

Appraising the Use of Organisational “Soft Skills” in the Application of Method and Process Techniques: An Educational Case Study Approach

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Abstract

The application of new ideas, methods and process techniques to product and service development projects can be challenging for a number of reasons. These include the inherent complexity of the problem situation, the assumptions being made, the level of resource available, an over-reliance on past experience and knowledge, and a difficulty in scaling application of the concept in question to the problem situation or project construct. These difficulties can then hinder the effectiveness of the application, leading to either undesirable emergent properties or even in extreme cases, project failure. Research has indicated that a possible contributory factor in experiencing such difficulties is that organisational “soft skills” are not taken into account sufficiently when planning and implementing the use of concepts. Such skills include knowledge and experience of participants in applying the concepts, the involvement of necessary stakeholders, the “psychological safety” of project participants and the creation of an organisational culture conducive to supporting the use of new and more exploratory techniques. This paper considers ongoing research into this area and provides a case study approach demonstrating the application of an example method to gauge the potential effectiveness of considering organisational “soft skill” factors upon improving application and implementation of concepts. Conclusions will be drawn, and the andragogical implications will then be considered in order to identify a means of enhancing existing educational practice in the teaching of methods, techniques and processes. Recommendations will be made suggesting how these improvements can be realised in an educational context.

Keywords: soft skills, andragogy, organisational practice

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Introduction

As organisational behaviour and practice has grown in complexity, so the focus on organisational “soft skills” and the benefits which they may offer in terms of improvements in knowledge, expertise, and application of ideas and approaches to business situations has increased significantly. Factors such as increases in capability, or introduction of new technologies such as Artificial Intelligence (AI) have led to the need for enhanced abilities in areas such as more in-depth reflective thinking about problems and potential resolutions, better and clearer communication between colleagues and stakeholders, the ability to hold “tough conversations” between individuals, cross-domain working, and providing effective leadership and management to others. This requires a well-thought-out strategy encompassing a broad understanding of issues and problem situations. It requires tact, diplomacy, an understanding of how to motivate others and how to communicate, lead and manage in challenging organisational environments.

“Soft Skills” are defined as “people’s abilities to communicate with each other and work well together” (Cambridge Online Dictionary, 2025a) or “personal attributes that enable someone to interact effectively and harmoniously with other people” (Google Dictionary, 2025). These ideas revolve around notions of good inter-personal skills, treating people fairly and equitably, being able to work well in groups and across different organisational boundaries, and to be able to provide clear and incisive leadership. Skills core to the aforementioned factors include the ability to perceive the nature of problems and communicate the essence of the situation alongside a clear and credible way toward a meaningful and viable solution. There are various categorisations of “soft skills”; The National Careers Service, for example, lists communication and work with others, make decisions, organise yourself at work, and adapt to difficult situations (National Careers Service, 2025) as being core soft skills, whilst VirtualSpeech lists “Communication, teamwork, adaptability, problem-solving, leadership, work ethic, and time management” (VirtualSpeech, 2025) as the seven key soft skills valued by employers. The job search service Indeed list 10 valuable soft skills as being “Communication, teamwork, problem-solving, dependability, critical thinking, positive attitude, organization, creativity, adaptability, conflict resolution” (Indeed, 2025), and a search of Wikipedia reveals “critical thinking, problem solving, public speaking, professional writing, teamwork, digital literacy, leadership, professional attitude, work ethic, career management and intercultural fluency” listed as soft skills (Wikipedia, 2025). The above brief search identifies a degree of variance amongst sources as to the definition of important soft skills, but there are noticeable commonalities in definition, with adaptability, communication, decision-making, leadership, problem-solving, and teamwork being amongst their number. For the purposes of defining “soft skills” for this paper, a consolidated list taken from the above and other anecdotal sources is listed at table 1. These skills will be examined to judge their importance and how they have been applied within the organisational context, and this paper will then consider how an andragogical praxeology can be developed to both demonstrate the importance of “soft skills” in improving practice within the workplace, and how such skills can be taught and successfully inculcated. This will be demonstrated through the use of an education case study which illustrates how students can assimilate and apply soft skills, considering factors such as learning style (Barker, 2014, 2021), educational outcomes (Armstrong, 2010), and educational track (IfATE, 2024; UK Government, 2025). Finally, conclusions will be drawn as to the key lessons learned from this study.

