence on others	4.42	1.426	4.71	1.160	5.27	.843	5.06	.935	15.477	.001**	3>1,2; 4>1
Organisational awareness	4.58	1.426	4.66	1.258	5.03	.974	4.94	1.028	3.422	.331	
Relationship building	4.74	1.408	4.89	1.060	5.34	.835	5.24	1.031	9.730	.021*	3>1,2; 4>2
Developing others	3.79	1.663	4.42	1.244	5.00	.969	4.86	1.069	20.646	.000**	3>1,2; 4>1
Directiveness	3.87	1.742	4.13	1.143	4.77	1.105	4.63	1.274	13.345	.004**	3>1,2; 4>2
Teamwork and cooperation	4.18	1.943	5.00	1.185	5.26	.921	5.31	.877	9.845	.020*	3>1
Team leadership	3.55	1.781	4.58	1.368	5.18	1.004	5.07	.972	32.649	.000**	2,4>1; 3>1,2
Analytical thinking	3.74	1.671	4.29	1.469	4.95	1.073	5.00	1.010	23.270	.000**	3,4>1,2
Conceptual thinking	4.08	1.634	4.26	1.267	4.86	1.112	4.98	.969	15.271	.002**	3,4>1,2
Technical expertise	4.42	1.500	4.50	1.573	5.01	1.336	5.12	1.154	10.067	.018*	3>1; 4>1,2
Self-control	4.89	1.134	5.08	1.148	5.29	.860	5.29	.972	1.994	.115	
Self-confidence	4.97	1.052	5.08	.969	5.45	.812	5.55	.836	5.578	.001**	3,4>1
Flexibility	4.76	1.195	4.95	.985	4.78	.954	5.14	.857	8.217	.042*	4>3

**Table 47 (continued)**

Competency	(1) Employers (N= 38)		(2) Teachers (N= 38)		(3) Students Before Co-op (N= 99)		(4) Students After Co-op (N= 99)		F or H	Scheffe or Mann-Whitney	
	M	SD	M	SD	M	SD	M	SD			
	<b>Organisational commitment</b>	4.42	1.926	4.84	1.197	4.78	.954	5.19			1.104
<b>Problem solving</b>	4.42	1.671	4.74	1.107	5.03	1.025	5.17	.915	9.016	.029*	3,4>1,2
<b>Personal planning and organisational skills</b>	4.53	1.572	4.79	1.298	5.17	.948	5.10	.920	3.954	.266	
<b>Energy &amp; passion</b>	4.71	1.541	5.05	.804	5.14	.892	5.33	.808	5.827	.120	
<b>Computer literacy</b>	4.66	1.582	5.32	.702	5.21	.884	5.52	.908	14.817	.002**	4>1,2,3
<b>Written communication</b>	5.13	1.143	5.00	.986	5.26	1.016	5.02	.947	.374	.772	
<b>English language (overall)</b>	5.00	1.185	4.89	1.158	5.44	.986	5.70	.630	31.337	.000**	3,4>1,2
<b>English language (writing)</b>	5.29	.956	5.08	.941	4.89	1.158	5.45	.824	3.623	.014*	4>2
<b>English language (speaking)</b>	5.11	1.158	4.79	1.094	5.08	.941	5.58	.716	4.848	.003**	4>2
<b>Attendance and timekeeping</b>	5.47	.979	5.45	.950	4.79	1.094	5.59	.670	.358	.783	
<b>Confidentiality at work</b>	5.61	.946	5.34	1.169	5.45	.950	5.60	.781	1.263	.287	

*Note.* One-way ANOVA used for achievement orientation, concern for order quality and accuracy, initiative, interpersonal understanding, self-control, self-confidence, written communication, English language (writing), English language (speaking), attendance and timekeeping, and confidentiality at work; Kruskal-Wallis H test used for all other competencies.

\*p>.05, \*\*p>.01

#### **4.4 Objective Three: Comparison of Importance of Hard and Soft Competencies**

In this objective, the researcher explored participants' perceptions of the importance of hard and soft competencies, and their justification of the selection. This integration of quantitative and qualitative data will clarify the importance of the two categories, and why they are required in the workplace.

##### **4.4.1 Analysis of Differences in Perceptions between Employers, Teachers and Students (Before and After Participating in the Co-op)**

This section compares the differences between employers, teachers, and students (before and after participating in the Co-op) in perceptions of the importance of competency categories. The differences were identified from two competency categories rated by the four participant groups. Results were obtained by conducting one-way ANOVA or Kruskal-Wallis H test to analyse the differences amongst mean scores, and frequency distribution to analyse the direct question data:

- In considering the importance of competencies for IPA's post-secondary graduates entering the workplace, Table 48 shows that employers, teachers, and students (before and after participating in the Co-op) perceived soft competencies to be more important than hard competencies. This result was obtained both among the standard list, and the list of 31 competencies, which contains the five suggested competencies added by the researcher. (See Table 49). This is an interesting result, as it is in agreement with several studies. (See the discussion chapter, page 234).
- Students (before and after Co-op) scored significantly higher ( $p < 0.05$ ) than employers in the importance of hard competencies (by 5.12 for students (after Co-op) and (5.04) for students (before Co-op) versus (4.43) for employers, as shown by Kruskal-Wallis and Mann-Whitney tests). This result was also obtained for the two lists of competencies. This was because there were no changes in the hard competencies in the two lists.

- In analysing the differences in perceptions of the importance of soft competencies for the standard list, students (before and after participating in the Co-op) scored them significantly higher ( $p < 0.01$ ) than employers and teachers (by 5.21 for students (before and after Co-op) versus 4.62 for employers and (4.86) for teachers, as shown by Kruskal-Wallis and post-hoc Mann-Whitney tests).
- The differences in perceptions of the importance of soft competencies among the list of 31 competencies were as follows:
  - o One-way ANOVA and post-hoc Scheffé tests found that students (before and after participating in the Co-op) scored higher ( $p < 0.01$ ) than employers by 5.28 for students (after Co-op) and 5.19 for students (before Co-op) versus (4.90) for employers.
  - o Students (after Co-op) were significantly higher ( $p < 0.01$ ) than teachers who scored 4.91.
- Frequency distribution was used to analyse the differences between participants' perceptions of the importance of hard and soft competencies amongst the direct question. Table 50 shows that of employer-participants, 24 people, (63.2%) perceived soft competencies as more important than the hard, while 14 people, (36.8%) perceived hard competencies as more important. The interesting result is that most of employer-participants from wholesale and retail trade, banks, finance institutions, business services, community services, hotels, newspapers, hospitals and medical services fields perceived soft competencies as more important than hard competencies. On the other hand, most of employer-participants from information technology, materials laboratories, electricity, and agriculture fields perceived hard competencies as more important than the soft ones.
- Teacher-participants have an equal view of importance between soft and hard competencies with 19 people, (50%) favouring each category. An interesting result is that most teacher-participants who mostly teach Executive Secretary

and Sales programmes viewed soft competencies as being more important than hard competencies. On the other hand, most teachers who mostly teach Computers programmes perceived hard competencies as more important than the soft ones.

- The results also shows that most of the students, 57 people, (57.6%) (before participating in the Co-op) perceived soft competencies to be more important than the hard, while 42 people (42.4%) perceived the hard as more important. However, 64 students (64.6%) (after participating in the Co-op) perceived soft competencies more important than the hard, while 35 people, (35.4%) perceived the hard as more important. What is remarkable in students' perceptions (before Co-op) is that there was no difference in the perceived importance of hard and soft competencies between students who had previous work experience against those who did not.

**Table 48. Employers, Teachers and Students (Before and After Participating in the Co-op) and Perceptions of the Importance of Hard and Soft Competencies of the Standard Competencies**

Competency Category	(1)	(2)	(3)	(4)	F or H	Sig	Mann-Whitney
	Employers (N= 38)	Teachers (N= 38)	Students Before Co-op (N= 99)	Students After Co-op (N= 99)			
Hard Competencies	4.43	4.69	5.04	5.12	8.288	.040*	3,4>1
Soft Competencies	4.62	4.86	5.21	5.21	31.449	.000**	3,4>1,2

*Note.* The variable scores are mean scores.

The p-value was significant for Levene test of homogeneity for hard and soft competencies. Therefore, Kruskal-Wallis H test was used for the two categories.

\*p>.05, \*\*p>.01



**Table 49. Employers, Teachers and Students (Before and After Participating in the Co-op) and Perceptions of the Importance of Hard and Soft Competencies of the Standard Copetencies + the Additional Competencies**

Competency Category	(1)	(2)	(3)	(4)	F or H	Sig	Scheffe or Mann-Whitney
	Employers (N= 38)	Teachers (N= 38)	Students Before Co-op (N= 99)	Students After Co-op (N= 99)			
Hard Competencies	4.43	4.69	5.04	5.12	8.288	.040*	3,4>1
Soft Competencies	4.75	4.91	5.19	5.28	15.222	.000**	3>1; 4>1,2

*Note.* The variable scores are mean scores.

The p-value was significant for Levene test of homogeneity for hard competencies.

One-way ANOVA used for soft competencies; Kruskal-Wallis H test used for hard competencies.

\*p>.05, \*\*p>.01

**Table 50. Perceptions of the Importance of Hard and Soft Competencies for Employers, Teachers and Students (Before and After Co-op)**

Competency Category	(1)		(2)		(3)		(4)	
	Employers (N= 38)		Teachers (N= 38)		Students Before Co-op (N= 99)		Students After Co-op (N= 99)	
	N	%	N	%	N	%	N	%
Hard Competencies	14	36.8	19	50	42	42.4	35	35.4
Soft Competencies	24	63.2	19	50	57	57.6	64	64.6

#### 4.4.2 Reasons for preferring Hard or Soft Competencies as more Important by Employers, Teachers and Students (Before and After Participating in the Co-op)

In part three of the four groups' questionnaires, participants were asked to give reasons, which influenced their judgments in choosing one of the hard or soft competencies as more important. This section presents participants' views in addition to the rate of response.

#### 4.4.2.1 Rate of Response to the Question of why Hard or Soft Competencies are more Important

Table 51 shows that 13 out of the 14 (93%) employers gave reasons that hard competencies as more important than soft competencies. Also, 19 teachers chose hard competencies as more important, 18 (95%) of them justified their choice. The number of students (before Co-op) who gave reasons was 25 students out of 42 (60%), while the number after Co-op was 22 students out of 35 (63%). On the other hand, the Table shows that all the 24 employers who chose soft competencies as more important than the hard gave reasons for their choice. Teachers were 17 out of 19, with per centage average of (89.5%). 27 out of 57 (47%) of students (before Co-op) gave reasons for choosing soft competencies as more important, while the number was 38 out of 64 (59%) after Co-op.

**Table 51. Percentages of Participants who gave reasons for Importance of Hard and Soft Competencies**

Competency Category	(1) Employers (N= 38)		(2) Teachers (N= 38)		(3) Students Before Co-op (N= 99)		(4) Students After Co-op (N= 99)	
	N	%	N	%	N	%	N	%
	Hard Competencies	13/14	93	18/19	95	25/42	60	22/35
Soft Competencies	24/24	100	17/19	89.5	27/57	47	38/64	59

#### 4.4.2.2 Reasons for Perceptions of Importance of Hard Competencies

As it shown in Table 52, two main reasons were given by the four groups. There was an agreement between the four groups that hard competencies are 'essential' to get the job. This reason was mentioned by 13 employers out of 14 (93%), 17 teachers out of 18 (94.4%), all the 25 students (before Co-op), and all the 22 students (after Co-op).

Most of the participants in the four groups said briefly “hard competencies are essential”. However, some participants justified their opinions in different words. For example, one student (before Co-op) said, *“I am sure that hard competencies are more important, because they represent the job requirements”*. SB16. A student (after Co-op) stated, *“Hard competencies are essential”. If I do not have them, I cannot really start my job...At first I should learn how I can do the job”*. SA7. Teachers and employers have expressed their reasons for preferring hard competencies in similar terms. For example, one teacher said, *“Students should try to be competent in their majors, hard competencies are essential to success in the workplace”*. T3. An employer said, *“Hard competencies are more important because the graduates are too young, and they have to be ready with the essential requirements of the job...they can benefit from their soft competencies in the future”*. E19

Two employers out of 14 (14%), and only 1 teacher out of 18 (5.6%), justified the opinion that hard competencies are more important than soft competencies by reporting the fact that “hard competencies are easily obtained”. For example, one employer answered, *“I believe that soft competencies are important, but I tend to give more important to hard competencies, because they are easily learned and.... they do not cost us lots, while soft competencies are difficult to learn and also to measure”*. E9. The teacher said, *“It is not easy to teach a student how to be a good leader or how to be confident, while it is easy to teach him how to do his main job”*. T6

**Table 52. Reasons for Perceptions of Importance of Hard Competencies**

Reasons	(1) Employers (N= 14)		(2) Teachers (N= 18)		(3) Students Before Co-op (N= 25)		(4) Students After Co-op (N= 22)	
	N	%	N	%	N	%	N	%
	Hard competencies are 'essential' to get the job	13	93	17	94.4	25	100	22
Hard competencies are easily obtained.	2	14	1	5.6	0	0	0	0

*Note.* Respondents may add more than one reason.

#### 4.4.2.3 Reasons for Perceptions of Importance of Soft Competencies

Table 53 shows that employers, teachers, and students (before and after Co-op) have given six main justifications for favouring soft competencies as more important than hard competencies:

1. Soft competencies are complementary to hard competencies.
2. Soft competencies are important in improving an employee's career.
3. Soft competencies build the employee as a person.
4. Soft competencies help an individual to differentiate his/her self in a competition with other candidates to win a job when his/her hard competencies are similar to those of others.
5. One set of soft competencies are ethical; the development of ethical competencies assists in developing work and communicating well with others.

6. Soft competencies are an important part of the success of an organisation, particularly one that frequently deals with customers face to face.

**Table 53. Reasons for Perceptions of the Importance of Soft Competencies**

Reasons	(1) Employers (N= 24)		(2) Teachers (N= 17)		(3) Students Before Co-op (N= 27)		(4) Students After Co-op (N= 38)	
	N	%	N	%	N	%	N	%
	Soft competencies are complementary to hard competencies.	20	83.3	12	70.6	15	55.6	22
They are important in improving an employee's career.	22	91.7	3	17.6	8	29.6	25	65.8
Soft competencies build the employee as a person.	5	20.8	10	58.8	0	0	0	0
Soft competencies help an individual to differentiate his/her self in a competition with other candidates to win a job when his/her hard competencies are similar to those of others.	24	100	10	58.8	10	37	29	76.3
One set of soft competencies are ethical; the development of ethical competencies assists in developing work and communicating well with others.	8	33.3	3	17.6	0	0	9	23.7
Soft competencies are an important part of the success of an organisation, particularly one that frequently deals with customers face to face.	12	50	5	29.4	9	33.3	21	55.3

*Note.* Respondents may add more than one reason.

1. Soft competencies are complementary to hard competencies.

This reason was reported by 20 employers out of 24 (83.3%), 12 teachers out of 17 (70.6%), 15 students (before Co-op) out of 27 (55.6%), and 22 students (after Co-op) out of 38 (57.9%).

Most of the participants in the four groups stated in a few words “Soft competencies complement hard competencies”. For example, one employer stated, *“Soft competencies complement hard competencies...students should think carefully about developing soft competencies”*. E11. A teacher said, *“We try to draw students’ attention to soft competencies... We believe that they are important for graduates’ future in the workplace. Soft competencies complete hard competencies... All are important”*. T2. However, other participants expressed that in different phrases. For example, one employer reported, *“To be ready for the workplace, it is not enough to know how to do the job. What really important is to know how to do the job in high quality, and that cannot be obtained without being qualified with soft competencies”*. E15. Some participants have given examples of soft competencies that have an impact on developing hard competencies; one employer stated, *“Achieving such attributes, like willingness to learn, self-confidence, and so forth help the employee strongly to obtain and developing hard competencies”*. E27. A student (before Co-op) said, *“Hard competencies are essential requirements of a job... but not enough for success... we need soft competencies, like communicating well with others and leadership to be successful”*. SB44. Another student (after Co-op) added, *“Soft competencies play an important role in doing the job. It is not enough to have the ability to do the work without being confident and communicating well with others”*. SA64. Students have mentioned the impact of soft competencies on creativity, productivity, and performance at work. For example, one student (before Co-op) noted, *“I think without the soft competencies, the person will be like a machine doing a routine job...to be creative and do the job with high productivity you need to complete your hard competencies by the soft ones”*. SB80. Another student (after Co-op) said, *“We learn here in the*

*organisation during the Co-op that soft competencies are very important and they are helping us to perform better". SA31*

Two employer-interviewees have seen the change in students' perceptions was towards giving more attention to both hard and soft competencies. For example, interviewee 3 stated, *"Yes, there is a change in students' view of the importance of the competencies. I can say that students after the Co-op were more aware of the value of soft competencies as well as hard ones...students understood the combination of the two sorts of competencies" .. Interviewee 7 said, "I can say that the students after the training became more aware of the importance of soft competencies and they also see hard competencies as essential as they represent the profession"*.

2. Soft competencies are important in improving an employee's career.

This reason was reported by 22 employers out of 24 (91.7%), 3 teachers out of 17 (17.6%), 8 students (before Co-op) out of 27 (29.6%), and 25 students (after Co-op) out of 38 (57.9%). For example, one employer said, *"Soft competencies help employees continually to move up in their career". E13.* Another employer said, *"Soft competencies improve the ability of the employee to enhance his opportunity for promotion in his career". E32*

Teacher-participants expressed their view of the impact of soft competencies on improving an employee's career by recommending that students pay more attention to developing their soft competencies. One teacher stated, *"... Soft competencies assist some graduates to grow up in their career". T29.* Another teacher said, *"If our graduates want to ensure a bright future in the workplace they should concern themselves with soft competencies". T37*

Students (before and after Co-op) were also in agreement with employers and teachers about the impact of soft competencies on employee's career promotion. One student (before Co-op) said, *"I think what soft*

*competencies can do for graduates is to give them a better chance to go up in their profession". SB5. Another student (before Co-op) added, "Soft competencies are important because we need them when we work... Many companies want to hire intelligent workers who have soft competencies not just hard competencies, because this kind of competencies will benefit the company and the graduate". SB10*

Students (after Co-op) were more accurate in specifying the benefits of developing soft competencies. One student said, *"By giving more concern to soft competencies, we will grow up in the workplace, and earn better salaries". SA24. Another student reported, "Soft competencies are very important for promotion, especially in the private sector". SA79*

3. Soft competencies build the employee as a person.

This reason was reported by 5 employers out of 24 (20.8%), and 10 teachers out of 17 (58.8%). For example, one employer stated, *"Soft competencies not only help an employee to be better in his work, they also help any one of us to be useful in society". E18. Another employer added, "A graduate can get many advantages from soft competencies, one of them is the success in his life as a person". E22*

Teachers were in agreement with employers about the benefits of soft competencies in graduates' personal lives. For example, one teacher reported this when mentioning the role of the Institute of Public Administration in developing students' soft competencies; he said, *"Soft competencies are very important... The Institute of Public Administration build students not only with technical aspects of their majors, but also with soft competencies to help them to be good people". T12. Another teacher reported, "I consider soft competencies more important than hard competencies, because they lead anyone to succeed as a person and succeed in the workplace". T7*



4. Soft competencies help an individual to differentiate his/her self in a competition with other candidates to win a job when his/her hard competencies are similar to those of others.

This reason was reported by all the employers, 10 teachers out of 17 (58.8%), 10 students (before Co-op) out of 27 (37%), and 29 students (after Co-op) out of 38 (76.3%). For example, one employer said, *“Soft competencies are the most important because most of the graduates are at about the same level in hard competencies. Soft competencies differ from person to person... organisations are looking for staff who have better soft competencies, and conduct interviews and tests to select the person with sufficient interpersonal skills to complete the work and the person who has the capacity to develop himself and his organisation”*. E3. Teachers have also confirmed the relationship between development of soft competencies and getting jobs. For example, one teacher stated that clearly, *“Soft competencies are very helpful in achieving occupations”*. T8. One student (after Co-op) confirmed that; he stated, *“One of my friends has recently won a job among many candidates who applied for it... the reason was, in my opinion, that he is active and good at building relationships”*. SA10

5. One set of soft competencies are ethical; the development of ethical competencies assists in developing work and communicating well with others. This reason was reported by 8 employers out of 24 (33.3%), 3 teachers out of 17 (17.6%), 5 students (before Co-op) out of 27 (18.5%), and 9 students (after Co-op) out of 38 (23.7%). For example, one employer said, *“Employers consider taking responsibility for employee’s values and personal integrity. Good leaders should have ethical work competencies to be successful in Impact and Influence on others”*. E25. Another employer expressed the importance of soft competencies as an ethical value and the characteristics of the people who have them. He said, *“Soft competencies are more important, because they are the first step to learning the hard ones ... To master the job one must possess soft competencies”*. *“Employers are looking for employees who work well with others and support workers in their teams, not those who trying make others "look bad"”*. E38.

However, another employer has mentioned the honesty as an important value in the workplace, he said “*Employers want those employees they can trust... this is very important to do a good job*”. E26

Teachers and students (after Co-op), like employers, have placed emphasis on dealing well with others. For example, one teacher said, “*Smiling, communicating well, and knowing how to be flexible are very important in today's workplace*”. T1, while a student stated, “*One of the most important traits in the employee is the way he deals with others. Some people are actually difficult, always, griping at others, criticising, blaming...*” SA74

6. Soft competencies are an important part of the success of an organisation, particularly one that frequently deals with customers face to face.

This reason was reported by 12 employers out of 24 (50%), 5 teachers out of 17 (29.4%), 9 students (before Co-op) out of 27 (33.3%), and 21 students (after Co-op) out of 38 (55.3). For example, one employer said, “*Soft competencies have clear and effective role in those jobs that require dealing with customers face to face*”. E14. Another one added “*Soft competencies are more important than hard competencies especially for employees in customer services departments*”. E23

Teachers from their side, have expressed the impact of soft competencies on increasing profits. For example, one teacher stated, “*I see soft competencies as more important, because in the market nowadays, employees with a high standard of soft competencies are the ones who make the difference. Look at salesmen, for example, how they can increase a company's profits by understanding customers and respecting them when they meet them*”. T7. Another said, “*Soft competencies are very effective in jobs that require meeting customers face to face*”. T8. Students also have similar view to employers and teachers. For example, one student (after Co-op) said, “*One of the most important traits in the employee is the way he deals with others. Some people are actually difficult, always, griping at others, criticising,*

*blaming... This kind of people should be away from those departments dealing with customers face to face". SA8*

The increasing number of reasons provided by students (after Co-op) for favouring soft competencies as more important than hard competencies indicates a clear change in their perceptions when compared with their views before Co-op.

All the seven employers who were interviewed confirmed this improvement. They reported that students' perceptions of the importance of competencies changed as a result of participation in the Co-op. Five of the interviewees reported that students gave more attention to acquiring soft competencies. For example, interviewee 1 said, *"Yes, what I have seen is more concern from students to the soft competencies. This was declared by the students who I am supervising"*. Interviewee 4 stated: *"Yes, students at the end of the Co-op were aware that they should put more effort into developing soft competencies, and this kind of training [he means Co-op] helped them to do so"*.

The interviewees provided some comments and suggestions for improving students' awareness of the importance of generic competencies. For example, interviewee 1 suggested, *"It is not enough for students to participate in the Co-op training to be prepared for the workplace. This mission should be under taken by schools from the early stages"*..

Interviewee 7 said, *"As for the difficulty of teaching soft competencies in the workplace; graduates should learn them in schools"*.. Interviewee 4 invited more cooperation between educational institutes and private sector, he said, *"We are keen to see more cooperation between us and the Institute of Public Administration and other educational institutions... We should work together on designing courses to meet the requirements of the private sector"*.

In similar way, interviewee 2 added, *"More cooperation between employers and educators means more understanding of workplace demands"*.

#### **4.5 Objective Four: Most Important Competencies required to be Developed in IPA's Post-secondary Graduates Entering the Workplace**

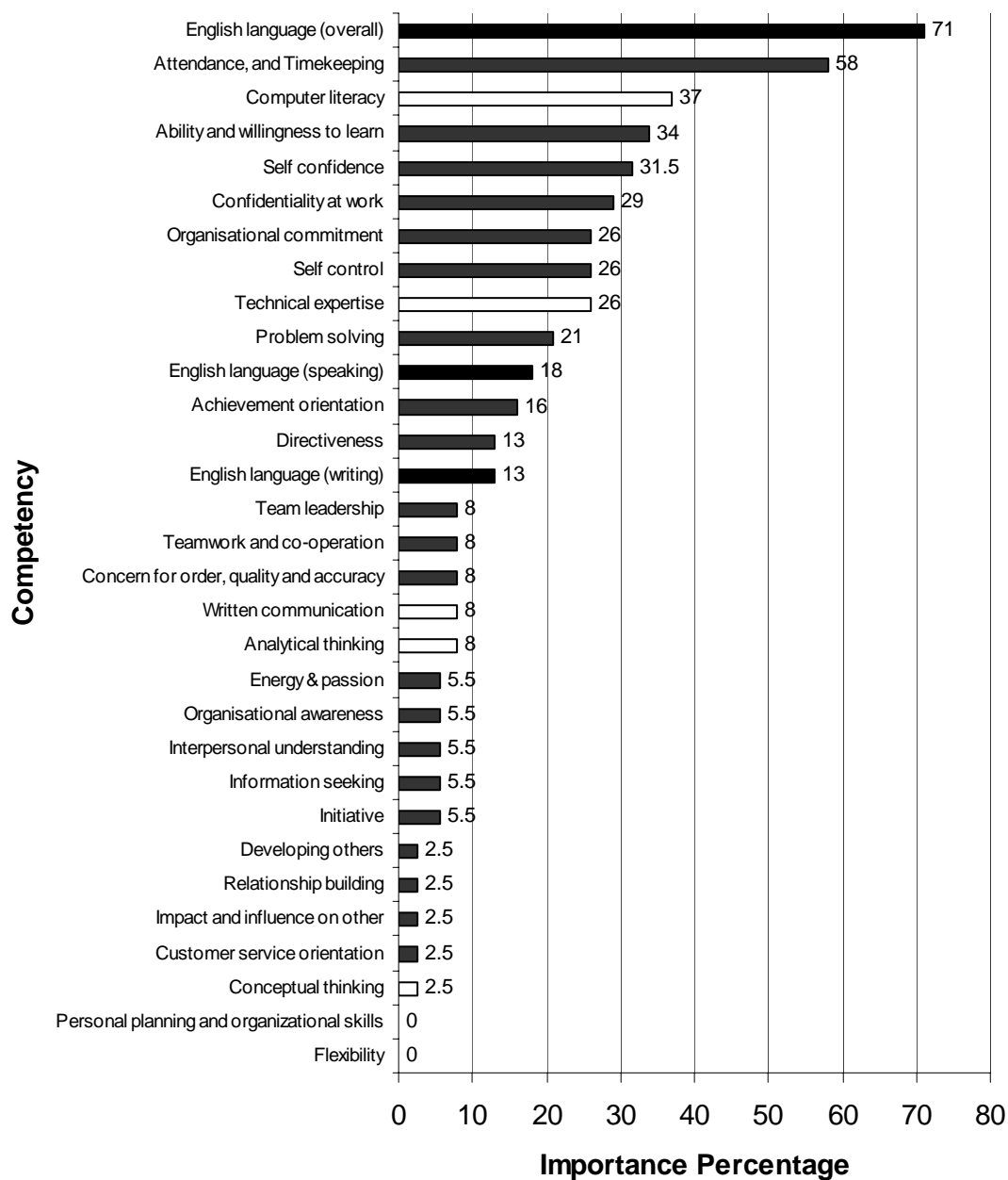
##### **4.5.1 Employers' Perceptions of the Most Important Competencies required to be Developed in IPA's Post-secondary Graduates Entering the Workplace**

Table 54 shows the frequency distribution and percentages for employers' perceptions of the most important competencies required to be developed in IPA's post-secondary graduates entering the workplace. Figure 13, illustrates the rating of the importance of competencies in order. The ten competencies considered most important were: English Language (overall), attendance and timekeeping, computer literacy, ability and willingness to learn, self-confidence, confidentiality at work, organisational commitment, self-control, technical expertise, and problem solving.

This result showed that employers require students to give more attention to developing soft competencies. The employer-interviewees asserted that clearly. For example, interviewee 4 stated, "*Behavioural competencies are still considered very important to be developed by students during work*". He also commented, "*I prefer to hire a graduate with strong soft skills and a lack of technical skills*".

**Table 54. Most Important Competencies Required to be Developed in IPA's Post-secondary Graduates as Perceived by Employer-Participants (N=38)**

Competency	Frequency	Per cent	Ranking within category	Ranking overall
<i>Hard skills</i>				
Analytical thinking	3	8	3	15
Conceptual thinking	1	2.5	5	25
Technical expertise	10	26	2	7
Computer literacy	14	37	1	3
Written communication	3	8	3	15
Personal planning and organisational skills	0	0	-	-
<i>Soft skills</i>				
Achievement orientation	6	16	11	12
Concern for order, quality and accuracy	3	8	14	15
Initiative	2	5.5	17	20
Information seeking	2	5.5	17	20
Interpersonal understanding	2	5.5	17	20
Ability and willingness to learn	13	34	3	4
Customer service orientation	1	2.5	22	25
Impact and Influence on others	1	2.5	22	25
Organisational awareness	2	5.5	17	20
Relationship building	1	2.5	22	25
Developing others	1	2.5	22	25
Directiveness	5	13	12	13
Teamwork and cooperation	3	8	14	15
Team leadership	3	8	14	15
Self-control	10	26	6	7
Self-confidence	12	31.5	4	5
Flexibility	0	0	-	-
Organisational commitment	10	26	6	7
Problem solving	8	21	9	10
Energy & passion	2	5.5	17	20
English language (overall)	27	71	1	1
English language (writing)	5	13	12	13
English language (speaking)	7	18	10	11
Attendance and timekeeping	22	58	2	2
Confidentiality at work	11	29	5	6



**Figure 13. Employers' Perceptions of Most Important Competencies Required to be developed in IPA's Post-secondary Graduates Entering the Workplace (N=38)**

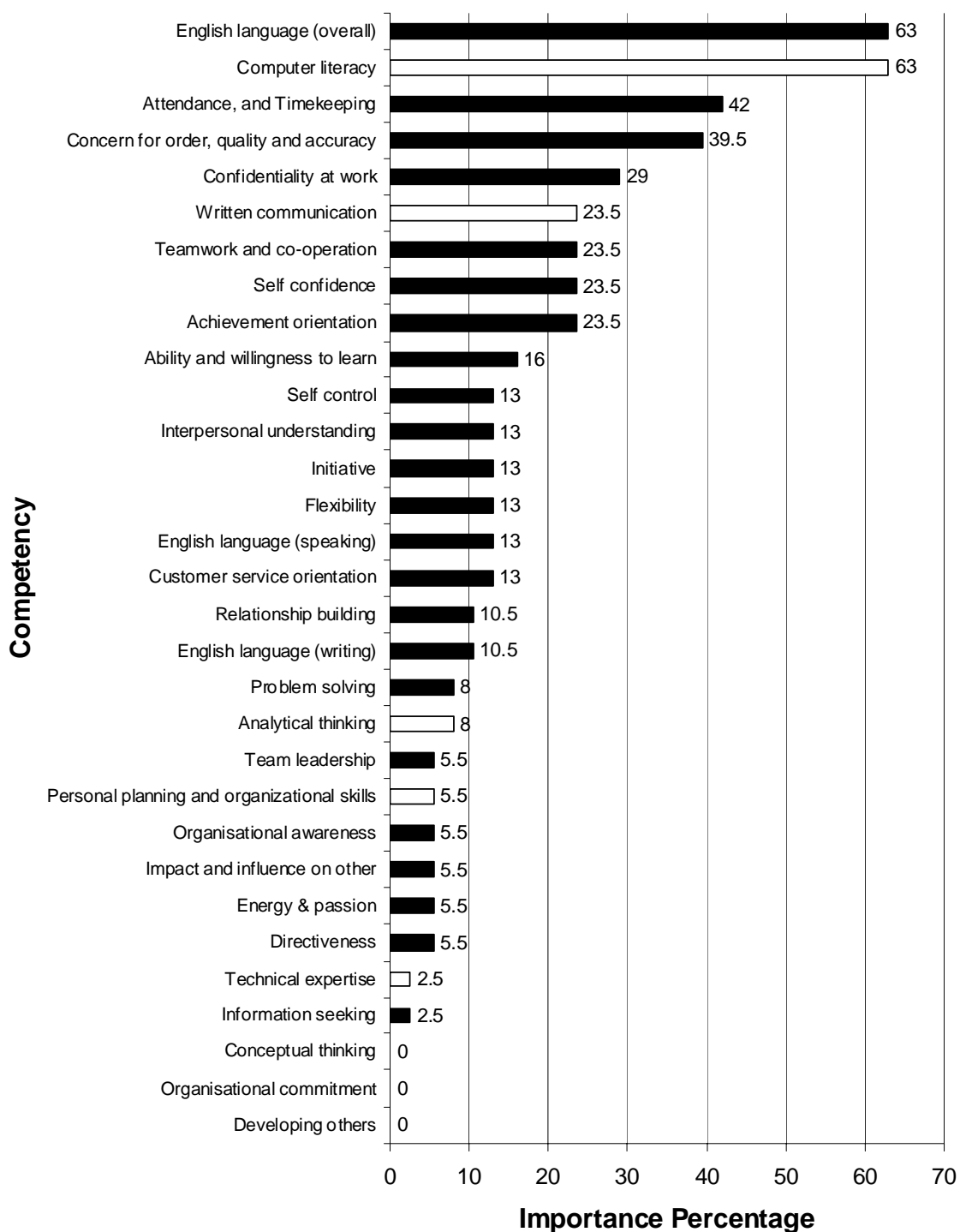
#### **4.5.2 Teachers' Perceptions of Most Important Competencies required to be Developed in IPA's Post-secondary Graduates Entering the Workplace**

Table 55 shows the frequency distribution and percentages for teachers' perceptions of the most important competencies required to be developed in IPA's post-secondary graduates entering the workplace. Figure 14, illustrates the rating of the importance of competencies in order. The ten competencies considered most important were: English Language (overall), computer Literacy, attendance and timekeeping, concern for order, quality and accuracy, confidentiality at work, written communication, teamwork and cooperation, self-confidence, achievement orientation, and ability and willingness to learn.

