

# **A Note on Structuring Employability Skills for Accounting Students**

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## **Abstract**

The development of soft and technical skills as part of tertiary education courses is key to enhancing the employability skills of graduating students. Within the accounting profession there is little agreement over which skills should be developed and a wide range have been suggested as relevant. A sample (n = 62) of higher education educators and industry practitioners were surveyed to elicit their assessments of the importance of a range of employability skills. Exploratory Factor Analysis was used to group the skills into six factors that helped to provide a better understanding of the skills and how they could be grouped for teaching purposes.

*Keywords:* employability, soft skills, technical skills, factor analysis.

## **1. Introduction**

One of the distinguishing features of higher education (HE) in the UK since the millennium has been the increased importance of employability as a graduate attribute. The ease with which students can move between education and the world of work is a key metric of HE providers and this has emphasised the development of the soft and analytical skills thought to impact on employability within HE curricula (Spence & Hyams-Ssekasi, 2015).

It has also been recognised that as well as easing the transition from education into work, soft and analytical skills have a key role to play in the success of the organisation as there is a link between the skills possessed by an organisation's employees and the overall success of the organisation (Low, Samkin & Liu, 2013). Similarly there are gains for the individual. Excellent soft and analytical skills act as a catalyst for both personal and career development with, again, secondary benefits to the employee's organisation.

Given the strength of arguments within the business and accounting domains in favour of the development of skills in general, there has been a rather unequal emphasis placed on the development of soft skills as opposed to the technical and analytical skills of the discipline. Most HE curricula are, of course, academically framed in terms of level of study and discipline development and so a great deal of effort is expended by course teams in structuring such skills development across the years of an undergraduate course. Soft skills, on the other hand, are viewed as rather more nebulous and less 'academic' and so are often placed together within a 'skills development' module or are left to be developed by the individual student as they progress through the course – almost a process of 'skills osmosis'. Yet these skills are important and certainly require planning and careful placement within the curriculum.

There are, however, two quite fundamental problems associated with skills development in any subject discipline. These are that the terminology used to describe the skills to be developed is often confusing and that skills are often treated in isolation so that there are no apparent broad themes that emerge for grouping related skills which could help organise teaching and aid transparency for students. This paper analyses the results of an online survey of educators and practitioners regarding the importance of specific employability skills for those students studying to work in accountancy. Although the survey was specific to the subject domain of accounting, we feel the results have wider appeal due to the generic nature of the skills concerned within most business curricula although, of course, this would need to be tested by further research.

This paper therefor addresses three questions:

1. What are the main skills mentioned in the literature that should feature within undergraduate taught curricula as important in developing employability?
2. How are these skills ranked in importance for assisting the movement of graduating students from education into the accounting workplace?
3. Are there any apparent groupings of the skills that allow us to interpret the nature of the employability skills required by students which can assist in the development of skills training?

## **2. Brief Literature Review**

Employability skills have been defined as "A group of essential abilities that involve the development of a knowledge base, expertise level and mindset that is increasingly necessary for success in the modern workplace. Employability skills are typically considered essential qualifications for many job positions and hence have become necessary for an individual's employment success at just about any level within a business environment." (Business Dictionary, 2015). This implies the development of a group of skills that combine both knowledge of a specific subject discipline, and skills that relate to the application of knowledge (hard or technical skills) and the transferable skills that allow individuals to function effectively in any work place (soft skills).

Educators have long sought to capture the essence of ‘soft’ skills but there has been little consensus about what these skills actually are. Some authors have defined soft skills as being those that are generic and so not subject domain specific (Boyce, Williams, Kelly & Yee, 2001) which would include inter-personal skills, critical thinking, analytical skills etc. whereas others have included rather more personal attributes such as coping with stress, creativity, listening and time management (Paisey and Paisey, 2010). Robles (2012) argues that “Soft skills are the intangible, nontechnical, personality-specific skills that determine one’s strengths as a leader, facilitator, mediator, and negotiator.” (p. 457) while Kermis and Kermis (2011) relate soft skills to the notion of professionalism and argue that these should include judgment, critical thinking and analysis, integrity and openness, should be directly linked to the requirements of the workplace and that the accountant must be able to function as a professional in his or her field. In an interesting survey of business executives, Robles (2012) was able to suggest their top ten soft skills by asking them to rate the skills on a five-point Likert scale with 1 being ‘not important’ and 5 being ‘extremely important’. The mean and standard deviation (SD) for each soft skill is shown in Table 1 below.