Table 1*Organisational “Soft Skills”*

	Organisational “Soft Skill”	Definition
1.	Facilitating Others	- Empowering and motivating others - Providing management of situations - Encouraging and advising
2.	Team-working	- Valuing the contribution, perspectives and views of others - Contributing to a team ethic - Collaborating in a fair and equitable manner with others
3.	Communication and Leadership	- Imparting knowledge and experience to help others - Decision-making - Providing direction - Defining goals and targets - Adapting to change - Providing equitable resolutions to conflict - Managing expectations of stakeholders
4.	Critical Thinking	- Problem-solving - Understanding all aspects of a situation - Providing justification and rationale - Underpinning leadership decisions
5.	Psychological Safety	- Creating a safe space for others to air views - Making others feel valued and included - Instilling a culture positively and “without fear”

The Importance of “Soft Skills”

If the content of table 1 is examined, it can be seen that much of “soft skills” is dependent upon how we communicate with others. This will affect how others perceive and experience information being generated by a wider team, or being provided to them in a facilitation, management and/or leadership context. As such the mode of communication – verbal, written – will have effect on how information is understood and processed. Moreover, the way in which information is communicated can have a significant bearing on how information is understood and perceived. Research has shown that factors such as body language, tone of voice, and choice of wording – either oral or written – can affect how an individual will react to communication from others. Body language has been shown to play a major part in how people impart and receive information (Patel, 2014), and that where body language is perceived to be hostile can affect how information is perceived emotionally (Uzun, 2020) and this can lead to information not being fully comprehended. Likewise, the tone of language has been demonstrated to affect how people react to information (Roche et al., 2015), insofar that well-phrased encouragement can lead to confidence and empowerment, whilst negatively phrased information can intimidate individuals (Lepore & Stone, 2018). In a similar way, choice of words either verbal or written can affect how information is delivered and perceived (Wheeler, 2011), with well-chosen wording having a beneficial effect on comprehension and understanding (Long, 2024) and perhaps even on the willingness of an individual to participate more effectively in necessary project activities. Effective communication can therefore be seen to play a major part in the ability to lead, manage, facilitate, and work in teams.

A further important “soft skill” is critical thinking. This is defined as: “the process of thinking carefully about a subject or idea, without allowing feelings or opinions to affect you” (Cambridge Online Dictionary, 2025a) and is held to encompass “the art of making clear, reasoned judgements based on interpreting, understanding, applying and synthesising evidence gathered from observation, reading and experimentation” (Burns & Sinfield, 2016). This by necessity includes the ability to perceive the totality of a problem situation or need, reason as to any issues, constraints, conflicts and/or risks, and move to the identification of a well evaluated solution whilst being able to provide associated justification and rationale. The benefits of being able to think critically include control over one’s own knowledge, and possibly also empathy for the viewpoints of other people (Raj et al., 2022). This can be seen as being essential to the ability to fully grasp the nature of a task or problem, and when combined with the qualities of good communication explored above is an important “soft skill” in conveying the essence of what needs to be done to individuals in a way which is readily comprehensible and achievable.

Whilst activities such as voicing new ideas, contributing to continuous improvement, and contributing to organizational learning generally may be increasingly encouraged by organisations, Newman et al. (2017) point out that such activities might carry a risk to individuals. New ideas might not be well received, or might turn out not to work. This might in turn lead to a fear of negative consequences for speaking out. Thus the idea of psychological safety, sensitively introduced and managed, is important in that if individuals feel that they are free to suggest ideas without consequence they are likely to feel more encouraged to participate, engage and innovate, and trust in leadership is likely to be increased (Siyal, 2023).