**Table 55. Most Important Competencies Required to be developed in IPA's Post-secondary Graduates as Perceived by Teacher-Participants (N=38)**

Competency	Frequency	Per cent	Ranking within category	Ranking overall
<i>Hard skills</i>				
Analytical thinking	3	8	3	17
Conceptual thinking	0	0	-	-
Technical expertise	1	2.5	5	27
Computer literacy	24	63	1	2
Written communication	9	23.5	2	6
Personal planning and organisational skills	2	5.5	4	21
<i>Soft skills</i>				
Achievement orientation	9	23.5	5	6
Concern for order, quality and accuracy	15	39.5	3	4
Initiative	5	13	9	11
Information seeking	1	2.5	23	27
Interpersonal understanding	5	13	9	11
Ability and willingness to learn	6	16	8	10
Customer service orientation	5	13	9	11
Impact and Influence on others	2	5.5	18	21
Organisational awareness	2	5.5	18	21
Relationship building	4	10.5	15	17
Developing others	0	0	-	-
Directiveness	2	5.5	18	21
Teamwork and cooperation	9	23.5	5	6
Team leadership	2	5.5	18	21
Self-control	5	13	9	11
Self-confidence	9	23.5	5	6
Flexibility	5	13	9	11
Organisational commitment	0	0	-	-
Problem solving	3	8	15	17
Energy & passion	2	5.5	18	21
English language (overall)	24	63	1	1
English language (speaking)	5	13	9	11
English language (writing)	4	10.5	15	17
Attendance and timekeeping	16	42	2	3
Confidentiality at work	11	29	4	5





**Figure 14. Teachers' Perceptions of Most Important Competencies required to be developed in IPA's Post-secondary Graduates Entering the Workplace (N=38)**

### **4.5.3 Comparison between Teachers and Employers of the Most Important Competencies required to be Developed in IPA's Post-secondary Graduates Entering the Workplace**

The comparison between employers and teachers in ranking the ten most important competencies required to be developed by IPA's Post-secondary graduates entering the workplace showed that there was an agreement on six competencies. These competencies were: English language (overall), attendance and timekeeping, computer literacy, ability and willingness to learn, self-confidence, and confidentiality at work. The other four of the ten most important competencies required to be developed by the graduates from employers' point of view were: organisational commitments, self-control, technical expertise, and problem solving. These competencies were ranked 30<sup>th</sup>, 11<sup>th</sup>, 27<sup>th</sup>, and 19<sup>th</sup> in order, in teachers' perceptions. The other four key competencies required to be developed by the graduates in teachers' perceptions were: concern for order, quality and accuracy, written communication, teamwork and cooperation, and achievement orientation. These competencies were ranked 17<sup>th</sup>, 18<sup>th</sup>, 16<sup>th</sup>, and 12<sup>th</sup> in order, in employers' perceptions. This agreement between employers and teachers seems to be interesting as the two parties work together to prepare students for the workplace.

### **4.5.4 Employers' and Teachers' Reasons for Selecting Particular Competencies as Most Important**

Employers and teachers were in agreement on 6 out of the ten most important competencies required to be developed in the graduates. These competencies were: English language (overall), attendance and timekeeping, computer literacy, ability and willingness to learn, self-confidence, and confidentiality at work. Employers and teachers have given quite similar reasons. Table 56 shows examples of the reasons given by the two groups for the importance of improving the performance of these competencies by the graduates.

**Table 56. Employers' and Teachers' Reasons for Selecting Particular Competencies as Most Important**

Competency	Employers	Teachers
<i>Hard competencies</i>		
<b>Computer literacy</b>	<p data-bbox="644 524 1050 748">“I do not think that IPA’s graduates are weak in using computers, what I mean is that we always should give more attention to this very important competency”. E7</p> <p data-bbox="644 792 1050 972">“Computer literacy is an important competency, so students in any institute have to prepare themselves well to be competent”. E18</p> <p data-bbox="644 1016 1050 1133">“It is the time of the computer. This competency is very... very important”. E11</p>	<p data-bbox="1102 524 1485 667">“The ability of computers to do very difficult and complex operations in very short time”. T5</p> <p data-bbox="1102 712 1485 891">“Computer literacy becomes more important by the time”. Computers are used in most aspects of life nowadays”. T29</p> <p data-bbox="1102 936 1485 1070">All jobs nowadays need to be performed by the computer, according to its many features. T37</p>
<i>Soft competencies</i>		
<b>Concern for order, quality and accuracy</b>	<p data-bbox="644 1247 1075 1426">“This is an ethical issue. Graduates should be aware of the importance of concern for order, and observe quality and accuracy in the work”. E10</p> <p data-bbox="644 1471 1075 1848">“Our religion asks us to do work with high quality. We believe that religion can contribute to improvements in the quality of work. The problem is in the practice of the ethical values in the workplace... Schools should pay more attention in educating students in a practical way to work with ethics”. E12</p>	<p data-bbox="1102 1247 1485 1606">“There is a lack of attention given to quality and accuracy in doing work. This problem seems to be an ethical problem. I think schools should give more attention to providing students not only with professional skills, but also with ethical values”. T25</p> <p data-bbox="1102 1650 1485 1825">“Concern for order, quality and accuracy is very important because it affects the outcome of the work”. T28</p>

<b>Ability and willingness to learn</b>	<p><i>“... Key element in developing students’ competencies”. E1</i></p> <p><i>“To keep going along with changes and developments in workplace”. E6</i></p>	<p><i>“It is a base in developing skills and learning new knowledge”. T21</i></p>
<b>Self-confidence</b>	<p><i>“It is essential to success in doing a job. Career progress depends on self-confident”. E32</i></p> <p><i>“One of the most important attributes for a successful employee”. E16</i></p>	<p><i>“Students have to be confident if they want to succeed in the workplace”. T4</i></p> <p><i>“Self-confidence is a very important competency. It is the responsibility of teachers to build this competency in the students”. T6</i></p>
<b>English language (overall)</b>	<p><i>“English language is essential for all job seekers”. E5</i></p> <p><i>“It is also, the only way to active oral contact with different nationalities at work”. E19</i></p> <p><i>“The local companies need English language to deal with their clients abroad, and even locally sometimes”. E1</i></p> <p><i>“It is the main language of written communication in the world”. E38</i></p>	<p><i>“English language is required in the workplace nowadays especially in the private sector”. T6</i></p> <p><i>“We prepare our graduates in the IPA to be competent in English language. We believe that this language is highly required in the workplace... ‘Do you speak English’ has become a very common question from employers when hiring people”. T34</i></p>

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**Attendance and  
timekeeping**

*“It affects work  
productivity”. E1*

*“Key issue in the workplace  
to ensure the completion of  
work tasks on time”. E19*

*“Attendance and  
Timekeeping is very  
important to be developed by  
students before they enter the  
workplace. School with  
cooperation from parents can  
solve poor attendance”. T4*

*“As a teacher, I require students  
to come on time. Their  
behaviours in the early stages  
will be attitudes in the future”.  
T7*

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**Confidentiality at  
work**

*“Confidential work  
information should never be  
discussed outside of our  
office. Many employees like  
to talk about their jobs  
outside. Graduates should be  
prepared ethically to keep  
secrets”. E38*

*“Revealing an organisation’s  
information by employees  
can negatively affect an  
organisation”. E1*

*“Discovering some  
information about an  
organisation such as  
financial plans may harm an  
organisation. Therefore, this  
confidential and valuable  
information must be secret”.  
T8*

*“Students have to learn at  
school the importance of  
confidentiality at work”. T12*

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#### 4.6 Objective Five: Most Important Sources that Developed Students' Awareness of Importance of Competencies

This section presents students' perceptions of the most important sources that developed students' awareness of the importance of competencies. Results were obtained by conducting 'Direct Ranking'. The estimated rank total and scale scores are the criteria of ranking of sources for each competency.

##### 4.6.1 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Achievement orientation* competency

As shown in Table 57, students perceived home/family/community as the most important sources in developing their awareness of importance of *Achievement orientation* (209 rank total, 28% scale score). Second, was Post-secondary Programme PSP (248, 38%), third was the Co-op Programme (291, 48%), fourth was school (356, 65%), and the last was self-taught (381 rank total) and (71% scale score).

**Table 57. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Achievement orientation* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	209	28	1
School	356	65	4
PSP	248	38	2
Co-op Programme	291	48	3
Self-taught	381	71	5

#### 4.6.2 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Concern for order, quality and accuracy* competency

In developing their awareness of importance of *Concern for order, quality and accuracy*, Table 58 shows that students perceived PSP as the most important source (218 rank total, 30% scale score). Second, was home/family/community (247, 37%), third was the Co-op Programme (297, 50%), fourth was school (337, 60%), while self taught came last at 384 rank total and 72% scale score.

**Table 58. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Concern for order, quality and accuracy* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	247	37	2
School	337	60	4
PSP	218	30	1
Co-op Programme	297	50	3
Self-taught	384	72	5

#### 4.6.3 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Initiative* competency

Table 59 shows that students perceived home/family/community as the most important source in developing their awareness of the importance of *Initiative* (209 rank total, 28% scale score). Second was PSP (248, 38%), third was the Co-op Programme (291, 48%), fourth was school (356, 65%), and the last was self-taught 381 rank total and 71% scale score.

**Table 59. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Initiative* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	209	28	1
School	356	65	4
PSP	248	38	2
Co-op Programme	291	48	3
Self-taught	381	71	5

#### 4.6.4 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Information seeking* competency

As shown in Table 60, students perceived PSP as the most important source in developing their awareness of the importance of *Information seeking* (184 rank total, 21% scale score). Second was home/family/community (298, 50%), third was the Co-op Programme (302, 51%), fourth was self-taught (336, 60%), and the last was school at 367 rank total and 68% scale score.

**Table 60. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Information seeking* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	298	50	2
School	367	68	5
PSP	184	21	1
Co-op Programme	302	51	3
Self-taught	336	60	4



#### 4.6.5 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Interpersonal understanding* competency

In developing their awareness of importance of *Interpersonal understanding*, Table 61 shows that students perceived home/family/community as the most important source (166 rank total, 30% scale score). Second was PSP (249, 38%), third was the Co-op Programme (317, 55%), fourth was school (334, 59%), and self-taught came last with 419 rank total and 81% scale score.

**Table 61. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Interpersonal understanding* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	166	17	1
School	334	59	4
PSP	249	38	2
Co-op Programme	317	55	3
Self-taught	419	81	5

#### 4.6.6 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Ability and willingness to learn* competency

Table 62 shows that students perceived PSP as most important source in developing their awareness of the importance of *Ability and willingness to learn* (220 rank total, 31% scale score). Second, was home/family/community (228, 33%), third was school (313, 54%), fourth was the Co-op Programme (326, 57%), and the last was self-taught 398 rank total and 76% scale score.

**Table 62. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Ability and willingness to learn* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	228	33	2
School	313	54	3
PSP	220	31	1
Co-op Programme	326	57	4
Self-taught	398	76	5

#### 4.6.7 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Customer service orientation* competency

As shown in Table 63, Students perceived the Co-op Programme as most important source in developing their awareness of the importance of *Customer service orientation* (211 rank total, 28% scale score). Second was PSP (218, 30%), third was home/family/community (298, 50%), fourth was self-taught (378, 70%), and the last was school at 386 rank total and 72% scale score.

**Table 63. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Customer service orientation* competency (N=99)**

Source	Rank Total Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	298	50	3
School	386	72	5
PSP	218	30	2
Co-op Programme	211	28	1
Self-taught	378	70	4

#### 4.6.8 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Impact and Influence on others* competency

In developing their awareness of importance of *Impact and Influence on others*, Table 64 shows that students perceived PSP as the most important source (241 rank total, 36% scale score). Second was the Co-op Programme (245, 37%), third was home/family/community (267, 42%), fourth was school (363, 67%), and self-taught came last at 372 rank total and 69% scale score.

**Table 64. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Impact and Influence on others* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	267	42	3
School	363	67	4
PSP	241	36	1
Co-op Programme	245	37	2
Self-taught	372	69	5

#### 4.6.9 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Organisational awareness* competency

Table 65 shows that students perceived PSP and the Co-op Programme as the two equally most important sources in developing their awareness of importance of *Organisational awareness* (224 rank total, 32% scale score). Third was home/family/community (289, 48%), fourth was school (365, 67%), and the last was self-taught 384 rank total and 72% scale score.

**Table 65. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Organisational awareness* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	289	48	3
School	365	67	4
PSP	224	32	1
Co-op Programme	225	32	1
Self-taught	384	72	5

#### 4.6.10 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Relationship building* competency

As shown in Table 66, students perceived home/family/community as most important source in developing their awareness of the importance of *Relationship building* (181 rank total, 21% scale score). Second was PSP (260, 41%), third was the Co-op Programme (314, 54%), fourth was school (346, 62%), and the last was self-taught at 384 rank total and 72% scale score.

**Table 66. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Relationship building* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	181	21	1
School	346	62	4
PSP	260	41	2
Co-op Programme	314	54	3
Self-taught	384	72	5

#### 4.6.11 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Developing others* competency

In developing their awareness of importance of *Developing others*, Table 67 shows that students perceived PSP as the most important source (221 rank total, 31% scale score). Second was home/family/community (249, 38%), third was the Co-op Programme (271, 43%), fourth was school (362, 66%), and self-taught came last at 382 rank total and 71% scale score.

**Table 67. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Developing others* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	249	38	2
School	362	66	4
PSP	221	31	1
Co-op Programme	271	43	3
Self-taught	382	71	5

#### 4.6.12 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Directiveness* competency

Table 68 shows that students perceived PSP as most important source in developing their awareness of the importance of *Directiveness* (219 rank total, 30% scale score). Second was home/family/community (249, 38%), third was the Co-op Programme (280, 46%), fourth was school (365, 67%), and the last was self-taught 384 rank total and 72% scale score.

**Table 68. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Directiveness* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	249	38	2
School	351	64	4
PSP	219	30	1
Co-op Programme	280	46	3
Self-taught	384	72	5

**4.6.13 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Teamwork and cooperation* competency**

As shown in Table 69, students perceived home/family/community as the most important source in developing their awareness of importance of *Teamwork and cooperation* (210 rank total, 28% scale score). Second was PSP (241, 36%), third was the Co-op Programme (278, 45%), fourth was school (356, 65%), and the last was self-taught at 400 rank total and 76% scale score.

**Table 69. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Teamwork and cooperation* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	210	28	1
School	356	65	4
PSP	241	36	2
Co-op Programme	278	45	3
Self-taught	400	76	5

#### 4.6.14 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Team leadership* competency

In developing their awareness of the importance of *Team leadership*, Table 70 shows that students perceived PSP as the most important source (226 rank total, 32% scale score). Second was home/family/community (247, 37%), third was the Co-op Programme (255, 39%), fourth was school (350, 63%), and self-taught came last at 307 rank total and 78% scale score.

**Table 70. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Team leadership* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	247	37	2
School	350	63	4
PSP	226	32	1
Co-op Programme	255	39	3
Self-taught	407	78	5

#### 4.6.15 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Analytical thinking* competency

Table 71 shows that students perceived PSP as most important source for the development of their awareness of the importance of *Analytical thinking* (219 rank total, 30% scale score). Second was home/family/community (234, 34%), third was the Co-op Programme (278, 45%), fourth was school (357, 65%), and the last was self-taught at 397 rank total and 75% scale score.

**Table 71. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Analytical thinking* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	234	34	2
School	357	65	4
PSP	219	30	1
Co-op Programme	278	45	3
Self-taught	397	75	5

#### 4.6.16 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Conceptual thinking* competency

As shown in Table 72, students perceived PSP as the most important source in the development of their awareness of the importance of *Conceptual thinking* (218 rank total, 30% scale score). Second was home/family/community (238, 35%), third was the Co-op Programme (208, 53%), fourth was school (349, 63%), and the last was self-taught at 372 rank total and 69% scale score.

**Table 72. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Conceptual thinking* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	238	35	2
School	349	63	4
PSP	218	30	1
Co-op Programme	308	53	3
Self-taught	372	69	5



#### 4.6.17 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Technical expertise* competency

In developing their awareness of the importance of *Technical expertise*, Table 73 shows that students perceived PSP as the most important source (245 rank total, 37% scale score). Second was the Co-op Programme (259, 40%), third was home/family/community (265, 42%), fourth was self-taught (354, 64%), and school came last at 362 rank total and 66% scale score.

**Table 73. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Technical expertise* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	265	42	3
School	362	66	5
PSP	245	37	1
Co-op Programme	259	40	2
Self-taught	354	64	4

#### 4.6.18 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Self-control* competency

Table 74 shows that students perceived the Co-op Programme as the most important source which developed their awareness of the importance of *Self-control* (248 rank total, 38% scale score). Second was home/family/community (253, 39%), third was PSP (255, 39%), fourth was school (340, 61%), and the last was self-taught at 389 rank total and 73% scale score.

**Table 74. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Self-control* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	253	39	2
School	340	61	4
PSP	255	39	3
Co-op Programme	248	38	1
Self-taught	389	73	5

#### 4.6.19 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Self-confidence* competency

As shown in Table 75, students perceived home/family/community as the most important source which developed their awareness of the importance of *Self-confidence* (191 rank total, 23% scale score). Second was PSP (284, 47%), third was the Co-op Programme (301, 51%), fourth was school (342, 61%), and the last was self-taught at 365 rank total and 67% scale score.

**Table 75. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Self-confidence* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	191	23	1
School	342	61	4
PSP	284	47	2
Co-op Programme	301	51	3
Self-taught	365	67	5

#### 4.6.20 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Flexibility* competency

In developing their awareness of the importance of *Flexibility*, Table 76 shows that students perceived home/family/community as the most important source (181 rank total, 21% scale score). Second was PSP (276, 45%), third was the Co-op Programme (308, 53%), fourth was school (358, 65%), while self-taught came last at 362 rank total and 66% scale score.

**Table 76. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Flexibility* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	181	21	1
School	358	65	4
PSP	276	45	2
Co-op Programme	308	53	3
Self-taught	362	66	5

#### 4.6.21 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Organisational commitment* competency

Table 77 shows that students perceived home/family/community as the most important source in developing their awareness of the importance of *Organisational commitment* (196 rank total, 24% scale score). Second was PSP (276, 45%), third was the Co-op Programme (308, 53%), fourth was school (373, 69%), and the last was self-taught at 377 rank total and 70% scale score.

**Table 77. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Organisational commitment* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	196	24	1
School	373	69	4
PSP	254	39	2
Co-op Programme	282	46	3
Self-taught	377	70	5

#### 4.6.22 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Problem solving* competency

As shown in Table 78, Students perceived home/family/community as the most important source which developed their awareness of the importance of *Problem solving* (213 rank total, 29% scale score). Second was PSP (230, 33%), third was the Co-op Programme (279, 45%), fourth was school (363, 67%), and the last was self-taught at 400 rank total and 76% scale score.

**Table 78. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Problem solving* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	213	29	1
School	363	67	4
PSP	230	33	2
Co-op Programme	279	45	3
Self-taught	400	76	5

#### 4.6.23 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Personal planning and organisational skills* competency

In developing their awareness of the importance of *Personal planning and organisational skills*, Table 79 shows that students perceived home/family/community as the most important source (214 rank total, 29% scale score). Second was PSP (238, 35%), third was the Co-op Programme (294, 49%), fourth was school (362, 66%), and self-taught came last at 377 rank total and 70% scale score.

**Table 79. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Personal planning and organisational skills* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	214	29	1
School	362	66	4
PSP	238	35	2
Co-op Programme	294	49	3
Self-taught	377	70	5

#### 4.6.24 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Energy & passion* competency

Table 80 shows that students perceived home/family/community as the most important source for the development of their awareness of the importance of *Energy & passion* (221 rank total, 31% scale score). Second was PSP (228, 33%), third was the Co-op Programme (302, 51%), fourth was self-taught (366, 67%), and the last was school at 367 rank total and 68% scale score.

**Table 80. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Energy & passion* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	221	31	1
School	367	68	5
PSP	228	33	2
Co-op Programme	302	51	3
Self-taught	366	67	4

#### 4.6.25 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Computer literacy* competency

As shown in Table 81, students perceived PSP as the most important source for the development of their awareness of the importance of *Computer literacy* (224 rank total, 32% scale score). Second was home/family/community (240, 36%), third was the Co-op Programme (300, 51%), fourth was school (362, 66%), and the last was self-taught at 361 rank total and 66% scale score.

**Table 81. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Computer literacy* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	240	36	2
School	362	66	4
PSP	224	32	1
Co-op Programme	300	51	3
Self-taught	361	66	4

#### 4.6.26 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Written communication* competency

In developing their awareness of the importance of *Written communication*, Table 82 shows that students perceived PSP as the most important source (213 rank total, 29% scale score). Second was home/family/community (259, 40%), third was the Co-op Programme (291, 48%), fourth was school (351, 64%), and self-taught came last at 372 rank total and 69% scale score.

**Table 82. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Written communication* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	259	40	2
School	351	64	4
PSP	213	29	1
Co-op Programme	291	48	3
Self-taught	372	69	5

#### 4.6.27 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *English language (overall)* competency

Table 83 shows that students perceived PSP as the most important source which developed their awareness of the importance of *English language (overall)* (197 rank total, 25% scale score). Second was the Co-op Programme (283, 46%), third was home/family/community (286, 47%), fourth was school (355, 65%), and the last was self-taught at 369 rank total and 68% scale score.

**Table 83. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *English language (overall)* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	286	47	3
School	355	65	4
PSP	197	25	1
Co-op Programme	283	46	2
Self-taught	369	68	5

**4.6.28 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *English language (writing)* competency**

As shown in Table 84, students perceived PSP as the most important source which developed their awareness of the importance of *English language (writing)* (195 rank total, 24% scale score). Second was home/family/community (292, 49%), third was the Co-op Programme (305, 52%), fourth was school (319, 56%), and the last was self-taught at 371 rank total and 69% scale score.

**Table 84. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *English language (writing)* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	292	49	2
School	319	56	4
PSP	195	24	1
Co-op Programme	305	52	3
Self-taught	371	69	5



#### 4.6.29 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *English language (speaking)* competency

In developing their awareness of the importance of *English language (speaking)*, Table 85 shows that students perceived PSP as the most important source (198 rank total, 25% scale score). Second was home/family/community (282, 46%), third was the Co-op Programme (315, 55%), fourth was school (323, 57%), and self-taught came last at 367 rank total and 68% scale score.

**Table 85. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *English language (speaking)* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	282	46	2
School	323	57	4
PSP	198	25	1
Co-op Programme	315	55	3
Self-taught	367	68	5

#### 4.6.30 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Attendance and timekeeping* competency

Table 86 shows that students perceived PSP as most important source for the development of their awareness of the importance of *Attendance and timekeeping* (205 rank total, 27% scale score). Second was the Co-op Programme (259, 40%), third was home/family/community (263, 41%), fourth was school (347, 63%), and the last was self-taught at 410 rank total and 79% scale score.

**Table 86. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Attendance and timekeeping* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	263	41	3
School	347	63	4
PSP	205	27	1
Co-op Programme	259	40	2
Self-taught	410	79	5

#### 4.6.31 Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Confidentiality at work* competency

As shown in Table 87, students perceived PSP as the most important source which developed their awareness of importance of *Confidentiality at work* (202 rank total, 26% scale score). Second was the Co-op Programme (245, 37%), third was home/family/community (282, 46%), fourth was school (355, 65%), and the last was self-taught at 301 rank total and 76% scale score.

**Table 87. Students' ranking of the most Important Sources in developing their Awareness of the Importance of the *Confidentiality at work* competency (N=99)**

Source	Rank Total Out of 495	Scale Score Out of 100	Rank
Home/family/community	282	46	3
School	355	65	4
PSP	202	26	1
Co-op Programme	245	37	2
Self-taught	401	76	5

**4.6.32 Rank values of the most Important Sources which Developed Students' Awareness of the Importance of competencies as obtained by conducting (Ranko) direct rank method for each competency.**

Table 88 shows rank values of the most important sources in the development of students' awareness of importance of competencies. These values were obtained by conducting (Ranko) direct rank method for each competency, and used as a base to identify most/less important sources for the development of students' awareness of importance of competencies (overall), and under the two categories - hard and soft competencies.

**Table 88. Rank values of most Important Sources which Developed their Awareness of the Importance of competencies as obtained by conducting (Ranko) direct rank method for each competency (N=99)**

Competency	Home/family/ community	School	PSP	Co-op Programme	Self-taught
<i>Hard skills</i>					
Analytical thinking	2	4	1	3	5
Conceptual thinking	2	4	1	3	5
Technical expertise	3	5	1	2	4
Computer literacy	2	4	1	3	4
Written communication	2	4	1	3	5
Personal planning and organisational skills	1	4	2	3	5
<i>Soft skills</i>					
Achievement orientation	1	4	2	3	5
Concern for order, quality and accuracy	1	3	2	4	5
Initiative	1	4	2	3	5
Information seeking	2	5	1	3	4
Interpersonal understanding	1	4	2	3	5
Ability and willingness to learn	2	3	1	4	5
Customer service orientation	3	5	2	1	4
Impact and Influence on others	3	4	1	2	5
Organisational awareness	3	4	1	1	5
Relationship building	1	4	2	3	5
Developing others	2	4	1	3	5
Directiveness	2	4	1	3	5
Teamwork and cooperation	1	4	2	3	5
Team leadership	2	4	1	3	5
Self-control	2	4	2	1	5
Self-confidence	1	4	2	3	5
Flexibility	1	4	2	3	5
Organisational commitment	1	4	2	3	5
Problem solving	1	4	2	3	5
Energy & passion	1	5	2	3	4
English language (overall)	3	4	1	2	5
English language (writing)	2	4	1	3	5
English language (speaking)	2	4	1	3	5
Attendance and timekeeping	3	4	1	2	5
Confidentiality at work	3	4	1	2	5

#### 4.6.33 Students' ranking of the most Important Sources in developing their Awareness of the Importance of Competencies

In developing students' awareness of importance of the 31 competencies used in this study, Table 89 shows that students perceived PSP as the most important source (45 rank total, 11% scale score). Second was home/family/community (57, 21%), third was the Co-op Programme (84, 43%), fourth was school (126, 77%), and the last was self-taught at 150 rank total and 96% scale score. It seems an interesting result, especially as school was in a low rank.

**Table 89. Students' ranking of the most Important Sources in developing their Awareness of the Importance of *the 31 Competencies used in the study* (N=99)**

Source	Rank Total Out of 155	Scale Score Out of 100	Rank
Home/family/community	57	21	2
School	126	77	4
PSP	45	11	1
Co-op Programme	84	43	3
Self-taught	150	96	5

#### 4.6.34 Students' ranking of the most Important Sources in developing their Awareness of the Importance of *Hard Competencies*

Table 90 shows that students perceived PSP as most important source for the development of their awareness of the importance of *Hard Competencies* (7 rank total, 4% scale score). Second was home/family/community (12, 25%), third was the Co-op Programme (25, 46%), fourth was school (25, 79%), and the last was self-taught at 28 rank total and 92% scale score.

**Table 90. Students' ranking of the most Important Sources in developing their Awareness of the Importance of *Hard Competencies* (N=99)**

Source	Rank Total	Scale Score	Rank
	Out of 30	Out of 100	
Home/family/community	12	25	2
School	25	79	4
PSP	7	4	1
Co-op Programme	17	46	3
Self-taught	28	92	5

#### 4.6.35 Students' ranking of the most Important Sources in developing their Awareness of the Importance of *Soft Competencies*

As shown in Table 91, students perceived PSP as the most important source for the development of their awareness of the importance of *Soft Competencies* (38 rank total, 13% scale score). Second was home/family/community (44, 19%), third was the Co-op Programme 68, 43%), fourth was school (101, 76%), and the last was self-taught at 122 rank total and 97% scale score.

**Table 91. Students' ranking of the most Important Sources in developing their Awareness of the Importance of *Soft Competencies* (N=99)**

Source	Rank Total	Scale Score	Rank
	Out of 125	Out of 100	
Home/family/community	44	19	2
School	101	76	4
PSP	38	13	1
Co-op Programme	68	43	3
Self-taught	122	97	5

## Chapter 5: Discussion

A number of themes and inferences have emerged from the objectives of this study: some commonality of views, and at the same time some disparity in views of the importance of generic competencies between employers, teachers and students (before and after Co-op); ranking of competencies by students (after Co-op) indicates that they are in a transition zone where their views are becoming more like those of employers; high level of importance for all competencies perceived by participants; value of 'ethical' competencies, ability and willingness to learn, and English language competencies. Low attention was given to competencies such as directiveness, developing others, and technical expertise; all groups perceived both hard and soft competencies as important. However, there was consistency between the four groups in favouring soft competencies over hard competencies; an agreement between employers and teachers about the need to improve IPA's Post-secondary graduates' performance in the competency of English language (overall), some ethical competencies and computer literacy; employers', teachers', and students' perceptions of importance of competencies were affected by their different demographic characteristics; significant and clear evidence of the Co-operative education programme's impact in developing students' awareness of the importance of competencies, and issues that need to be resolved, such as the role of school in preparing students for the workplace; the impact of home/family/community in developing students' awareness of the importance of competencies as an evidence of the effectiveness of the social learning.

These themes and the implications of this study are now discussed through the five objectives that were established to accomplish this study, and used as a guide in the discussion.

## **Objective One: Competency Ranking**

### **Ranking of the standard list of competencies**

In terms of level of importance in employers' perceptions (based on the Mean Level Definition, Table 20), no competency was ranked as 'most important' among the standard 26 competencies. However, 16 competencies were ranked as 'very important', and the last 10 competencies were ranked 'important'. (See Table 28 and Figure 5, for details)

This result supported Hodges & Burchell (2003) who stated that employers consider that business graduates need to have high levels of competency in most areas. In teachers' perceptions, no competency was seen as 'most important', while 22 competencies out of the 26 standard competencies were 'very important', and 4 competencies were 'important'. (See Table 30 and Figure 7, for details)

Concern for order, quality and accuracy was the only competency ranked as 'most important' by students (before participating in the Co-op), while the other 25 competencies were 'very important'. (See Table 32 and Figure 9, for details).

Students (after participating in the Co-op) perceived self-confidence, and computer literacy as 'most important', while the other 24 competencies were 'very important' (See Table 34 and Figure 11, for details).