Table 1. *Top ten executive soft skills (Robles, 2012)*

<b>Soft Skill Attribute</b>	<b>Mean</b>	<b>SD</b>
Integrity	4.93	0.26
Communication	4.91	0.28
Courtesy	4.81	0.48
Responsibility	4.63	0.64
Interpersonal skills	4.46	0.75
Positive attitude	4.35	0.66
Professionalism	4.35	0.69
Flexibility	4.18	0.82
Teamwork skills	4.12	0.88
Work ethic	4.12	0.77

That there is a huge variety of soft skills mentioned in the literature is evident from even a brief review. However there is also confusion over the meaning of, and interrelationships between, soft skills. For example, in table 1 we see mention of both communication and interpersonal skills. It can be argued that communication is a key component of inter-personal skills

so should these be separated out? When considering one are we not considering the other too? We could also mention integrity, courtesy and work ethic and argue that these are actually all part of professionalism so should these really be considered as separate items? This confusion over the breadth, interpretation and interrelationships of soft skills is not something that has been addressed in the literature to any great extent.

We now turn to the soft skills required specifically for accounting careers. All HE courses in accounting aspire to include skills development as a key component. Unfortunately the nature of accounting courses and also the learning styles of accounting students make the acquisition of generic skills somewhat problematic (Boyce et al., 2001) so it is appropriate that we should be looking at ways of addressing this deficiency.

As previously mentioned skills development includes the development of the hard technical skills that are a part of any accounting practitioners tool-box and also the soft skills that are required for personal development, communication and for working within an organisation and dealing with clients. While it is true that accounting educators and those engaged in curriculum design have a view as to which skills should be developed within their students it is unfortunately the case that very little is known about the requirements of accounting employers or practitioners, particularly in relation to the development of soft skills. Weaver and Kulesza (2014) summarised the results of various studies identifying the skills suggestions of employers of accountants in the USA. They found that the skills identified were extremely diverse and that the range of skills included what might be termed conventional soft skills (time management, communication etc.) and those that begin to overlap with the technical skills (problem solving, analytical reasoning etc.).

A study by Kent St. Pierre and Rebele (2014) drew a number of conclusions for skills development on undergraduate courses including that the accounting profession (like many others) is unclear about the skills that they desire. Low, Samkin and Liu (2013) examined the role of accounting education in the provision of soft skills to accounting students and concluded that tertiary education providers are crucial in developing all the skills for employment rather than just those technical ones related to the subject discipline.

It seems that the comments made by researchers who are looking at the development of skills across business curricula in general are just as applicable specifically to the accounting subject domain. Thus HE institutions which offer courses in the accounting and finance domain are saddled with teaching a wide range of skills when there is a lack of clarity about what is actually required.

### **3. Research Method**

The research reported in this paper was focussed on the broad range of soft skills suggested for the accounting profession. Using a number of published articles from the accounting literature a list of 27 soft skills suggested by researchers as being relevant to the accounting profession was derived.

An online survey was generated asking respondents to rate each skill using a 5-point Likert scale ranging from 1 (not important) to 5 (extremely important). In order to capture a range of opinions, responses were sought from two groups: educators i.e. those currently working in HE teaching accounting; and practitioners i.e. those who are working as accountants and have knowledge of the required skills for a role as a graduate management accountant. The survey was sent to staff working in accounting and finance at a number of UK higher education institutions and to a range of employers engaged in the practice of accounting.

We then conducted a simple analysis to determine which skills were the most highly rated by the sample, and applied Exploratory Factor Analysis (EFA) to the results to see whether the skills could be partitioned into clusters to give an indication of an inherent structure to the mass of skills cited in the literature.

