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DOI :

<https://doi.org/10.37938/pmrp.vol6.6104>

Article History:

Received [04/06/2018];

Accepted [28/02/2019];

Published [16/10/2020]

Article type:

Academic Research



Citation:

Noble, D. 2020,
Collaborative

competences: Moving
from 'soft skills' to a
legitimate descriptor.

*Project Management
Research and Practice.*

Fachhochschule

Dortmund. Vol 6. Issue

Oct-Dec.

<https://doi.org/10.37938/pmrp.vol6.6104>

Publisher:

**Fachhochschule
Dortmund**

University of Applied Sciences and Arts

Collaborative competences: Moving from 'soft skills' to a legitimate descriptor.

Synopsis

This paper critiques the current expression 'soft skills,' citing the move towards the use of 'collaboration' to describe the activities undertaken within project management and cognate disciplines. The paper contrasts the pejorative way 'soft' is used to describe a skill range, with the constructive, and descriptive, expression 'collaborative competencies.'

Relevance

As project management skills become a crucial requirement for graduates across disciplines, it is crucial to describe what are arguably essential skills for project teams accurately. This paper seeks to explore an alternative descriptor that is positive and describes the activity undertaken.

Research

The paper uses a meta-review of pertinent literature to quantify the incidence of relevant words, including drawing on cognate sectors.

Main findings

The use of the word 'collaborate' has become ubiquitous to describe project management and related activities; however, the way the requisite competencies required to collaborate effectively are described does not reflect the growing maturity of the profession. Despite earlier attempts to provide an alternate descriptor to 'soft skills' that usually describes one aspect of the skill-set, this paper proposes that a descriptor should describe the activity undertaken. Whereas 'soft skills' fails to provide a link between the skill-set and the activity is undertaken, the descriptor 'collaborative competencies,' in comparison, provides a clear indication of the context in which the skill-set will be employed.

Research implications

The adoption of a descriptor that, by definition, includes the target behaviour will improve the profile of collaborative competencies so that they can be afforded greater legitimacy within the project management environment, as well as the education system that supports the profession.

Keywords:

Project management; collaborate; soft skills; hard skills; interpersonal skills, collaborative competencies.

Introduction

Despite the growing use of project management throughout the world, and a growing body of knowledge to guide practitioners, the role that human relationships play in the success of projects remains under-investigated. Project management literature emphasises the technical requirements for project managers and officers but pays less attention to the so-called soft skills that provide the foundation for the administration of technical skills. In particular, the dichotomy between hard or technical skills, and what is generally described as soft skills, also known as interpersonal skills, tends to delegitimise the important contribution that the human element contributes to positive project outcomes. This paper proposes that the term to describe the non-technical skills that an individual team member brings to a project is collaborative competencies.

Background

The last three decades have seen a growing projectisation of labour across many sectors. These include traditional businesses, the construction and mining industries, the not-for-profit sector, utility service organisations, the education sector (particularly the tertiary sector), and the financial services sector, along with governmental organisations. The increasing complexity of the modern employment environment stands in stark contrast to that of a just a few decades ago, where there were clearly defined individual task specifications (Flynn 2006; Sargut & McGrath 2011). Today's workforce must be able to deal effectively with complexity, ambiguity, and projectised ways of working, often in teams (Ramazani & Jergeas 2015). While this paper is placed within a project management context, the applicability of the hard versus soft skill discussion goes much wider. Professions from nursing to librarianship also struggle to legitimise the non-technical skills and seek to advance the conversation. From a critical feminist perspective, Matteson et al. (2016, p. 84) make the point that for too long the concepts of hard and soft have related to the binary gender construct, '...wherein softness is viewed as inherently feminine and hardness as innately masculine.' In an environment of gender equality, it is no longer sufficient for graduates – or experienced employees – to take an approach that focusses only upon the development of specific technical or cognitive skills pertinent to a particular job role. Employees 'must become more comfortable with ambiguity, take the initiative, and be able to work in a team-based environment' (Anderson & Gantz 2013, p. 13). A recent OECD report makes the point that in future, 'all workers will need to be equipped with a wide set of skills, encompassing cognitive as well as non-cognitive and social skills' (OECD 2018, p. 6).