These results suggested that students (after Co-op) have given more attention to self-confidence and computer literacy, as they perceived them as being 'most important' while employers and teachers perceived them as 'very important'. However, this seems to be a reflection of students' participation in the Co-op, as employers have perceived self-confidence and computer literacy among the most important competencies required to be developed in IPA's post-secondary graduates entering the workplace today. This change in students' perceptions can be attributed to the nature of the workplace as a social environment, in which learning takes place through involvement in a real task. In other words,



the Co-op practice period had stimulated and motivated students to give higher importance to self-confidence and computer literacy. This is supported by Zegwaard, Coll, & Hodges (2003) who argued that graduates' views become more like those of employers, and are influenced by other effects (e.g. employment) after graduation. In this study, employers have given reasons for graduates' need for these two competencies. For example, one employer stated, "*It is essential to success in doing a job. Career progress depends on self-confidence*". Another employer required students to make more effort to improve their competencies in computer literacy. He said, "*Computer literacy is important competency, so students in any institute have to prepare themselves well to be competent*".

The high level of importance for all competencies perceived by teachers and students (before and after Co-op) gives more support to Zegwaard, Coll & Hodges (2003), who found that recent science and technology graduates and faculty members considered all the competencies as important. The results were also in agreement with Rainsbury, Hodges, Burchell & Lay (2002) who found that both the students and graduates perceived all of the competencies are important. The matching of this study's evidence with what is found in the literature confirmed that the concern about developing generic competencies through education has become a worldwide phenomenon.

### **Ranking of the five additional competencies added for this study**

Confidentiality at work was the only one of the five additional competencies to be ranked as 'most important' in employers' perceptions, while the other four competencies were ranked as 'very important', namely: attendance, and timekeeping, English language (writing), English language (speaking), and English language (overall). (See Table 29 and Figure 6, for details). Employers' emphasis on confidentiality at work seems a sign of their awareness of Saudi society, in which the family and tribe are the basis of the social structure (Rice, 2003). This might lead employees to spread confidential information about the organisation. The employers' challenge is to create loyalty to the organisation by encouraging employees to use the organisation's information appropriately,

and keep confidential information that could negatively affect the organisation. In this study, one employer said, “*Revealing an organisation’s information by employees can negatively affect an organisation*”.

Teachers and students (before participating in the Co-op) viewed all five competencies as ‘very important’, while students (after Co-op) ranked four out of the five competencies as ‘most important’, with English language (writing) the only competency to be ranked as ‘very important’. (See Tables 31, 33 and 35; Figures 8, 10, and 12, for details).

The high level of importance placed upon the five additional competencies by employers, teachers and students (before and after Co-op) revealed the value of these competencies in the Saudi workplace. Despite students (after Co-op) perceived four out of the five additional competencies as ‘most important’, while employers viewed only one as ‘most important’, this finding can be attributed to the impact of IPA’s Co-operative education programmes in developing students’ awareness of the importance of competencies, as employers ranked these four competencies among the ten most important competencies required to be developed for the graduates. The interesting result is that teachers also were in agreement with employers about the need to improve IPA’s Post-secondary graduates’ performance in these four competencies. This finding might lead to the conclusion that students’ understanding of the importance of ethical and English language competencies (after participating in the Co-op) required a social environment which can be provided within Co-op. This difference in students’ perceptions before and after Co-op supported the common idea that students can leave higher education without awareness of the importance of generic competencies. This is because the competencies needed in the workplace are often not well recognised, understood or developed in HE courses (Bennett et al., 2000).

## **Ranking of the Ten most Important Competencies**

### **Students (before and after participating in the Co-op) versus employers**

The results suggested that employers ranked English language (writing) (5<sup>th</sup>), English language (speaking) (8<sup>th</sup>), and English language (overall) (9<sup>th</sup>) among the ten most important competencies. Students' perceptions (after Co-op) were similar to employers' as they ranked all of these competencies among the ten most important competencies with the following order: English language (overall) (1<sup>st</sup>), English language (speaking) (4<sup>th</sup>), and English language (writing) (8<sup>th</sup>). (See figures 6, 10 & 12)

The high ranking for English language (writing), English language (speaking), and English language (overall) by students (after Co-op) can be attributed to the impact of the Co-operative education programme on students' perceptions, which has made them closer to those of employers', as these competencies were ranked 19<sup>th</sup>, 27<sup>th</sup>, and 29<sup>th</sup>, in order, by students (before Co-op). In this study, employers ranked English language competencies of the ten most important competencies required to be developed by the graduates. For example, one employers stated, "*English language is essential for all job seekers*". Another employer said, "*It is the main language of written communication in the world*".

Again, the social environment in the workplace during the Co-operative education programmes seems to be very effective in improving students' awareness of the importance of the competencies.

### **Teachers versus employers**

Of particular note, both employers and teachers had the same view in ranking confidentiality at work, attendance and timekeeping, and concern for order, quality and accuracy. These competencies came as the top three, in order, in employers' perceptions, while they were ranked 3<sup>rd</sup>, 1<sup>st</sup>, and 2<sup>nd</sup>, in teachers' perceptions. (See Figures 6 & 8). The remarkable result is that these 'corporate

codes of conduct' which include 'ethical' values were also ranked among the ten most important competencies by students, whether before or after participating in the Co-op. Confidentiality at work, attendance and timekeeping, and concern for order, quality and accuracy were ranked 7<sup>th</sup>, 3<sup>rd</sup>, and 1<sup>st</sup>, in order, by students (before Co-op), while they came 3<sup>rd</sup>, 1<sup>st</sup>, and 7<sup>th</sup> (3<sup>rd</sup>, in the standard list) in order, for students (after Co-op). (See Figures 10 & 12)

The results reflected the value of 'work ethics' among educators and industry professionals. This was confirmed by (Lin, 2005) who asserted that employers today seek employees who are ethical. Also the results were in agreement with a report by Online Recruitment (2006) which revealed that employers are placing much more emphasis on the soft skills of school leavers such as communication skills and work ethic. The result was also confirmed by Sadri (2002) who found that ethics was considered to be important by both employers and alumni.

In this study, the increased interest in 'ethical' competencies by students (after Co-op) should be noted as a positive outcome of the effectiveness of the Co-op programmes. Co-operative education is considered as an important practical way to improve graduates' business ethics, as it provides an opportunity to learn under real-work conditions. For example, one employer said, "*In preparing students for workplace, it is not enough to inform them what is wrong and what is right; we should train them to do the right and avoid acting the wrong*". According to some authors (Bishop, 1992; Trevino and McCabe, 1994; McDonald, 1992) the real practical way of teaching business ethics is effective as students are able to apply them to actual work situations. In the workplace students work with ethical dilemmas (Adams et al., 1998)

Employers and teachers were in agreement on English language (writing) as one of the ten most important competencies. This competency came 5<sup>th</sup> in employers' perceptions, and 6<sup>th</sup> from teachers' point of view. The interesting result is that while there was an agreement between employers and teachers on the importance of English language (writing); there was disparity in ranking English language (speaking), and English language (overall). These two

competencies were ranked 4<sup>th</sup>, and 5<sup>th</sup>, in order, in employers' perceptions, while they ranked 19<sup>th</sup>, and 15<sup>th</sup>, in teachers' perceptions. (See Figures 6 & 8). This value of English language (writing) by teachers, with less concern for spoken English comes as no great surprise to someone who has taught English in Saudi Arabia, since there are problems in the effective teaching of spoken English in the public school system. Saudi students usually study English for a minimum of 6 years in intermediate, and secondary schools, and many continue to study the language in university. Despite this, very few students leave the system with the ability to speak English effectively. This is because teachers are focusing on teaching written English, and they examine students in written form too. Moreover, passing university entrance examinations, which are in written English, may lead students to give more importance to written English than to oral English. It seems a failure, as spoken English is required in the Saudi workplace nowadays. Employees need it to communicate well with non-Arabic speakers, especially in the private sector.

Oral communication seems to be as important in the workplace as written communication. Teachers need to recognise that developing effective communication skills will improve students' ability to communicate in different environments. Students will benefit from understanding how oral communication skills are valued not only in a formal way as is provided through formal presentation at school, but also in an informal way, as most oral communication in the workplace is informal in nature.

Hodges & Burchell (2003) justified the value of oral and written communication in a professional office, as it is very important when dealing with clients and outside organisations.

Patricia (2004) argued that using English as a working language within companies has many advantages; however, it can result in communication problems. Vollstedt (2002), as cited in Patricia (2004), states that estimates show that up to 50 per cent of employee input in project teams and work groups is lost since workers do not have the foreign language competency or self-confidence to take part in discussions. In this study, it is clear that students have

grasped the importance of competency in English language, which is a useful starting point. Maes, Weldy and Icenogle (1997), consider oral communication to be one of the three most important competencies required of graduates. To encourage such an awareness earlier, teachers should help learners use the language suitably in their working contexts, by using soft skills in their teaching in a very explicit way (Menochelli, 2006). Also, teachers have to be clear about the function of any language item that they want to point out. Any difference between a certain linguistic form and the speaker's intention can lead to confusion or misunderstanding. Teachers have to emphasise the interpersonal forces of language use in a work-oriented context - the soft skills! Through the syllabus and course books, teachers will have to try to achieve highly complex aims besides those of teaching words and structures (Nieragden, 2000).

The interesting result is that ability and willingness to learn was ranked 6<sup>th</sup> by both employers and teachers among the important competencies from the standard list. (See Figures 5 & 7). The result was in agreement with the finding of Lin, 2005, when Taiwanese business teachers and business managers ranked ability and willingness to learn as a most important competency. The ability and willingness to learn competency was also considered to be the most important in employers' perceptions in similar studies (Hodges & Burchell, 2003; Coll, Zegwaard & Hodges, 2002a, 2002b; Burchell, Hodges & Rainsbury, 2001). This result means that students who are unable to improve this competency will lose a very valuable asset in their competition for a job. Employers are not worried about a graduate's ability to do the tasks; instead they are concerned about his/her ability to do the non-task components of the job, such as his/her willingness and ability to learn new things, fit in to the culture, learn the politics of the organisation, and build effective working relationships. Employers are concerned about how well he/she will be accepted as a member of the organisation and how effective he/she will be in learning how to get things accomplished (Holton, 1992/93). Employers and teachers in this study were in agreement to improve IPA's Post-secondary graduates' performance in the competency of ability and willingness to learn. One employer said, "*To keep going along with changes and developments in workplace*". While one teacher stated, "*It is a base in developing skills and learning new knowledge*".

The similarity in the perceptions of the importance of competencies between employers and teachers is a key to success in closing the gap between the employability of the graduates and the workplace demands. Employers' perceptions of the importance of workplace competencies are significant, as they are familiar with generic competencies required for most jobs in the labour market. On the other hand, teachers' views are important as they relate to the development of students' work ability in educational institutions.

### **Students (before and after participating in the Co-op) versus teachers**

The results showed that students (before and after participating in the Co-op) joined teachers and employers in perceiving ability and willingness to learn among the ten most important competencies. Similar results were found in the work of Rainsbury, Hodges, Burchell, and Lay (2002) when graduates from a variety of business studies programmes at a New Zealand tertiary institution ranked ability and willingness to learn as a most important competency, while students ranked it fourth. This is in agreement with Stephenson's (1997) assertion that staying capable in a world of change requires confidence in one's ability to manage one's own learning. In order to be a valuable employee, an individual must be willing to learn new skills to keep pace with a rapidly changing world. This finding suggests that educational systems in Saudi Arabia consider the need of ability and willingness to learn, as a competency which is required not only in the workplace, but in student's academic progress. However, Co-op seems more effective in developing students' awareness of the importance of this competency.

Of particular note is that students (after participating in the Co-op) joined employers and teachers in ranking English language (writing) among the ten most important competencies (See Figures 5, 7, 9 & 11). This competency was ranked 6<sup>th</sup> in teachers' perceptions, 5<sup>th</sup> in the perceptions of employers and 8<sup>th</sup> from students' point of view (after Co-op). This result might reflect the impact of Co-op in developing students' awareness of the importance of this competency to be closer to employers' perceptions as this competency was ranked 19<sup>th</sup> by students (before Co-op).

### **Ranking of Least Important Competencies**

In terms of identifying the five least important competencies on the standard list, employers and teachers were in agreement on four competencies. These competencies were: analytical thinking, developing others, directiveness, and conceptual thinking. Team leadership was the other least important competency as perceived by employers. This competency was ranked 6<sup>th</sup> among least important competencies in teachers' perceptions. The other competency that was seen as least important in teachers' perceptions was technical expertise. This competency was ranked 10<sup>th</sup> among least important competencies in employers' perceptions. (See Figures 5 & 7).

Employers and students (before and after participating in the Co-op) were similar in their perceptions of three of the five least important competencies on the standard list. These competencies were directiveness, conceptual thinking, and analytical thinking. (See Figures 5, 9 & 11). The results showed that this study is in agreement with Hodges, Burchell & Lay (2002) who found that directiveness is one of the least important competencies in the perceptions of students and graduates.

Students (before Co-op) ranked two of the additional five competencies added for this study among the five least important competencies. These competencies were English language (speaking), and English language (overall). The interesting result is that these two competencies came 4<sup>th</sup>, and 1<sup>st</sup>, in order of the ten most important competencies in students' perceptions (after Co-op). (See Figures 10 & 12). This significant change in students' perceptions after Co-op in the importance of English language (speaking), and English language (overall) to become closer to employers' point of view, seems as an impact of the Co-op. This impact of Co-op in the development of students' awareness refers to the nature of this kind of learning which normally occurs as a function of the activity, context and culture. This contrasts with most classroom learning activities which involve knowledge which is abstract and out of context. Social interaction is a critical component of "situated learning" (referred to earlier in this thesis) or what Lave & Wenger (1991) call the process of "legitimate



peripheral participation” when learners become involved in a "community of practice" which embodies certain beliefs and behaviours to be acquired. Situated learning is usually unintentional rather than deliberate, so it gives learners the opportunity to explore the reality by action and observation.

The other interesting result is that students (after participating in the Co-op) were in agreement with employers in selecting four out of the five least important competencies. These competencies were directiveness, developing others, conceptual thinking, and analytical thinking. Organisational awareness was the other least important competency in students’ perceptions (after Co-op). This competency was ranked 12<sup>th</sup> of the least important competencies in employers’ perceptions. The other least important competency in employers’ perceptions was team leadership. This competency was ranked 9<sup>th</sup> least important competency from students’ point of view (after participating in the Co-op). (See Figures 5, 9 & 11).

This strong agreement between employers and students (after Co-op) about the least important competencies could be another evidence of the impact of the Co-operative programme. In this study, students’ views (after Co-op) of the least important competencies were in agreement with Rainsbury, Hodges, Burchell & Lay (2002) who found that students and graduates were in agreement, rating directiveness, and developing others, as least important. Likewise, Hodges & Burchell (2003) found that developing others was considered least important for graduates early in their business careers.

### **Objective Two: Analysis of Differences in Participants’ Perceptions of the Importance of Competencies**

This objective included four hypotheses:

**Hypothesis one:** There is no significant difference in the perception of the importance of competencies for IPA’s Post-secondary graduates entering the workplace in terms of employers’ demographic characteristics. The results of this study show that hypothesis one can be rejected.

Statistical results showed that there were significant differences in employers' perceptions of the importance of competencies in relation to size of organisation, their participation in IPA's Co-op, and other organisations' Co-op. In terms of size of organisation, participants from an organisation with 51-500 employees scored significantly higher than those from an organisation with 11-50 in the importance of directiveness. This perhaps reflected that a large number of employees need more directiveness to do their tasks. In the importance of confidentiality at work, participants from an organisation with 51-500 employees scored significantly higher than those from an organisation with 11-50 or more than 500 employees (See Table 36). This result may tell us that employers do not give much attention to confidentiality at work when the number of employees in the organisation is small, while their attention starts to increase with growth in number of employees. Then the concern lessens as keeping control of information in very large organisation may become difficult. This is might because larger Arab organisations are viewed as a "family unit" employees are more inclined to strengthen their standing in their immediate work group rather than work towards the objectives of the organization. It means that they will share information only if they think that it will lead to increased status or power or their in-group (family, tribe, or workgroup) (Hill, Loch, Straub and El-Sheshai, 1998, as cited in Rice, 2004). This is again might be related to the social structure of Saudi society, in which the loyalty to family and tribe influences keeping confidential information that could negatively affect the organisation. Therefore, confidentiality at work seems to be influenced by the increasing of the number of employees in the organisation.

In terms of participation in IPA's Co-op, employers from an organisation with 5-10 years participation in IPA's Co-op rated team leadership, and conceptual thinking more highly than those from an organisation with 11-15 years. Employers from an organisation with less than 5 years participation in IPA's Co-op rated conceptual thinking higher than those from an organisation with 11-15 (See Table 37). The results suggested that organisations with fewer years of participation in IPA's Co-op gave greater importance to students' team leadership, and conceptual thinking competencies than organisations which had participated in Co-op for a longer time. This result might be a reflection of the

short period of time that employers had in participating in the IPA's Co-op programmes. This does not give the employers who participated a clear idea of the importance of competencies required and developed for IPA's graduates entering workplace. Alternatively, participating in the Co-op over a longer period of time changes employers perceptions of the importance of team leadership, and conceptual thinking competencies for students entering the workplace.

In terms of participating in other institutes' Co-op, employers who participated in other institutes' Co-op valued achievement orientation, concern for order, quality and accuracy, and initiative more highly than those with no previous experience did (See Table 38). The results suggested that employers who participated in other institutes' Co-op attached more importance to soft competencies, particularly, ethical and interactive competencies. This result may suggest that employers who participated in other institutes' Co-op have a wider perspective of the importance of this kinds of competencies, and awareness of students' need for them.

**Hypothesis two:** There is no significant difference in the perception of the importance of competencies for IPA's Post-secondary graduates entering the workplace in terms of teachers' demographic characteristics. The results of this study show that hypothesis two can be rejected.

Statistical results showed that there were significant differences in teachers' perceptions of importance of competencies in relation to their age, nationality, qualification, and experience at (IPA).

In terms of age, younger teachers placed greater importance on self-confidence than did older teachers (See Table 39). This might refer to a change in the characteristics of today's young Arab citizens. In a study involving in-depth ethnographic research amongst young people in Saudi Arabia, UAE and Kuwait, The 6th Sense of Business (TNS) (2008) has revealed that these societies are already in a transitory phase. Western values and ideas have swept across the region. However, most young people are aware of them and they have the

maturity and the self-confidence, to consciously strike a balance between what they want and what is expected of them (AME Info, 2008).

In terms of nationality, Saudi teachers rated computer literacy and English language (speaking) significantly higher than did non-Saudis (See Table 40). The results reflected the importance of computer literacy and English language (speaking) in the local workplace, whose requirements should be clearer to Saudi teachers than to others.

In terms of qualifications, teachers with Bachelors degree valued team leadership higher than those with PhD, Masters, and Diploma (See Table 41). As the teachers with a Bachelors degree have joined the IPA recently, the results may reflect the eagerness of these young teachers to progress in their career; leadership is one of the most important competencies required for further post positions. This was perhaps the reason behind their rating of leadership competency higher than teachers with higher degrees.

In terms of experience at IPA, teachers with 1-5 and 6-10 years experience (at IPA) scored significantly higher than those with 11-15 in the importance of Relationship building (See Table 43). This result perhaps shows newer staff still needing to build relationships to sustain them at work and assist in career progression.

**Hypothesis three:** There is no significant difference in the perception of the importance of competencies for IPA's Post-secondary graduates entering the workplace in terms of students' demographic characteristics (before participating in the Co-op). Again the results of this study show that hypothesis three can be rejected.

Statistical results showed that there were significant differences in students' perceptions of the importance of competencies in relation to their age, and work experience.

In terms of age, older students (25-29) placed significantly greater emphasis than the younger (20-24) on the importance of the following competencies: ability and willingness to learn, organisational awareness, teamwork and cooperation, analytical thinking, self-control, flexibility, and English language (overall) (See Table 45). The results suggested that older students valued soft competencies more highly than younger students. Furthermore, English language (overall) was given more attention by students in the older age group. This is perhaps justified as a matter of time, so older students have more experience in grading the demand of English language in the workplace than what younger do.

In terms of work experience, students who had work experience gave a higher score than those who never worked before studying at the IPA, to the following competencies: Team leadership, English language (overall), English language (writing), and English language (speaking) (See Table 46). This result supports the impact of work experience in developing students' awareness of importance of competencies, in particular those most required in the workplace, such as English language. The result also was in agreement with Weisz (1999) as cited in Hodges & Burchell (2003) who found that employers expect generic competencies to be developed prior to employment.

**Hypothesis four:** There is no significant difference between employers, teachers, and students (before and after participating in the Co-op) in the perception of the importance of competencies for IPA's Post-secondary graduates entering the workplace. The results show that hypothesis four can be rejected.

Statistical results (See Table 47) showed that there were significant differences between the four groups as following:

#### **Students (before Co-op) versus teachers**

The mean scores of the importance of competencies showed that students (before Co-op) rated most competencies higher than teachers. Of particular

note, students (before Co-op) rated hard competencies, like analytical thinking, conceptual thinking, and computer literacy significantly higher. Students (before Co-op) scored soft competencies, like initiative, ability and willingness to learn, impact and influence on others, developing others, relationship building, directiveness, and English language (overall) significantly higher than teachers. It seems that students have not influenced by their tutors' values. This finding might lead us to say with Zinser (2003) that career and employability skills should be taught in high schools, since many students leave education without the vital skills to succeed in the adult work world. This means that focusing on curriculum review will be an effective way of enhancing students' competencies in areas required in the workplace. Hershey et al. (1997) have suggested that the most widely available aspect of School-to-Work Systems can school play at the early stage of education is by designing activities to improve students' career awareness.

### **Students (after Co-op) versus teachers**

The mean scores of the importance of competencies showed that students (after Co-op) rated most competencies higher than teachers. Of particular note, students (after Co-op) rated most hard competencies significantly higher than teachers except written communication. Soft competencies, like initiative, relationship building, directiveness, energy & passion, English language (overall), English language (writing), and English language (speaking) were rated significantly higher by students (after Co-op) in the comparison with teachers.

These results showed that students (after Co-op) focused their attention on a broad range of competencies which they ranked higher than did teachers, with more concern for hard competencies than the soft ones.

### **Students (before Co-op) versus employers**

The mean scores of the importance of competencies showed that students (before Co-op) rated most competencies higher than employers. Of particular note, students (before Co-op) rated most hard competencies significantly higher

than employers with exception of written communication. Similar differences were seen in the range of soft competencies, like interpersonal understanding, customer service orientation, self-confidence, ability and willingness to learn, impact and influence on others, developing others, relationship building, directiveness, teamwork and cooperation, and English language (overall). The results revealed mismatches in perceptions of competencies' importance between students (before Co-op) and employers. This is problematic. It seems to be a sign of adopting surface approaches to learning, and an absence of understanding of 'threshold concepts' (Meyer and Land, 2003). In the absence of this understanding, students can only resort to learning surface routines in the hope that they can pass this off as real understanding (Davies, 2006). This difficulty in understanding threshold concepts may leave the learner in a suspended state or 'stuck place'. In preparing students for the workplace, it is important that programmes' curriculum plans provide key concepts that industry demands, and teachers should use active ways of teaching to do so. Employers who were interviewed asserted the role of school in preparing students for the workplace. For example, one employer suggested, "*It is not enough for students to participate in the Co-op training to be prepared for the workplace. This mission should be taken by the school from the early stages*".

### **Students (after Co-op) versus employers**

The mean scores of the importance of competencies showed that students (after Co-op) rated most competencies higher than employers. Of particular note, students (after Co-op) rated most hard competencies except written communication significantly higher than employers as well as soft competencies, like interpersonal understanding, customer service orientation, self-confidence, impact and influence on others, developing others, and team leadership, and English language (overall).

The findings revealed a decrease in the mismatch in perceptions of importance between employers and students (after Co-op), as students (before Co-op) rated significantly higher than employers in ten soft competencies, while they did so in only seven soft competencies after Co-op. This slight improvement in

students' perceptions (after Co-op) of the importance of competencies can be attributed to the Co-operative education programmes, which play an effective role in developing students' understanding of industry concepts, which are in our case related to developing graduates' awareness of the importance of generic competencies. It is sensible to encourage a deep approach to learning in the co-operative education programmes as the workplace is a social environment, and the learning in this space is through real tasks.

### **Students (before Co-op) versus students (after Co-op)**

An interesting outcome from the data found in the mean differences in the competencies' importance is that students (after participating in the Co-op) scored a higher mean rate in most competencies than they did (before participating in the Co-op), even though their rating of most competencies (before Co-op) was higher than both teachers and employers. Of particular note, students (after Co-op) rated flexibility, and computer literacy significantly higher than they did before Co-op.

Giving more attention to competencies like flexibility, and computer literacy by students (after Co-op) perhaps reflects the value of these competencies in the workplace. For example, one employer said “... *we always should give more attention to this very important competency*”. Another employer added, “*Computer literacy is important competency, so students in any institute have to prepare themselves well to be competent*”. The result also revealed the impact of Co-op on students, in that their awareness of the importance of particular competencies has become similar to employers' perceptions.

### **Teachers versus employers**

The only significant difference found between employers and teachers was in team leadership. Teachers rated this competency higher than employers who were ranked it at the bottom as a least important competency with (3.55) mean score, while it came 26<sup>th</sup> in teachers' perceptions with (4.58) mean score. The finding revealed that teachers might be not satisfied with the relevance and



application of the leadership competency in the real workplace and, as a result, tended to place higher importance on it than employers. Or perhaps employers thought that leadership is less important for post-secondary graduates in at the beginning of a job.

**Objective Three: Comparison of the Importance of Hard and Soft Competencies: Analysis of Differences in Perceptions between Employers, Teachers and Students (Before and After Participating in the Co-op)**

The objective in this part of the study was to compare the differences between employers, teachers, and students (before and after participating in the Co-op) in perceptions of the importance of the two competency categories; hard and soft.

The results were obtained by:

- Analysing the data obtained from the direct question using the frequency distribution method (See Table 50).
- Participants' rating of importance of competencies based on the average of the mean score for the each competency category hard and soft (See Tables 48 & 49).

**Direct question analysis**

- Frequency distribution showed the differences between participants' perceptions of the importance of hard and soft competencies amongst the direct question. The results revealed that employers and students (before and after participating in the Co-op) were in agreement in perceiving soft competencies as more important than hard competencies. The result shown that most of employer-participants from wholesale and retail trade, banks, finance institutions, business services, community services, hotels, newspapers, hospitals and medical services fields perceived soft competencies as more important than hard competencies. It seems to be logical, as all these activities need soft competencies for success. On the other hand, the result showed that most of employer-participants from

information technology, materials laboratories, electricity, and agriculture fields perceived hard competencies more important than the soft ones. This is also an expected finding, as these activities may need more attention to the technical aspects of the job rather than the interpersonal skills.

- Despite that teachers perceived hard and soft competencies are equal of importance; however, the result showed that most teacher-participants who mostly teach Executive Secretary and Sales programmes viewed soft competencies as being more important than hard competencies. On the other hand, most teachers who mostly teach Computers programmes perceived hard competencies as more important than the soft ones. It is no surprise to teachers who mostly teach courses such as Executive Secretary and Sales to give more attention to soft competencies as these majors or professions required a set of people competencies (soft competencies), while those who mostly teach Computers programmes give more concern to hard competencies as this profession is based on the technical aspect.

### **Mean score analysis**

The results showed that all groups perceived both hard and soft competencies as important, as the lowest mean score was (4.43). (See Mean Level Definition, Table 20). This result was in agreement with many authors who argued that successful work performance requires a mix of both hard (cognitive, technical) competencies and soft (behavioural, people) competencies (Ashton, 1994; Birkett, 1993; Caudron, 1999; George, 1996; Mullen, 1997; Strebler, 1997; Hodges & Burchell, 2003; Zegwaard et al., 2003).

The results were consistent between the four groups, in rating soft competencies as more important than hard competencies in their responses. This was true for all the methods of data analysis. There was a minor difference when teachers viewed soft and hard competencies as being of equal importance in their answers to the direct question. However, as the answer to the direct question was one of two choices, hard or soft, the relative degree of the importance of competencies as a set of hard and soft is hidden in such a question. In this

study, the direct question was used to give the respondents the opportunity to add some ideas of their choice rather than determining the degree of importance of competency categories. The latter can be more accurately assessed in the competencies' mean score analysis.

In addition, it seems important to report that Technical expertise, as it represents the hard competencies in general, was perceived one of the least important competencies by the four groups, as it came 5<sup>th</sup> for teachers, 8<sup>th</sup> for employers, 10<sup>th</sup> for students (before Co-op), and 11<sup>th</sup> for students (after Co-op). This finding was in agreement with previous studies of employer views on graduate competencies (Hodges & Burchell, 2003; Burchell, Hodges & Rainsbury, 2001; Coll, Zegwaard & Hodges, 2002a, 2002b). Barnett (1999) found that Technical expertise was the competency considered least important by employers. He argued that it is likely that the lack of emphasis placed on such hard skills indicates that these are easily fixed through further training or education, whereas soft skill deficiencies may be seen as less easily overcome. This seems clear in the 'Iceberg model', where motives and traits competencies and self-concepts – which represent the soft type of competencies - are at the base of the personality iceberg and are more difficult to assess and develop. On the other hand, surface knowledge and skills competencies – which represent the hard competencies - are relatively easy to assess and develop (Spencer and Spencer, 1993; Garavan & McGuire, 2001).

Barnett (1999) added that this lower emphasis on the technical skills is perhaps indicative of the changing nature of the workplace, where today's professionals must grapple with a myriad of supercomplexities that require the application of a broader range of skills and behaviours. Participants in this study have justified this reduced attention toward technical competencies, as they are easily gained and the focus now is on the soft competencies. For example, one employer said, *“Soft competencies are the most important because most of the graduates are at about the same level in hard competencies. The soft are different from person to person... organisations are looking for staff who have better soft competencies, and conducting interviews and tests to select the person with sufficient interpersonal skills to complete the work and the person who has the capacity to*

*develop himself and his organisation*". Another employer said, *"I prefer to hire a graduate with strong soft skills and a lack of technical skills"*. This continued focus on soft competencies does not mean that hard competencies are not important, because the four participant-groups viewed both competencies as important and essential.

### **Significant differences in participants' perceptions**

In order to analyse the differences in perceptions of the importance of hard and soft competencies between the four groups, statistical tests were carried out, which revealed the following:

- Kruskal-Wallis and Mann-Whitney tests showed that students (before and after Co-op) scored significantly higher ( $p < 0.05$ ) than employers in the importance of hard competencies. This result was obtained in the analysis of the standard list as well as the list used for this study, which included the five additional competencies (See Tables 48 & 49). That is because the five additional competencies were classified as soft competencies. This result perhaps gives more emphasis to the concern held by students for hard competencies, as the importance mean score was increased after Co-op from (5.04) to (5.12).

The interesting results are that most of the employers and teachers, and all the students (before and after Co-op) who perceived hard competencies as more important than soft competencies have justified their favouring of hard competencies by saying they are 'essential' to get the job. This justification of the importance of hard competencies seems to be a reminder to never neglect the development of hard competencies. (See examples of expressions, page 170).

- In the importance of soft competencies in the standard list, the Kruskal-Wallis and post-hoc Mann-Whitney tests showed that

students (before and after participating in the Co-op) scored significantly higher ( $p < 0.01$ ) than employers and teachers by (5.21) for students (before and after Co-op) versus (4.62) for employers and (4.86) for teachers (See Table 48).

- In the analysis of the significant differences between the four groups of the importance of soft competencies by using the list which contained the standard competencies + the additional competencies added for this study, One-way ANOVA and post-hoc Scheffe tests showed that students (before and after participating in the Co-op) scored significantly higher ( $p < 0.01$ ) than employers did, while students (after Co-op) were higher than both, employers and teachers (See Table 49). The mean scores for the four groups were: (5.28) for students (after Co-op) and (5.19) for students (before Co-op) versus (4.91) and (4.75) for teachers and employers, in order. This result supported Rainsbury, Hodges, Burchell and Lay (2002) who reported that the students and graduates clearly favoured soft skills.

After summarising and interpreting the reasons given by the participants from all four groups who perceived soft competencies more important than the hard, six main reasons were obtained (See Table 53). However, the remarkable result is that students (after Co-op) were closer to employers by reporting these reasons more than they did before Co-op. The result revealed that most of the employers, 20 out of 24 (83.3%) and teachers, 12 out of 17 (70.6%), were in agreement that soft competencies are complementary to hard competencies. This recognition of the importance of soft competencies as a complementary to hard competencies was seen by students (before Co-op), 15 of 27 (55.6%), and became greater (after Co-op), 22 of 38 (57.9%).

