# Skills and Competencies

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## Abstract

*This article presents the results of a study aimed to investigate the requirements of the business sector in light of the skills and competencies students should have in order to be recruited. In this fashion, the study intended to measure the importance of the skills and competencies sought by the business world, revealing ways through which students can develop such skills. This project portrayed that, some of the required classes will certainly give students a strong theoretical background but they will neither completely prepare this student with all possible skills or competencies nor provide the student with any practical experience that will enable him/her to be more competitive when entering the business market. In some classes, however, like Public Speaking, which is designed to teach presentation skills, successful students are able to build good communication and interpersonal skills. Additionally, an English writing class will certainly attempt to provide them with strong writing skills, and a business class will possibly demand reading skills. Moreover, a calculus and a statistics class will provide basic arithmetic/mathematical skills. However, through this project it is proven that all of these classes will neglect the indoctrination of creative thinking in students, or make students believe in their own self-worth (self-esteem skills); the courses will also fail to develop the sense of urgency, drive and determination that students should possess not just to compete but also to survive in a business world.*

## 1. Introduction

Imagine yourself in the driver's seat, of a personnel director who has to pick the best candidate for the job. The selection has been narrowed down to two well qualified candidates. Helen, a 3.0 graduate with leadership experience in various campus organizations, a few volunteer experiences demonstrating her commitment to others, a semester of international education in England, a number of related summer jobs, a campus job doing research for a professor and a semester internship in the field in which she desires to work in the future. George, on the other hand is a 3.5 graduate with the same major but with no other qualifications. Who would you choose?

Marlen Philippou (Politis 2006, p.79), coordinator of Smart Options (University Counselors) highlighted a few years back that companies are looking for applicants with something beyond just an excellent academic record. *"Education today is extended not only to excellent academic records but also to candidates who possess skills with which they can really make a difference"*. As she further supported, *"skills like these can be the ticket in the market place".*

Due to fierce competition, companies nowadays seek candidates with certain skills and competencies, basically people who can make a difference. As Marlen Philippou suggested, students with excellent academic records abound today, but those who can truly make the difference are only a few. "*At college, students are supposed to learn how to rely on themselves to solve any kind of problem, to handle pressure and additionally, to meet their deadlines. Students who really develop skills like these can be truly competitive candidates for companies today.*" At the end of the day a student must graduate with not only a degree but also the valuable skills and competencies sought by firms.

A recent article (Anon, 2003) stated that employers generally want as many guarantees as possible that they are hiring a person who can do the job. Of course no employer can get a guarantee as to whether a newcomer can actually do the job, and this is why organizations usually give new employees a probationary period of 6 months to a year to ensure that they are suitable. The best assurance, however, is to hire people with a track record of relevant and practical experiences, someone who has learned and been tested on the job competencies. In many situations, a person with a lower grade point average but with more experience will win out over a candidate with a higher one. If it is obvious that people with experience are more employable, then why doesn't everyone obtain as much experience as possible? There is probably not a simple answer to this question. For some students, it is due to a lack of awareness or encouragement while for others it is the absence of defined goals or the motivation to seek out these experiences. Most students live busy, complicated lives, and the path of least resistance, or perhaps procrastination, leads some to return to previous jobs or accept ones they haven't spent much time and effort obtaining. On the contrary, a different job would pay more, especially once a candidate has salable skills.

In his journal Wilson (2006, p.33) revealed that as the Fall recruiting season of 2006 and 2007 was upon them, it appeared that the market would favor graduates who were properly prepared to enter their chosen professions. Based on all indications, the high demand for entry-level talent at the time required a pro-active approach on the employers' part in order for them to meet hiring targets both quantitatively and qualitatively. To take a closer look at what employers were looking for and how students should optimize their opportunities, Wilson's team have asked a selected group of employers to give input on four key points:

1. Specific skills, traits, and qualities they look for in on-campus interviews.
2. Advice on how students should prepare for on-campus interviews.
3. The challenges or obstacles employers face in reaching their on-campus recruitment goal.
4. Their individual comments and observations to help students prepare to enter the job market.

According to Wilson (2006, p.33), it generally appeared that most organizations did not specifically look for very high GPAs but for candidates who demonstrated strong character traits, particularly integrity, leadership, flexibility and a strong work ethic. They also seek applicants who had business acumen and specific skills to multi-task, problem-solve and complete projects. Interviews with employers who typically engage in recruiting revealed that firms and organizations usually look for qualities such as integrity, honesty and reliability; they seek employees who show responsibility as well as the ability to work in teams. These traits, though rare to find in candidates, make them more productive and efficient within the work place. It stands to reason that this is true for all organizations in every country. The purpose of this study was to *reveal ways through which students can develop such skills.*

 Specifically, the objectives of the study were to:

- Explore and define skills, competencies as seen through the international literature.
- Evaluate the importance of the above skills and competencies.
- Identify the most important skills and competencies for a successful career in the business world.
- Measure the degree of students' possession of the above skills and competencies
- Identify and validate the gap that exists between what the business world is looking for and what students perceive they posses in terms of skills and competencies.
- Identify and recommend specific methods that Universities can utilize to minimize that gab.

## 2. Literature review

### 2.1 Definition of skills and competencies

Several studies refined previous research about the importance of skills and competences. Gammelgaard and Larson (2001) for example, argued that <u>skills</u> cover general, context independent knowledge; competencies, on the other hand, refer to experience based and context dependent knowledge. Taught in most classes, skills are general tools and rules which are vital for the practitioner. However, to reach a competence level, practitioners acquire context dependent knowledge through organizational experience.