Organisations such as the Project Management Institute (PMI) pay testament to the rapid adoption of project management practices for new product development, change management initiatives, and the development of infrastructure, with the publication of such handbooks as the Project Management Body of Knowledge (PMBoK). This foundational guide provides a platform for managers and their teams to undertake projects in a methodical, structured way, taking into account critical elements such as stakeholder engagement, scheduling, risk, and project budgeting. Now in its sixth edition, the PMBoK (Project Management Institute 2017b) is a well-established how-to guide that sits alongside other important project management methodologies such as PRINCE2 and Agile project management.

Successive PMBoK guides have increased in the volume of pages as project management professionals have built upon the experience and scholarship of their predecessors and peers. The accumulated knowledge is demonstrated, in part, by the number of pages in each edition. An early edition ran to 176 pages (1996), whereas the latest version, co-published with an additional 168 page Agile Project Management guide, runs to a comprehensive 756 pages (2017b). However, scholars and project management professionals have observed that the focus of the PMBoK is largely upon technical skills such as scope development, schedule, cost, resources, and risk and procurement management, at the expense of the human element, which has been described as both piecemeal and inadequate (Pant & Baroudi 2008).

When it comes to the human element, the problem is exacerbated by the terminology used across not only the project management community, but across most sectors of society. A recent news article described the response of a football code administration as soft when it came to punishing a player's misdemeanour (News.com.au 2017), suggesting that a greater punishment would have been hard – and more legitimate. At a professional project management level, it is common for differentiation to be drawn between hard skills that are used to manage project elements such as scope and cost described above, and the soft skills that comprise the human element. The trouble is that, by describing these skills as soft, there is a pejorative connotation that delegitimises these skills and places them in subjugation to hard skills (Godin 2017; Pant & Baroudi 2008). However, Robles (2012, p. 460) notes that 'hard skills alone may be meaningless without soft skills', placing in jeopardy both projects themselves, and the careers of project managers, who may possess highly developed technical skills, but who may lack the interpersonal skills to maximise their ability to collaborate with colleagues competently.

The focus upon soft skills is particularly pertinent, because project-related activities, including joint ventures and strategic alliances, often fail to reach their expected outcomes. It is estimated that up to 70% of alliances fail to meet expectations, with a common complaint that it is the soft skills element that drives failure, rather than a deficit of hard skills (Chao, Rinaudo & Uhlaner 2014; Geneca 2011; PwC 2014). Employees with well-developed collaboration skills are likely to interact more productively with colleagues and customers, solve problems more quickly, require less intervention from management, and contribute to an enhanced workplace culture (Deloitte Access Economics 2017). One study found that when projects deviated from the agreed plan, it was soft skills that brought them back on track (Carvalho & Junior 2015). In a large survey in the U.S., skills such as 'communication skills, attention to detail, customer service focus, organisational skills, and problem-solving skills' (Anderson & Gantz 2013, p. 6), along with self-motivation and self-starting skills, time management, dependability and team orientation were among the top 20 skills required for the modern business environment – all skills that traditionally fall into the soft skills category. However, while hard skills can be taught, and relatively easily measured, soft skills tend to be seen as intangible and more difficult to measure (Robles 2012).

Methods

Literature pertinent to soft skills was examined from a wide range of information sources, chosen because they represented relevant and/or cognate information and practice areas. These included general articles from academic journals focusing upon project management and related activities; practitioner perspectives from respected electronic web-based sources (e.g., projectmanagement.com); the Project Management Body of Knowledge (PMBok) editions two – six; and fourteen editions of Guidelines for Applicants for the Cooperative Research Centres of Australia. Keywords searched included soft skills; hard skills; collaboration (in its various forms including collaborate, collaborative); and interpersonal skills. In the case of the PMBoK and the CRC Guidelines, the incidence of the words collaborate and interpersonal were counted manually using the search function in Adobe Reader, and all occurrences were recorded in a Microsoft Excel table. In parallel, a search for the keywords soft skills was undertaken in the International Journal of Project Management (Impact Factor: 4.034). When surveying the general articles and practitioner perspectives, alternate phrases and words for soft skills and interpersonal skills were identified and manually recorded.