The results showed that participants valued soft competencies as more important than the hard ones as they are important in improving an employee's career. However, the interesting result is that this reason has been reported by a small number of students (before Co-op), 8 out of 27 (29.6%), while the number has

increased to 25 out of 38 (57.9%) after participating in the Co-op and became closer to the number of employers 22 out of 24 (91%) who stated this reason.

Soft competencies help an individual to differentiate his/her self in a competition with other candidates to win a job when his/her hard competencies are similar to others. This reason is considered very important in favouring soft competencies as more important than hard competencies, especially by employers and students (after participating in the Co-op). That was mentioned by all the employers, and 29 students (after Co-op) out of 38 (76.3%), while this reason was only mentioned by 10 students (before Co-op) out of 27 (37%).

One set of soft competencies are ethical; the development of ethical competencies assists in developing work and communicating well with others.

Despite the fact that this reason was reported by only 8 employers out of 24 (33.3%), 3 teachers out of 17 (17.6%), and 9 students (after Co-op) out of 38 (23.7%), this result has asserted the agreement between the three groups in ranking ethical competencies, such as attendance and timekeeping, and confidentiality at work, among the ten most important competencies.

Soft competencies are an important part of the success of an organisation, particularly one that frequently deals with customers face to face.

Half of the employers, 12 out of 24 (50%) and a similar proportion of students after Co-op - 21 out of 28 (55.3%) - attributed favouring soft competencies over hard competencies to this reason, while the number of students (before Co-op) who mentioned this reason was the significantly smaller 9 out of 27 (33.3%).

The results showed increased understanding among students (after participating in the Co-op) of the role of soft competencies as complementary to hard competencies in improving an employee's career, and as a means of winning a job when hard competencies are similar to those of others; as ethical competencies; and as important part of the success of an organisation, particularly one that frequently deals with customers face to face. This can be

attributed to the impact of IPA's Co-operative education programmes. (See statements of the responses pages 173-178).

The interesting result was that all the employers who were interviewed have asserted that students at the end of Co-op showed more concern for both hard and soft competencies. For example, one employer said, *“Yes, there is a change in students' view of the importance of the competencies. I can say that students after the Co-op were more aware of the value of soft competencies as well as hard ones...students understood the combination of the two sorts of competencies”*. However, most of employers have stated that students should give more attention to soft competencies. Following are some examples of the comments:

*“Behavioural competencies are still considered very important to be developed by students during the work”*.

*“I prefer to hire a graduate with strong soft skills and a lack of technical skills”*.

#### **Objective Four: Identify Most Important Competencies required to be developed in IPA's Post-secondary Graduates entering Workplace by Employers and Teachers**

It is clearly important that employers and teachers agree on the importance of competencies, so that programmes match the needs of employers. This similarity between employers and teachers should be apparent as well in their perceptions of the most important competencies required to be developed for the graduates.

The results showed that there was an agreement between employers and teachers to improve IPA's Post-secondary graduates' performance in the competency of English language (overall), as a priority (See Figure 13 & 14). Employers and teachers attributed this importance of English language (overall) to the demand for a high standard of this competency in the

workplace in Saudi Arabia. However, most of the employers were satisfied with the performance of IPA's Post-secondary graduates in English language.

Employers and teachers were also in agreement that English language is one of the most important competencies required by employers when hiring graduates.

The results also revealed an agreement between employers and teachers on the need to develop the graduates' performance in some ethical competencies such as attendance and timekeeping, and confidentiality at work (See Figures 13 & 14). These two competencies were ranked among the top three most important competencies in employers' and teachers' perceptions (See Figures 6 & 8).

Most employers referred this deficiency in ethical concerns among students and graduates to the impractical ways used in schools to teach these values (See Table 56).

Courtis and Zaid (2002) also noted that lack of practical training was an "important early employment problem" (p. 329).

Sadri (2002) had remarkable results regarding the role of school in preparing students for the workplace. He stated that California State University Fullerton business school was considered to have taught ethics only moderately effectively. However, he clarified that this lack of attention may be because ethics is a difficult and sometimes, ambiguous topic to discuss in a classroom setting and, in today's politically correct environment, educators may find themselves shying away from such discussions. Sadri discussed the issue of how ethics should be included in the curriculum. He revealed that Stewart et al. (1996) found that students preferred to have ethics integrated into a number of different courses rather than having it as a stand-alone course. Sadri also has quoted Brown's suggestion (1994) that role-plays are an appropriate vehicle for integrating ethical concerns into courses.



More attention was placed from employers and teachers on develop graduates' performance of the competency of computer literacy. This concern held by teachers and employers to raise graduates' performance in computer literacy may not indicate an existing deficiency, as IPA thoroughly prepares its graduates to gain this basic and very useful skill.

**Objective Five: Identifying most important sources in developing students' awareness of importance of competencies**

Students after participating in the Co-op identified the most important sources in developing their awareness of the importance of competencies.

Post-secondary Programme (PSP) came first. It scored the first place in 17 competencies. These competencies were the following five hard competencies: analytical thinking, conceptual thinking, technical expertise, computer literacy, written communication. The other twelve were the following soft competencies: English language (overall), English language (writing), English language (speaking), information seeking, ability and willingness to learn, impact and influence on others, organisational awareness, developing others, directiveness, team leadership, attendance and timekeeping, and confidentiality at work. (PSP) was second in the other 14 competencies (See Table 88).

The results revealed the significant role for IPA's Post-secondary programmes (PSP) in developing students' awareness of the importance of generic competencies, both hard and soft competencies. This might come as a result of the practical way that has been adopted in these programmes, which includes non-traditional means of teaching and training such as visiting a variety of workplaces, inviting industrial professionals to classes, and asking students to do some practical researches regarding their majors.. etc.

In the second rank of importance was home/family/community. It scored the first place in 12 competencies. These competencies were: achievement orientation, concern for order, quality and accuracy, initiative, interpersonal understanding, relationship building, teamwork and cooperation, self-

confidence, flexibility, organisational commitment, problem solving, personal planning and organisational skills, and energy & passion.

Home/family/community scored second place in 12 competencies. These competencies were: analytical thinking, conceptual thinking, computer literacy, written communication, English language (writing), English language (speaking), information seeking, ability and willingness to learn, developing others, directiveness, team leadership, and self-control.

Home/family/community came third in the following seven competencies: technical expertise, English language (overall), customer service orientation, impact and influence on others, organisational awareness, attendance and timekeeping, and confidentiality at work (See Table 88).

The results showed that home/family/community has a higher impact in developing students' awareness of the importance of a broad range of competencies than other sources, with more emphasis on soft competencies, particularly interpersonal skills, such as initiative, interpersonal understanding, relationship building, teamwork and cooperation, self-confidence, and flexibility. Students' perceptions of the importance of a broad range of competencies were similar to those of employers who are the recruiters. The advanced ranking of home/family/community amongst other sources has confirmed the significant role of open learning which allows students to be aware of and maintain contact with life's problems. Dearnley & Matthew (2000) have stated that Coles (1998) draws an attention to the work of Carl Rogers, who believed that learning would automatically take place if the conditions were right. These conditions require the student to be surrounded by life's problems.

Dearnley & Matthew (2000) suggested again that intrinsic motivators are very important to assist adult learners, and individual's interaction with the society will create an appropriated climate to develop his/her awareness of the importance of competencies and activate the intrinsic motivators. Dearnley & Matthew found in their study (2004) which has discussed the pilot phase of the previous study that changing personal perceptions and epistemologies drove

intrinsic motivation and thus impacted on social, professional and academic aspects of the participants' lives.

Another evidence for this impact of home/family/community in developing students' awareness of importance of competencies was by Smith (1999) who has stated in his introduction that social learning theory posits that people learn from observing other people. Smith added that such observations take place in a social setting (Merriam and Caffarella 1991: 134). Within psychology, initially it was behaviourists who looked to how people learned through observation. Smith argued that later researchers like Bandura (1977) looked to interaction and cognitive processes. One thing that observation does is to allow people to see the consequences of other's behaviours. They can gain some idea of what might flow from acting in this way or that.

This value of home/family/community in developing students' awareness of the importance of competencies supports the ideas of graduate employability as fuelled by a concept of selfhood which places increasing demands on graduates to construct a narrative of employability before they have even got a proper job (Hager & Holland, 2006). According to Hager & Holland (2006): a person has to live out a pedagogy so that one is able to "acquire the self-image of a lifelong learner" (Knapper & Cropley, 2000, p 49).

The Co-op programme got the third rank of most important sources in developing students' awareness of importance of competencies. It came first in three competencies. These competencies were: customer service orientation, organisational awareness, and self-control, and second in the following five competencies: technical expertise, English language (overall), impact and influence on others, attendance and timekeeping, and confidentiality at work, and third in 21 competencies, and fourth in two competencies (See Table 88).

The results revealed some logical conclusions as students ranked Co-op programme first in developing their awareness of such competencies as customer service orientation and organisational awareness; these kinds of competencies cannot be taught nor can students become aware of their importance away from the workplace. It seems also to be expected that

students gave Co-op an advanced value in developing their awareness of competencies such as technical expertise, as this competency represents a student's major and future profession, and as a result should be developed in the workplace. This finding supports what several authors (Bowden et al., 2000, Barrie & Jones, 1999) have claimed - that graduate attributes are best developed in the context of discipline knowledge (Hager & Holland, 2006). By applying this knowledge in the workplace, graduates can have a dynamic understanding of discipline knowledge and an ability to practise effectively as employees. Likewise, the Co-op programme had a good impact on students' awareness of the importance of competencies like attendance and timekeeping, and confidentiality at work. The importance level of these moral/ethical competencies would be clearly apparent in the workplace as behavioural work ethics. Co-op also had an impact on the development of students' awareness of the English language (overall), even though Co-op came second after PSP, probably because students in post-secondary programmes join an English course for a one-year period of study. This study was in some measure in agreement with Raymond, McNabb and Matthaei (1993) who found that students ranked Co-operative education as the most important educational method to develop competencies for the workplace.

School was ranked fourth by students. It came third in two competencies, fourth in 25 competencies, and fifth in four (See Table 88). This result might reveal the gap between school and the workplace in developing students' awareness of importance of generic competencies required for the modern workplace. This result might suggest that students are very dependant on outside influences for developing skills and therefore only sures to highlight the importance of programmes like Co-op. The least important source for the development of students' awareness of importance of competencies was self-taught. It came fourth in five competencies and in the last rank for the other 26 competencies (See Table 88).

Employers in this study have emphasised the role school should play in enhancement students' awareness of soft skills and development their performance.

In terms of most important sources in developing students' awareness of importance of the two categories hard and soft competencies, the rank order was similar for both categories. Post-secondary programme (PSP) was in the first place. Second was home/family/community, third came Co-op programme, fourth was school, and self-taught came in the last rank (See Tables 90 & 91). This result clearly reflected the effectiveness of IPA's Post-secondary Programmes in developing students' awareness of importance of the two types of competencies, and the impact of home/family/community in this objective. Co-operative education programmes were effective as well; as the short term has been applied in comparison to the long timescales of other sources. The surprise might come over schools' effort in developing students' awareness of the importance of competencies, which is the base of preparing students for the workplace. Employer interviewees focused on the need for the involvement of schools at the early stage of education, by designing activities to improve students' awareness of the importance of generic competencies. The interviewees also gave more attention to Co-operative education programmes, and the cooperation between employers and higher education institutions. Following are some suggestions:

*“It is not enough for students to participate in the Co-op training to be prepared for the workplace. This mission should be taken by the school from the early stages”.*

*“As for the difficulty of teaching soft competencies in the workplace; graduates should lean them in schools”.*

This result may lead us to repeat with Zinser (2003) the question of whether teachers are competent to provide instruction on employability skills, and whether teacher training programmes are preparing teachers to do so.

Harrison (1986) requires school to hold the responsibility for developing students' employability opportunities. He asserted that general employability skills must be taught at school through words and actions. Harrison placed much emphasis on the example provided in schools. He says that a teacher who

is habitually late to class is teaching students that punctuality is not important. He reported that home as well can play an integrated role with school to enhance students' responsibility.

In the same manner, Sadri (2002) suggests that more emphasis could be given in the curriculum to oral communication skills by moving away from the traditional classroom model in which the teacher speaks and the students listen. He added that school might benefit from activities such as discussions, group activities, role-plays, and classroom presentations that allow students to develop a variety of communication skills.

This effectiveness of Co-operative education and home/family/community in developing students' awareness of the importance of the generic competencies might refer to the deep approaches of learning students had through the Co-op or during their life at home and in the community. This deep understanding of knowledge and situations results from the observation and interaction that give a learner the ability to construct her/his own learning. Constructivists believe that learning is self-regulating and socially mediated as the student actively engages, interacts, and operates within the confines of his or her environment. The strong impact of IPA's Post-secondary graduate programmes in developing students' awareness of the importance of generic competencies may also reflect the practical approach that has been adopted in these programmes, which includes non-traditional means of teaching and training such as visiting various workplaces, inviting industrial professionals to classes, and asking students to do some practical research regarding their majors.. etc. As learning, to the constructivist, is focused on cognitive, not behavioural processes, it seems that the low effectiveness of school as one of the sources in this study relates to the surface approach to learning that is still applied by students who are influenced by teachers' poor teaching (Biggs, 1999). The poor effectiveness of school and self-taught sources, which came in the last rank, might give more attention to the role of missing 'scaffolding' which means according to Vygostky (1978) the assistance provided to the learner by a "more knowledgeable other" (MKO). This assistance is very important, as what a learner can learn in a particular timeframe is limited, so he has what is called 'Zone of Proximal Development'

(ZPD). ZPD is the distance between the "actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygostky, 1978, p. 86). This assistance provided to students by teachers in schools and supervisors in the Co-op programmes represents the role of "more knowledgeable other" (MKO) in this study. This role of MKO is essential as higher education institutes appear to offer little in the way of scaffolding or support to help students transfer skills out of the university and into the workplace (Bennett et al., 2000).

The role of MKO proved that lifelong learning is not just a form of self-empowerment and self-emancipation. The case is not limited to what graduate attributes are, the conceptions of how they might be developed are also hierarchical. Lifelong learning requires an individual to benefit from "more knowledgeable other" (MKO) as a facilitator of learning providing her/him with the (scaffolding) she/he needs. This assistance providing by 'more knowledgeable other' (MKO) (Vygostky, 1978), should be further improved by using some tools such as the Johari Window model (Luft & Ingham, 1955). This model is useful for illustrating and improving self-awareness. In applying the Johari Window concept the aim is to develop the 'open area' for a learner (what is known by the person about him/herself and is also known by others), because when he/she works in this area with others he/she is at our most effective and productive and the team is at its most productive too. This is because it is the space where good communications and cooperation occur, free from distractions, mistrust, confusion, conflict and misunderstanding.

The open area is small for a new team member or member in a new team because others know little about the new person. Similarly, the blind area is small because others know little about him/her. The hidden or avoided area is a relatively large one, while the unknown area is the largest. As Emotional Intelligence provide a new way to understand and assess people's behaviours, management styles, attitudes, interpersonal skills, and potential, it has an affective role in the operation of developing individuals' interpersonal competencies. The effectiveness of educators and trainers in the Co-op

workplace would be stronger on the students for those who have a high range of EQ. That because EQ can reduce stress for individuals and organisations, by decreasing conflict, improving relationships and understanding, and increasing stability, continuity and harmony.



## Chapter 6: Conclusion

The findings on the perceptions of employers and students (before and after participating in the Co-op) indicate that the Co-op programme has led to improvement in students' awareness of the importance of generic competencies needed today in the workplace. Several interesting results emerged from the objectives of the study, from which a series of conclusions have been drawn.

### **Findings and implications of the impact of the Co-op in developing students' awareness of the importance of competencies**

The high level of importance for all competencies perceived by employers, teachers and students (before and after Co-op), was an interesting result in this study as it shows an understanding of the requirements of the workplace by the three stakeholders. However, the most important finding is the increase in students' awareness of the importance of competencies after their participation in the Co-op to become closer to employers' perceptions. This was clear from the following results:

1. Students (after participating in the Co-op) remained in agreement with employers in ranking some 'ethical' competencies, such as: confidentiality at work, attendance and timekeeping, and concern for order, quality and accuracy among the ten most important competencies.
2. Students (after participating in the Co-op) joined employers in ranking English language (writing) among the ten most important competencies, whereas this competency was ranked 19<sup>th</sup> by students (before Co-op).
3. Students (after participating in the Co-op) were in agreement with employers in four of five least important competencies. These competencies were directiveness, developing others, conceptual thinking, and analytical thinking. The agreement between the two groups was only found in two competencies (before Co-op).

4. Students (after participating in the Co-op) remained in agreement with employers in perceiving soft competencies as more important than hard competencies. This result supported Rainsbury et al. (2002) who reported that the students and graduates clearly favoured soft skills.
5. Students (after participating in the Co-op) were more alert to the role of soft competencies in improving an employee's career.

All these changes in students' perceptions (after Co-op) can be attributed to the impact of the Co-operative education programmes as their perceptions of the importance of competencies became similar to those of employers. This remarkable role of the Co-op in developing students' awareness of the importance of competencies was shown also when students after participation ranked Co-op on the third place among five sources influencing perceptions about competencies, namely: Post-secondary Programme (PSP), home/family/community, school, and self-taught. Despite the Co-op Programme coming in third rank, however, the effectiveness of the Co-op was apparent when students ranked it first in developing students' awareness of such competencies as customer service orientation and organisational awareness, and second in developing students' awareness of the importance of technical expertise, as these competencies are best taught in the workplace, where some students first become aware of their importance. Moreover, the Co-op programme had a positive impact on students' awareness of the importance of competencies like attendance and timekeeping, and confidentiality at work. The importance level of these moral/ethical competencies would be clearly apparent in the workplace as behavioural work ethics. Another effect of the Co-op in developing students' awareness of the importance of competencies was on English language (overall), as the Co-op came second in developing students' awareness of the importance of this competency.

The impact of the Co-op was also proved by the increase in the number of students (after Co-op) who justified their favouring of soft competencies as more important than hard competencies. The role of the Co-op was clear here as students (after Co-op) showed more understanding of the importance of soft

competencies as: complementary to hard competencies, in improving an employee's career, as means of differentiating themselves in a competition with others to win a job when hard competencies are similar to those of others, as ethical competencies, and as an important part of the success of an organisation, particularly one that frequently deals with customers face to face. These reasons for the importance of soft competencies were clear in students' statements to justify their favouring of soft competencies as more important than hard ones. Another evidence of the impact of the Co-op was when employers who were interviewed have asserted that students at the end of Co-op showed more concern for both hard and soft competencies. However, most of them have stated that students should give more attention to soft competencies.

This study ascribes the impact of the Co-op to the nature of this kind of learning as a social learning where much of the learning required to achieve professional competence actually takes place after the completion of formal training. This study suggests that in the workplace, through co-operative education programmes, students are able to function as a 'learning acquirer' and become able to see a wide range of different situations as offering opportunities for learning. In the workplace students work with ethical dilemmas in order to develop skill in ethical reasoning. The development in students' perceptions after Co-op indicated that the skills needed in the workplace are often not well recognised, understood or developed in conventional Higher Education courses. This study confirmed the common thought that HE appears to offer little support to help students transfer skills out of the educational institute and into the workplace (Bennett et al., 2000). The study justified the significant impact of the Co-op, as real learning, in developing students' awareness of the importance of competencies as it helps students to understand the industry concepts, which are in our case related to developing graduates' awareness of the importance of generic competencies.

The study also ascribes the impact of the Co-op in the improvement of students' awareness of the importance of competencies to the deep method of learning that takes place in Co-op, especially with the understanding of the importance of the competencies needed for the workplace and acquisition of them. The

workplace as a real learning environment can provide a great deal of meaning, which helps students participating in the Co-op to be aware of the importance of generic competencies required by employers, and develop them. In Co-op, learning is construction of ideas by the active participation of students and through the experiences they gain during participation in activities. The constructivist teacher provides tools such as problem-solving and inquiry-based learning activities so that students can formulate and test their ideas, draw conclusions and inferences, and convey their knowledge in a collaborative learning environment.

In this study, the positive impact of Co-operative education in developing students' awareness of the importance of competencies to be closer to what employers require, supported what Rainsbury, Hodges, Burchell and Lay (2002) suggested - that co-operative education has an important function to perform in providing students with relevant work experience so that their perceptions of the importance of a variety of competencies, most particularly soft skills, more closely reflect the views of workplace professionals.

The study supported Hodges & Burchell (2003) who stated that co-operative education programmes can provide an ideal vehicle to bridge the gap between the world of work and the world of education. The study also was in agreement with Hodges & Burchell (2003) who stated that co-operative education can help students to understand the workplace requirements, and take responsibility for identifying their own learning needs and then pay more attention to achieve them, continuously.

### **General results of the study objectives**

The general results of the study objectives have drawn the following conclusions

1. In this study, a high level of importance for all competencies was perceived by teachers and students (before and after Co-op). This gives more support to Zegwaard, Coll & Hodges (2003) who found that recent science and technology graduates and faculty members

considered all the competencies as important. The results were also in agreement with Rainsbury, Hodges, Burchell & Lay (2002) who found that both the students and graduates perceived all of the competencies as important.

2. This study was in agreement with other studies (Rainsbury, Hodges, Burchell, and Lay, 2002; Stephenson, 1997; Coll, Zegwaard & Hodges, 2002a, 2002b; Burchell, Hodges & Rainsbury, 2001) with employers, teachers, and students (before and after participating in the Co-op) perceiving ability and willingness to learn from the ten most important competencies.
3. The high level of importance for the five additional competencies (English language (speaking), English language (writing), and English language (overall), confidentiality at work, and attendance and time keeping) perceived by employers, teachers and students (after Co-op) revealed the value of these competencies in the Saudi workplace.
4. The study revealed the value of 'ethical' competencies among teachers and employers. The study was in agreement with (Lin, 2005; Online Recruitment, 2006; Sadri, 2002).
5. While employers viewed all English language competencies as being among the ten most important competencies, teachers perceived only English language (writing) as one of the ten most important competencies. This study justified that as a reflection of the way English has been taught in Saudi Arabia, which focuses on English writing more than speaking.
6. The study was in agreement with Rainsbury, Hodges, Burchell & Lay (2002) in rating directiveness, and developing others, as least important. The study also was in agreement with Hodges & Burchell (2003) rating developing others as least important for graduates early in their business careers.

7. The study was in agreement with the following studies (Hodges & Burchell, 2003; Burchell, Hodges & Rainsbury, 2001; Coll, Zegwaard & Hodges, 2002a, 2002b; Barnett, 1999) in perceiving technical expertise as one of least important competencies.
8. The results showed that all groups perceived both hard and soft competencies are important, as the lowest mean score was (4.43). (See Mean Level Definition, Table 20). The study was in agreement with many studies on the importance of both hard and soft competencies (Ashton, 1994; Birkett, 1993; Caudron, 1999; Georges, 1996; Mullen, 1997; Strebler, 1997; Hodges & Burchell, 2003; Zegwaard et al., 2003).
9. The study revealed that students (before and after Co-op) scored significantly higher ( $p < 0.05$ ) than employers in the importance of hard competencies. This result was shown within the standard list as well as the list that included the five additional competencies. That is because the five additional competencies were classified as soft competencies.
10. When investigating the differences between the four groups of the importance of soft competencies by using the list which contained the standard competencies + the additional competencies added for this study, the study showed that students (before and after participating in the Co-op) scored soft competencies significantly higher ( $p < 0.01$ ) than employers did, while students (after Co-op) were higher than both employers and teachers. The study supported Rainsbury et al. (2002) who reported that the students and graduates clearly favoured soft skills.
11. This study explored employers' and teachers' perceptions of competencies required to be developed in IPA's Post-secondary graduates, and the reasons behind the lack of these competencies in the graduates. The study revealed that there was an agreement between

employers and teachers about the need to improve IPA's Post-secondary graduates' performance in the competency of English language (overall) and some ethical competencies such as attendance and timekeeping, and confidentiality at work. More attention was placed by employers and teachers on the graduates' performance of the competency of computer literacy. The researcher argued that this concern held by teachers and employers to raise graduates' performance in computer literacy may not indicate an existing deficiency, as the IPA rigorously prepares its graduates to attain these core and very useful skills.

12. In terms of most important sources that developed students' awareness of importance of competencies, the rank order was similar whether for hard or soft competencies or all competencies together. Post-secondary Programme (PSP) was in the first place. Second was home/family/community, third came the Co-op Programme, fourth was school, and self-taught came in the last rank. Despite the study's assertion that the Co-operative education programme was effective - based on its short-term impact in comparison to the long-term influence expected by other sources - the researcher was surprised by the role and input of schools in developing students' awareness of the importance of competencies, which is the base of preparing students for the workplace.

The matching of this study's findings with what are found in the literature confirmed that the concern about developing generic competencies among stakeholders has become a worldwide phenomenon. Moreover, this similarity between teachers', employers', and students' perceptions of the importance of generic competencies showed a similarity in the workplace requirements around the world.

## Chapter 7: Recommendations

The results of this study indicated the significant role of Co-operative education in developing students' awareness of the importance of competencies required for IPA's Post-secondary graduates entering the workplace today. It was clear that Co-op can provide realistic opportunities to foster students (Lin, 2005). However, preparing students for the workplace will need greater efforts from educators, industrial professionals, family and community. It is necessary to find a way to broaden the traditional concept of learning upon which most forms of education and training and policies for education and training throughout Saudi Arabia are based. This new concept of learning will have to take account of the relationship between formal learning and community education and open education, and developing school-to-work systems. The new learning partnerships that involve enterprises and education and community education will collaborate in new ways to support the development of graduates' employability competencies.

The study has discussed these issues and provided several suggestions for further work as follows:

### 7.1 Education with an emphasis on employability skills at school

Traditional education used to focus more on cognitive and technical knowledge with less attention to interpersonal skills. Zinser, (2003) has stated that as a result of partnership between education and professionals from industry, there is an agreement that career and employability skills should be taught in high schools, since many students leave education without the vital skills to succeed in the adult work world. Hershey et al. (1997) have suggested that school can play a good role to improve students' career awareness at the early stage of education. They also added that few schools deliver a coherent career development sequence. This study suggests that school should contribute more in developing students' awareness of the importance of generic competencies. Balance is recommended in the school role, to sustain the identity of the school as an open organisation of learning. This study is in agreement with the



recommendation of Van Wieringen & Attwell (1999) who have stated that education must be opened to the world of work. Without reducing the point of education solely to the purpose of employment, and understanding of the world of work, a knowledge of enterprises and an insight into the changes which mark production processes are some of the basics which schooling must take into account.

This study also recommends that teachers should be competent to provide instruction on employability skills, and teacher training programmes should prepare teachers to do so.

## **7.2 Deep and constructivist way of teaching at school**

In a study, Geertshuis & Fazey (2006) found that learners good on surface approach to learning are less likely to have experienced training. On the other hand, learners good on deep and strategic approaches have more extensive training and formal educational experience, identify more training needs and are likely to be intrinsically motivated.

This result should encourage teachers in schools to invite students to construct their own knowledge by helping students to determine previous knowledge and building on it. This can come through experiencing things and reflecting on those experiences within the classroom.

## **7.3 Training with real life situations**

Home/family/community was considered by student participants in this study to be one of the most important sources in developing their awareness of the importance of competencies. This finding has supported the impact of the concepts of community education and open education which are not just education, but action as well. Zimmer (1998) has stated that the application of knowledge and abilities in complex real-life situations becomes an integral part of the learning process. He added that the subject is not only the point of concentration, but also the situation that should be dealt with and improved. He

concluded that community education never just aims at the qualification of people, but also at a constructive dealing with the reality in which these people are living. Dearnley & Matthew (2000) suggested that intrinsic motivators are very important to assist adult learners, and an individual's interaction with the society will create an appropriate climate to develop his/her awareness of the importance of competencies and activate the intrinsic motivators. Dearnley & Matthew found in their study (2004), which has discussed the pilot phase of the previous study, that changing personal perceptions and epistemologies drove intrinsic motivation and thus impacted on social, professional and academic aspects of the participants' lives. These findings encourage paying more attention to this kind of education projects to enhance students' awareness and performance of employability skills.

#### **7.4 Practical methods to enhance ethical competencies**

This study and others (e.g. Lin, 2005; Online Recruitment, 2006) suggest that employers are placing much more emphasis on work ethics. Ethical values are taught in Saudi Arabia in the three stages of education starting with elementary education which lasts for six years and is followed by three years of intermediate education and three years of secondary school education. However, there seems to be a gap between learning these ethical values and applying them in real situations. This study strongly recommends that schools should give more attention to switching to practical ways of preparing students with ethical skills. This can be – as students' suggest - by having ethics integrated into a number of different courses rather than having it as a stand-alone course (Stewart et al., 1996, as cited in Sadri, 2002). Role-plays can be a sufficient/suitable vehicle for integrating ethical concerns into courses (Brown, 1994, as cited in Sadri, 2002).

#### **7.5 English Language**

In spite of the comprehensive course of English language provided by the IPA for the Post-secondary programmes included in this study, the priority demand for this competency was clearly apparent in the agreement between employers

and teachers on the need to improve its performance for IPA's Post-secondary graduates. In fact IPA's post-secondary graduates are counted as one of the best institutes for this outcome required by employers (e.g. The Saudi British Bank's SABB, Report of May 5, 2001). However, IPA should give more concern to developing students in English language as a very important second language needed for the modern workplace. Oral communication in English language should be emphasised at the high school level.

### **7.6 Private Sector Role in Programmes and Curriculum Development**

As cooperation with the private sector aims to deliver the competencies needed by the labour market, this party should be involved in the decision making process concerning educational and training programmes. This step will be accomplished in the IPA's experience through the participation of the private sector in programmes and curriculum development. Educators' concern in designing their courses to meet the needs of employers will result in students developing a better understanding of the requirements of the workplace with respect to the development of skills. Vaatstra & De Vries (2007) gave approval to this concern. They found that graduates from active learning environments perceived that the quality of the content of majors and of curriculum design are significantly related to the presence of generic and reflective competencies.

### **7.7 Johari Window model**

This study suggested that the effectiveness of Co-operative education and home/family/community in developing students' awareness of the importance of the generic competencies might refer to the assistance provided to students by teachers in the IPA and employers in the workplace during the Co-op. This assistance providing by 'more knowledgeable other' (MKO) (Vygostky, 1978), should be further enhanced by using some tools such as the Johari Window model (Luft & Ingham, 1955). This model is useful for illustrating and improving self-awareness (See page 43).

## **7.1 Threshold concepts**

This study found mismatches in perceptions of competencies' importance between students (before Co-op) and employers. The study suggested that this 'problem' seems to be a sign of adopting surface approaches to learning, and an absence of understanding of 'threshold concepts' (Meyer and Land, 2003). This means that students have an incentive to adopt surface approaches to learning to understand industry concepts, which can help them to develop their awareness of the importance of generic competencies. Threshold concepts are of interest to lecturers and learners in Higher Education because they have the potential to enhance learners' capability to grasp the theoretical foundations of a subject instead of learning by rote, and enable learners not only to acquire formal knowledge of a discipline, but also to use this knowledge in everyday life experiences. In the light of the potential benefits of the threshold concepts to the teaching and learning environment, it is important to focus on the schools' role in teaching these concepts. This was suggested by (Zinser, 2003) who reported that career and employability skills should be taught in high schools, since many students leave education without the vital skills to succeed in the adult work world. This could be more effective at the early stage of education by designing activities to improve students' career awareness (Hershey et al., 1997).

## **7.2 Suggestions for Further Studies**

This has been a small study conducted at a particular time and in the culture of particular institute. The numbers of participants in this study are relatively small (99 students, 38 employers, and 38 teachers). Therefore, this study is restricted by the collection of data from only these groups. This limitation makes it difficult to generalise the data to students in other programmes, employers who never participated in the Co-op, and teachers in other educational institutions. Thus, it is a very wide area for further researches with consideration of the rapid change in the workplace requirements. Had a greater number of participants been involved in the study the more the power of the study would have been increased and more wide-ranging information and understanding would have resulted. In addition, the study has focused specifically on Post-secondary

graduates and for specific programmes. The outcomes of this study may have been different if it had been conducted in different programmes or sociocultural context, or included or approached through a different methodology.

Limitations occur in any data collection and constraints must be accommodated. However, these limitations have the potential to provide the starting point for further research.