“Soft Skills” and Organisational Context

Many of the ideas discussed in the previous section can be applied directly into the context of organisational business, process and activity. Table 2 highlights some key organisational activities and how they align to the “soft skills” discussed above. It can be seen that these skills will need to be applied across the length and breadth of an organisation, from high-level executive strategic planning entailing holistic understanding of the marketplace, potential business opportunities and current and future organisational problem situations, to the planning and participation in functional teams and project-based activities. It is worth noting that the “soft skills” required will be essentially similar in name, but different in detail as different situations and circumstances will occur across teams, domains and projects at different times; Even projects concerned with developing similar products or services are likely to be resourced, structured, financed and led in different ways dependent on factors such as urgency, customer, and budget. As such the “soft skills” needed will have to be carefully thought about and tailored to suit the circumstances.

In addition, careful thought must be given to how people are managed as individuals. Different people respond better to individual leadership styles (Dulewicz & Higgs, 2005; Kesting et al., 2015) and each have their own preferred learning style (Fry et al., 2009; Honey & Mumford, 1982). Careful consideration must therefore be given to how people can be motivated (Kanfer, 1990; Maslow, 1943), and thought must be given to the best method of training or education within the work organisation (Goldstein, 1980) to allow people to prosper both as individuals and team members. An essential part of this is the notion of psychological safety, as if people do not feel comfortable and safe/secure in the workplace then they are unlikely to thrive and produce of their best work (Frazier & Tupper, 2018; Xu et al., 2022).

Table 2*Organisational Activities and Relevant “Soft Skills”*

	Organisational activity	Relevant “Soft Skill”
1.	Executive-level decision-making	- Critical thinking - Communication and Leadership
2.	Project Management	- Critical thinking - Communication and Leadership - Team-working - Facilitating others
3.	Systems Engineering	- Critical thinking - Communication and Leadership - Team-working - Facilitating others
4.	Requirements Engineering/Management	- Communication and Leadership - Team-working - Facilitating others
5.	Lifecycle Management	- Critical thinking - Communication and Leadership
6.	Testing and Acceptance	- Critical thinking - Communication and Leadership - Team-working
7.	Team Management	- Critical thinking - Communication and Leadership - Team-working - Facilitating others - Psychological Safety
8.	Hierarchical and Domain-level leadership	- Critical thinking - Communication and Leadership - Team-working - Facilitating others - Psychological Safety
9.	Personal Development	- Critical thinking - Communication and Leadership - Facilitating others - Psychological Safety
10.	Identifying new business opportunities	- Critical thinking - Communication and Leadership

Andragogical Aspects of “Soft Skills”: Towards a Teaching and Learning Strategy

From an andragogical perspective, there are several factors which need to be considered when creating a strategy to facilitate understanding and utilisation of “soft skills” in a project or organisational context and some of these are listed below:

1. The essence of “soft skills” and how they lend themselves to being taught
2. The educational track of students, either apprenticeship or taught MSc
3. The learning preferences of students, both individually and as a cohort
4. The various teaching methods and techniques available to demonstrate and inculcate the worth and benefits of “soft skills” within organisational practice
5. The structure of the course or module in which “soft skills” are to be covered

These factors will now be discussed in turn so that an initial strategy can be suggested.

The Essence of “Soft Skills”

The nature of “Soft Skills” is that they can be defined, but need to be adapted and tailored to suit the circumstance in which they are intended for use. As such, although “soft skills” can be described and case studies can be provided to demonstrate their use in context, careful thought and critical thinking skills are necessary to understand how and when they should be used because every instance of organisational practice within context is at least subtly different. It is therefore necessary to first explain with examples the nature of “soft skills” before demonstrating how critical thinking approaches – themselves a “soft skill” – can be used to understand and determine how those skills can be applied. This must be combined with practical exercises and/or group workshops to allow students to test different ideas in realistic contexts to gain experience of using “soft skills” and comprehend the benefits which such skills offer.