Sandy Leitch went a step further. In her Review of skills (2006, p.6) she contended that skills are capabilities and expertise in a particular occupation or activity. As she argued, there are a large number of different types of skills and they can be split into a number of different categories. Basic skills, such as literacy and numeracy, and generic skills, such as team working and communication, are applicable in most jobs. Specific skills tend to be less transferable between occupations. Most occupations use a mix of different types of skills and within each skill there are different levels of ability.

The idea that organizations give variant value to different skills may be true, or the idea that different departments within the same company might also require different qualities might again be true. It may be asserted, for example, that an advertising executive should mostly possess good communication skills, whereas a research analyst should have very good arithmetic skills.

Other practitioners, like Peterson (1997), underscored the importance of communication skills, arguing that it is one of the most critical skills. He posited that a survey with 253 personnel interviewers in Midwestern American businesses revealed that all respondents identified communication skills as having a major effect on hiring decisions. 90% indicated that communication skills are essential for success, yet only 60% reported that applicants were prepared with effective communication skills in job interviews.

Numerous studies in the past examined the importance of skills and competencies. In 2000, the U.S Department of Labor and Education formed the Secretary's Commission on Achieving Necessary Skills (SCANS) to study the kind of competencies and skills that workers must have to succeed in today's workplace.

Furthermore, according to Zikmund (2003), today research has come to be an extremely important part of the business field. Marketing research can fulfil marketing managers' and employees' need for knowledge of the current situation and helps them predict how the market will respond to their decisions.

The emphasis of marketing research is to shift decision-making from risky intuitive decisions to ones based on systematic and objective investigations. Almost any organization at some point undergoes some kind of research. Furthermore, nearly every employee at some point is required to research a topic, even in a secondary form. Candidates today should be aware of what research is and be able to go through its basic steps.

They do not have to know how to design questionnaires or how to conduct focus groups, but they should know how to define a problem and set objectives, a simple requirement necessary for most areas of work. Further, they should know how to conduct a literature review and of course interpret a basic set of numbers.

These are part of every employee's duties. In line with this, the Government Social Research handbook (2007, p.5) highlights that its purpose is to clarify and define a comprehensive set of

competencies relevant to the broad spectrum of research work. As the handbook states, Government Social Researchers have a wide range of responsibilities, including:

- Designing research
- Analysis of large data sets
- Designing interviews
- Managing research
- Literature reviews
- Drawing together an evidence base, etc.

The competencies are described in terms of behaviors so that they can be used for recruiting, promoting, appraising and developing Government of Social Research members. However, as the Government of Social Research (GSR) Handbook mentions, it is important not to lose sight of the core technical skills which underpin the competencies and distinguish Social Researchers from the other analytical professions. The above two models outline a series of possible skills, competencies and personal qualities. It is impossible for a candidate to possess all these skills but a university's goal should be to make these skills at least known to students and try to transfer as many as possible to them. Sometimes students lack knowledge of possibilities. Merely pointing these out might be enough to urge pupils to pay attention, motivating them to mastery. Additionally, since researchers have made known this information, it is every practitioner's job to find ways to pass it on to students. The problem, however, lies in the difficulty of finding ways to effectively teach students all the above skills.

> "Universities abroad have, consequently, incorporated business communication into their curricula, though in widely divergent ways--workshops, curriculum integration, competency testing, and full-fledged courses. These approaches have focused largely, if not wholly, on skills development. Despite such instruction, business graduates frequently lack preparation for the communication challenges they face and management educators continue to wrestle with questions such as "*What should we teach?*" (Reinsch and Shelby 1997, p. 1).

### 2.2 Human Capital and Productivity

People, the human capital asset, with the right profile and capability provide an advantage not easily replicated by competitors. At the same time, the labor force has also changed dramatically. Organization managers know they need people to deliver value in new and different ways, and that the people they depend on have evolved. For example, we see an aging, more diverse population, with more women entering the workforce, more dual-earner couples. However, as Anon notes, businesses still struggle with a general shortage of the skills required in a service and information economy.

As the Anon article highlights, the gap between a company's tangible assets and its stock market value is growing. For many businesses the tangible assets on the balance sheet represent a small part of their stock market valuation or the value to a potential acquirer. In most organizations, evaluation of human capital is non-existent. As the world has changed and human capital has become more critical to competitiveness, exposed are the limitations of traditional accounting practices in being able to identify the real value-adding components of an organization. According to Anon, the issue is that not knowing how to measure intangible assets impacts on investment: how do we know whether to invest, or how much? According to Samuelson and Nordhaus (1992)**, human capital** refers to the stock of productive skills and technical knowledge embodied in labor, something closely tied to one of the purposes of this study. Many early economic theories refer to it simply as human resources or labor supply, one of four elements of development, and consider it to be an important aspect that adds on productivity. Samuelson and Nordhaus (1992) cite that the engine of economic progress must ride on four wheels: 1) Natural resource (land, minerals, climate); 2) Capital information (machines, factories, roads);

3) Technology (science, engineering, management and 4) human resources/capital (labor supply, education, motivation).

According to Samuelson and Nordhaus, countries should be concerned with the quality of their human resources and should emphasize programs, like control disease and improve health and nutrition with which they can make people happier and make them more productive workers. Other programs include the improvement of education, reduction of illiteracy and training of workers. Educated people, as Samuelson notes, become more productive workers, who can use capital more effectively, adopt new technologies and learn from their mistakes.