The most important contribution for this study was ensuring the impact of Co-operative education programmes in developing students' awareness of the importance of competencies. However, what is more important is how this interaction changes the behaviours and capabilities of the students to pay more attention to developing competencies needed by employers. On the other hand, educators should utilise the change of the importance of competencies in the workplace to develop their programmes' curriculum. The findings of this study also lay the groundwork for future research to investigate the role of teacher training colleges in preparing teachers to be alert to the requirements of the workplace and able to enhance students' employability skills. This study suggests that school should contribute more in developing students' awareness of the importance of generic competencies. Teachers should be competent to provide instruction on employability skills, and teacher training programmes should prepare teachers to do so.

The present study is just the beginning as mentioned before and should be considered as an invitation to other researchers for more investigations. The scope and potential for future research are very necessary for the benefit of employers, teachers and students in Saudi Arabia.

## References

- Abdulaziz, A. I. (2004) The effectiveness of Saudi Arabia's secondary industrial institutes cooperative education programs as perceived by their organizational partners, (Doctoral dissertation, Ohio State University).
- Adams, J. S., Carley, S. S., & Harris, C. (1998) Challenges in teaching business ethics: Using role set analysis of early career dilemmas, *Journal of Business Ethics*, 17 (12), 1325-1335.
- Ajzen, I. & Fishbein, M. (1980) *Understanding attitudes and predicting social behaviour* (Englewood Cliffs, NJ, Prentice Hall).
- Alabdulahfez, M. A. (1999) The possibilities for colleges of technology to introduce Co-operative education as a means to realize the needs of the private industrial sector. Unpublished master's thesis, College of Administrative, Sciences, King Saud University, Riyadh, Saudi Arabia.
- Al-Dekhayyel, N., & Abdulgabar, A. (2002) General Organisation for Technical Education and Vocational Training, Saudi Arabia: Building relations between education and the employer sectors in Technical and Vocational Training.
- Aleisa, A. M., & Alabdulahfez, M. A. (2002) Co-operative Education at the Riyadh College of Technology: Successes and Challenges. *Asia-Pacific Journal of Co-operative Education*, 3(2), 1-7.
- Allport, G. W. (1935) Attitudes, in: C. M. Murchison (Ed.) *Handbook of social psychology* (London, OUP), 798–844.
- Al-Megren, A. (1996) *Private sector perception of the vocational education system in the city of Riyadh Saudi Arabia*, Unpublished doctoral dissertation, Kansas State University.

Al-Romi, N. (2001) *From School –to-future work transition: Applying Human Capital and Cultural Capital Production in the Saudi Arabian education system*, Unpublished doctoral dissertation, The Pennsylvania State University.

AME Info (2008) Next generation balances tradition and progress, [Online] Available: <http://www.ameinfo.com/157777.html>, 27, May, 2008.

American Assembly of Collegiate Schools of Business (2001) *Achieving quality and continuous improvement through self-evaluation and peer review: Standards for accreditation in business administration and accounting: Guidance for self-evaluation*. St. Louis, MO: Author.

Arnold, J., & Davey, K. M. (1994) Evaluating graduate development: Key findings from the graduate development project. *Leadership and Organisation Development Journal*, 15(8), 9-15.

Ary, D., Jacobs, L. C., Razavieh, A., & Sorensen, C. (2006) *Introduction to research in education* (7<sup>th</sup> ed.), Belmont: Thomson Wadsworth.

Ashton, F. (1994) The other managers competencies, *Training Officer*, 30(1), 15-16.

Bagozzi, R. P. & Burnkrant, R. E. (1979) Attitude organisation and the attitude-behaviour relationship, *Journal of Personality and Social Psychology*, 37, 913–929.

Bandura, A. (1977) *Social Learning Theory*, Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1986). *Social foundations of thought and action*, Englewood Cliffs, NJ: Prentice-Hall.

Barnett, R. (1999) Learning to work and working to learn, In D. Boud & J. Garrick (Eds.), *Understanding learning at work* (pp. 29-44), London: Routledge.

Barrie, S., & Jones, J. (1999) Integration of academic writing skills in curriculum: making them stick: a model for generic attributes curriculum development. In G. Rust (Ed.), *Proceedings of the 6th International Improving Student learning Symposium* (pp. 268-278), Brighton, UK: G. Rust.

Belenky, M. F., Clinchy, B. M, Goldberger, N. R, & Tarule, JM (1986) *Women's Ways of Knowing: The Development of Self, Voice and Mind*, New York: Basic Books.

Bennett, N. and Dunne, E. and Carre, C. (2000) *Skills development in higher education and employment*, Buckingham: The Society for Research into Higher Education & Open University Press.

Bernstein, S. & Bernstein, R. (1999) *Elements of Statistics II: Inferential Statistics*, Schaum's Outline Series, McGraw-Hill, New York.

Best, J., & Kahn, J. (2006) *Research in Education*, Boston: Allyn and Bacon.

Biggs (1987) *Student Approaches to Learning and Studying*. (Hawthorn, Victoria, Australian Council for Educational Research).

Biggs, J (1999) *Teaching for Quality Learning at University* Buckingham: SRHE and Open University Press.

Birkett, W. P., (1993) *Competency Based Standards for Professional Accountants in Australia and New Zealand* (Institute of Chartered Accountants in Australia and the New Zealand Society of Accountants, Sydney, NSW).

Bishop, T. R. (1992) Integrating Business Ethics into an Undergraduate Curriculum, *Journal of Business Ethics*, 11, 291–299.

Boam, R. and Sparrow, P. (1992) *Designing and Achieving Competency*, McGraw-Hill, London.



Bogdan, R. C., & Biklen, S. K. (1998) *Qualitative research for education: An introduction to theory and methods*, Needham Heights, MA: Ally & Bacon.

Bourse, M., Harzallah, M., Leclère, M., & Trichet, F. (2002) COMMONCV: modeling the competencies underlying a Curriculum Vitae, *Rapport de recherche* No 02.2, IRIN.

Bowden, J. (1999) Foreword in RMIT Graduate Attributes: Information Kit, Melbourne: RMIT.

Bowden, J. & Marton, F. (1998) *The university of learning: Beyond quality and competence in higher education*, London: Kogan Page.

Bowden, J. and Masters, G. (1993) Implications for Higher Education of a Competency Based Approach to Education and Training, Canberra: AGPS.

Boyatzis, R. E. (1982) *The competent manager: A model for effective performance*, New York: Wiley.

Braunstein, L.A. (1999) Employer benefits of, and attitudes toward postsecondary Co-operative education, *Journal of Co-operative Education* 36(1), 7-22.

Brawley, S., Jensen, L., Kofod, M. and Whitaker, N. (2003) Integrating graduate attributes into the curriculum in Arts and Science. [Online] Available: [http://www.ltu.unsw.edu.au/content/userDocs/fye\\_2003\\_brawley.pdf](http://www.ltu.unsw.edu.au/content/userDocs/fye_2003_brawley.pdf), 21, August, 2007.

Brown, K. M. (1994) Using role play to integrate ethics into the business curriculum: A financial management example, *Journal of Business Ethics*, 13, 195-110.

Brown, S. J. (1984) *The influence of Co-operative Education on first job after graduation*, Boston: Northeastern University. (ERIC No. ED254663).

Bryman, A. & Cramer D. (2001) *Quantitative Data Analysis with SPSS Release 10 for Windows*, London: Routledge.

Bullis, K. (2001) What skills and attributes employers look for when hiring students, University of Wisconsin-River Falls, Career Services web site: <http://www.uwrf.edu/ccs/skills.htm>, 14, October, 2006.

Burchell, N., Hodges, D., & Rainsbury, E. (2001) What competencies do business graduates require? Perspectives of New Zealand stakeholders, *Journal of Co-operative Education*, 35(2-3), 11-20.

Burgoyne, J. (1993) The competence movement: Issues, stakeholders and prospects, *Personnel Review*, 22(6), 6-13.

Businessballs.com, <http://www.businessballs.com/eq.htm>, 11 January 2007.

Business-Higher Education Forum (1995) *Higher Education and Work Readiness: The View from the Corporation*, Washington, D.C.: Business-Higher Education Forum.

Calway, B. A. and Murphy, G. A. (2000) Career progression of Co-operative education graduates, *Journal of Co-operative Education* 35(2/3), 68-76.

Caudron, S. (1999) The hard case for soft skills. *Workforce*, 78(7), 60-64.

Clark, B.A. (2000) First and second language acquisition in early childhood, *Proceedings of the Lilian Katz Symposium, Nov. 5-7. Issues in Early Childhood Education: Curriculum, Teacher Education, and Dissemination of Information*: 181-188.

Coles, C. R. (1998) How students learn, in: B. JOLLY & L. REES (Eds) *Medical Education in the Millennium* (Oxford, Oxford University Press).

Coll, R.K., Zegwaard, K., & Hodges, D. (2002a) Science and technology stakeholders' ranking of graduate competencies Part 1: Employers' perspective, *Asia-Pacific Journal of Co-operative Education*, 3(2), 19-28.

Coll, R.K., Zegwaard, K., & Hodges, D. (2002b) Science and technology stakeholders' ranking of graduate competencies Part 2: Students' perspective, *Asia-Pacific Journal of Co-operative Education*, 3(2), 35-44.

Coll, R.K., Zegwaard, K., & Hodges, D. (2003) Assessment of Workplace Learning: a framework, *Asia-Pacific Journal of Cooperative Education*, 4, 9-18.

Cooper, D., Robertson, I. T & Tinline, G. (2003) *Recruitment and Selection: A framework for Success*, London, Thompson.

Cooper, L. Lawson, M. & Orrell, J. (2003) Workplace-learning Management Manual: A Guide for Establishing and Managing University Work-integrated Learning Courses, Practica, Field Education and Clinical Education, Staff Development & Training Unit, Flinders University of South Australia.

Courtis, J. K, Zaid, O. A. (2002) Early employment problems of Australian accounting graduates: An exploratory study, *Accounting Forum*, 26 (3), 320–339.

Creswell, J. W. (1994) *Research Design: Qualitative and quantitative approaches*. Thousand Oaks, CA: Sage Publications.

Cullen, J., Hadjivassiliou, K., Hamilton, E., Kelleher, J., Sommerlad, E., & Stern, E. (2002) *Review of current pedagogic research and practice in the fields of post-compulsory education and lifelong learning*, The Tavistock Institute.

Cummings, R. (1998) How should we assess and report student generic attributes? Teaching and Learning Forum Proceedings, University of WA, Perth.

- Curry, P. & Sherry, R. (2004) *The hidden value of higher education learning: transferable skills and their importance for graduates of modern language programmes*, Transferable Skills Project: Dublin.
- David, M. & Sutton, C. (2004) *Social Research: The Basics*, London, Sage.
- Davies, P. (2006) Threshold concepts: How can we recognize them? In J. H. F. Meyer, and R. Land (eds) *Overcoming barriers to student understanding: threshold concepts and troublesome knowledge*. London and New York: Routledge. Pp. 70-84.
- Davison, L. J., Brown, J. M., & Davison, M. L. (1993) Employer satisfaction ratings of recent business graduates, *Human Resource Development Quarterly*, 4(4), 391-399.
- Dearnley, C. A. & Matthew, R. G. S. (2000) A group of nurses experience open learning: exploring the impact, *Open Learning*, 15(2), 191-206.
- Dearnley C. A. & Matthew R.G. S. (2004) A Group of Nurses Experience Open Learning: Further explorations of the impact, *Open Learning*, 19(2), 165-181.
- Derouen, C., & Kleiner, B. (1994) New developments in employee training, *Work Study*, 43(2), 13-6.
- Dewey, J. (1916) *Democracy and education: An introduction to the philosophy of education*, New York: Macmillan.
- Dillman, D. A. (2000) *Mail and internet surveys: The tailored design method*, (2nd ed.), New York, NY: John Willey & Sons, Inc.
- Dobbelstein, T., & Taylor, S. (2004) Analysing the World of Work's Requirements with the Aim of Enthusing Companies About Co-operative Education, *Asia-Pacific Journal of Co-operative Education*, (2004), 5(1), 7-14.

Doob, L. W. (1947) The behaviour of attitudes, *Psychological Review*, 54, 135–156.

Dorsey, I. (2004) *Soft Skills for Hard Times: A Handbook for High Achievers*, Ivory Dorsey, USA.

Doshy, K. (2005) *Action Research for Improving Practice*, Paul Chapman Publishing, London, Thousand Oaks, New Delhi.

Drucker, P. F. (1994) The Age of Social Transformation, *The Atlantic Monthly*, November 1994.

Dytham, C. (2003) *Choosing and Using Statistics - A Biologist's Guide*, 2nd Edition, Blackwell Publishing.

Entwistle (1992) *The Impact of Teaching on Learning Outcomes in Higher Education – A Literature Review*, Sheffield: CVCP, p. 12.

Eraut, M (1998) Concepts of Competence, *Journal of Interprofessional Care*, 12 (2), 127-139.

Fitzgerald, L. F. (1985) *Education and Work: The Essential Tension*, Information Series no. 304 Columbus: ERIC Clearinghouse on Adult, Career, and Vocational Education, The Ohio State University, 1985. ED 260 306.

Fleming, J., & Ferkins, L. (2005) Enhancing student employability: A New Zealand case study of Co-operative education in sport. Hospitality, Leisure, Sport and Tourism Network. [online] Available at:  
[http://www.hlst.heacademy.ac.uk/projects/employ\\_fleming.pdf](http://www.hlst.heacademy.ac.uk/projects/employ_fleming.pdf), 06 June 2006.

Florida Institute of Technology,  
<http://www.fit.edu/career/employers/internemployer>, 05 May 2007.

Forcese, D.P., & Richer, S. (1973) *Social research methods*, Englewood Cliffs: Prentice-Hall.

- Forfás (2003) *Fourth Report of the Expert Group on Future Skills Needs*, Forfás: Dublin.
- Frankfort-Nachmias, C., & Nachmias, D. (2000) *Research Methods in the Social Sciences*, 6th Edition, New York: Wadsworth.
- Fraser, B. (1989) *Learning environments research in science classrooms: Past progress and future directions*, NARST Monograph, Number Two, Western Australia: Curtin University of Technology.
- Fraser, S. and Greenhalgh, T. (2001) Coping with complexity: educating for capability, *British Medical Journal*, 323 (7316) pp 799–803.
- Gabric, D., & McFadden, K. L. (2001) Student and employer perceptions of desirable entry-level operations management skills, *Mid-American Journal of Business*, 16(1), 51–59.
- Galloway, C. (2001) “Vygotsky's Constructivism”, College of Education, The University of Georgia,  
<http://itstudio.coe.uga.edu/ebook/vygotskyconstructionism.htm>, 19 Jul, 2007.
- Garavan, T. N., & McGuire, D. (2001) ‘Competencies and workplace learning: some reflections on the rhetoric and the reality’, *The Journal of Workplace Learning*, 13 (3/4): 144-164.
- Garavan, T.N. & C. Murphy (2001) The Co-operative education process and organisational socialisation: a qualitative study of student perceptions of its effectiveness, *Education and Training*, 43(6): 281-302.
- Geertshuis, S & Fazey, J. (2006) Approaches to learning in the workplace, *Journal of Workplace Learning*, 18 (1), 55-65.
- George, J. C. (1996) The myth of soft skills training. *Training*, 33(1), 48.

- Glaser, B.G., & Strauss, A. L. (1967) *The discovery of grounded theory: Strategies for qualitative research*, Chicago: Aldine.
- Goleman, D. (1995) *Emotional intelligence: why it can matter more than IQ*, London: Bloomsbury.
- Grant, S. (2006) Frameworks of competence: common or specific?. Presented at the TEN Competence workshop, Sofia, Bulgaria, 30-31 March 2006.
- Gray, D. (2001) A Briefing on Work-based Learning, LTSN Generic Assessment Series No 11, York: Learning and Teaching Support Network.
- Green, J. C., Caracelli, V. J., & Graham, W. F. (1989) Toward a conceptual framework for mixed-method evaluation designs, *Educational Evaluation and Policy Analysis*, 11(3): 255-274.
- Groenewald, T. (2003) *The contribution of co-operative education in the growing of talent*, Unpublished doctoral dissertation, Rand Afrikaans University, Johannesburg, South Africa.
- Groenewald, T. (2004) *Towards a definition for cooperative education* (In International Handbook for Cooperative Education, 1(1): 17-25.
- Grosjean, G. (2003, August) Co-op in the knowledge economy: critical competencies and 'fit', Paper presented at the 13th World Conference on Co-operative Education, Rotterdam, The Netherlands: World Association for Co-operative Education.
- Hager, P. (1996) Conceptualising the key competencies (a draft discussion paper) Sydney, University of Technology.
- Hager, P., & Holland, S (eds.) (2006) *Graduate Attributes, Learning and Employability*, (Lifelong Learning Book Series, Vol. 6). Dordrecht: Springer. ISBN: 978-1-4020-5341-2.

Hager, P., Athanasou, J. and Gonczi, A. (1994) *Assessment - Technical Manual*, AGPS, Canberra.

Hair, J. F.; Anderson, R. E., Tatham, R. L. and Black, W. C., (1995) *Multivariate Data Analysis: with Readings*, 4<sup>th</sup> ed., (Englewood Cliffs NJ: Prentice-Hall International).

Hall, E.T. (1969) *The hidden dimension*, New York: Anchor/Doubleday.

Hall, E.T. (1973) *The silent language*, New York: Anchor/Doubleday.

Hall, E.T. (1976) *Beyond culture*, New York: Anchor/Doubleday.

Hall, E.T. (1983) *The dance of life: The other dimension of time*, New York: Anchor/Doubleday.

Harrison, C. (1986) Education and employment: overview, ERIC Digest No. 50, Columbus, OH: ERIC Clearinghouse on Adult Career and Vocational Education, (ERIC Document Reproduction Service No. ED268303).

Harvey, L., Burrows, A., Green, D. (1992) *Criteria of quality in higher education*, The University of Central England, Birmingham, Report of the QHE Project.

Hauenstein, P. (2000) Advantage Hiring Newsletter: Competency Modeling Approaches and Strategies.

Heike, H., Meng, C., & Ris, C. (2003) Fitting to the Job: the role of generic and vocational competencies in adjustment and performance, *Labour Economics*, 10(2), 215-229.

Hershey, A., Hudis, P., Silverberg, M., & Haimson, J. (1997) *Partners in Progress: Early Steps In Creating School-to-Work Systems*, Executive Summary, Washington, D.C: U.S., Department of Education.



Hill, C. E., Loch, K. D., Straub, D. W., and El-Sheshai, K (1998) A qualitative assessment of Arab culture and information technology transfer. *Journal of Global Information Management* **6** (3), 29-38.

Hind, D (2006) Integrating Employability and Management Skills into the Tourism Curriculum at Leeds Metropolitan University, (Leeds Metropolitan University), The HE Academy, Leisure, Sport and Tourism Network.

Hinton, P. R. (2004) *Statistics Explained*, 2nd edition, London: Psychology Press.

Hittleman, D. R., & Simon, A. J. (2006) *Interpreting educational research: an introduction to consumers of research*, 3rd edn, Merrill, Upper Saddle River, NJ.

Hodges, D., & Burchell, N. (2003) Business graduate competencies: employers' views on importance and performance, *Asia-Pacific Journal of Co-operative Education*, 4(2), 16-22.

Hoffmann, T. (1999) The meanings of competency. *Journal of European Industrial Training* 23(6-7): 11.

Hofstede, G. (1984) *Culture's consequences*. (2nd ed.) Thousand Oaks, CA: Sage Publications.

Hofstede, G. (1991) *Cultures and organisations*. London: McGraw-Hill.

Hofstede, G. (1993) Cultural constraints in management theories. *Academy of Management Executive*, 7(1), 81-94.

Holt, D.M., Mackay, D. and Smith, R. (2004) Developing professional expertise in the knowledge economy: integrating industry-based learning with the academic curriculum in the field of information technology, *Asia-Pacific Journal of Co-operative Education*, 5(2), 1-11.

Holton, Ed. (1992/93) The Critical First Year on the Job, *CPC Annual*, Vol. 1, p. 72-75.

Hurd, J., & Hendy, M. (1997) What we know about employer's perceptions of Co-operative education: a synthesis of research in the United States and Canada, *Journal of Co-operative Education*, 32(2).

Infosurv (2006) White Paper 5-point vs. 6-point Likert Scales, [http://www.infosurv.com/images/Likert\\_Scale\\_Debate.pdf](http://www.infosurv.com/images/Likert_Scale_Debate.pdf), 6, January, 2007.

Institute of Public Administration Website (2007), <http://www.ipa.edu.sa/en/index.asp>, 16 October, 2007.

IPA's Annual Summary Report (2003/2004), Riyadh: IPA Press.

James, E. D. (1999) *Basic Statistics and Pharmaceutical Statistical Applications*, New York NY: Marcel Dekker, Inc.

Johnson, B., & Christensen, L. (2004) *Educational research: Quantitative, qualitative, and mixed approaches (2nd edition)*. Boston, MA: Pearson Education Inc.

Johnstone, A. H. & Reid, N. (1981) Towards a model for attitude change, *European Journal of Science Education*, 3(2), 205–212.

Joseph, M., & Joseph, B. (1997) Employer's perception of service quality in higher education, *Journal of Marketing for Higher Education*, 8(2), 1-13.

K 12 Academics (2008), [http://www.k12academics.com/cooperative\\_education\\_history.htm](http://www.k12academics.com/cooperative_education_history.htm), 23, April, 2008.

Kaiser, H. F. (1974) An index of factorial simplicity, *Psychometrics*, 39, 31-36.

- Kamper, C. (2004), Sample Lesson, Connections: Dating and Emotions, Dibble Fund for Marriage Education, Berkeley,  
<http://www.dibblefund.org/Documents/CDE-SL25.pdf>, 5 December 2006.
- Kanungo, R. N., & Misra, S. (1992) Managerial resourcefulness: A reconceptualization of management skills, *Human Relations*, 45, 1311-1332.
- Katz, D. & Sarnoff, I. (1954) Attitude change and structure, *Journal of Abnormal and Social Psychology*, 49, 115–154.
- Kearns, P. (2001) Review of Research: Generic Skills for the New Economy, Adelaide: NCVET Ltd.
- Kemper, C. L. (1999) EQ vs IQ, *Communication World*, 16(9), 15-19.
- Kerr, A. W. & Hall, H. K., & Kozub, A. A. (2002) *Doing Statistics With SPSS*, SAGE, London.
- Kline, P. (1994) *An easy guide to factor analysis*. London: Routledge.
- Knapper, C. & Cropley, A. (2000) *Lifelong Learning in Higher Education*, 3<sup>rd</sup> Edn. London: Kogan Page.
- Knight, P & Yorke, M. (2003) *Assessment, learning and employability*, Society for Research into Higher Education & Open University Press.
- Kramar, R., & O'Neill G. L. (1999) *Australian Human Resources Management: current trends in management practice*, Vol. 2, Allen & Unwin.
- Kravitz, D.A. & Martin, B. (1986) Ringelmann rediscovered: the original article, *Journal of Personality and Social Psychology*, 936-941.
- Krech, D. & Crutchfield, R. S. (1948) *Theory and problems of social psychology* (New York, McGraw-Hill).

- Lave, J., & Wenger, E. (1990) *Situated Learning: Legitimate Peripheral Participation*, Cambridge, UK: Cambridge University Press.
- Le Boterf G. (1997) *De la compétence à la navigation professionnelle*. Les Editions d'Organisation, Paris.
- Levy-Leboyer C. (1996) *La gestion des compétences*, Les Editions d'Organisation, Paris.
- Lin, Pei-Kuan (2005) Professors' and practitioners' perceptions of contemporary business graduate competencies (Doctoral dissertation, The University of the Incarnate). (UMI No. 3165947).
- Lindentours.com,  
[http://www.lindentours.com/univ\\_officials/tours/commentary/saudi\\_comment.shtml](http://www.lindentours.com/univ_officials/tours/commentary/saudi_comment.shtml), 05, September, 2006.
- Llewellyn, D. (2005) *Teaching High School Science Through Inquiry*. Corwin Press: Thousand Oaks, CA.
- Looney, R. (2004) Development Strategies for Saudi Arabia: Escaping the Rentier State Syndrome, *Strategic Insight*, 3(3).
- Luft, J. and Ingham, H. (1955) "The Johari window, a graphic model of interpersonal awareness", *Proceedings of the western training laboratory in group development*. Los Angeles: UCLA.
- Maes, J.D., Weldy, T.G., & Icenogle, M.L. (1997) The managerial perspective: Oral communication is the most important for business students in the workplace. *Journal of Business Communication*, 34(1), 67-80.
- Marra, R. M., Palmer, E. & Litzinger (2000) The Effects of a First-Year Engineering Design Course on Student Intellectual Development as Measured by the Perry Scheme, *Journal of Engineering Education*.

- Marton F., Hounsell, D., & Entwistle, N. (eds.) (1997) *The Experience of Learning* (2nd edition) Edinburgh: Scottish Academic Press.
- Marton, F. & Säljö (1976) On Qualitative Differences in Learning — 2: Outcome as a function of the learner's conception of the task, *Brit. J. Educ. Psych.* 46, 115-27.
- Matthews, W. J. (2003) Constructivism in the classroom: Epistemology, history, and empirical evidence, *Teacher Education Quarterly*, 30(3), 51-64.
- Maykut, P., & Morehouse, R. (1994) *Beginning Qualitative Research: A Philosophic and Practical Guide*, London and Washington, DC: Falmer Press.
- McClelland, D. C. (1971) *Assessing human motivation*. New York: General Learning Press.
- McDonald, M. (1992) The Canadian Research Strategy for Applied Ethics: A New Opportunity for Research in Business and Professional Ethics, *Journal of Business Ethics*, 11, 569–583.
- McFadden, K. L., Jansen, B., & Towell, E. R. (1999) Building OM curriculum for the new millennium: Industry perceptions, *Mid-American Journal of Business* 14(2):37-45.
- McGuire, W. J. (1985) Attitudes and attitude change, *Advances in Experimental Social Psychology*, 16, 1–47.
- McMillan, J., & Schumacher, S. (2001) *Research in education*, New York: Addison Wesley Longman.
- McMurchie, L. L. (1998). Careers can rise or fall with EQ. *Computing Canada*, 1(9), 18-21.
- Meade, P., & Andrews, R. (1995) Measuring employer satisfaction in higher education. *The Quality Magazine*, April, 52-53.

- Menochelli, J. (2006) Collateral Learning and the Soft Skills, SBS E-talks.
- Merriam, S. and Caffarella (1991, 1998) Learning in Adulthood. A comprehensive guide, San Francisco: Jossey-Bass.
- Meyer, J.H.F., Land, R. (2003) "Threshold concepts and troublesome knowledge: Linkages to ways of thinking and practising within the disciplines"  
In: Rust, C. eds. , Improving Student Learning: Improving Student Learning Theory and Practice–Ten Years On, Oxford Centre for Staff and Learning Development, Oxford.
- Ministry of Education (2007), Available:  
[http://212.71.35.4/openshare/englishcon/About-Saud/Education.htm\\_cvt.html](http://212.71.35.4/openshare/englishcon/About-Saud/Education.htm_cvt.html), 5 March, 2007.
- Mullen, J. (1997) Graduates deficient in soft skills. *People Management*, 3(22), 18-19.
- National Centre for Vocational Education Research (2003) Defining generic skills: At a glance, NCVET, Adelaide.
- Nicholls, G. (2002) *Developing Teaching and Learning in Higher Education* London: Routledge Falmer.
- Nielson, R. P. & Porter, R. C. (1983) Employer benefits and cost-effectiveness of Co-operative education programmes: A review, *Journal of Co-operative Education*, XX(1), 11-24.
- Nieragden, G. (2000) The Soft Skills of Business English, *ELT newsletter*, 22.
- Norusis, M., (1993) *SPSS for Windows: Professional Statistics*, SPSS Inc., Chicago, IL.

OECD (2005) International Colloquium on Business Education Partnerships: Learning for the World of Work. Department of Education and Science, Ireland.

Oliveara-Rees, F (1994), Qualification versus competence: a discussion on the meaning of words: a change in concepts of a political issue, *Beroepsopleiding*, Vol. 1, 74-9.

Online Recruitment (2006) UK employers seek school-leavers with soft skills, finds quarterly CIPD/KPMG Labour Market Outlook, 05 September 2006.

Orstenk, J (1997), *Learning to Learn at Work*, Eburon, Delft.

Osgood, C. E., Suci, C. J. & Tannenbaum, P. H. (1957) *The measurement of meaning* (Urbana, IL, University of Illinois Press).

Page, C., Wilson, M., & Kolb, D. (1993) *Managerial competencies and New Zealand managers: On the inside, looking in*. Auckland, New Zealand: University of Auckland.

Palmer B., Marra R. M., Wise J. C., & Litzinger T. A. (2000) A longitudinal study of intellectual development of engineering students: What really matters in our curriculum? Paper presented at the Frontiers in Education (FIE) Conference, Kansas City, MO.

Panitz, T. (1997) Collaborative versus cooperative learning—A comparison of the two concepts which will help us understand the underlying nature of interactive learning, *Cooperative Learning and College Teaching*, 8(2).

Parry, S. B. (1998). Just what is a competency? *Training*, 35(6), 58-64.

Patricia, P. S. (2004) Business English and Change in the Workplace, *ETAS Journal* 21(3).

- Perry, W. G. (1970) *Forms of Intellectual and Ethical Development in the College Years*, New York: Holt, Rinehart & Winston.
- Peter D., Gerald, A. K., Susan W., & Shuqiang Z., (2004) *Scaling Method*, Lawrence Erlbaum Associates, Mahwah, NJ.
- Petrova, P., and Ujma, D. (2005) Students' Awareness of the Importance of Transferable Skills for Employability, (University of Luton), The HE Academy, Leisure, Sport and Tourism Network.
- Phillips, J.J. (1978) An employer evaluation of a Co-operative education programme. *Journal of Co-operative Education*, XIV, 104-120.
- Piaget, J. (1952) *The origins of intelligence in children*, New York: International Universities Press.
- Piaget, J. (1973) *The psychology of intelligence*. Totawa, NJ: Littlefield, Adams and Co.
- Porter, L.W. and McKibbin, L.E. (1988) *Management education and development: Drift or thrust into the 21st century*. New York: McGraw-Hill Book Company.
- Priest, S. H. (Ed.) (2005) *Communication impact: Designing research that matters*. Lanham, Rowman & Littlefield.
- Prosser, M. and Trigwell, K. (1998) Teaching in higher education. In B. Dartt and G. Boulton-Lewis (Eds) *Teaching and Learning in Higher Education*, (250-267) Melbourne: Australian Council for Educational Research.
- Raheja, V., & Raheja, A. (1999) Co-operative education: A new look at the development of intellectual capital. CEA-WACE International Conference on Co-operative Education, [online] Available at:  
<http://www.waceinc.org/papers/Canada/Raheja.pdf>, 23 December 2006.



Rainsbury, E. Weil, S. and Oyelere, P. (2002) The Efficacy of Professional Education programme in Developing Competencies: A Critical Assessment of the PAS Programme of the Institute of Chartered Accountants of New Zealand, *Pacific Accounting Review*, 14(2), 97-133.

Rainsbury, E., Hodges, D., Burchell N. and Lay, M. (2002) Ranking workplace competencies: Student and graduate perceptions, *Asia-Pacific Journal of Co-operative Education* 3(2), 8-18.

Raymond, M. A., McNabb, D. E., & Matthaei, C. F. (1993) Preparing graduates for the workforce: The role of business education, *Journal of Education for Business*, March/April, 202-206.

Reid, N. (2006) Thoughts on Attitude Measurement, *Research in Science and Technological Education*, 24(1), 3-27.

Rhine, R. J. (1958) A concept formation approach to attitude acquisition, *Psychological Review*, 65, 362-370.

Rice, G. (2003) The challenge of creativity and culture: A framework for analysis with application to arabian gulf firms, *International Business Review*, 12(4), 461-477.

Ricks, F. and Van Gyn, G. (1997) Mentoring relationships as learning opportunities, *Journal of Co-operative Education* 32(3), 41-55.

Rudman, R. (1995, July) Competencies and capabilities for effective human resource management. Paper presented at the 22nd annual conference of the Asian Regional Training and Development Organisation. Melbourne, Australia.

Rutherford, P. (1995) *Competency Based Assessment*, Pitman, Melbourne.

Sadri, G. (2002) Identifying core business school competencies, Exchanges, [online] Available at:

[http://www.exchangesjournal.org/research/1044\\_Business\\_2.html](http://www.exchangesjournal.org/research/1044_Business_2.html), 5 March, 2007.

Saudi Ministry of Education, Measurement and Assessment Department (2000), National report: Kingdom of Saudi Arabia, The EFA 2000 Assessment.