The Educational Track of Students

Cranfield University’s Systems Engineering MSc course has accepted two kinds of student; taught MSc students, and level 7 apprentices. Taught students study is guided by course and module structure and assessment plan, which is in turn guided by the course’s intended learning outcomes (ILOs). These need to be appropriately worded in order to facilitate learning progression at a rate that fully supports comprehension (Armstrong, 2010) of potentially complex ideas such as “soft skills”. Apprentices’ study encompasses both the taught MSc and accumulation of evidence to meet the knowledge, skills and behaviour (KSB) criteria set out by the relevant apprenticeship standard (Skills England, 2022). The andragogical strategy adopted must therefore cater to both ILOs and KSBs, and the teaching methods selected must meet the learning needs of both students and apprentices.

The Learning Preferences of Students

Every individual tends to learn in different ways (Barker, 2014; Honey & Mumford, 1982). Some people prefer individual study whilst others thrive in a team atmosphere. Certain individuals like well-structured slides to act as a handrail to their understanding, whilst others get more out of open discussion and/or group workshops. In most cases, a combination of different teaching methods and techniques is best to stimulate learning. As such it is extremely important that the correct combination of learning strategies and teaching methods is employed to allow full understanding of the intricacies of “soft skills” whilst giving students the best opportunity to practice their application.

Teaching Methods and Techniques

There are a great variety of teaching methods available (Fry et al., 2009). These range from formal lectures, case studies, individual and group exercises, workshops, to formative and summative assessment by means of techniques such as individual and group presentations, portfolios, and reflective assignments. The nature of “soft skills” is such that a means must be devised to explain what they are perhaps through lecture and case study, and then demonstrate their application through example, before allowing practice of practical application via first individual exercise, then group workshop, and reflective assignment.

The Structure of the Course

In order to facilitate the above ideas, it is essential that the course and module structure should facilitate the understanding and facilitation of “soft skills”. This is perhaps best done via a cross-cutting “theme” running through each of the modules comprising the course. Early modules can explain the concept of “soft skills” before later modules introduce case studies and gradually notions of “soft skills” are considered “automatically”, being embedded within the wider learning approach. Later modules should then focus on allowing opportunity for practical application within a variety of organisational contexts to inculcate knowledge and experience of how “soft skills” can be beneficial to organisational practice.

The following section will now describe an educational case study which takes the above points into consideration and evaluates how students were able to apply “soft skills” in a simulated organisational practice scenario.

Appraising the Use of “Soft Skills”: An Educational Case Study

Following a review of the structure and content of Cranfield University’s Systems Engineering MSc and Apprenticeship, the course team concluded that the addition of a capstone practical module at the end of the taught phase of the course would be beneficial in that it would allow students to put into practice the skills and knowledge learned during their studies. The intent was to provide a realistic real-world problem and form the students into project teams to analyse the situation, understand the nature of problem, clarify the need, and implement a lifecycle development process to craft requirements – both user and system – and derive logical and physical architecture against them. This would allow each project team to recommend solution options, down select to a preferred option, and then demonstrate how it would fulfil requirements, and be tested and accepted into use.

This task required the application of systems engineering knowledge and expertise, but would also serve to demonstrate the extent to which the student project teams would be able – or not – to apply “soft skills” to improve cohesion and direction at a team level whilst allowing individuals to get the most out of the experience.

The teaching of “soft skills” was included across the course modules in a manner aligned to suggestions in the previous section, with the initial modules discussing system concepts such as holism, viability, hierarchy and abstraction, and entropy as an aid to critical thinking, with demonstrations as to how this would benefit systems engineering in the organisational workplace. Subsequent modules focused upon multi-analyst problem solving and team working through group exercises and workshops, whilst assessments, both individual and group, encouraged reflective thinking focusing on analysis, evaluation, and the provision of justification and rationale. Modelling techniques were taught to accurately represent organisational problem situations and potential solutions, and how this benefitted communication and stakeholder understanding was demonstrated through case studies, group working and reflective discussion. Ideas around leadership and motivation were introduced across the course, and the need for psychological safety was emphasised in order to bring about a sense of inclusion and high-quality analytical decision making.