Samuelson and Nordhaus (1992) further highlight, that many economists believe that the quality of labor inputs, human capital, is the single most important catalyst to economic development. Therefore, understanding how and why people add value or not to an organization is an important and difficult management skill for the twenty-first century. During the late nineteenth and early twentieth centuries, human capital in the United States became considerably more valuable as the need for skilled labor came with newfound technological advancement. New techniques and processes required education beyond the norm of primary schooling, which then led to the creation of more formalized schooling across the nation. This early insight into the need for education allowed for a significant jump in US productivity and economic prosperity, when compared to other world leaders at the time.

In reference to the UK example described in the review (2006, p.1), people are a country's natural resource with vast opportunity for development. Once these skills are unlocked, a country's workforce will have higher productivity, creating a wealth and social justice. Without these, the UK would have condemned itself to a lingering decline in competitiveness, diminishing economic growth and a bleaker future for everyone.

According to the Leitch Review of Skills, as the global ecomony evolves, change is unavoidable; thus, people should look for other ways to protect their jobs as the traditional old model is no longer enough. Looking deeper, people should work on the basic platform of skills which will allow flexibility and the update of these skills in parallel with the economy's evolution and change.

According to the same study, characteristics such as innovation, leadership and management, led by a highly skilled workforce, offer businesses the competitive edge in the global economy. Ensuring that high skills are of world class quality and relevance to the economy is just as important as determining the quantity of people that should be qualified at these levels. The world class ambition requires increased engagement and investment from employers with higher education, to drive management, innovation and workforce development.

According to Cyprus Republic Statistical Service, Cyprus, has been dependent on the agriculture and tourism sectors due to its geographic position; however, parties within have realized that one of its major strengths would be its ability to become a major service provider, especially in the educational system. In 2007, the Cyprus government made the major decision to advance four colleges into universities. It is, therefore, imperative for these institutions to realize the role that it has been assigned: To prepare students for the real marketplace and contribute significantly to the country's workforce development.

Mc Mahon in his book Education and Development, Measuring the Social benefits (2006, p. 6) notes that the contribution of education to the individual's welfare is a direct contribution of education to productivity and growth of economy via the development of a skilled workforce. Other indirect effects encourage higher rates of investment in physical capital and stronger export competitiveness with feedback effects on growth.

Contributions to education and investments in human capital also have a positive impact on the gross domestic product (GDP). A region's gross **domestic product** is one of the ways for measuring the size of its economy. According to Samuelson and Nordhaus (1992), the gross domestic product (GDP) of a country is defined as the market value of all final goods and services produced within a country in a given period of time. Gross domestic product (GDP) per capita can also be seen as a proxy of labor productivity. As the productivity of the workers increases, employers must compete for them by paying higher wages. Conversely, if productivity is low, then wages must be low or the businesses will not be able to make a profit.

If employees possess more skills, this simply means that organizations will enjoy higher profits. As a consequence, employers will be able to give higher salaries so the gross domestic product (GDP) will increase. So, if the value of final goods is higher, this means that the value of a country is higher. Competitiveness also gives the ability of increase in the GDP. Increasing jobs from aboard creates wealth so salaries go up. Furthermore, higher skills will increase the number of those with jobs and as a consequence the unemployment rate of these people will decrease.

The Review of skills (2006, p. 9), states that skills are also a key driver of **fairness,** because the unequal access to skills contributes to relatively high rates of child poverty and income inequality. Looking closer, one observes a clear link between skills and wider social outcomes. Skills impact a person's financial capability significantly as better financial employment terms mean that a household can manage their family lifestyle better, allowing them time to dedicate to their children on homework assistance. Concluding, the review states that skills are key drivers to prosperity and fairness of people's lifestyle.

Furthermore, skills are also a driver to a healthy lifestyle as **health problems** (including depression and obesity) are more common among unskilled and low-income households. The skills impact on health directly and indirectly, the former with the sharing of information on how to improve health and indirectly by improving the income making a healthy lifestyle more affordable.

Another area skills affect people's lives according to the Leitch Review of skills (2006, p 37) is the effect on **crime**. By improving people's financial employment terms, you minimize crime, something that is extremely difficult to quantify. According to the Review, there is one study which asserts that a one percentage-point increase in the proportion of the working age population with a GCSE or equivalent qualifications reduces the crime rate, thus saving the country from £10 to 320 million per annum.

**2.3 Cyprus**

According to the Statistical Service of the Cyprus Republic (2008), the Business activity in Cyprus is divided into four main fields: *manufacturing, exporting, importing and servicing*. Each category is subdivided into many smaller categories. For example, a few of the important categories of *exporting/manufacturing* activity directly related with business and in which most graduates will seek jobs include:

- Beverages, clothing, furniture, machinery, cement, chemicals, paper products, shoes. This category also includes other products important for the economy like vegetables, fruit, cheese and oil.

Important categories of *Importing* activity include:

- Cosmetics, electrical appliances, footwear, iron & steel, advertising items, animal medicines, batteries, beer, bicycles, boats.

Important categories of the *Service* activity include:

- Accountants, advertising agencies, advocates, banks, consultants, educational institutions, internet service providers, investment companies, shipping companies, telecommunication, training institutions, research companies, web design and other.