Schwarz, N., & Bohner, G. (2001) The construction of attitudes. In A. Tesser & N. Schwarz (Eds.) (2001), (Blackwell handbook of social psychology): Intrapersonal Processes, Oxford, UK: Blackwell, pp. 436- 457.

Sheerer, M. (1997) Using Individualization and Scaffolding to Improve Inservice Programs, *Early Childhood Education Journal*, 24(3), 201-203.

Shepperd, J. A. (1993) Productivity loss in performance groups: A motivation analysis. *Psychological Bulletin*, 67-81.

Simon, S. (1999) *From NEO-behaviourism to social constructivism: The paradigmatic evolution of Albert Bandura*. Emory University - Faculty of Emory College.

Siriwaiprapan, S. (2000) The concept, practice, and future of human resources development as perceived by Thai human resources practitioners (Doctoral dissertation, George Washington University), (UMI No. 9315947).

Smith, M. K. (1999) The social/situational orientation to learning, the encyclopedia of informal education, <http://www.infed.org/biblio/learning-social.htm>.

Spencer, L. M., & Spencer, S. M. (1993) *Competence at work*. New York: Wiley.

Stanton, M. (1988) Co-operative education: Working towards your future, *Occupational Outlook Quarterly*, (Fall): 22-29.

Stephenson, J. (1997) *Capability: Educating for life and work*. Wellington, New Zealand: Education and Training Support Agency.

Sternberg, R. and Kolligian Jr J. (1990) *Competence Considered*, Yale University Press, New Haven, CT.

Stewart, K., Felicetti, L. & Kuehn, S. (1996) The attitudes of business majors toward the teaching of business ethics, *Journal of Business Ethics*, 15(8) 913-918.

Stone, J. E. (1996) Developmentalism: An Obscure but Pervasive Restriction on Educational Improvement, *Education Policy Analysis Archives*, 4(8).

Strack, F., & Martin, L. (1987) Thinking, judging, and communicating: A process account of context effects in attitude surveys. In H.J. Hippler, N. Schwarz, & S. Sudman (Eds.), *Social information processing and survey methodology* (pp. 123 - 148). New York: Springer Verlag.

Strebler, M. (1997) Soft skills and hard questions. *People Management*, 3(11), 20-24.

Sweeney, M., & Twomey, P. (1997, Aug.) Preparing graduates for 2020: The role of Co-operative education, Paper presented at the 10th World Conference on Co-operative Education, Cape Town, South Africa.

Sydenstricker-Neto, J. (1997) Research design and mixed-method approach: A hands on experience, Available online at:  
<http://www.socialresearchmethods.net/tutorial/Sydenstricker/bolsa.html>.

Taylor, S. (2002) An Investigation Into the Possibility of a Growing Trend in Co-operative Education: Reverse Co-operative Education, *Asia-Pacific Journal of Co-operative Education*, 3(2), 45-52.

Teijlingen, E., Hundley, V. (2001) "The importance of pilot studies", University of Surrey.

Terrasso, D (2003) Studies show Co-op students get jobs faster, earn more than peers, *The Whistle*, 28(27).

The Manpower Council (1997) Co-operative Education: The principles the practice and the steps to implement it (3<sup>rd</sup> ed), Riyadh, Saudi Arabia.

The Saudi British Bank's Report (2001), SABB, Saudi Arabia.

Thomas, W., & Collier, V. (1995) Language minority student achievement and program effectiveness. *California Association for Bilingual Education Newsletter*, 17 (5), 19-24.

Tourangeau, R. (1984) Cognitive science and survey methods: A cognitive perspective. In T. Jabine, M. Straf, J. Tanur, & R. Tourangeau (Eds.), *Cognitive aspects of survey methodology: Building a bridge between disciplines* (pp. 73-100). Washington, DC: National Academy Press.

Tranter, P., & Warn, J. (2003) Education for flexibility in a changing world: a case study of competency development in university graduates, In C. Bond & P. Bright, (Eds), *Learning for an Unknown Future, Research and Development in Higher Education*, 26, 538-546. Sydney: Higher Education Research and Development Society of Australasia.

Trevino, L. K., & McCabe, D. (1994) Meta-learning About Business Ethics: Building Honorable Business School Communities, *Journal of Business Ethics*, 13, 405-416.

Trigwell, K., & Shale, S (2004). Student learning and the scholarship of university teaching, *Studies in Higher Education*, 29 (4), 523-536.

UNESCO and ILO Recommendations (2002) Technical and Vocational Education and Training for the Twenty-first Century, UNESCO.

UNIDO (2002) UNIDO Competencies, Part One, Strengthening Organisational Core Values and Managerial Capabilities, UNIDO.

University of Cincinnati, Engineering Library, [online] Available at:  
<http://www.eng.uc.edu/currentstudents/Co-op/>, 15 October, 2004.

Vaatstra, R., & De Vries, R. (2007) The effect of the learning environment on competencies and training for the workplace according to graduates, *Higher Education*, 53:335-357.

Van Wieringen, F., & Attwell, G. (Eds) (1999) *Vocational and Adult Education in Europe*, Netherlands: Kluwer Academic Publishers.

Vollstedt, M. (2002) English as a language for internal company communications, (in K. Knapp and C. Meierkord (eds.), *Lingua Franca Communication*, Frankfurt am Main: Peter Lang, 87-107).

Von Glasersfeld, E., & Steffe, L. P. (1991) Conceptual models in educational research and practice. *The Journal of Educational Thought*, 25 (2), 91-103.

Vygotsky, L. (1978) *Mind in Society*, London: Harvard University Press.

Wagner, A. (2006) *Measuring up internationally: Developing skills and knowledge for the global knowledge economy*, San Jose: National Center for Public Policy and Higher Education.

Walo, M. A. (2000) *The Contribution of Internship in Developing Industry-Relevant Management Competencies in Tourism and Hospitality Graduates* (Master dissertation, Business in the School of Tourism and Hospitality Management), Southern Cross University.

Weisz, M. (1999) *The Added Value of Undertaking A Co-operative Education Year, The Measurement of Student Attributes*, Royal Melbourne Institute of Technology, University Melbourne, Australia.

Wilson, J. W. (1985) *Cost-Effectiveness of Employer Participation in Co-operative Education*, Paper presented at Fourth World Conference on Co-operative Education, Edinburgh, Scotland.

Wiseman, R. L. & Page, N. R. (1983) Predicting employer's benefits from Co-operative education, *Journal of Co-operative Education*, XX(1), 45-59.

Wong Fillmore, L. (1985) When does teacher talk work as input? In S. Gass & C. Madden (Eds.), *Input in second language acquisition* (pp. 17-50). New York, NY: Newbury House.

Wright, R (1995) Who's Really To Blame?, *Time*, 06 Nov. 1995, 32-37.

Yore, L. D., Shymansky, J. A., Henriques, L., Hand, B. M., Dunkhase, J. A., & Lewis, J. O. (1998) *Students' Perceptions of Science Teaching and Attitudes toward Science Learning and Teachers' Self-Report of Using Children's Ideas, Applications of Science, and Use of Print Resources as Indicators of Interactive-Constructivist Teaching in Elementary Schools. ED442653.*

Yorke, M. (2004) *Employability in higher education: what it is – what it is not.* Learning and Teaching Support Network, York.

Zegwaard, K. E., & Hodges, D. (2003) Science and technology stakeholders, ranking of graduate competencies, Part4: Faculty perspectives, *Asia-Pacific Journal of Co-operative Education*, 4(2), 36-48.

Zegwaard, K.E., Coll, R.K., & Hodges, D. (2003, Aug) Science and technology graduate competencies: Recent graduate and faculty rankings, Proceedings of the 13th World Conference on Co-operative Education. Rotterdam, The Netherlands: World Association for Co-operative Education.

Zimmer, J. (1998) *Transforming Community Schools into Open Learning Communities*, Berlin: International Academy (INA).

Zinser, R. (2003) Developing career and employability skills: a US case study, *Education and Training*, 45 (7), 402-410.

Zuboff, S. (1988) *In the age of the smart machine: The future of work and power*, New York: Basic Books.

## APPENDIX 1

## Ethical Approval

Kingdom Of Saudi Arabia

Institute Of Public Administration



No \_\_\_\_\_

Date 01 / 02 / 2005

**To Whom It May Concern:**

Mr. Mohammed Bajunaid is a Faculty member at the Institute of Public Administration, Dammam branch. Mr. Bajunaid is currently pursuing a PhD Degree at the University of Glasgow, Education Faculty. He is applying a questionnaire survey and interviews as a part of his research project exploring the effectiveness of cooperative education programs in developing the graduates' awareness of the importance of the workplace competencies required by the employers nowadays. Finding from this survey and related studies will inform debate and particularly in the areas of generic skills, cooperative education, and human resources.

The participants in this survey are consisted of three groups:

- IPA's Post-secondary students in Dammam branch .
- Employers (workplace enterprises in the eastern province of Saudi Arabia, which participated in the IPA's co-op programs).
- IPA's teachers in Dammam branch.

The Institute of Public Administration after reviewing the research's instrument and the process of collecting data has agreed to give the ethical approval for Mr. Bajunaid to conduct his research at the institute.

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## APPENDIX 2

**Competency Descriptions**  
**Generic competencies Adapted from the study of Spencer and Spencer, 1993 who claim**  
**that account for 80-95% of the distinguishing features of superior performers**  
**(Rainsbury, Hodges, Burchell, & Lay, 2002)**

Competency	Description	
Achievement orientation	Task accomplishment, seeks results, innovation, competitiveness, impact, standards, efficiency	Soft
Concern for order, quality and accuracy	Monitoring, concern for clarity, reduce uncertainty, keeping track	Soft
Initiative	Bias for action, decisiveness, strategic orientation, proactive, seizes opportunities, self motivation, persistence	Soft
Information seeking	Problem definition, diagnostic focus, looking deeper, contextual sensitivity	Soft
Interpersonal understanding	Empathy, listening, sensitivity to others, diagnostic understanding, awareness of others feelings	Soft
Customer service orientation	Helping and service orientation, focus on client needs, actively solves client problems	Soft
Impact and Influence on others	Strategic influence, impression management, showmanship, persuasion, collaborative influence	Soft
Organisational awareness	Understands organisation, knows constraints, power and political astuteness, cultural knowledge	Soft
Relationship building	Networking, establish rapport, concern for stakeholders e.g. clients, use of resources, contacts use	Soft
Developing others	Training, developing others, coaching, mentoring, providing support, positive regard	Soft
Directiveness	Assertiveness, decisiveness, use of power, taking charge, firmness of standards, group control and discipline	Soft
Teamwork and cooperation	Fosters group facilitation and management, conflict resolution, motivating others, good climate	Soft
Team leadership	Being in charge, vision, concern for subordinates, build sense of group purpose, group motivation	Soft
Analytical thinking	Thinking for yourself, reasoning, practical intelligence, planning skills, problem analysing, systematic	Hard
Conceptual thinking	Pattern recognition, insight, critical thinking, problem definition, can generate hypotheses, linking	Hard
Technical expertise	Job related technical knowledge and skills, depth and breadth, acquires expertise, donates expertise	Hard
Self-control	Stamina, resistance to stress, staying calm, high EQ, resists temptation, not impulsive, can calm others	Soft
Self-confidence	Strong self concept, internal locus of control, independence, ego strength, decisive, accepts responsibility	Soft
Flexibility	Adaptability, ability to change, perceptual objectivity, staying objective, resilience, behaviour is contingent	Soft
Organisational commitment	Align self and others to organisational needs, business mindedness, self sacrifice	Soft



## APPENDIX 3\*

**Generic Competencies Used in this Study Based on the model of Spencer & Spencer features of superior performers 1993 and other literature, (Lin, 2005; Hodges & Burchell, 2003; Coll, Zegwaard & Hodges, 2002a, 2002b; Burchell, Hodges & Rainsbury, 2001)**

Competency	Description	
Achievement orientation	Task accomplishment, seeks results, innovation, competitiveness, impact, standards, efficiency	Soft
Concern for order, quality and accuracy	Monitoring, concern for clarity, reduce uncertainty, keeping track	Soft
Initiative	Bias for action, decisiveness, strategic orientation, proactive, seizes opportunities, self motivation, persistence	Soft
Information seeking	Problem definition, diagnostic focus, looking deeper, contextual sensitivity	Soft
Interpersonal understanding	Empathy, listening, sensitivity to others, diagnostic understanding, awareness of others feelings	Soft
Ability and willingness to learn	Desire and aptitude for learning, learning as a basis for action.	Soft
Customer service orientation	Helping and service orientation, focus on client needs, actively solves client problems	Soft
Impact and Influence on others	Strategic influence, impression management, showmanship, persuasion, collaborative influence	Soft
Organisational awareness	Understands organisation, knows constraints, power and political astuteness, cultural knowledge	Soft
Relationship building	Networking, establish rapport, concern for stakeholders e.g. clients, use of resources, contacts use	Soft
Developing others	Training, developing others, coaching, mentoring, providing support, positive regard	Soft
Directiveness	Assertiveness, decisiveness, use of power, taking charge, firmness of standards, group control and discipline	Soft
Teamwork and cooperation	Fosters group facilitation and management, conflict resolution, motivating others, good climate	Soft
Team leadership	Being in charge, vision, concern for subordinates, build sense of group purpose, group motivation	Soft
Analytical thinking	Thinking for yourself, reasoning, practical intelligence, planning skills, problem analysing, systematic	Hard
Conceptual thinking	Pattern recognition, insight, critical thinking, problem definition, can generate hypotheses, linking	Hard
Technical expertise	Job related technical knowledge and skills, depth and breadth, acquires expertise, donates expertise	Hard
Self-control	Stamina, resistance to stress, staying calm, high EQ, resists temptation, not impulsive, can calm others	Soft
Self-confidence	Strong self concept, internal locus of control, independence, ego strength, decisive, accepts responsibility	Soft
Flexibility	Adaptability, ability to change, perceptual objectivity, staying objective, resilience, behaviour is contingent	Soft
Organisational commitment	Align self and others to organisational needs, business mindedness, self sacrifice	Soft
Problem solving	(actively solves identified problems, carries through to completion)	Soft
Personal planning and organisational skills	(ability to organize self and others, effective time management, organizes and completes tasks effectively and efficiently)	Hard
Energy & passion	(a positive 'can-do' attitude, high energy levels, enthusiasm, pro-active, strong drive)	Soft

Computer literacy	(able to operate a number of packages; has information management awareness)	Hard
Written communication	(relevant skills/appropriate use of: emails, internal memos, internal and external reports, letters to clients)	Hard
English language (overall)	proficiency in spoken and written English	Soft
English language (writing)	Writing messages/files notes legibly using correct grammar, punctuation and spelling	Soft
English language (speaking)	Speaking clear English, using tactful and appropriate language in the workplace	Soft
Attendance, and Timekeeping	Coming to work and leaving on time (punctuality), investing time to benefit the organisation	Soft
Confidentiality at work	Using organisation information appropriately; (keeping information could negatively affect the organisation)	Soft

\* This list was included with all the questionnaires sent to the participants.

## APPENIX 4\*

Generic Competencies Used in this Study Based on the model of Spencer & Spencer features of superior performers 1993 and other literature, (Lin, 2005; Hodges & Burchell, 2003; Coll, Zegwaard & Hodges, 2002a, 2002b; Burchell, Hodges & Rainsbury, 2001)

(Arabic Version)

قائمة تصنيف الكفايات الوظيفية العامة إلى ( Hard ) و ( Soft )

B النوع	B الوصف	B الكفاية
Soft	القيام بالمهام، والسعي نحو الوصول إلى النتائج، الابتكار، القدرة على المنافسة، التأثير في الآخرين، الالتزام بالمعايير، الكفاءة.	1. النزعة إلى الإنجاز
Soft	مراقبة الأداء، الاهتمام بالوضوح، البعد عن الإبهام والغموض. متابعة الأمور.	2. الالتزام بالنظام والجودة والدقة في العمل
Soft	المثابرة، عدم الاستسلام بسهولة، استثمار الفرص المتاحة.	3. روح المبادرة
Soft	القدرة على الحصول على المعلومات من مصادر متعددة.	4. القدرة على البحث عن المعلومات
Soft	التعاطف مع الآخرين والاستماع الجيد لهم، الإحساس بهم، إدراك حاجات الآخرين والقدرة على تشخيصها، تفهم مشاعر الآخرين.	5. تقدير العلاقات مع الآخرين
Soft	الرغبة والقدرة على التعلم، الاستفادة العملية مما تم تعلمه.	6. القدرة على الرغبة في التعلم
Soft	القدرة على بذل جهد إضافي لمقابلة وتلمس احتياجات العملاء، الاهتمام بإجابة استفسارات العملاء وتلبية طلباتهم وإيصال شكاوهم وحل مشاكلهم.	7. القدرة على تقديم الخدمات للعملاء
Soft	القدرة والرغبة في إقناع الآخرين بما يخدم أهداف العمل.	8. القدرة على التأثير في الآخرين
Soft	تفهم مسألة التنظيم ومعرفة حدود الصلاحيات في المنظمة أو في المنظمات الأخرى ذات العلاقة.	9. الوعي بالأمور التنظيمية في العمل
Soft	القدرة على بناء علاقات صداقة وصلات طيبة مع كافة الذين يتعاملون حالياً مع المنظمة، وكذلك المتوقع التعامل معهم.	10. القدرة على بناء علاقات جيدة
Soft	الرغبة الحقيقية لدعم تعليم وتطوير الآخرين، واختيار المستوى التدريبي المناسب لقدراتهم بما يخدم حاجة العمل.	11. القدرة على تطوير الآخرين
Soft	الحزم، الحسم، استخدام السلطة، تحمل المسؤولية، التزام المعايير، السيطرة على أفراد المجموعة وضبط سلوكهم.	12. الدور القيادي والتوجيهي
Soft	الإسهام في تسهيل عمل المجموعة وإدارتها، القدرة على فض النزاعات، تحفيز الآخرين، إيجاد مناخ صالح للعمل.	13. القدرة على الأداء ضمن فريق عمل وعلى التعاون معهم
Soft	النزعة في قيادة فريق أو مجموعة. تحمل المسؤولية، القدرة على التبصير، الإهتمام بالمرؤسين، فهم هدف المجموعة بشكل واضح، التحفيز للعمل الجماعي.	14. القدرة على قيادة فريق عمل
Hard	فهم الموقف بتحديد التفاصيل المكونة له، المنطقية في التفكير، الذكاء التطبيقي أو العملي، مهارات التخطيط، تحليل المشكلات، المنهجية في العمل.	15. التفكير التحليلي
Hard	القدرة على تصور الأمور، الفطنة، التفكير النقدي، تحديد المشاكل، القدرة على استحداث الفرضيات، القدرة على الربط بين الأمور.	16. القدرة على تصور الأمور
Hard	المعرفة والمهارة ذات الصلة بالتخصص ( مجال العمل )، السعي لاكتساب الخبرة، منح الخبرة للآخرين.	17. الخبرة العملية
Soft	القدرة على التحمل (الجد)، مقاومة الضغوط، التروي والهدوء، درجة عالية من الذكاء العاطفي (قدرة الشخص على فهم عواطفه وعواطف الآخرين والتصرف وفقاً لهذا الفهم)، مقاومة الاغراءات والتضليل، له القدرة على تهدئة الآخرين.	18. ضبط النفس
Soft	الفهم القوي للقدرات الذاتية، السيطرة على الانفعالات، الاعتماد على الذات، الحسم، تقبل حمل المسؤولية.	19. الثقة في النفس
Soft	القدرة على التكيف مع المستجدات، القدرة على التغيير، النظرة الموضوعية للأمور، المحافظة على الموضوعية، المرونة إزاء المواقف المختلفة، التصرف بما يمليه الموقف.	20. المرونة
Soft	تنظيم الذات وتنظيم الآخرين لخدمة المنظمة، العقلية العملية، التفاني وبذل كافة الطاقات في العمل.	21. الولاء للمنظمة
Soft	الفاعلية في حل المشكلات المحددة، مواصلة العمل حتى إنجازها.	22. القدرة على حل المشكلات
Hard	القدرة على تنظيم الذات وتنظيم الآخرين، إدارة الوقت بفاعلية، إنجاز المهام بكفاءة وفاعلية.	23. القدرة على التخطيط لنفسه والمهارات التنظيمية
Soft	التوجه الإيجابي لإمكانية أداء العمل، الحيوية التامة والنشاط، الحماسة، الاستعداد الدائم للعمل.	24. الحيوية والحماسة
Hard	القدرة على تشغيل عدد من برامج الحاسب الآلي، على دراية ببرامج إدارة المعلومات.	25. الألامام بشؤون الحاسب الآلي
Hard	لديه المهارات المتعلقة بإعداد الاتصالات الكتابية وإرسالها مثل الاستخدام الصحيح للبريد الإلكتروني، وكتابة المذكرات الداخلية، التقارير الداخلية والخارجية، ورسائل العملاء.	26. الاتصالات الكتابية

Soft	إجادة اللغة الإنجليزية تحدثاً وكتابة	27. اللغة الإنجليزية (بشكل عام)
Soft	كتابة الرسائل، المذكرات والملفات، مراعاة قواعد اللغة الإنجليزية عند الكتابة، إجادة استخدام علامات الترقيم، وتجنب الوقوع في الأخطاء الإملائية.	28. اللغة الإنجليزية (الكتابة)
Soft	تحدث اللغة الإنجليزية بوضوح، استخدام العبارات اللائقة والمناسبة في بيئة العمل.	29. اللغة الإنجليزية (تحدثاً)
Soft	الاهتمام بالحضور والانصراف في الوقت المحدد ، واستغلال وقت العمل بما يفيد المنظمة.	30. معرفة وتقدير قيمة وقت العمل
Soft	عدم التحدث عن الأمور التي تخص العمل ويؤدي نشرها الى الحاق ضرر بالمنظمة أو يؤثر سلباً على مصالحها.	31. المحافظة على أسرار العمل

\* This list was included with all the questionnaires sent to the participants.

**APPENDIX 5**Co-op Employer's Survey

Dear Employer

My name is Mohammed M. Bajunaid, a Faculty member at the Institute of Public Administration, Dammam branch. I am currently pursuing a PhD Degree at the University of Glasgow. This survey is part of my research project exploring the effectiveness of Co-operative education programmes in developing the graduates' awareness of the importance of the workplace competencies required by the employers nowadays. Finding from this survey and related studies will inform debate and particularly in the areas of generic skills, Co-operative education, and human resources.

Your participation in this survey is fully considerable and all responses will be kept confidential. You are not required to attach your name and your company's name.

I thank you in advance and I hope that you can start now working through these questions

Please complete this questionnaire and return it to me to the flowing address:

Mohammed M. Bajunaid  
Institute of Public Administration  
P.O. Box 1455  
Dammam 31141  
Phone (03) 8268300  
Fax (03) 8268881  
E-Mail: [bajunaidm@hotmail.com](mailto:bajunaidm@hotmail.com)

Sincerely,

Mohammed M. Bajunaid

**PART A. DEMOGRAPHIC INFORMATION**

Data collected from this part will be used to describe in general the characteristics of the organisations, which have completed this survey questionnaire.

**Q1. What is the main activity for your organisation?** (please circle a number)

1. Agriculture
2. Banks, Finance Institutions
3. Construction
4. Manufacturing
5. Transportation
6. Insurance and Bail
7. Business Services
8. Wholesale and retail trade
9. Other, please write

**Q2. How many employees in the organisation at your specific work site?** (please circle a number)

1. 1-10 Employee
2. 11-50 Employee
3. 51-500 Employee
4. More than 500 Employee

**Q3. How many years has your organisation participated in the IPA's Co-op programmes?** (please circle a number)

1. Less than 5
2. 5-10
3. 11-15

**Q4. Has ever your organisation participated in other organisations Co-op programmes?**

Yes                       No

## PART B. THE IMPORTANCE DEGREES OF GENERIC COMPETENCIES

Please read the description of each competency in the list below to get recognized of the dimensions of it. And then indicate your perception of the importance degree of the workplace generic competencies required for IPA's Post-secondary graduates nowadays. (please circle a number from 1 to 6 for each competency, as 1= Most Unimportant, 2= Very Unimportant, 3= Unimportant, 4= Important, 5= Very Important, and 6= Most Important)

COMPETENCY	DESCRIPTION	IMPORTANCE					
		Most Unimportant 1 → Most Important 6					
1. Achievement orientation	Task accomplishment, seek results, innovation, competitiveness, impact, standards, efficiency	1	2	3	4	5	6
2. Concern for order, quality and accuracy	Monitoring, concern for clarity, reduce uncertainty, keeping track	1	2	3	4	5	6
3. Initiative	Persistence, not giving up easily, Seizing opportunities	1	2	3	4	5	6
4. Information seeking	Getting information from many sources	1	2	3	4	5	6
5. Interpersonal understanding	Empathy, listening, sensitivity to others, diagnostic understanding, awareness of others feelings	1	2	3	4	5	6
6. Ability and willingness to learn	Desire and aptitude for learning, learning as a basis for action.	1	2	3	4	5	6
7. Customer service orientation	Making extra efforts to meet customer needs, discovering and meeting customer's underlying needs, following on questions, requests, complaints	1	2	3	4	5	6
8. Impact and Influence on others	The intention to persuade others in order to have a specific impact or effect on them	1	2	3	4	5	6
9. Organisational awareness	Understanding the power relationships in the organisation or in other organisations (customers, suppliers, etc.)	1	2	3	4	5	6
10. Relationship building	Working to build or maintain friendly, warm relationships or networks of contacts with people who are, or might someday be, useful in achieving work-related goals	1	2	3	4	5	6
11. Developing others	A genuine intent to foster the learning or development of the others and an appropriate level of need analysis are implied in each positive level of Developing Others.	1	2	3	4	5	6
12. Directiveness	Assertiveness, decisiveness, use of power, taking charge, firmness of standards, group control and discipline	1	2	3	4	5	6

13. Teamwork and cooperation	Fostering group facilitation and management, conflict resolution, motivating others, creating a good workplace climate	1	2	3	4	5	6
14. Team leadership	The intention to take a role as leader of a team or other group, being in charge, vision, concern for subordinates, build sense of group purpose, group motivation	1	2	3	4	5	6
15. Analytical thinking	Understanding a situation by breaking it apart into smaller pieces, reasoning, practical intelligence, planning skills, problem analysing, systematic	1	2	3	4	5	6
16. Conceptual thinking	Understanding a situation or problem by putting the pieces together, Pattern recognition, insight, critical thinking, problem definition, can generate hypotheses, linking	1	2	3	4	5	6
17. Technical expertise	Job related technical knowledge and skills, depth and breadth, acquires expertise, donates expertise	1	2	3	4	5	6
18. Self-control	Stamina, resistance to stress, staying calm, high Emotional Quotient, resisting temptation, not impulsive, ability to calm others	1	2	3	4	5	6
19. Self-confidence	Strong self concept, internal locus of control, independence, ego strength, decisiveness, accepting responsibility	1	2	3	4	5	6
20. Flexibility	Adaptability, ability to change, perceptual objectivity, staying objective, resilience, behaviour is contingent	1	2	3	4	5	6
21. Organisational commitment	Align self and others to organisational needs, business mindedness, self sacrifice	1	2	3	4	5	6
22. Problem solving	Actively solving identified problems, carrying on through to completion	1	2	3	4	5	6
23. Personal planning and organisational skills	ability to organize self and others, effective time management, organizing and completing tasks effectively and efficiently	1	2	3	4	5	6
24. Energy & passion	a positive 'can-do' attitude, high energy levels, enthusiasm, pro-active, strong drive	1	2	3	4	5	6
25. Computer literacy	Ability to operate a number of packages, having information management awareness	1	2	3	4	5	6
26. Written communication	Relevant skills/appropriate use of: emails, internal memos, internal and external reports, letters to clients	1	2	3	4	5	6
27. English language (overall)	proficiency in spoken and written English	1	2	3	4	5	6
28. English language (writing)	Writing messages/files notes legibly using correct grammar, punctuation and spelling	1	2	3	4	5	6
29. English language (speaking)	Speaking clear English, using tactful and appropriate language in the workplace	1	2	3	4	5	6



30. Attendance and timekeeping	Coming to work and leaving on time (punctuality), investing time to benefit the organisation	1	2	3	4	5	6
31. Confidentiality at work	Using organisation information appropriately; (keeping information could negatively affect the organisation)	1	2	3	4	5	6
Others (Please add if required)							
		1	2	3	4	5	6
		1	2	3	4	5	6
		1	2	3	4	5	6
		1	2	3	4	5	6

### PART C. THE COMPARISON OF HARD AND SOFT COMPETENCIES

**The literatures classify competencies into two categories (soft & hard). Please identify which one of the two kinds of competencies is more important. And then justify your choice. (Please indicate in the box and explain in the space)**

- Soft Competencies:** This kind of competencies is considered to be "people" skills, "communication" skills and something called "attitude". They are figured difficult to be assessed and taught. **Examples:** Team leadership, Flexibility, Self-confidence and Impact and Influence on others.
- Hard Competencies:** This kind of competencies is considered to be technical, education-related, literacy-related, or learned on the job. **Examples:** Computer literacy, and Written communication.

**(Please refer to the competencies lest in the next page to see more examples of each category).**

Why? -----  
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#### **PART D. COMPETENCIES REQUIRED TO BE DEVELOPED**

**In Part B, each competency in the list has a number (e.g. 1. Achievement orientation; 24. Computer literacy). Please insert up to 5 numbers from the list in the five spaces below to identify the most 5 competencies required to be developed in IPA's post-secondary graduates. Give reasons of that if possible?**

Competency Number	Why

## APPENDIX 6

### Teacher's Survey

Dear Faculty member,

This survey is part of a research project in higher education, exploring the effectiveness of Co-operative education programmes in developing the graduates' awareness of the importance of the workplace competencies required by the employers nowadays. Finding from this survey and related studies will inform debate and particularly in the areas of generic skills, Co-operative education, and human resources.

Your participation in this survey is fully considerable and all responses will be kept confidential. You are not required to attach your name.

Please complete this questionnaire and return it to **the Researches and Consultations Department**.

Sincerely,  
Mohammed M. Bajunaid  
IPA Faculty Member

#### **PART A. DEMOGRAPHIC INFORMATION**

Data collected from this part will be used to describe in general the characteristics of Teachers who have completed this survey questionnaire.