Exploratory Factor Analysis is a statistical method designed to determine whether there is any underlying structure that connects a number of observed variables. The intention is to try and identify a smaller set of (preferably) uncorrelated constructs or factors from within the larger set of observed variables many of which might be correlated with each other. The factors can be thought of as representing an unobserved structure among the observed variables that gives the researcher an opportunity to identify and describe what can be quite complex inter-relationships between the observed variables. Exactly how many such factors are identified is dependent on the data and on the amount of variability within the observed variables that each additional factor is able to explain. There are suggested rules for determining the number of factors (see for example Williams, Brown & Osman, 2010) and in this paper we have used the conventional Kaiser criterion which suggests to retain those factors with eigenvalues equal or higher than 1.

Once the factors have been identified then each observed variable is assigned a factor loading and these are weights related to the correlation between each observed variable and the factor. The higher the load the more relevant the observed variable is in defining the factor's dimensionality. Conventionally when describing factors we suppress observed variables that have a factor loading below a certain threshold so that just the most relevant observed variables are identified.

#### **4. Empirical Results**

In total there were 37 responses from educators and 25 responses from practitioners giving a total sample size of  $n = 62$ . The responses were combined to form a single sample and analysed using SPSS. To group the skills we applied an EFA algorithm using principal components and varimax rotation (Williams, Brown & Osman, 2010). Applying the standard tests of sample adequacy (KMO and Bartlett's tests) gave the KMO measure of sampling adequacy as 0.817 and Bartlett's test of sphericity was statistically significant ( $p < 0.001$ ). Hence both tests indicated that the data was suitable for EFA.

Table 2 shows the descriptive statistics for each soft skill ranked from highest to lowest by mean Likert score.

Table 2. *Skills Listed by Average Importance*

	Rank	Minimu m	Maximu m	Mean	SD
Communication	1	3.00	5.00	4.55	0.59
Oral skills	2	2.00	5.00	4.51	0.62
Analysis skills	3	3.00	5.00	4.46	0.59
Problem solving	4	2.00	5.00	4.35	0.68
Interpersonal skills	5	3.00	5.00	4.30	0.72
Team working	6	3.00	5.00	4.26	0.70
Self-management	=7	3.00	5.00	4.23	0.72
Critical analysis	=7	3.00	5.00	4.23	0.72
Writing in business	9	2.00	5.00	4.15	0.79
Verbal argument	=10	2.00	5.00	4.13	0.88
Presentation skills	=10	2.00	5.00	4.13	0.76
Commercial knowledge	12	2.00	5.00	4.10	0.75
Time management	13	1.00	5.00	4.08	0.82
Learning	=14	1.00	5.00	4.03	0.84
IT in business	=14	2.00	5.00	4.03	0.82
Strategic thinking	=14	1.00	5.00	4.03	0.84
Financial and non-financial integration	17	1.00	5.00	3.97	0.97
Organisation	18	1.00	5.00	3.83	0.98
Modelling	19	1.00	5.00	3.70	0.88
Change management	=20	1.00	5.00	3.61	0.92
Interview skills	=20	1.00	5.00	3.61	1.07
Company culture	22	1.00	5.00	3.52	0.91
Practical research skills	23	2.00	5.00	3.46	0.92
Career planning	24	1.00	5.00	3.38	1.01
CV skills	25	1.00	5.00	3.34	1.09
Job search skills	26	1.00	5.00	3.15	0.98
Health and Safety	27	1.00	5.00	2.98	1.01

The EFA suggested partitioning the skills into 6 factors and Table 3 below shows which skills were placed into each factor and the average skill ranking for each factor using the data from Table 2.

Those soft skills with factor loadings above 0.6 have been shown in Table 3 to highlight the most influential skills in each factor. This assists with the interpretation of factors.

*Table 3. Identified Factors and Component Skills*

	<b>Skill description</b>	<b>Average Rank</b>
<b>Factor 1</b>	Communication	5.17
Communication and workplace skills	Interpersonal skills	
	Oral skills	
	Self-management	
	Team working	
	Verbal argument	
<b>Factor 2</b>	Career planning	23.75
Career planning skills	CV skills	
	Interview skills	
	Job search skills	
<b>Factor 3</b>	Change management	17.50
Organisational development skills	Financial integration	
	Modelling	
	Strategic thinking	
<b>Factor 4</b>	Analysis skills	4.67
Decision support skills	Critical analysis	
	Problem solving	
<b>Factor 5</b>	Practical research skills	16.00
Secondary research skills	Writing in business	
<b>Factor 6</b>	Health and safety	27.00
Health and safety		