The four main areas are divided into smaller sectors:

**TABLE 1**

| A | Agriculture, hunting and forestry |
|---|---|
| B | Fishing |
| C | Mining and quarrying |
| D | Manufacturing |
| E | Electricity, gas and water supply |
| F | Construction |
| G | Wholesale and retail trade |
| H | Hotels and restaurants |
| I | Transport, storage and communication |
| J | Financial intermediation |
| K | Real estate, renting and business activities |
| L | Public administration and defense |
| M | Education |
| N | Health and social work |
| O | Other community social and personal sevices |
| P | Private households with employed persons |

The Labor survey conducted by the Statistical Service of the Cyprus Republic (2008) specifies that the great majority of the employment sector is concentrated in services (72.7%). Therefore, the majority of university graduates will find jobs in advertising agencies, shipping companies, consulting firms, education, research, accounting or hospitality management, etc., while a lower percentage of graduates will look for a job in the manufacturing industry (22,6% of people employed are concentrated in manufacturing). The 2008 GDP reaching 16,934 million Euros underscores the importance of these people's contribution to the statistics.

Furthermore, according to the Labor survey of the Statistical Service of Cyprus (2008), out of the total of employed people in Cyprus in the fourth quarter of 2007 (384,852), 10% (37,224) is aged 15-24. According to Vareta (2006), recruitment is an activity directed to obtain appropriate human resources whose qualifications and skills match functions of the relevant posts in the organization. Its importance cannot be over-emphasized and can also be best described as the "heart" of the organization. Suitability for a job is typically assessed by looking for skills in communication, typing or computer to name a few. Evidence of skills required for a job may be provided in the form of qualifications (educational or professional), experience in a job requiring the relevant skills or the testimony of references. Candidates today, as opposed to the past, are typically placed based on a multi-faceted set of criteria (recruited): personal preference and interest, industry or position experience, education, references and even psychographics. A newcomer in the market, for example, lacks the practical experience and applied knowledge that most companies are looking for.

At Universities, students seeking a General Business Degree will have to attend general requirement classes like Principles of Microenconomics and Macroenconomics, Business English, Public Speaking and Expository Writing, Philosophy and Political Sciences, History, Psychology, Sociology, Statistics

and Calculus. The same student will then have to attend business classes like Business Law, Introduction to Financial and Managerial Accounting, Introduction to Business and Introduction to Marketing and Principles of Management. Before graduating the student will need to choose a certain direction (major) and complete around 30 credits within this major. So, if a student declares a marketing major, he/she will have to attend around ten different marketing classes.

This project portrayed that, some of the required classes taught in Universities will certainly give this student a strong theoretical background but they will not completely prepare this student with all possible skills or competencies that will enable him/her to be more competitive when entering the business market. In some classes, however, like Public Speaking, which is designed to teach presentation skills, successful students are able to build good communication and interpersonal skills. Additionally, an English writing class will certainly attempt to provide them with strong writing skills, and a business class will possibly demand reading skills. Moreover, a calculus and a statistics class will provide basic arithmetic/mathematical skills. However, through this project it is proven that all of these classes will neglect the indoctrination of creative thinking in students, or make students believe in their own self-worth (self-esteem skills); the courses will also fail to develop the sense of urgency, drive and determination that students should possess not just to compete but also to survive in a business world.

In a recent article, the office of government commerce in the UK (2007) argues that one of the essential roles of the business management is to ensure that staff members within the organization continue to possess the necessary skills and use them to the benefit of the business. Policies and procedures must be put into place to manage the planning, acquisition, deployment, development and updating of staff skills. Without adequate attention to the skills dimension, services will at best fail to reach full potential and at worst could be totally wasted if a lack of critical skills causes a development to fail.

## 3. Methodology
A multi-approach was utilized in this study. The study falls under the umbrella of a *case study that was injected with secondary data analysis (literature review), experience surveys and a pilot study; all were then reinforced by a quantitative survey and a matrix analysis.*

In part 1 an in-depth *secondary data analysis* was performed to explore the various business sectors of the market and synthesized them to the programs offered at European University.

In light of the above, secondary data analysis was conducted to *explore and define skills, competencies and practical experience as seen through the international literature.* Specifically, the Secretary's Commission on Achieving Necessary Skills (SCANS) Model and the Government Social Research (GSR) Handbook Competencies discussed in the literature review were explored and formed the basis on which subsequent research was conducted in this project. The SCANS was formed by the U.S Department of Labor and Education (2000) with the aim to study the kind of competencies and skills that workers must have to succeed in today's workplace. Furthermore, the Handbook of Government Social Research has as its purpose to clarify and define a comprehensive set of competencies relevant to the broad spectrum of research work. Based on the above models as well as on other literature, an original tool was created consisting of all possible skills, competencies and personal qualities. The tool was adjusted to a business oriented tool.

The above tool formed the basis for part 2 in which in-depth interviews were conducted with employers. Specifically, i*n-depth interviews*, explored the views of employers (business directors and managers) who engage in recruiting. Employers evaluated the ***importance of skills and competencies.*** Employers then cited those skills vital for them when recruiting a candidate, and identified the most important skills and competencies for a successful career in the business world.

Lastly, methods that employers believe are adequate to introduce skills, competencies and practical experience to students, were also explored in this part.

Based on employers' indications, the *A-Level Skills Index* was created. The *A-Level Skill Index* further investigated, includes of 29 different skills, competencies or personal qualities either mentioned in the Secretary's Commission on Achieving Necessary Skills (SCANS) Model and Government Social Research Handbook (GSR), or suggested by employers at in-depth interviews. *The A-Level Skill Index* was then explored in the focus group section (part 3), ***revealing a gap between what employers require and what students perceive they possess***.

Two different sets of focus groups were conducted consisting of 6 students each, and their views were analyzed in depth.

Lastly, the *A-Level Skill Index* was assessed in the survey section (part 4), in order to quantitatively ***validate that the gap exists***. The *survey* conducted among students within European University; it attempted to technically evaluate their perception about the importance of skills and competencies and to statistically quantify their **perception** on their ***degree of possession of skills and competencies***. In addition, the study measured the degree of satisfaction of academic background provided and how well prepared they perceive they are to enter the business world. Results for this section were validated by empirical means through the use of Hypothesis Testing.