**Q1. What is your age?** (please circle a number)

5. Under 25
6. 25-34
7. 35-44
8. 45-60

**Q2. What is your nationality?** (please circle a number)

1. Saudi
2. Arabic (determine the country -----)
3. European (determine the country -----)
4. American
- Other (determine the country -----)

**Q3. What is your qualification degree?** (please circle a number)

10. PhD
11. Masters
12. High Diploma
13. Bachelor
14. Other (please write-----)

**Q4. What is your sector (department)?** (please circle a number)

1. Public Administration
2. Accounting
3. Computers
4. Statistics
5. Office Management
6. Hospital Administration
7. Materials Management
8. English Language
9. Library and Information
10. Private Sector Programmes

**Q5. How many years have you taught (at the IPA)?**

1. 1-5
2. 6-10
3. 11-15
4. 16-20

**Q5. How many years have you taught (overall)?**

1. 1-5
2. 6-10
3. 11-15
4. 16-20

**Q6. From the programmes listed below, please identify the programme that you spend the majority of your teaching time on since you have started working for the IPA?**

1. Hospital Administration
2. Executive Secretary
3. Accounting
4. Sales
5. Computers
6. Never taught any before

## **PART B. THE IMPORTANCE DEGREES OF GENERIC COMPETENCIES**

**Please read the description of each competency in the list below to get recognized of the dimensions of it. And then indicate your perception of the importance degree of the workplace generic competencies required for IPA's Post-secondary graduates nowadays.** (please circle a number from 1 to 6 for each competency, as 1= Most Unimportant, 2= Very Unimportant, 3= Unimportant, 4= Important, 5= Very Important, and 6= Most Important)

COMPETENCY	DESCRIPTION	IMPORTANCE					
		Most Unimportant → Most Important					
		1	2	3	4	5	6
1. Achievement orientation	Task accomplishment, seek results, innovation, competitiveness, impact, standards, efficiency	1	2	3	4	5	6

2. Concern for order, quality and accuracy	Monitoring, concern for clarity, reduce uncertainty, keeping track	1	2	3	4	5	6
3. Initiative	Persistence, not giving up easily, Seizing opportunities	1	2	3	4	5	6
4. Information seeking	Getting information from many sources	1	2	3	4	5	6
5. Interpersonal understanding	Empathy, listening, sensitivity to others, diagnostic understanding, awareness of others feelings	1	2	3	4	5	6
6. Ability and willingness to learn	Desire and aptitude for learning, learning as a basis for action.	1	2	3	4	5	6
7. Customer service orientation	Making extra efforts to meet customer needs, discovering and meeting customer's underlying needs, following on questions, requests, complaints	1	2	3	4	5	6
8. Impact and Influence on others	The intention to persuade others in order to have a specific impact or effect on them	1	2	3	4	5	6
9. Organisational awareness	Understanding the power relationships in the organisation or in other organisations (customers, suppliers, etc.)	1	2	3	4	5	6
10. Relationship building	Working to build or maintain friendly, warm relationships or networks of contacts with people who are, or might someday be, useful in achieving work-related goals	1	2	3	4	5	6
11. Developing others	A genuine intent to foster the learning or development of the others and an appropriate level of need analysis are implied in each positive level of Developing Others.	1	2	3	4	5	6
12. Directiveness	Assertiveness, decisiveness, use of power, taking charge, firmness of standards, group control and discipline	1	2	3	4	5	6
13. Teamwork and cooperation	Fostering group facilitation and management, conflict resolution, motivating others, creating a good workplace climate	1	2	3	4	5	6
14. Team leadership	The intention to take a role as leader of a team or other group, being in charge, vision, concern for subordinates, build sense of group purpose, group motivation	1	2	3	4	5	6
15. Analytical thinking	Understanding a situation by breaking it apart into smaller pieces, reasoning, practical intelligence, planning skills, problem analysing, systematic	1	2	3	4	5	6

16. Conceptual thinking	Understanding a situation or problem by putting the pieces together, Pattern recognition, insight, critical thinking, problem definition, can generate hypotheses, linking	1	2	3	4	5	6
17. Technical expertise	Job related technical knowledge and skills, depth and breadth, acquires expertise, donates expertise	1	2	3	4	5	6
18. Self-control	Stamina, resistance to stress, staying calm, high Emotional Quotient, resisting temptation, not impulsive, ability to calm others	1	2	3	4	5	6
19. Self-confidence	Strong self concept, internal locus of control, independence, ego strength, decisiveness, accepting responsibility	1	2	3	4	5	6
20. Flexibility	Adaptability, ability to change, perceptual objectivity, staying objective, resilience, behaviour is contingent	1	2	3	4	5	6
21. Organisational commitment	Align self and others to organisational needs, business mindedness, self sacrifice	1	2	3	4	5	6
22. Problem solving	Actively solving identified problems, carrying on through to completion	1	2	3	4	5	6
23. Personal planning and organisational skills	ability to organize self and others, effective time management, organizing and completing tasks effectively and efficiently	1	2	3	4	5	6
24. Energy & passion	a positive 'can-do' attitude, high energy levels, enthusiasm, proactive, strong drive	1	2	3	4	5	6
25. Computer literacy	Ability to operate a number of packages, having information management awareness	1	2	3	4	5	6
26. Written communication	Relevant skills/appropriate use of: emails, internal memos, internal and external reports, letters to clients	1	2	3	4	5	6
27. English language (overall)	proficiency in spoken and written English	1	2	3	4	5	6
28. English language (writing)	Writing messages/files notes legibly using correct grammar, punctuation and spelling	1	2	3	4	5	6
29. English language (speaking)	Speaking clear English, using tactful and appropriate language in the workplace	1	2	3	4	5	6
30. Attendance and timekeeping	Coming to work and leaving on time (punctuality), investing time to benefit the organisation	1	2	3	4	5	6
31. Confidentiality at work	Using organisation information appropriately; (keeping information could negatively affect the organisation)	1	2	3	4	5	6



**PART D. COMPETENCIES REQUIRED TO BE DEVELOPED**

**In Part B, each competency in the list has a number (e.g. 1. Achievement orientation; 24. Computer literacy). Please insert up to 5 numbers from the list in the five spaces below to identify the most 5 competencies required to be developed in IPA's post-secondary graduates. Give reasons of that if possible?**

Competency Number	Why



## APPENDIX 7

Student's Survey (Part 1)

Code No. (    )

Dear Student

My name is Mohammed M. Bajunaid and I am a Facility member at the Institute of Public Administration, Dammam branch. I am currently pursuing a PhD Degree from the University of Glasgow. This survey is part of my dissertation research project exploring the effectiveness of Co-operative education programmes in developing the graduates' awareness of the importance of the workplace competencies required by the employers nowadays. Finding from this survey and related studies will inform debate and particularly in the areas of generic skills, Co-operative education, and human resources. Your participation in this survey is fully considerable and all responses will be kept confidential. You are not required to attach your name.

I thank you in advance and I hope that you can start now working through these questions which will take about (20) minutes of your time. Work through the questions as quickly as possible. Go on your first reactions in answering a question.

Please complete this questionnaire and return it to me to the flowing address:  
Mohammed M. Bajunaid  
Institute of Public Administration  
P.O. Box 1455  
Dammam 31141  
Phone (03) 8268300  
Fax (03) 8268881  
E-Mail: [bajunaidm@hotmail.com](mailto:bajunaidm@hotmail.com)

Sincerely,  
Mohammed M. Bajunaid

## PART A. DEMOGRAPHIC INFORMATION

Data collected from this part will be used to describe in general the characteristics of students who have completed this survey questionnaire.

**Q1. What is your major?** (please circle a number)

15. Hospital Administration

16. Executive Secretary

17. Accounting

18. Sales

19. Computers

**Q2. What is your age?** (please circle a number)

9. Under 20

10. 21-25

11. 26-30

12. More than 30

**Q3. Have you had any work experience?**

Yes

No

## PART B. THE IMPORTANCE DEGREES OF GENERIC COMPETENCIES

**Please read the description of each competency in the list below to get recognized of the dimensions of it. And then indicate your perception of the importance degree of the workplace generic competencies required for IPA's Post-secondary graduates nowadays.** (please circle a number from 1 to 6 for each competency, as 1= Most Unimportant, 2= Very Unimportant, 3= Unimportant, 4= Important, 5= Very Important, and 6= Most Important)

COMPETENCY	DESCRIPTION	IMPORTANCE					
		Most Unimportant $\rightarrow$ Most Important					
		1	2	3	4	5	6
1. Achievement orientation	Task accomplishment, seek results, innovation, competitiveness, impact, standards, efficiency	1	2	3	4	5	6
2. Concern for order, quality and accuracy	Monitoring, concern for clarity, reduce uncertainty, keeping track	1	2	3	4	5	6
3. Initiative	Persistence, not giving up easily, Seizing opportunities	1	2	3	4	5	6
4. Information seeking	Getting information from many sources	1	2	3	4	5	6
5. Interpersonal understanding	Empathy, listening, sensitivity to others, diagnostic understanding, awareness of others feelings	1	2	3	4	5	6
6. Ability and willingness to learn	Desire and aptitude for learning, learning as a basis for action.	1	2	3	4	5	6

7. Customer service orientation	Making extra efforts to meet customer needs, discovering and meeting customer's underlying needs, following on questions, requests, complaints	1	2	3	4	5	6
8. Impact and Influence on others	The intention to persuade others in order to have a specific impact or effect on them	1	2	3	4	5	6
9. Organisational awareness	Understanding the power relationships in the organisation or in other organisations (customers, suppliers, etc.)	1	2	3	4	5	6
10. Relationship building	Working to build or maintain friendly, warm relationships or networks of contacts with people who are, or might someday be, useful in achieving work-related goals	1	2	3	4	5	6
11. Developing others	A genuine intent to foster the learning or development of the others and an appropriate level of need analysis are implied in each positive level of Developing Others.	1	2	3	4	5	6
12. Directiveness	Assertiveness, decisiveness, use of power, taking charge, firmness of standards, group control and discipline	1	2	3	4	5	6
13. Teamwork and cooperation	Fostering group facilitation and management, conflict resolution, motivating others, creating a good workplace climate	1	2	3	4	5	6
14. Team leadership	The intention to take a role as leader of a team or other group, being in charge, vision, concern for subordinates, build sense of group purpose, group motivation	1	2	3	4	5	6
15. Analytical thinking	Understanding a situation by breaking it apart into smaller pieces, reasoning, practical intelligence, planning skills, problem analysing, systematic	1	2	3	4	5	6
16. Conceptual thinking	Understanding a situation or problem by putting the pieces together, Pattern recognition, insight, critical thinking, problem definition, can generate hypotheses, linking	1	2	3	4	5	6
17. Technical expertise	Job related technical knowledge and skills, depth and breadth, acquires expertise, donates expertise	1	2	3	4	5	6
18. Self-control	Stamina, resistance to stress, staying calm, high Emotional Quotient, resisting temptation, not impulsive, ability to calm others	1	2	3	4	5	6
19. Self-confidence	Strong self concept, internal locus of control, independence, ego strength, decisiveness, accepting responsibility	1	2	3	4	5	6

20. Flexibility	Adaptability, ability to change, perceptual objectivity, staying objective, resilience, behaviour is contingent	1	2	3	4	5	6
21. Organisational commitment	Align self and others to organisational needs, business mindedness, self sacrifice	1	2	3	4	5	6
22. Problem solving	Actively solving identified problems, carrying on through to completion	1	2	3	4	5	6
23. Personal planning and organisational skills	ability to organize self and others, effective time management, organizing and completing tasks effectively and efficiently	1	2	3	4	5	6
24. Energy & passion	a positive 'can-do' attitude, high energy levels, enthusiasm, <u>pro-active, strong drive</u>	1	2	3	4	5	6
25. Computer literacy	Ability to operate a number of packages, having information management awareness	1	2	3	4	5	6
26. Written communication	Relevant skills/appropriate use of: emails, internal memos, internal and external reports, letters to clients	1	2	3	4	5	6
27. English language (overall)	proficiency in spoken and written English	1	2	3	4	5	6
28. English language (writing)	Writing messages/files notes legibly using correct grammar, punctuation and spelling	1	2	3	4	5	6
29. English language (speaking)	Speaking clear English, using tactful and appropriate language in the workplace	1	2	3	4	5	6
30. Attendance and timekeeping	Coming to work and leaving on time (punctuality), investing time to benefit the organisation	1	2	3	4	5	6
31. Confidentiality at work	Using organisation information appropriately; (keeping information could negatively affect the organisation)	1	2	3	4	5	6
Others (Please add if required)							
		1	2	3	4	5	6
		1	2	3	4	5	6
		1	2	3	4	5	6
		1	2	3	4	5	6



## APPENDIX 8

Students' Survey Part 2

Dear Student

My name is Mohammed M. Bajunaid and I am a Facility member at the Institute of Public Administration, Dammam branch. I am currently pursuing a PhD Degree from the University of Glasgow. This survey is part of my dissertation research project exploring the effectiveness of Co-operative education programmes in developing the graduates' awareness of the importance of the workplace competencies required by the employers nowadays. Finding from this survey and related studies will inform debate and particularly in the areas of generic skills, Co-operative education, and human resources.

Your participation in this survey is fully considerable and all responses will be kept confidential. You are not required to attach your name.

I thank you in advance and I hope that you can start now working through these questions which will take about (25) minutes of your time. Work through the questions as quickly as possible. Go on your first reactions in answering a question.

Please complete this questionnaire and return it to me to the flowing address:

Mohammed M. Bajunaid  
Institute of Public Administration  
P.O. Box 1455  
Dammam 31141  
Phone (03) 8268300  
Fax (03) 8268881  
E-Mail: [bajunaidm@hotmail.com](mailto:bajunaidm@hotmail.com)

Sincerely,  
Mohammed M. Bajunaid

## PART A. DEMOGRAPHIC INFORMATION

Data collected from this part will be used to describe in general the characteristics of students who have completed this survey questionnaire.

**Q1. What is your major?** (please circle a number)

- 20. Accounting
- 21. Computers
- 22. Executive Secretary
- 23. Hospital Administration
- 24. Sales

**Q2. What is your age?** (please circle a number)

- 13. Under 20
- 14. 21-25
- 15. 26-30
- 16. More than 30

**Q3. Have you had any work experience?**

- Yes       No

## PART B. THE IMPORTANCE DEGREES OF GENERIC COMPETENCIES

**Please read the description of each competency in the list below to get recognized of the dimensions of it. And then indicate your perception of the importance degree of the workplace generic competencies required for IPA's Post-secondary graduates nowadays.** (please circle a number from 1 to 6 for each competency, as 1= Most Unimportant, 2= Very Unimportant, 3= Unimportant, 4= Important, 5= Very Important, and 6= Most Important)

COMPETENCY	DESCRIPTION	IMPORTANCE					
		Most Unimportant → Most Important					
		1	2	3	4	5	6
1. Achievement orientation	Task accomplishment, seek results, innovation, competitiveness, impact, standards, efficiency	1	2	3	4	5	6
2. Concern for order, quality and accuracy	Monitoring, concern for clarity, reduce uncertainty, keeping track	1	2	3	4	5	6
3. Initiative	Persistence, not giving up easily, Seizing opportunities	1	2	3	4	5	6
4. Information seeking	Getting information from many sources	1	2	3	4	5	6
5. Interpersonal understanding	Empathy, listening, sensitivity to others, diagnostic understanding, awareness of others feelings	1	2	3	4	5	6
6. Ability and willingness to learn	Desire and aptitude for learning, learning as a basis for action.	1	2	3	4	5	6

7. Customer service orientation	Making extra efforts to meet customer needs, discovering and meeting customer's underlying needs, following on questions, requests, complaints	1	2	3	4	5	6
8. Impact and Influence on others	The intention to persuade others in order to have a specific impact or effect on them	1	2	3	4	5	6
9. Organisational awareness	Understanding the power relationships in the organisation or in other organisations (customers, suppliers, etc.)	1	2	3	4	5	6
10. Relationship building	Working to build or maintain friendly, warm relationships or networks of contacts with people who are, or might someday be, useful in achieving work-related goals	1	2	3	4	5	6
11. Developing others	A genuine intent to foster the learning or development of the others and an appropriate level of need analysis are implied in each positive level of Developing Others.	1	2	3	4	5	6
12. Directiveness	Assertiveness, decisiveness, use of power, taking charge, firmness of standards, group control and discipline	1	2	3	4	5	6
13. Teamwork and cooperation	Fostering group facilitation and management, conflict resolution, motivating others, creating a good workplace climate	1	2	3	4	5	6
14. Team leadership	The intention to take a role as leader of a team or other group, being in charge, vision, concern for subordinates, build sense of group purpose, group motivation	1	2	3	4	5	6
15. Analytical thinking	Understanding a situation by breaking it apart into smaller pieces, reasoning, practical intelligence, planning skills, problem analysing, systematic	1	2	3	4	5	6
16. Conceptual thinking	Understanding a situation or problem by putting the pieces together, Pattern recognition, insight, critical thinking, problem definition, can generate hypotheses, linking	1	2	3	4	5	6
17. Technical expertise	Job related technical knowledge and skills, depth and breadth, acquires expertise, donates expertise	1	2	3	4	5	6
18. Self-control	Stamina, resistance to stress, staying calm, high Emotional Quotient, resisting temptation, not impulsive, ability to calm others	1	2	3	4	5	6
19. Self-confidence	Strong self concept, internal locus of control, independence, ego strength, decisiveness, accepting responsibility	1	2	3	4	5	6



20. Flexibility	Adaptability, ability to change, perceptual objectivity, staying objective, resilience, behaviour is contingent	1	2	3	4	5	6
21. Organisational commitment	Align self and others to organisational needs, business mindedness, self sacrifice	1	2	3	4	5	6
22. Problem solving	Actively solving identified problems, carrying on through to completion	1	2	3	4	5	6
23. Personal planning and organisational skills	ability to organize self and others, effective time management, organizing and completing tasks effectively and efficiently	1	2	3	4	5	6
24. Energy & passion	a positive 'can-do' attitude, high energy levels, enthusiasm, proactive, strong drive	1	2	3	4	5	6
25. Computer literacy	Ability to operate a number of packages, having information management awareness	1	2	3	4	5	6
26. Written communication	Relevant skills/appropriate use of: emails, internal memos, internal and external reports, letters to clients	1	2	3	4	5	6
27. English language (overall)	proficiency in spoken and written English	1	2	3	4	5	6
28. English language (writing)	Writing messages/files notes legibly using correct grammar, punctuation and spelling	1	2	3	4	5	6
29. English language (speaking)	Speaking clear English, using tactful and appropriate language in the workplace	1	2	3	4	5	6
30. Attendance and timekeeping	Coming to work and leaving on time (punctuality), investing time to benefit the organisation	1	2	3	4	5	6
31. Confidentiality at work	Using organisation information appropriately; (keeping information could negatively affect the organisation)	1	2	3	4	5	6
Others (Please add if required)							
		1	2	3	4	5	6
		1	2	3	4	5	6
		1	2	3	4	5	6
		1	2	3	4	5	6



## PART D. THE COMPARISON OF HARD AND SOFT COMPETENCIES

**Please order the list of sources to identify what were the most/less important sources of developing your generic competencies.** {give 1 for the most important source, 2 for the second rank and so on.

COMPETENCY	IMPORTANCE RANKING
1. Achievement orientation	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
2. Concern for order, quality and accuracy	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
3. Initiative	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
4. Information seeking	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
5. Ability and willingness to learn	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
6. Interpersonal understanding	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
7. Customer service orientation	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
8. Impact and Influence on others	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
9. Organisational awareness	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
10. Relationship building	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
11. Developing others	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
12. Directiveness	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught

13. Teamwork and cooperation	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
14. Team leadership	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
15. Analytical thinking	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
16. Conceptual thinking	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
17. Technical expertise	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
18. Self-control	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
19. Self-confidence	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
20. Flexibility	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
21. Organisational commitment	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
22. Problem solving	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
23. Personal planning and organisational skills	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
24. Energy & passion	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
25. Computer literacy	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
26. Written communication	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught

27. English language (overall)	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
28. English language (writing)	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
29. English language (speaking)	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
30. Attendance and timekeeping	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught
31. Keeping work secrets	<input type="checkbox"/> Home/family/community <input type="checkbox"/> School <input type="checkbox"/> PSP <input type="checkbox"/> Co-op Programm <input type="checkbox"/> Self-taught

## APPENDIX 9

Co-op Employer's Survey

(Arabic Version)

بسم الله الرحمن الرحيم

Code No. ( )

سعادة مدير/

السلام عليكم ورحمة الله وبركاته.  
 هذا الاستبيان يمثل جزء من بحث في الدراسات العليا في مجال التعليم، ويهدف إلى استطلاع مدى فعالية برامج التدريب التعاوني التي تقدمها بعض المؤسسات والشركات - لدارسي الدبلوم فوق الثانوي في البرامج الإعدادية العامة وبرامج القطاع الأهلي في فرع معهد الإدارة العامة بالمنطقة الشرقية - في تطوير مدى إدراك الدارسين لأهمية الكفايات الوظيفية العامة المطلوبة في سوق العمل اليوم. نتائج هذه الدراسة والدراسات المتصلة بها ستهدى مجالاً للحوار وتحديدًا في حقل الكفايات الوظيفية العامة، والتعليم التعاوني، والموارد البشرية.  
 نقدر لك مشاركتك في تعبئة هذا الاستبيان ، وثق أن جميع الاجابات ستعامل بسرية كاملة.  
 أمل التكرم بإكمال الاستبيان وإعادته الى العنوان التالي:

ادارة شؤون المتدربين  
 فرع معهد الإدارة العامة بالمنطقة الشرقية

ص.ب: 1455

الدمام 31141

هاتف: 8268300

فاكس: 8268881

محمد محمد باجنيد

**الجزء الأول: البيانات الديموغرافية:** ( ضع دائرة حول رقم الاجابة الصحيحة )  
المعلومات التي يتم جمعها في هذا الجزء من الاستبيان توضح خصائص المؤسسات والشركات التي قامت بتعبئتها.  
س 1. ما هو النشاط الرئيسي للمنشأة؟

1. زراعة
2. بنوك، منشآت مالية
3. بناء وتشبيد
4. مصانع
5. مواصلات
6. تأمين
7. خدمات تجارية
8. تجارة جملة وتفرد
9. أخرى ( حددها من فضلك )

س 2. ما هو عدد موظفي المنشأة في الموقع الذي تعمل به حالياً؟

1. ( 1 - 10 موظف )
2. ( 11 - 50 موظف )
3. ( 51 - 500 موظف )
4. ( أكثر من 500 موظف )

س 3. كم عدد السنوات التي شاركت فيها منشأتكم في التدريب التعاوني لدارسي برامج معهد الادارة العامة بالمنطقة الشرقية؟

1. أقل من 5 سنوات
2. 5-11
3. 11-15

س 4. هل سبق أن شاركت منشأتكم في تدريب دارسي مؤسسات تعليمية غير معهد الادارة العامة؟

لا

نعم

### الجزء الثاني: درجة أهمية الكفايات الوظيفية العامة

من فضلك اقرأ الوصف المقابل لكل كفاية في الجدول التالي لإدراك أبعادها ومتطلباتها، ثم حدد درجة أهميتها في العمل لخريجي الدبلوم فوق الثانوي لبرامج فرع معهد الإدارة العامة بالمنطقة الشرقية في الوقت الحالي. (ضع دائرة حول الرقم من 1 إلى 6 لكل كفاية)

B الكفاية	B الوصف	B درجة الأهمية					
		6	5	4	3	2	1
1. النزعة إلى الإنجاز	القيام بالمهام، والسعي نحو الوصول إلى النتائج، الابتكار، القدرة على المنافسة، التأثير في الآخرين، الالتزام بالمعايير، الكفاءة.	6	5	4	3	2	1
2. الالتزام بالنظام والجودة والدقة في العمل	مراقبة الأداء، الاهتمام بالوضوح، البعد عن الإيهام والغموض. متابعة الأمور.	6	5	4	3	2	1
3. روح المبادرة	المتابعة، عدم الاستسلام بسهولة، استثمار الفرص المتاحة.	6	5	4	3	2	1
4. القدرة على البحث عن المعلومات	القدرة على الحصول على المعلومات من مصادر متعددة.	6	5	4	3	2	1
5. تقدير العلاقات مع الآخرين	التعاطف مع الآخرين والاستماع الجيد لهم، الإحساس بهم، إدراك حاجات الآخرين والقدرة على تشخيصها، تفهم مشاعر الآخرين.	6	5	4	3	2	1
6. القدرة على الرغبة في التعلم	الرغبة والقدرة على التعلم، الاستفادة العملية مما تم تعلمه.	6	5	4	3	2	1
7. القدرة على تقديم الخدمات للعملاء	القدرة على بذل جهد إضافي لمقابلة وتلمس احتياجات العملاء، الاهتمام بإجابة استفسارات العملاء وتلبية طلباتهم وإيصال شكاوهم وحل مشاكلهم.	6	5	4	3	2	1
8. القدرة على التأثير في الآخرين	القدرة والرغبة في إقناع الآخرين بما يخدم أهداف العمل.	6	5	4	3	2	1

6	5	4	3	2	1	تفهم مسألة التنظيم ومعرفة حدود الصلاحيات في المنظمة أو في المنظمات الأخرى ذات العلاقة.	9. الوعي بالأمور التنظيمية في العمل
6	5	4	3	2	1	القدرة على بناء علاقات صداقة وصلات طيبة مع كافة الذين يتعاملون حالياً مع المنظمة، وكذلك المتوقع التعامل معهم.	10. القدرة على بناء علاقات جيدة
6	5	4	3	2	1	الرغبة الحقيقية لدعم تعليم وتطوير الآخرين، واختيار المستوى التدريبي المناسب لقدراتهم بما يخدم حاجة العمل.	11. القدرة على تطوير الآخرين
6	5	4	3	2	1	الحزم، الحسم، استخدام السلطة، تحمل المسؤولية، الالتزام بالمعايير، السيطرة على أفراد المجموعة وضبط سلوكهم.	12. الدور القيادي والتوجيهي
6	5	4	3	2	1	الإسهام في تسهيل عمل المجموعة وإدارتها، القدرة على فض النزاعات، تحفيز الآخرين، إيجاد مناخ صالح للعمل.	13. القدرة على الأداء ضمن فريق عمل وعلى التعاون معهم
6	5	4	3	2	1	النزعة في قيادة فريق أو مجموعة. تحمل المسؤولية، القدرة على التبصير، الإهتمام بالمرؤوسين، فهم هدف المجموعة بشكل واضح، التحفيز للعمل الجماعي.	14. القدرة على قيادة فريق عمل
6	5	4	3	2	1	فهم الموقف بتحديد التفاصيل المكونة له، المنطقية في التفكير، الذكاء التطبيقي أو العملي، مهارات التخطيط، تحليل المشكلات، المنهجية في العمل.	15. التفكير التحليلي
6	5	4	3	2	1	القدرة على تصور الأمور، الفطنة، التفكير النقدي، تحديد المشاكل، القدرة على استحداث الفرضيات، القدرة على الربط بين الأمور.	16. القدرة على تصور الأمور
6	5	4	3	2	1	المعرفة والمهارة ذات الصلة بالتخصص ( مجال العمل )، السعي لاكتساب الخبرة، منح الخبرة للآخرين.	17. الخبرة العملية
6	5	4	3	2	1	القدرة على التحمل (الجلد)، مقاومة الضغوط، التروي والهدوء، درجة عالية من الذكاء العاطفي (قدرة الشخص على فهم عواطفه وعواطف الآخرين والتصرف وفقاً لهذا الفهم)، مقاومة الاغراءات والتضليل، له القدرة على تهدئة الآخرين.	18. ضبط النفس
6	5	4	3	2	1	الفهم القوي للقدرات الذاتية، السيطرة على الانفعالات، الاعتماد على الذات، الحسم، تقبل حمل المسؤولية.	19. الثقة في النفس
6	5	4	3	2	1	القدرة على التكيف مع المستجدات، القدرة على التغيير، النظرة الموضوعية للأمور، المحافظة على الموضوعية، المرونة إزاء المواقف المختلفة، التصرف بما يمليه الموقف.	20. المرونة
6	5	4	3	2	1	تنظيم الذات وتنظيم الآخرين لخدمة المنظمة، العقلية العملية، التفاني وبذل كافة الطاقات في العمل.	21. الولاء للمنظمة
6	5	4	3	2	1	الفاعلية في حل المشكلات المحددة، مواصلة العمل حتى إنجازه.	22. القدرة على حل المشكلات
6	5	4	3	2	1	القدرة على تنظيم الذات وتنظيم الآخرين، إدارة الوقت بفاعلية، إنجاز المهام بكفاءة وفاعلية.	23. القدرة على التخطيط لنفسه والمهارات التنظيمية
6	5	4	3	2	1	التوجه الإيجابي لإمكانية أداء العمل، الحيوية التامة والنشاط، الحماسة، الاستعداد الدائم للعمل.	24. الحيوية والحماسة
6	5	4	3	2	1	القدرة على تشغيل عدد من برامج الحاسب الآلي، على دراية ببرامج إدارة المعلومات.	25. الإلمام بشؤون الحاسب الآلي





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### الجزء الرابع: الكفايات الوظيفية العامة التي تحتاج لتطوير لدى الخريجين

هناك رقم تسلسلي لكل كفاية في الجدول السابق ( مثلاً 1. النزعة إلى الإنجاز ؛ 24. الحيوية والحماسة ). من فضلك .. أدخل في الجدول أدناه أرقام خمس كفايات تعد الأكثر أهمية لتطويرها لدى خريجي الدبلوم فوق الثانوي لبرامج فرع معهد الإدارة العامة بالمنطقة الشرقية، مع ذكر الأسباب إن أمكن.

رقم الكفاية	أسباب الأهمية

## APPENDIX 10

Teacher's Survey

(Arabic Version)

بسم الله الرحمن الرحيم

Code No. ( )

عزيزي عضو هيئة التدريس بفرع معهد الإدارة العامة بالمنطقة الشرقية  
السلام عليكم ورحمة الله وبركاته.

هذا الاستبيان يمثل جزء من بحث في الدراسات العليا في مجال التعليم، ويهدف إلى استطلاع مدى فعالية برامج التدريب التعاوني التي تقدمها بعض المؤسسات والشركات - لدارسي الدبلوم فوق الثانوي في البرامج الإعدادية العامة وبرامج القطاع الأهلي في فرع معهد الإدارة العامة بالمنطقة الشرقية - في تطوير مدى إدراك الدارسين لأهمية الكفايات الوظيفية العامة المطلوبة في سوق العمل اليوم.

نتائج هذه الدراسة والدراسات المتصلة بها ستهيئ مجالاً للحوار وتحديداً في حقل الكفايات الوظيفية العامة ، والتعليم التعاوني، والموارد البشرية.

نقدر لك مشاركتك في تعبئة هذا الاستبيان ، وثق أن جميع الاجابات ستعامل بسرية كاملة.  
أمل التكرم بإكمال الاستبيان وإعادته الى ادارة البحوث والاستشارات

**الجزء الأول: البيانات الديموغرافية:** ( ضع دائرة حول رقم الاجابة الصحيحة )

المعلومات التي يتم جمعها في هذا الجزء من الاستبانة توضح خصائص أعضاء هيئة التدريس في فرع معهد الإدارة العامة بالمنطقة الشرقية الذين قاموا بتعبئتها.