Skills not contributing significantly to a particular factor. These have a tendency to contribute less significantly but across a wide range of factors.	<ul style="list-style-type: none"> <li>- Commercial knowledge</li> <li>- Company culture</li> <li>- IT in business</li> <li>- Learning</li> <li>- Organisation</li> <li>- Presentation skills</li> <li>- Time management</li> </ul>
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#### **4. Discussion**

Table 2 indicates strong agreement across the sample over the most important skills (the mean scores are high and the standard deviation low). The confused nature of the soft skills agenda though is highlighted by the fact that there are no skills that all respondents agreed were not important. All skills had at least once response indicating “extremely important” although the standard deviation of responses increases as we move down the list indicating less agreement over importance.

There is some measure of agreement between the findings of this survey and the results presented by Robles (2012) and shown in Table 1. There are three soft skills represented in both lists – communication, inter-personal skills and teamwork skills – and these are present in the top ten of both studies and with the same relative rankings. Generally speaking, the results shown in Table 2 seem to place highest value on those soft skills that enable to employee to work most effectively within the organisation (communication, analysis, problem solving, team working etc.) and lowest value on those soft skills that are of value to the individual in furthering their own career (interview skills, practical research skills, career planning, CV skills, Job search skills). This distinction points to a difference in perception perhaps between soft skills development as viewed by the educator (we need to our students to be able to obtain jobs) and practitioners (we need graduates who can contribute effectively to the organisation).

To place further structure on this list, EFA was used to group the skills and the analysis recommended a partitioning of the skills into six main factors. By examining the skills with the highest loadings in each factor we have suggested the general theme of each grouping. Although factor 6 only has one highly correlated skill, it also includes skills relating to commercial knowledge and company culture so perhaps this could more accurately be described as “organisational awareness”.

While the results shown in Table 2 may not be particularly surprising in terms of which skills are most highly valued by our sample of educators and practitioners, the factor rankings shown in Table 3 place decision support skills as the most highly prized on average with communication and workplace skills a close second. More surprisingly secondary research



skills, highly valued within HE as helping to transform students into independent learners, have a relatively low ranking along with organisational development skills.

The EFA has allowed us to place a structure on the wide range of soft skills used in the survey. In terms of how we should focus skills development within the undergraduate accounting curriculum there are some tentative conclusions that we can draw from this analysis. Firstly, it would make sense to organise the development of skills within the accounting curriculum so that there is a specific focus on decision support skills and communication and workplace skills. These two factors are the most highly ranked and so we need to ensure that there is a specific focus on these from a teaching perspective and that students are aware of the importance of developing these skills through their prominence in the curriculum. Specific modules could be designed to address these particular skills groupings. Secondly, the next two factors (secondary research skills and organisational development skills) need to be mapped to specific elements of the curriculum so that we can be sure that these are being addressed as part of other subject development modules. Thirdly, career planning skills and organisational awareness are areas that can be addressed through central student services that HE institutions often make available to students as extra-curricula activities. Finally, the skills that are not part of any of these identified factors are still no less important even though they don't seem to fit within specific factors but contribute across several. Presentation skills, for example, is ranked as =10 in Table 2, with commercial knowledge 12<sup>th</sup> and time management 13<sup>th</sup>. These can be seen as helping to support a number of the factor groupings and so need to be present as transferable skills developed across a range of modules taken by students.

This analysis has enabled us to begin to understand how we might tackle the array of skills that students are expected to develop. We can also begin to help students understand the blend of skills that they need to focus on to be able to pursue a career in accounting.

## **5. Conclusion**

This small survey has helped to structure thinking around skills development on our accounting courses. It is likely though that similar results will apply to skills development across other areas of business and management although further research is required to substantiate this. We are aware that this study has focussed only on the employability of students in the accounting profession and that the sample size used in this survey was relatively small. However, we feel that the results give us a window into the complex world of skills development and we are confident that through further research we can begin to apply these results to other areas of business education and start to build a broader picture of what we need to do in order to assist our students in getting jobs in the highly competitive world of business.

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