In light of the above, in an effort to ***assess the degree of possession of skills and competencies***, the *A-Level Skill Index* was further investigated in a detailed technical analysis of each course's syllabi. Each course syllabi was analyzed based on my **personal perception**, resulting in a matrix that combined all the business courses along with the degree to which they are able to offer each skill, competency and personal quality noted. The main aim of this technical analysis was to test exactly which of the 29 *A-Level skills* are actually delivered through courses, and define the level to which each of those is delivered. This contributes greatly to the project as through the analysis it is revealed which, but also how, classes should be enforced to meet the needs of the market.

At this point I have to emphasize that all the previous parts are in line with the aims of this project and were synthesised to form a coherent whole. This allowed the ***identification and recommendation of specific methods that Universities can utilize to minimize the gab that exists and to ensure that students will be introduced to skills and competencies prior to graduation***.

### 3.1 Analysis
The method used to analyze the *in-depth interviews* and *focus groups* followed four flows of action: *data copying, data display, theme creation and conclusions and verification.*

Furthermore, the primary data from the *survey* was analyzed in SPSS (Statistical Package of Social Sciences). Analyses employed both simple and advanced. Simple analysis involved the examination of frequencies and advanced employed the use of Hypothesis Testing for verification of the results. To provide some evidence of the degree of validity, the research design utilized *face validity.* In addition, the research design utilized *reliability* tests*.*

I believe that the above approach provided a coherent whole that was carefully designed and led to safe conclusions and recommendations. The approach has worked with key stakeholders and drawn on evidence from a variety of sources all of whom are greatly affected by the result. The literature was explored, employers have provided the skills that mostly look for when hunting a candidate, and students have given their perception on the matter. All stakeholders' views were backed up by a technical analysis of the courses that revealed my perception as to the degree that each course offers

the needed skills. Safe conclusions were confirmed exactly because the views of all stakeholders were synthesized to complete each other.

## 4. Findings

### 4.1 Skills and competencies cited as vital for a successful career

This study provided some significant insight regarding those skills and competencies that are vital for a successful career. Recruiters clearly indicated that all kinds of skills (basic and thinking) as well as personal qualities and competencies are vital for a candidate to succeed in today's workplace. Most of them believe that the basic and thinking skills a person should normally have evolve through secondary education or at least in college, even though they frequently come across candidates who lack a few of the basic skills. However, they realise that people who possess the majority of these skills and competencies are rare talents, close to extinction. Recruiters cite the fact that sometimes the skills or competencies needed depend on the position. As they relate, for a researcher position the candidate should possess very good analytical skills, whereas for a client service position the candidate needs extremely good communication skills. The bottom line, however, is that some tenets are universal and they mostly look for competencies and personal qualities which, as they say, emerge through a person's character and cannot be taught easily.

When they were asked, unaided, to indicate the competencies and qualities candidates should possess at the time of their hiring (as soon as they graduate), recruiters noted that they are mainly looking for candidates who can make the difference and as they emphasize, people like this are scarce. The two most important qualities that stand out for all recruiters are for candidates to be client-oriented and able to collaborate effectively in a group environment. Business market players today know that they need to make sizable profit to survive. Therefore, the modern business character has brought an increasing number of firms involved with sales to have adopted the concept of team selling or sales teams. This is a group of people representing a sales department as well as other functional areas such as finance, production and research, who are brought together to meet the needs of the client. Additionally, firm management has realised the merits of developing a mutually beneficial relationship with the client, over time. As displayed in the graphical representation following, integrity, honesty, responsibility and reliability are just a few of the qualities necessary for building such strong bonds. Skills, personal qualities and competencies directly indicated as being important by recruiters are labelled *Level A qualities*.

## Table 2 - Teaming

### Level A

| Basic/Thinking skills | Competencies | Personal qualities |
|---|---|---|
| Communication skills (speaking)<br>Problem solving skills<br>Decision making skills<br>Creative thinking skills | Business knowledge<br>Customer orientation<br>Team work abilities<br>Analytical thinking<br>Constructive thinking<br>Time management abilities<br>Action orientation<br>Sense of urgency<br>Initiative<br>Show high potential<br>Determination/hard working<br>Street smartness<br>Critical analysis abilities | Able to form constructive relationships<br>Self-managing<br>Loyal<br>Organized (have an organized mind)<br>Methodical<br>Have Integrity/honesty<br>Reliable<br>Responsible<br>Sociable (able to adjust)<br>Flexible<br>Positive/confident<br>Productive |

**4.2 Skills not have been provided**

Students clearly indicated their perception that besides being taught how to be organized and confident, manage their time properly and be good team players, Universities failed to pass on to them all other qualities that recruiters require. Among others, customer orientation and time management are a few of the skills that a University could easily foster an awareness of. Regarding customer orientation, students think that there should be some sort of a practical course through which they will be sent to organizations to work so that they come in contact with people. Regarding time management, as they mention, it is very important for instructors to set deadlines and strictly follow them as "most instructors are quite flexible and do not force students to keep to their deadlines".

In addition, students believe that it is not feasible for them to acquire most of the skills at university. It is not possible, for example, while at university to be sent to a company to work. They believe that most of the skills can be acquired while working after graduation.

The graph below provides an analysis of what the business world is looking for and what students at Universities perceive to possess, as derived from exploratory research. Easily depicted is the great gap between the two.