- س 1. كم يبلغ عمرك؟
5. أقل من 25
  6. 25 - 30
  7. 31 - 35
  8. 36 - 40
  9. 41 - 45
  10. 46 - 50
  11. أكثر من 50 عاماً
- س 2. ما جنسيتك؟
1. سعودي
  2. عربي ( حدد البلد ) -----
  3. أوروبي ( حدد البلد ) -----
  4. أمريكي
  5. أخرى -----
- س 3. ما أعلى مؤهل تحمله؟
6. الدكتوراة
  7. الماجستير
  8. الدبلوم العالي
  9. البكالوريوس
  10. أخرى -----
- س 4. ما القطاع الذي تعمل له حالياً؟
4. الإدارة العامة ( حدد التخصص ) -----
  5. المحاسبة
  6. الحاسب الآلي
  7. الاحصاء
  8. الإدارة المكتبية
  9. إدارة المستشفيات
  10. إدارة المواد
  11. اللغة الإنجليزية
  12. المكتبات والمعلومات
  13. القطاع الأهلي
  14. آخر ( حدد ) -----

س 5. ما عدد السنوات التي قضيتها في التدريس؟

إجمالاً  في المعهد

س 6. من قائمة البرامج أدناه حدد البرنامج الذي يستأثر بالنصيب الأكبر من ساعات التدريس التي تؤديها منذ التحاقك بالمعهد؟

1. ادارة المستشفيات
2. السكرتير التنفيذي
3. المحاسبة التجارية
4. المبيعات
5. الحاسب الآلي
6. لم يسبق لي التدريس في أي من البرامج السابقة

### الجزء الثاني: درجة أهمية الكفايات الوظيفية العامة

من فضلك اقرأ الوصف المقابل لكل كفاية في الجدول التالي لإدراك أبعادها ومتطلباتها، ثم حدد درجة أهميتها في العمل لخريجي الدبلوم فوق الثانوي لبرنامج فرع معهد الإدارة العامة بالمنطقة الشرقية في الوقت الحالي. ( ضع دائرة حول الرقم من 1 إلى 6 لكل كفاية )

B الكفاية	B الوصف	B درجة الأهمية					
		غير مهم	1	2	3	4	5
1. النزعة إلى الإنجاز	القيام بالمهام، والسعي نحو الوصول إلى النتائج، الابتكار، القدرة على المنافسة، التأثير في الآخرين، الالتزام بالمعايير، الكفاءة.	1	2	3	4	5	6
2. الالتزام بالنظام والجودة والدقة في العمل	مراقبة الأداء، الاهتمام بالوضوح، البعد عن الإبهام والغموض. متابعة الأمور.	1	2	3	4	5	6
3. روح المبادرة	المتابعة، عدم الاستسلام بسهولة، استثمار الفرص المتاحة.	1	2	3	4	5	6
4. القدرة على البحث عن المعلومات	القدرة على الحصول على المعلومات من مصادر متعددة.	1	2	3	4	5	6
5. تقدير العلاقات مع الآخرين	التعاطف مع الآخرين والاستماع الجيد لهم، الإحساس بهم، إدراك حاجات الآخرين والقدرة على تشخيصها، تفهم مشاعر الآخرين.	1	2	3	4	5	6
6. القدرة على الرغبة في التعلم	الرغبة والقدرة على التعلم، الاستفادة العملية مما تم تعلمه.	1	2	3	4	5	6
7. القدرة على تقديم الخدمات للعملاء	القدرة على بذل جهد إضافي لمقابلة وتلمس احتياجات العملاء، الاهتمام بإجابة استفسارات العملاء وتلبية طلباتهم وإيصال شكواهم وحل مشاكلهم.	1	2	3	4	5	6
8. القدرة على التأثير في الآخرين	القدرة والرغبة في إقناع الآخرين بما يخدم أهداف العمل.	1	2	3	4	5	6
9. الوعي بالأمور التنظيمية في العمل	تفهم مسألة التنظيم ومعرفة حدود الصلاحيات في المنظمة أو في المنظمات الأخرى ذات العلاقة.	1	2	3	4	5	6
10. القدرة على بناء علاقات جيدة	القدرة على بناء علاقات صداقة وصلات طيبة مع كل كافة الذين يتعاملون حالياً مع المنظمة، وكذلك المتوقع التعامل معهم.	1	2	3	4	5	6
11. القدرة على تطوير الآخرين	الرغبة الحقيقية لدعم تعليم وتطوير الآخرين، واختيار المستوى التدريبي المناسب لقدراتهم بما يخدم حاجة العمل.	1	2	3	4	5	6
12. الدور القيادي والتوجيهي	الحزم، الحسم، استخدام السلطة، تحمل المسؤولية، الالتزام بالمعايير، السيطرة على أفراد المجموعة وضبط سلوكهم.	1	2	3	4	5	6

6	5	4	3	2	1	الإسهام في تسهيل عمل المجموعة وإدارتها، القدرة على فض النزاعات، تحفيز الآخرين، إيجاد مناخ صالح للعمل.	13. القدرة على الأداء ضمن فريق عمل وعلى التعاون معهم
6	5	4	3	2	1	النزعة في قيادة فريق أو مجموعة. تحمل المسؤولية، القدرة على التبصير، الإهتمام بالمرؤوسين، فهم هدف المجموعة بشكل واضح، التحفيز للعمل الجماعي.	14. القدرة على قيادة فريق عمل
6	5	4	3	2	1	فهم الموقف بتحديد التفاصيل المكونة له، المنطقية في التفكير، الذكاء التطبيقي أو العملي، مهارات التخطيط، تحليل المشكلات، المنهجية في العمل.	15. التفكير التحليلي
6	5	4	3	2	1	القدرة على تصور الأمور، الفطنة، التفكير النقدي، تحديد المشاكل، القدرة على استحداث الفرضيات، القدرة على الربط بين الأمور.	16. القدرة على تصور الأمور
6	5	4	3	2	1	المعرفة والمهارة ذات الصلة بالتخصص ( مجال العمل )، السعي لاكتساب الخبرة، منح الخبرة للآخرين.	17. الخبرة العملية
6	5	4	3	2	1	القدرة على التحمل (الجدد)، مقاومة الضغوط، التروي والهدوء، درجة عالية من الذكاء العاطفي ( قدرة الشخص على فهم عواطفه وعواطف الآخرين والتصرف وفقاً لهذا الفهم )، مقاومة الاغراءات والتضليل، له القدرة على تهدئة الآخرين.	18. ضبط النفس
6	5	4	3	2	1	الفهم القوي للقدرات الذاتية، السيطرة على الانفعالات، الاعتماد على الذات، الحسم، تقبل حمل المسؤولية.	19. الثقة في النفس
6	5	4	3	2	1	القدرة على التكيف مع المستجدات، القدرة على التغيير، النظرة الموضوعية للأمور، المحافظة على الموضوعية، المرونة إزاء المواقف المختلفة، التصرف بما يمليه الموقف.	20. المرونة
6	5	4	3	2	1	تنظيم الذات وتنظيم الآخرين لخدمة المنظمة، العقلية العملية، التفاني وبذل كافة الطاقات في العمل.	21. الولاء للمنظمة
6	5	4	3	2	1	الفاعلية في حل المشكلات المحددة، مواصلة العمل حتى إنجازه.	22. القدرة على حل المشكلات
6	5	4	3	2	1	القدرة على تنظيم الذات وتنظيم الآخرين، إدارة الوقت بفاعلية، إنجاز المهام بكفاءة وفاعلية.	23. القدرة على التخطيط لنفسه والمهارات التنظيمية
6	5	4	3	2	1	التوجه الإيجابي لإمكانية أداء العمل، الحيوية التامة والنشاط، الحماسة، الاستعداد الدائم للعمل.	24. الحيوية والحماسة
6	5	4	3	2	1	القدرة على تشغيل عدد من برامج الحاسب الآلي، على دراية ببرامج إدارة المعلومات.	25. الإلمام بشؤون الحاسب الآلي
6	5	4	3	2	1	لديه المهارات المتعلقة بإعداد الاتصالات الكتابية وإرسالها مثل الاستخدام الصحيح للبريد الإلكتروني، وكتابة المذكرات الداخلية، التقارير الداخلية والخارجية، ورسائل العملاء.	26. الاتصالات الكتابية
6	5	4	3	2	1	إجادة اللغة الإنجليزية تحدثاً وكتابة	27. اللغة الإنجليزية (بشكل عام)
6	5	4	3	2	1	كتابة الرسائل، المذكرات والملفات، مراعاة قواعد اللغة الإنجليزية عند الكتابة، إجادة استخدام علامات الترقيم، وتجنب الوقوع في الأخطاء الإملائية.	28. اللغة الإنجليزية (الكتابة)
6	5	4	3	2	1	تحدث اللغة الإنجليزية بوضوح، استخدام العبارات اللائقة والمناسبة في بيئة العمل.	29. اللغة الإنجليزية (تحدثاً)
6	5	4	3	2	1	الاهتمام بالحضور والانصراف في الوقت المحدد، واستغلال وقت العمل بما يفيد المنظمة.	30. معرفة وتقدير قيمة وقت العمل
6	5	4	3	2	1	عدم التحدث عن الأمور التي تخص العمل ويؤدي نشرها الى الحاق ضرر بالمنظمة أو يؤثر سلباً على مصالحها.	31. المحافظة على أسرار العمل



أسباب الأهمية	رقم الكفاية

**APPENDIX 11**

بسم الله الرحمن الرحيم

**Student's Survey (Part 1)**

## (Arabic Version)

Code No. ( )

**يوزع هذا الاستبيان على الدارسين قبل الالتحاق بالتدريب العملي**

عزيزي الدارس  
السلام عليكم ورحمة الله وبركاته.  
هذا الاستبيان يمثل جزء من بحث في الدراسات العليا في مجال التعليم، ويهدف إلى استطلاع مدى فعالية برامج التدريب التعاوني التي تقدمها بعض المؤسسات والشركات - لدارسي الدبلوم فوق الثانوي في البرامج الإعدادية العامة وبرامج القطاع الأهلي في فرع معهد الإدارة العامة بالمنطقة الشرقية - في تطوير مدى إدراك الدارسين لأهمية الكفايات الوظيفية العامة المطلوبة في سوق العمل اليوم.  
نتائج هذه الدراسة والدراسات المتصلة بها ستتهيء مجالاً للحوار وتحديدًا في حقل الكفايات الوظيفية العامة، والتعليم التعاوني، والموارد البشرية.  
نقدر لك مشاركتك في تعبئة هذا الاستبيان ، وثق أن جميع الاجابات ستعامل بسرية كاملة.  
أمل التكرم بإكمال الاستبيان وإعادته الى العنوان التالي:

ادارة شؤون المتدربين  
فرع معهد الإدارة العامة بالمنطقة الشرقية  
ص.ب: 1455  
الدمام 31141  
هاتف: 8268300  
فاكس: 8268881

**الجزء الأول: البيانات الديموغرافية:**

المعلومات التي يتم جمعها في هذا الجزء من الاستبيان توضح خصائص الدارسين الذين قاموا بتعبئتها.

س 1. ما تخصصك؟

15. ادارة المستشفيات
16. السكرتير التنفيذي
17. المحاسبة التجارية
18. المبيعات
19. الحاسب الآلي

س 2. كم يبلغ عمرك؟

12. أقل من عشرين عاماً
13. 20 – 25
14. 26 – 30
15. أكثر من 30 عاماً

س 3. هل سبق وأن عملت قبل التحاقك بالمعهد؟

نعم  لا

**الجزء الثاني: درجة أهمية الكفايات الوظيفية العامة**

من فضلك اقرأ الوصف المقابل لكل كفاية في الجدول التالي لإدراك أبعادها ومتطلباتها، ثم حدد درجة أهميتها في العمل لخريجي الدبلوم فوق الثانوي لبرامج فرع معهد الإدارة العامة بالمنطقة الشرقية في الوقت الحالي. ( ضع دائرة حول الرقم من 1 إلى 6 لكل كفاية )



B درجة الأهمية		B الوصف	B الكفافية
← مهم	B غير مهم للغاية للغاية		
6	5 4 3 2 1	القيام بالمهام، والسعي نحو الوصول إلى النتائج، الابتكار، القدرة على المنافسة، التأثير في الآخرين، الالتزام بالمعايير، الكفاءة.	1. النزعة إلى الإنجاز
6	5 4 3 2 1	مراقبة الأداء، الاهتمام بالوضوح، البعد عن الإبهام والغموض. متابعة الأمور.	2. الالتزام بالنظام والجودة والدقة في العمل
6	5 4 3 2 1	المثابرة، عدم الاستسلام بسهولة، استثمار الفرص المتاحة.	3. روح المبادرة
6	5 4 3 2 1	القدرة على الحصول على المعلومات من مصادر متعددة.	4. القدرة على البحث عن المعلومات
6	5 4 3 2 1	التعاطف مع الآخرين والاستماع الجيد لهم، الإحساس بهم، إدراك حاجات الآخرين والقدرة على تشخيصها، تفهم مشاعر الآخرين.	5. تقدير العلاقات مع الآخرين
6	5 4 3 2 1	الرغبة والقابلية للتعلم، الاستفادة العملية مما تم تعلمه.	6. القدرة على الرغبة في التعلم
6	5 4 3 2 1	القدرة على بذل جهد إضافي لمقابلة وتلمس احتياجات العملاء، الاهتمام بإجابة استفسارات العملاء وتلبية طلباتهم وإيصال شكاوهم وحل مشاكلهم.	7. القدرة على تقديم الخدمات للعملاء
6	5 4 3 2 1	القدرة والرغبة في إقناع الآخرين بما يخدم أهداف العمل.	8. القدرة على التأثير في الآخرين
6	5 4 3 2 1	تفهم مسألة التنظيم ومعرفة حدود الصلاحيات في المنظمة أو في المنظمات الأخرى ذات العلاقة.	9. الوعي بالأمور التنظيمية في العمل
6	5 4 3 2 1	القدرة على بناء علاقات صداقة وصلات طيبة مع كل كافة الذين يتعاملون حالياً مع المنظمة، وكذلك المتوقع التعامل معهم.	10. القدرة على بناء علاقات جيدة
6	5 4 3 2 1	الرغبة الحقيقية لدعم تعليم وتطوير الآخرين، واختيار المستوى التدريبي المناسب لقدراتهم بما يخدم حاجة العمل.	11. القدرة على تطوير الآخرين
6	5 4 3 2 1	الحزم، الحسم، استخدام السلطة، تحمل المسؤولية، الالتزام بالمعايير، السيطرة على أفراد المجموعة وضبط سلوكهم.	12. الدور القيادي والتوجيهي
6	5 4 3 2 1	الإسهام في تسهيل عمل المجموعة وإدارتها، القدرة على فض النزاعات، تحفيز الآخرين، إيجاد مناخ صالح للعمل.	13. القدرة على الأداء ضمن فريق عمل وعلى التعاون معهم
6	5 4 3 2 1	النزعة في قيادة فريق أو مجموعة. تحمل المسؤولية، القدرة على التبصير، الإهتمام بالمرؤوسين، فهم هدف المجموعة بشكل واضح، التحفيز للعمل الجماعي.	14. القدرة على قيادة فريق عمل
6	5 4 3 2 1	فهم الموقف بتحديد التفاصيل المكونة له، المنطقية في التفكير، الذكاء التطبيقي أو العملي، مهارات التخطيط، تحليل المشكلات، المنهجية في العمل.	15. التفكير التحليلي
6	5 4 3 2 1	القدرة على تصور الأمور، الفطنة، التفكير النقدي، تحديد المشاكل، القدرة على استحداث الفرضيات، القدرة على الربط بين الأمور.	16. القدرة على تصور الأمور
6	5 4 3 2 1	المعرفة والمهارة ذات الصلة بالتخصص ( مجال العمل )، السعي لاكتساب الخبرة، منح الخبرة للآخرين.	17. الخبرة العملية

6	5	4	3	2	1	القدرة على التحمل (الجلد)، مقاومة الضغوط، التروي والهدوء، درجة عالية من الذكاء العاطفي (قدرة الشخص على فهم عواطفه وعواطف الآخرين والتصرف وفقاً لهذا الفهم)، مقاومة الاغراءات والتضليل، له القدرة على تهدئة الآخرين.	18. ضبط النفس
6	5	4	3	2	1	الفهم القوي للقدرة الذاتية، السيطرة على الانفعالات، الاعتماد على الذات، الحسم، تقبل حمل المسؤولية.	19. الثقة في النفس
6	5	4	3	2	1	القدرة على التكيف مع المستجدات، القدرة على التغيير، النظرة الموضوعية للأمور، المحافظة على الموضوعية، المرونة إزاء المواقف المختلفة، التصرف بما يمليه الموقف.	20. المرونة
6	5	4	3	2	1	تنظيم الذات وتنظيم الآخرين لخدمة المنظمة، العقلية العملية، التقاني وبذل كافة الطاقات في العمل.	21. الولاء للمنظمة
6	5	4	3	2	1	الفاعلية في حل المشكلات المحددة، مواصلة العمل حتى إنجازه.	22. القدرة على حل المشكلات
6	5	4	3	2	1	القدرة على تنظيم الذات وتنظيم الآخرين، إدارة الوقت بفاعلية، إنجاز المهام بكفاءة وفاعلية.	23. القدرة على التخطيط لنفسه والمهارات التنظيمية
6	5	4	3	2	1	التوجه الإيجابي لإمكانية أداء العمل، الحيوية التامة والنشاط، الحماسة، الاستعداد الدائم للعمل.	24. الحيوية والحماسة
6	5	4	3	2	1	القدرة على تشغيل عدد من برامج الحاسب الآلي، على دراية ببرامج إدارة المعلومات.	25. الإلمام بشؤون الحاسب الآلي
6	5	4	3	2	1	لديه المهارات المتعلقة بإعداد الاتصالات الكتابية وإرسالها مثل الاستخدام الصحيح للبريد الإلكتروني، وكتابة المذكرات الداخلية، التقارير الداخلية والخارجية، ورسائل العملاء.	26. الاتصالات الكتابية
6	5	4	3	2	1	إجادة اللغة الإنجليزية تحدثاً وكتابة	27. اللغة الإنجليزية (بشكل عام)
6	5	4	3	2	1	كتابة الرسائل، المذكرات والملفات، مراعاة قواعد اللغة الإنجليزية عند الكتابة، إجادة استخدام علامات الترقيم، وتجنب الوقوع في الأخطاء الإملائية.	28. اللغة الإنجليزية (الكتابة)
6	5	4	3	2	1	تحدث اللغة الإنجليزية بوضوح، استخدام العبارات اللائقة والمناسبة في بيئة العمل.	29. اللغة الإنجليزية (تحدثاً)
6	5	4	3	2	1	الاهتمام بالحضور والانصراف في الوقت المحدد، واستغلال وقت العمل بما يفيد المنظمة.	30. معرفة وتقدير قيمة وقت العمل
6	5	4	3	2	1	عدم التحدث عن الأمور التي تخص العمل ويؤدي نشرها الى الحاق ضرر بالمنظمة أو يؤثر سلباً على مصالحها.	31. المحافظة على أسرار العمل
							يرجى إضافة أي كفايات أخرى ترونها مناسبة في هذا السياق.
6	5	4	3	2	1		
6	5	4	3	2	1		
6	5	4	3	2	1		

### الجزء الثالث: المقارنة بين نوعي الكفايات من حيث الأهمية

تُصنف الكفايات الوظيفية العامة الى (Soft) و (Hard). حدد أي من صفتي الكفايات أكثر أهمية من الأخرى في العمل لخريجي الدبلوم فوق الثانوي لبرامج فرع معهد الإدارة العامة التي يتلقى دارسوها التدريب التعاوني؟ (أشرف في المربع، ثم أذكر السبب في الفراغ المتاح).





هذا الاستبيان يمثل جزء من بحث في الدراسات العليا في مجال التعليم، ويهدف إلى استطلاع مدى فعالية برامج التدريب التعاوني التي تقدمها بعض المؤسسات والشركات - لدارسي الدبلوم فوق الثانوي في البرامج الإعدادية العامة وبرامج القطاع الأهلي في فرع معهد الإدارة العامة بالمنطقة الشرقية - في تطوير مدى إدراك الدارسين لأهمية الكفايات الوظيفية العامة المطلوبة في سوق العمل اليوم.

نتائج هذه الدراسة والدراسات المتصلة بها ستهدى مجالاً للحوار وتحديدًا في حقل الكفايات الوظيفية العامة، والتعليم التعاوني، والموارد البشرية.

نقدر لك مشاركتك في تعبئة هذا الاستبيان ، وثق أن جميع الاجابات ستعامل بسرية كاملة ، وسيتم استخدامها لأغراض البحث.

أمل التكرم بإكمال الاستبيان وإعادته الى العنوان التالي:

ادارة شؤون المتدربين  
 فرع معهد الإدارة العامة بالمنطقة الشرقية  
 ص.ب: 1455  
 الدمام 31141  
 هاتف: 8268300  
 فاكس: 8268881

### الجزء الأول: البيانات الديموغرافية:

المعلومات التي يتم جمعها في هذا الجزء من الاستبيان توضح خصائص الدارسين الذين قاموا بتعبئتها.

#### س 1. ما تخصصك؟

20. ادارة المستشفيات
21. السكرتير التنفيذي
22. المحاسبة التجارية
23. المبيعات
24. الحاسب الآلي

#### س 2. كم يبلغ عمرك؟

16. أقل من عشرين عاماً
17. 20 – 25
18. 26 – 30
19. أكثر من 30 عاماً

#### س 3. هل سبق وأن عملت قبل التحاقك بالمعهد؟

نعم  لا

### الجزء الثاني: درجة أهمية الكفايات الوظيفية العامة

من فضلك اقرأ الوصف المقابل لكل كفاية في الجدول التالي لإدراك أبعادها ومتطلباتها، ثم حدد درجة أهميتها في العمل لخريجي الدبلوم فوق الثانوي لبرامج فرع معهد الإدارة العامة بالمنطقة الشرقية في الوقت الحالي. (ضع دائرة حول الرقم من 1 إلى 6 لكل كفاية)

B الكفاية	B الوصف	B درجة الأهمية					
		6	5	4	3	2	1
1. النزعة إلى الإنجاز	القيام بالمهام، والسعي نحو الوصول إلى النتائج، الابتكار، القدرة على المنافسة، التأثير في الآخرين، الالتزام بالمعايير، الكفاءة.	6	5	4	3	2	1
2. الالتزام بالنظام والجودة والدقة في العمل	مراقبة الأداء، الاهتمام بالوضوح، البعد عن الإبهام والغموض. متابعة الأمور.	6	5	4	3	2	1
3. روح المبادرة	المتابعة، عدم الاستسلام بسهولة، استئثار الفرص المتاحة.	6	5	4	3	2	1

6	5	4	3	2	1	القدرة على الحصول على المعلومات من مصادر متعددة.	4. القدرة على البحث عن المعلومات
6	5	4	3	2	1	التعاطف مع الآخرين والاستماع الجيد لهم، الإحساس بهم، إدراك حاجات الآخرين والقدرة على تشخيصها، تفهم مشاعر الآخرين.	5. تقدير العلاقات مع الآخرين
6	5	4	3	2	1	الرغبة والقدرة على التعلم، الاستفادة العملية مما تم تعلمه.	6. القدرة على الرغبة في التعلم
6	5	4	3	2	1	القدرة على بذل جهد إضافي لمقابلة وتلمس احتياجات العملاء، الاهتمام بإجابة استفسارات العملاء وتلبية طلباتهم وإيصال شكاوهم وحل مشاكلهم.	7. القدرة على تقديم الخدمات للعملاء
6	5	4	3	2	1	القدرة والرغبة في إقناع الآخرين بما يخدم أهداف العمل.	8. القدرة على التأثير في الآخرين
6	5	4	3	2	1	تفهم مسألة التنظيم ومعرفة حدود الصلاحيات في المنظمة أو في المنظمات الأخرى ذات العلاقة.	9. الوعي بالأمور التنظيمية في العمل
6	5	4	3	2	1	القدرة على بناء علاقات صداقة وصلات طيبة مع كل كافة الذين يتعاملون حالياً مع المنظمة، وكذلك المتوقع التعامل معهم.	10. القدرة على بناء علاقات جيدة
6	5	4	3	2	1	الرغبة الحقيقية لدعم تعليم وتطوير الآخرين، واختيار المستوى التدريبي المناسب لقدراتهم بما يخدم حاجة العمل.	11. القدرة على تطوير الآخرين
6	5	4	3	2	1	الحزم، الحسم، استخدام السلطة، تحمل المسؤولية، إلزام المعايير، السيطرة على أفراد المجموعة وضبط سلوكهم.	12. الدور القيادي والتوجيهي
6	5	4	3	2	1	الإسهام في تسهيل عمل المجموعة وإدارتها، القدرة على فض النزاعات، تحفيز الآخرين، إيجاد مناخ صالح للعمل.	13. القدرة على الأداء ضمن فريق عمل وعلى التعاون معهم
6	5	4	3	2	1	النزعة في قيادة فريق أو مجموعة. تحمل المسؤولية، القدرة على التبصير، الإهتمام بالمرؤوسين، فهم هدف المجموعة بشكل واضح، التحفيز للعمل الجماعي.	14. القدرة على قيادة فريق عمل
6	5	4	3	2	1	فهم الموقف بتحديد التفاصيل المكونة له، المنطقية في التفكير، الذكاء التطبيقي أو العملي، مهارات التخطيط، تحليل المشكلات، المنهجية في العمل.	15. التفكير التحليلي
6	5	4	3	2	1	القدرة على تصور الأمور، الفطنة، التفكير النقدي، تحديد المشاكل، القدرة على استحداث الفرضيات، القدرة على الربط بين الأمور.	16. القدرة على تصور الأمور
6	5	4	3	2	1	المعرفة والمهارة ذات الصلة بالتخصص ( مجال العمل )، السعي لاكتساب الخبرة، منح الخبرة للآخرين.	17. الخبرة العملية
6	5	4	3	2	1	القدرة على التحمل (الجلد)، مقاومة الضغوط، التروي والهدوء، درجة عالية من الذكاء العاطفي (قدرة الشخص على فهم عواطفه وعواطف الآخرين والتصرف وفقاً لهذا الفهم)، مقاومة الأخطاء والتضليل، له القدرة على تهدئة الآخرين.	18. ضبط النفس
6	5	4	3	2	1	الفهم القوي للقدرة الذاتية، السيطرة على الانفعالات، الاعتماد على الذات، الحسم، تقبل حمل المسؤولية.	19. الثقة في النفس
6	5	4	3	2	1	القدرة على التكيف مع المستجدات، القدرة على التغيير، النظرة الموضوعية للأمور، المحافظة على الموضوعية، المرونة إزاء المواقف المختلفة، التصرف بما يميله الموقف.	20. المرونة

6	5	4	3	2	1	تنظيم الذات وتنظيم الآخرين لخدمة المنظمة، العقلية العملية، التفاني وبذل كافة الطاقات في العمل.	21. الولاء للمنظمة
6	5	4	3	2	1	الفاعلية في حل المشكلات المحددة، مواصلة العمل حتى إنجازه.	22. القدرة على حل المشكلات
6	5	4	3	2	1	القدرة على تنظيم الذات وتنظيم الآخرين، إدارة الوقت بفاعلية، إنجاز المهام بكفاءة وفاعلية.	23. القدرة على التخطيط لنفسه والمهارات التنظيمية
6	5	4	3	2	1	التوجه الإيجابي لإمكانية أداء العمل، الحيوية التامة والنشاط، الحماسة، الاستعداد الدائم للعمل.	24. الحيوية والحماسة
6	5	4	3	2	1	القدرة على تشغيل عدد من برامج الحاسب الآلي، على دراية ببرامج إدارة المعلومات.	25. الإلمام بشؤون الحاسب الآلي
6	5	4	3	2	1	لديه المهارات المتعلقة بإعداد الاتصالات الكتابية وإرسالها مثل الاستخدام الصحيح للبريد الإلكتروني، وكتابة المذكرات الداخلية، التقارير الداخلية والخارجية، ورسائل العملاء.	26. الاتصالات الكتابية
6	5	4	3	2	1	إجادة اللغة الإنجليزية تحدثاً وكتابة	27. اللغة الإنجليزية (بشكل عام)
6	5	4	3	2	1	كتابة الرسائل، المذكرات والملفات، مراعاة قواعد اللغة الإنجليزية عند الكتابة، إجادة استخدام علامات الترقيم، وتجنب الوقوع في الأخطاء الإملائية.	28. اللغة الإنجليزية (الكتابة)
6	5	4	3	2	1	تحدث اللغة الإنجليزية بوضوح، استخدام العبارات اللائقة والمناسبة في بيئة العمل.	29. اللغة الإنجليزية (تحدثاً)
6	5	4	3	2	1	الاهتمام بالحضور والانصراف في الوقت المحدد، واستغلال وقت العمل بما يفيد المنظمة.	30. معرفة وتقدير قيمة وقت العمل
6	5	4	3	2	1	عدم التحدث عن الأمور التي تخص العمل ويؤدي نشرها الى الحاق ضرر بالمنظمة أو يؤثر سلباً على مصالحها.	31. المحافظة على أسرار العمل
							يرجى إضافة أي كفايات أخرى ترونها مناسبة في هذا السياق.
6	5	4	3	2	1		
6	5	4	3	2	1		
6	5	4	3	2	1		

### الجزء الثالث: المقارنة بين نوعي الكفايات من حيث الأهمية

تُصنف الكفايات الوظيفية العامة الى (Soft) و (Hard). حدد أي من صفتي الكفايات أكثر أهمية من الأخرى في العمل لخريجي الدبلوم فوق الثانوي لبرامج فرع معهد الإدارة العامة التي يتلقى دارسوها التدريب التعاوني؟ (أشر في المربع ، ثم أذكر السبب في الفراغ المتاح).



#### (Soft Competencies)

هي صفات ذاتية تظهر آثارها - غالباً - عند التعامل مع الآخرين ، حتى أنها تسمى (المهارات البشرية) ، (مهارات الاتصال)، وتسمى كذلك (التوجهات). وتتسم هذه الكفايات بصعوبة قياسها واكتسابها. من الأمثلة عليها: الثقة في النفس ، النزعة الى الانجاز ، القيادة. (راجع قائمة الكفايات الوظيفية العامة للتعرف على أمثلة أخرى لهذا النوع).



#### (Hard Competencies)

هي صفات علمية ومهارية عادة ما تتطلب قدراً كافياً من المعرفة لاكتسابها، ومن السهل تعلمها وقياسها. من الأمثلة عليها: القدرة على إجراء الاتصالات الكتابية ، الإلمام بشؤون الحاسب الآلي ، إجادة اللغة الانجليزية. (راجع قائمة الكفايات الوظيفية العامة للتعرف على أمثلة أخرى لهذا النوع).



<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> B الدراسة في المعهد <input type="checkbox"/> B تعليم ذاتي <input type="checkbox"/> B التدريب التعاوني	7. القدرة على تقديم الخدمات للعملاء
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> B الدراسة في المعهد <input type="checkbox"/> B تعليم ذاتي <input type="checkbox"/> B التدريب التعاوني	8. القدرة على التأثير في الآخرين
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> B الدراسة في المعهد <input type="checkbox"/> B تعليم ذاتي <input type="checkbox"/> B التدريب التعاوني	9. الوعي بالأمور التنظيمية في العمل
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> B الدراسة في المعهد <input type="checkbox"/> B تعليم ذاتي <input type="checkbox"/> B التدريب التعاوني	10. القدرة على بناء علاقات جيدة
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> B الدراسة في المعهد <input type="checkbox"/> B تعليم ذاتي <input type="checkbox"/> B التدريب التعاوني	11. القدرة على تطوير الآخرين
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> B الدراسة في المعهد <input type="checkbox"/> B تعليم ذاتي <input type="checkbox"/> B التدريب التعاوني	12. الدور القيادي والتوجيهي
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> B الدراسة في المعهد <input type="checkbox"/> B تعليم ذاتي <input type="checkbox"/> B التدريب التعاوني	13. القدرة على الأداء ضمن فريق عمل وعلى التعاون معهم
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> B الدراسة في المعهد <input type="checkbox"/> B تعليم ذاتي <input type="checkbox"/> B التدريب التعاوني	14. القدرة على قيادة فريق عمل
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> B الدراسة في المعهد <input type="checkbox"/> B تعليم ذاتي <input type="checkbox"/> B التدريب التعاوني	15. التفكير التحليلي
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> B الدراسة في المعهد <input type="checkbox"/> B تعليم ذاتي <input type="checkbox"/> B التدريب التعاوني	16. القدرة على تصور الأمور
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> B الدراسة في المعهد <input type="checkbox"/> B تعليم ذاتي <input type="checkbox"/> B التدريب التعاوني	17. الخبرة العملية
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> B الدراسة في المعهد <input type="checkbox"/> B تعليم ذاتي <input type="checkbox"/> B التدريب التعاوني	18. ضبط النفس



<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> الدراسة في المعهد <input type="checkbox"/> التدريب التعاوني <input type="checkbox"/> تعليم ذاتي B	19. الثقة في النفس
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> الدراسة في المعهد <input type="checkbox"/> التدريب التعاوني <input type="checkbox"/> تعليم ذاتي B	20. المرونة
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> الدراسة في المعهد <input type="checkbox"/> التدريب التعاوني <input type="checkbox"/> تعليم ذاتي B	21. الولاء للمنظمة
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> الدراسة في المعهد <input type="checkbox"/> التدريب التعاوني <input type="checkbox"/> تعليم ذاتي B	22. القدرة على حل المشكلات
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> الدراسة في المعهد <input type="checkbox"/> التدريب التعاوني <input type="checkbox"/> تعليم ذاتي B	23. القدرة على التخطيط لنفسه والمهارات التنظيمية
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> الدراسة في المعهد <input type="checkbox"/> التدريب التعاوني <input type="checkbox"/> تعليم ذاتي B	24. الحيوية والحماسة
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> الدراسة في المعهد <input type="checkbox"/> التدريب التعاوني <input type="checkbox"/> تعليم ذاتي B	25. الالمام بشؤون الحاسب الآلي
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> الدراسة في المعهد <input type="checkbox"/> التدريب التعاوني <input type="checkbox"/> تعليم ذاتي B	26. الاتصالات الكتابية
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> الدراسة في المعهد <input type="checkbox"/> التدريب التعاوني <input type="checkbox"/> تعليم ذاتي B	27. اللغة الانجليزية (بشكل عام)
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> الدراسة في المعهد <input type="checkbox"/> التدريب التعاوني <input type="checkbox"/> تعليم ذاتي B	28. اللغة الانجليزية (الكتابة)
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> الدراسة في المعهد <input type="checkbox"/> التدريب التعاوني <input type="checkbox"/> تعليم ذاتي B	29. اللغة الانجليزية (تحدثاً)
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> الدراسة في المعهد <input type="checkbox"/> التدريب التعاوني <input type="checkbox"/> تعليم ذاتي B	30. معرفة وتقدير قيمة وقت العمل

<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> B الدراسة في المعهد <input type="checkbox"/> B تدريب التعاوني <input type="checkbox"/> B تعليم ذاتي	31. المحافظة على أسرار العمل
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> B الدراسة في المعهد <input type="checkbox"/> B تدريب التعاوني <input type="checkbox"/> B تعليم ذاتي	يرجى إضافة أي كفايات أخرى ترونها مناسبة في هذا السياق.
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> B الدراسة في المعهد <input type="checkbox"/> B تدريب التعاوني <input type="checkbox"/> B تعليم ذاتي	
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> B الدراسة في المعهد <input type="checkbox"/> B تدريب التعاوني <input type="checkbox"/> B تعليم ذاتي	
<input type="checkbox"/> البيت/ الأسرة/ المجتمع <input type="checkbox"/> المدرسة <input type="checkbox"/> B الدراسة في المعهد <input type="checkbox"/> B تدريب التعاوني <input type="checkbox"/> B تعليم ذاتي	