This was followed by the capstone module at the culmination of the second year of taught study. The module was structured such that the student project teams were briefed on the nature of the problem situation and given lists of assumptions and constraints which would apply to

their work. They were provided with a handrail in the form of a set of structured tasks and suggested timings, but for the duration of the module, the work was self-directed by the student project teams. Each team was advised to think about how they organised themselves with regard to undertaking of the specified tasks. Staff members then role-played the parts of customer, supplier and project advisor, and could be called upon by the student project teams as they thought necessary.

The students were requested to keep a reflective journal in which they were asked to consider progress, communication, team ethic, and to note any issues which they perceived with the project team they were assigned to. The summative assessment was via portfolio focusing on practice and work produced with a wrap-around narrative describing decision-making, iteration of practice, and use of “soft skills” along with the perceived benefit of doing so. At the end of the module, feedback was sought to judge how students believed they had succeeded at the tasks, and whether or not they had enjoyed – and could see benefit in – the experience.

Case Study Feedback

The outcome of the capstone module demonstrated that students had understood the need for clarity of leadership in a constructive way, and there was agreement within the project teams that all members were working effectively together. Encouragingly, most teams tried using different techniques throughout the module to evaluate which was best for communication of ideas and fostering understanding across different stakeholder groups. Most of the teams were able to justify their decision making and demonstrate how they had used ideas and techniques collaboratively to improve teamwork. In particular, several students commented directly that attempts had been made to create “safe working environments” in terms of freedom of discussion and respect of each other’s views, and that this had benefited team ethic and made the experience more inclusive and enjoyable. Although some degree of guidance was necessary, students appeared to have conceptualised the need for soft skills and had developed an instinct and understanding of how they should be used.

The overall student feedback from the simulated team-work project in the capstone module was encouraging in that it was highly positive. Students reported that:

1. The experience was valuable in implementing ideas
2. It was enjoyable and productive
3. There were clear takeaways in terms of behavioural knowledge

When asked to comment specifically on the use of “soft skills” in their work, any of the students noted that the combination of “soft” and “hard” skills was clearly important and helped with aspects such as:

1. Communicating ideas and decisions
2. Improving “togetherness” as a team....
3.and it made people “feel more positive”

When asked about any issues or problems which might have occurred, responses suggested that initially application of “soft skills” had been a matter of trial and error, and that there had been difficult moments with people suppressing their natural tendencies to allow others to air their views and perspectives, and to respect the right of others to hold different views. The feedback suggested that this had been a very iterative step-by-step process, but most students indicated that it had been worthwhile and had benefitted totality of understanding and had aided inter-team communication greatly.

Conclusions and Further Work

The main conclusions that can be taken from this approach to understanding how “soft skills” can be educated via a mix of taught and practical andragogical means were as follows:

1. The case study, taken from wider course planning, demonstrated that facets of knowledge which promote “soft skills” can be taught and demonstrated through various andragogical means
2. However, this must be augmented by experience and practice in “real world” context in order to successfully utilise soft skills
3. The capstone module gave students a view into how this might work, but this was limited due to the nature of the educational construct

The embedding of teaching about “soft skills” as a cross-cutting theme appeared to successfully raise student awareness of the importance of the topic, and use of workshops throughout the modules gave the ability to practice and hone techniques. This served as good preparation for capstone module, where student feedback illustrated that they perceived significant benefit in focusing upon such ideas and techniques. Students suggested that the keeping of a reflective journal had helped them to understand their own practice as well as providing insight into team ethics and group work.

On the whole, outcomes from this approach are very encouraging, but they can be continually developed, and ideas for further work are listed below:

1. Continue to develop the ideas to explore further ways of educating people in the concept of “soft skills”
2. Potentially offering a “reinforcement event” six months after students return to their workspace to discuss application of “soft skills”

The Systems Engineering MSc course team at Cranfield University will include these ideas in subsequent course reviews to continue to develop and improve the course offering, and assess the feasibility of new ideas to improve the understanding and education of “soft skills”.

Author’s Note

DAS: No new data was created or analysed in this study. Data sharing is not applicable to this article.

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