## Table 3 – Gap Analysis between recruiters and students
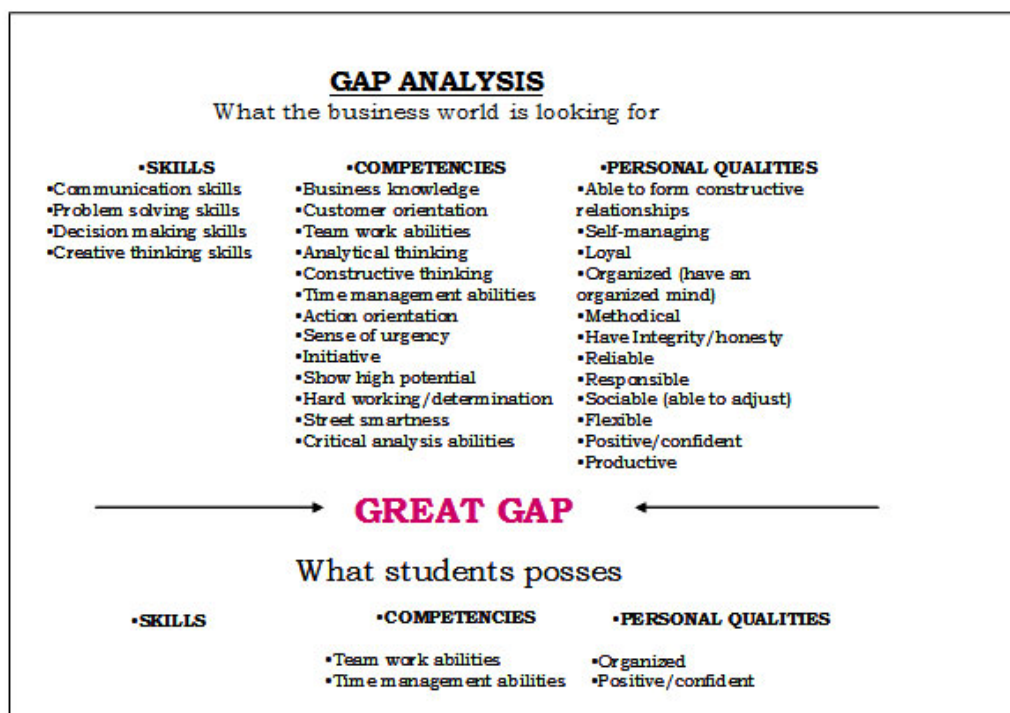


**4.3 Validation of Gap**

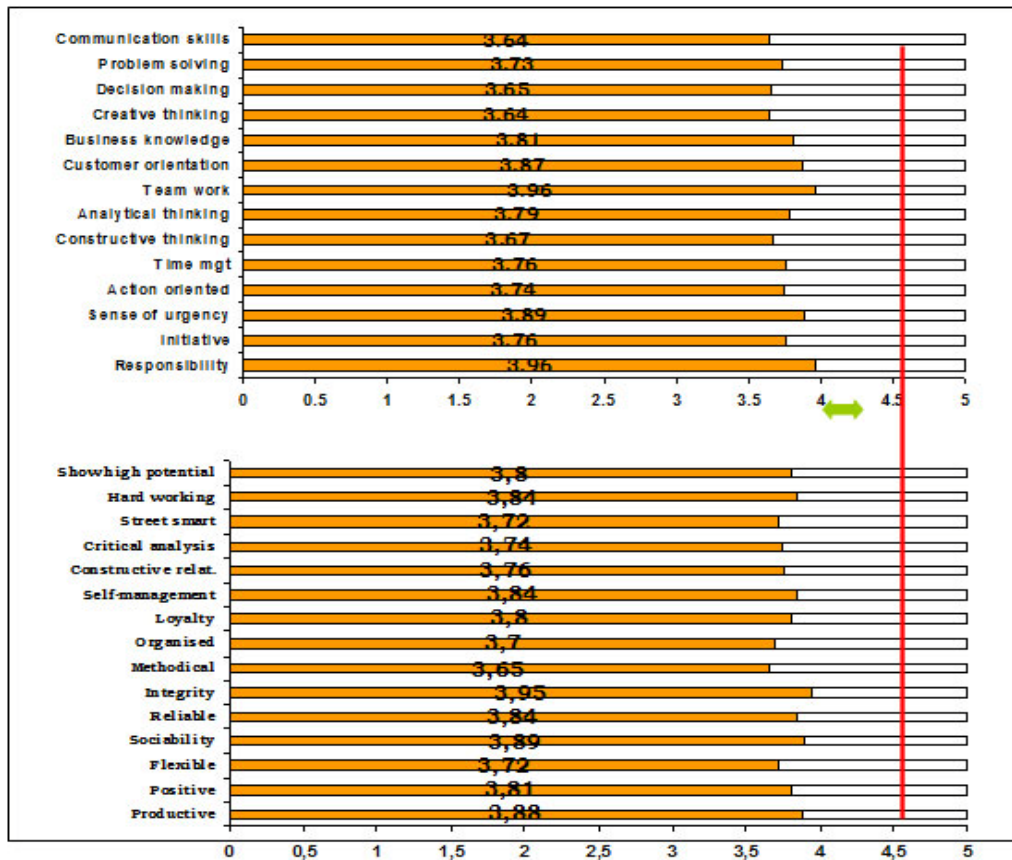**4.1 Level of possession of A-Level Skills**

In focus groups students explained that it is impossible for a candidate to possess all skills and competencies that recruiters require. They believe, however, that most of these skills are universal

for a business person, in other words, they are a must for any business environment. Nevertheless, they believe that a few of the A-level items are highly job-specific. A person who wishes to work in an advertising agency, for example, should probably be a creative thinker whereas an account manager must have good business knowledge.

Upon reading the skills and competencies on the card, they immediately remembered that in job interviews attended, recruiters had tried through different methods to assess their attainment level of a few of these skills. At the time they had not cognated the recruiters' aim, but now it made more sense.

Further to what students have noted in focus groups, the survey approach as described at the methodology section, aimed at statistically quantifying their perception as to the degree of possession of A-Level Skills. Figures that follow present the quantitative findings of the above as they were examined in the survey, followed by a hypothesis testing that aims to test as to whether results can be generalized to the population.

**TABLE 5**



*Perception on the level of possession of skills and competencies*

When statistically tested, students' perception on the possession of the skills seems to be on the neutral side. Students were asked to indicate in what degree they believe they posses (the University has provided to them) the A-Level skills and competencies. On a scale of 1-5, where 1= Extremely Low

and 5=Extremely high, all skills are averaged between 3.0-4.0, with **Total Average Perceived Possession** being 3.78.

Students seem to depict a bit higher level of possession on having integrity/honesty (being able to choose an ethical course of action), with average possession being 3,95, as well as being responsible (able to exert a high level of effort and insist towards goal attainment) and good team players with average being 3.96. Lower levels of possession exist on creative thinking (able to generate new ideas) with possession averaging on 3.64 and on communication skills (able to organize ideas and communicate orally) with average being 3.64.

Differences within gender exist only regarding honesty (men=3.83, women=4.07), sociability (men=3.71, women=4.08), responsibility (men=3.82, women=4.11) and sense of urgency (men=3.75, women=4.05) with women assessing them selves a bit higher than men in the above three skills.

Through discussion with my advisor, we have set the **Minimum Level of Possession** that University students must posses before graduate, to be at 4.50. We believe that if we isolate the Total Average Perceived Possession (3.78) then we can conclude that it is already high, but it is our belief that there is a great room for improvement and we have the option to increase this level of possession, therefore making graduates better competitors in the business world. The formula that follows, depicts the gap that exists between Optimum and Perceived Current results.

*GAP=Optimum Level of Possession (4.50) - Current Perceived Possession of Skills (3.78)*

The **null hypothesis** is that possession by students of the above skills, competencies and personal qualities is not on the neutral side.

Ho: μ=0

H1: μ≠0

As already mentioned, the significance level is a critical probability in choosing between the null and the alternative hypotheses. The level of significance determines the probability—say, .05 or .01—that is to be considered too low to warrant support of the null hypothesis (we reject the null hypothesis).

In our question, at 5% significance level the critical value is 1.96 and the t1=79.427, t2……respectively, so since the t-statistic falls in the rejection region we reject the null hypothesis possession is not on the neutral side and we accept the alternative hypothesis.

So we conclude that, **on a 95% confidence level, possession by students of the above skills is on the neutral side**.

## Table 4 – Significance testing for possession of skills and competencies

### One-Sample Test

| | Test Value = 0 | | | |
|---|---|---|---|---|
| | t | df | Sig. (2-tailed) | Mean Difference |
| Communication-Speaking | 79,427 | 390 | ,000 | 3,639 |
| Creative thinking | 78,605 | 390 | ,000 | 3,637 |
| Decision making | 85,788 | 386 | ,000 | 3,649 |
| Problem solving | 84,100 | 386 | ,000 | 3,731 |
| Responsibility | 81,808 | 385 | ,000 | 3,961 |
| Sociability | 81,556 | 387 | ,000 | 3,887 |
| Developing constructive relationships | 81,950 | 385 | ,000 | 3,764 |
| Self-management | 84,636 | 382 | ,000 | 3,841 |
| Integrity/honesty | 78,894 | 385 | ,000 | 3,953 |
| Loyalty | 78,562 | 385 | ,000 | 3,795 |
| Organized | 82,354 | 382 | ,000 | 3,697 |
| Methodical | 78,767 | 383 | ,000 | 3,648 |
| Reliable | 91,772 | 382 | ,000 | 3,843 |
| Flexible | 79,592 | 385 | ,000 | 3,718 |
| Positive/confident | 83,641 | 386 | ,000 | 3,814 |
| Productive | 84,489 | 387 | ,000 | 3,876 |
| Sense of urgency | 81,420 | 385 | ,000 | 3,891 |
| Determination-hard working | 83,214 | 386 | ,000 | 3,840 |
| Business knowledge | 85,444 | 386 | ,000 | 3,811 |
| Customer orientation | 86,461 | 383 | ,000 | 3,867 |
| Team work | 82,230 | 384 | ,000 | 3,964 |
| Initiative | 80,875 | 383 | ,000 | 3,760 |
| Analytical thinking | 87,718 | 382 | ,000 | 3,791 |
| Critical analysis | 83,278 | 385 | ,000 | 3,736 |
| Constructive thinking | 81,003 | 385 | ,000 | 3,671 |
| Time-management | 79,078 | 386 | ,000 | 3,762 |
| Show high potential | 87,454 | 385 | ,000 | 3,803 |
| Street smart | 76,389 | 383 | ,000 | 3,716 |
| Action oriented | 82,817 | 388 | ,000 | 3,743 |

Cronbach's alpha varies from 0 to 1 and it increases as the number of items increases. In other words a scale with more items, should have a higher reliability. For large scales, alpha should probably be .80 or above.

In our case, alpha is quite large, .886 for skills and .895 for competencies. This is a strong evidence that the items form a reliable measure of the students' possession of skills and competencies.

**Table 6 – Reliability test for possession of skills and competencies**

Reliability Statistics for skills

| Cronbach's Alpha | N of Items |
|---|---|
| .886 | 13 |

Reliability Statistics for competencies

| Cronbach's Alpha | N of Items |
|---|---|
| .895 | 16 |

## 5. Conclusion and recommendations

Besides all previously stated, I personally believe that effective pre-college career guidance is also imperative for students, so that they can make the best start to their lives. Frequently, students lack the skills and knowledge to make the right decision as to which class they should take or when. Therefore they end up getting advice from others. Services like a university's Career Office or trained advisors are essential to nurturing career and learning ambitions and to ensure that students make informed decisions. Therefore, advisors in a university as well as employees in the Career Office should be informed about the outcomes of this work so that they are better able to pass on the right advice.

I certainly believe that the approach used in this work was appropriate. I have used both the qualitative and quantitative approaches, incorporating secondary research, focus group sessions, in-depth interviews and a survey. Attention was given to the sampling methods and method of gathering data as well as to ethical considerations. Lastly, the work done was approached with the greatest responsibility and ethical concerns.

This project is expected to have significant impact upon academic institutions. The way this project was approached lays the groundwork/underscores the need for fundamental changes in both curriculums and instructors' teaching methods. The project has enlisted key stakeholders, employers and students, all of whom had a strong voice in its outcome. The work undertaken reflects closely the ideas and views of all.

Therefore, in order to more effectively introduce the required skills and competencies to students, institutions should incorporate the following into their teaching methods:

a. Students should be asked to go through some kind of an in-class project throughout their curriculum. The project should be a team project, consisting of 3-4 students so that each member is forced to participate. In larger groups there is a tendency for unmotivated students to become freeloaders.

    1. Students should be urged to have a sense of discipline and to be punctual. They should be urged to be in class on time.
    2. Students should be introduced the steps in planning.
    3. Among other concepts, students should be introduced to the real meaning of being "organized", "methodical", "honest" "reliable", and "responsible" as these traits are not inherent.
    4. Students should be urged not to leave things to the very last moment and be explained the importance of time delivery. They should be introduced to ways of learning how to keep their deadlines.
    5. Students should be introduced to the importance of keeping a schedule or an agenda for their tasks and if possible, they should be urged to use technology to do so.
    6. Students should be urged on how to set tasks and break them down into deliverables.
    7. Instructors should act as mentors, coach students how to make a "beginning" in their tasks. For example in a project, coaching them through the first paragraph gets the momentum started.
    8. Instructors should provide advice, setting up regular meetings to check student progress. This should be carried out in the spirit of coaching and not policing so that students develop a sense of trust.
    9. Exams should be used, but in-class projects and practical work should have a significant weight in the overall grade.

b. Instructors should make use of in-class *guest speakers* either in the form of a single person or in the form of a business team. Guest speakers can bring their experience into the classroom through examples or by elucidating styles of managing people, leadership styles, etc. In another approach, an organization could simply design student tailor-made presentations.

c. If a guest speaker is not possible, instructors should ask students to attend *seminars* on related subjects. This participation can take the form of extra credit so that students are more motivated.

d. A *specific class* entitled "Skills and Competencies Introduction" should be designed and taught, introducing all the aforementioned subjects in the form of modules/units. The class should be required during the first year, so that students are able to acquire the necessary skills to help them through the rest of their degree. Aiming to inform students about the existence of all the different skills and competencies, the course would provide an analysis of each one separately; it would reveal benefits that can transfer to students and highlight how each one relates to a specific job position, employing all methods possible to pass this vital information to students (guest speakers, in-class projects, discussions, etc). At the end of the semester, students could go through an Interview process with a panel of instructors or real employers for assessment. Through 360 degree feedback, a profile would be created for each student, to impart strengths and weaknesses as well as to divulge jobs they might be good at and those for which they lack certain elements.

e. *Research* should become mandatory for all majors as this will increase the ability of students to define a problem and follow a path of action to solve that problem.

f. Students should be urged to conduct some kind of research either *primary or secondary*. Students should be asked to search for a topic; defining the problem, set objectives, come **up**

g. with solutions and ideas about how to solve the problem and of course present those to the rest of the class.

h. Communication classes should become mandatory in the first year. This will build on students' confidence to perform better presentations.

i. A specific *Powerpoint Class* should become mandatory in the first year so that students become skilful in designing presentations.

j. *Prerequisites* should be strictly adhered to; for example, Research should not be taken along with Senior Project. If students attend Research first, they will develop basic research skills that will enable them to be more productive in completing the Senior Project.

k. Unnecessary classes should be eliminated/replaced in each path as much as possible and students should be allowed to take *more classes or electives* within their majors. E.g. multiple history classes for business majors.

l. Students should be examined as to how well *technology-oriented* they are and based on this, they could be required to take Excel, Word and Powerpoint classes.

m. More class *discussions* about real-life (local) topics, sparked by case studies or any other possible stimulus, should be originated from instructors. This will cultivate students' critical thinking and confidence.

I strongly believe that the voices of all stakeholders will have a strong impact on Universities and will provide a solution as to the problem under investigation. The work undertaken presents a new challenge to Universities and to students, to help further entrench a culture of learning, ensuring that students get what they need to move on in life. Through this project we have seen that employers and students have a strong, coherent voice; this recognition will lead to the fostering of an environment in which knowledge is created, shared, harnessed and used for the benefit of the university, its employees, its customers and its affiliates.

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