Defining hard and soft skills

Given the breadth of terms used to define soft skills, it is worth pausing and defining what is meant by the descriptors hard and soft skills. At the most basic level, these skills have been described as sitting on a continuum, with hard, or cognitive, skills at one end, and soft skills, or skills 'mostly linked to personality traits' at the other (OECD 2017, pp. 76-7).

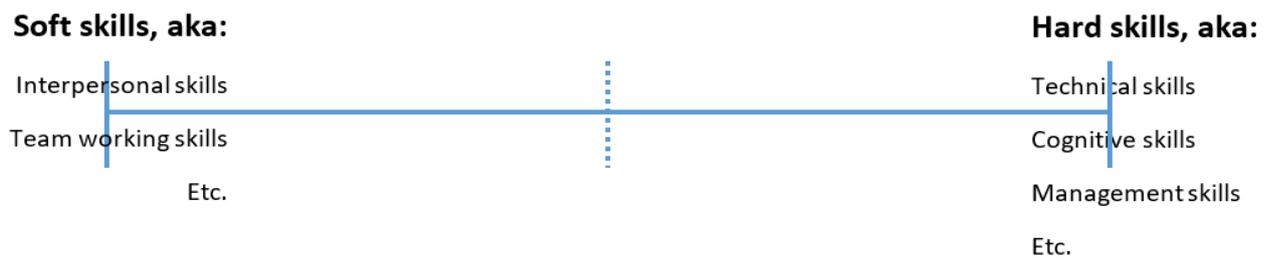


Figure 1: Skills continuum

Hard skills

Hard skills are, perhaps, easiest to define and assess. Is an individual competent to fly an aeroplane, such that she can safely take-off, navigate to a destination, and successfully land? If she cannot guarantee to do this 100% of the time, then her competence would be in question. Can a carpenter build a house that complies with national and local standards, is safe, is square and aligned, and is fit to receive a certificate of occupancy? If not, he would not be deemed competent.

Similarly, can a project manager create a schedule that, barring the incidence of unmanageable risk events, is realistically achievable? Can the project manager competently direct the compilation of a project budget – and manage the project so that it is achieved? These are examples of the hard skills that the global Project Management Institute goes to great lengths to test the skills of aspirant institute members upon, and thus their suitability, for recognition as a Project Management Professional (Project Management Institute 2017a).

Educational institutions assess hard skills every day, to the point where a common skills categorisation in the Vocational Education and Training (VET) sector is that a student is either competent or not yet competent (TAFE NSW 2017). Similarly, universities provide training to students who are judged to have either fulfilled requirements for a particular degree, or require further training before the degree is awarded. Thus in many ways, the entire educational system, which initially sought to prepare workers for the mills and forges of the industrial revolution (Robinson 2010), is designed to develop a set of skills pertinent to a particular profession or trade and to assess them so that industry may confidently employ graduates. Paradigmatic change in the employment landscape over the last three decades, as we have entered the digital age, has enabled new connections, ways of working, and a far greater reliance upon collaboration as a methodology for the achievement of complex projects. In many ways, the confusion about both the descriptor for and the definition of, soft skills is emblematic of society, including both the employment and education sectors, playing follower, rather than the leader.

Soft skills

In contrast to hard skills, soft skills are, on the surface, more amorphous. These skills are often most evident when we observe their absence in another person (Matteson, Anderson & Boyden 2016), and they tend to be ‘difficult to define, as there is no accepted way to conceptualise them’ (Stasz 2001, p. 386). However, many have endeavoured to do just that, by listing individual attributes that might comprise the total skill set of soft skills, with an example set shown in Appendix 1. This extended shopping list of attributes provides some insight into the range of elements that comprise what is generally known as soft skills. It also demonstrates that there is confusion between what some may call traits, dispositions, values, or attitudes (Matteson, Anderson & Boyden 2016). Even the term cognitive would be used by some to denote a soft skill. Nonetheless, for this paper, the term cognitive is taken to relate to the technical or hard skills related to a field (Matteson, Anderson & Boyden 2016).

In terms of commonalities between authors, and of the skills most frequently listed by the authors surveyed, it is perhaps unsurprising that 'communication' is most frequently listed, followed by teamwork and courteousness as the top three. Figure 2 provides a count of attributes by the author, providing some indication of the hierarchy of attributes required for collaborative behaviour.

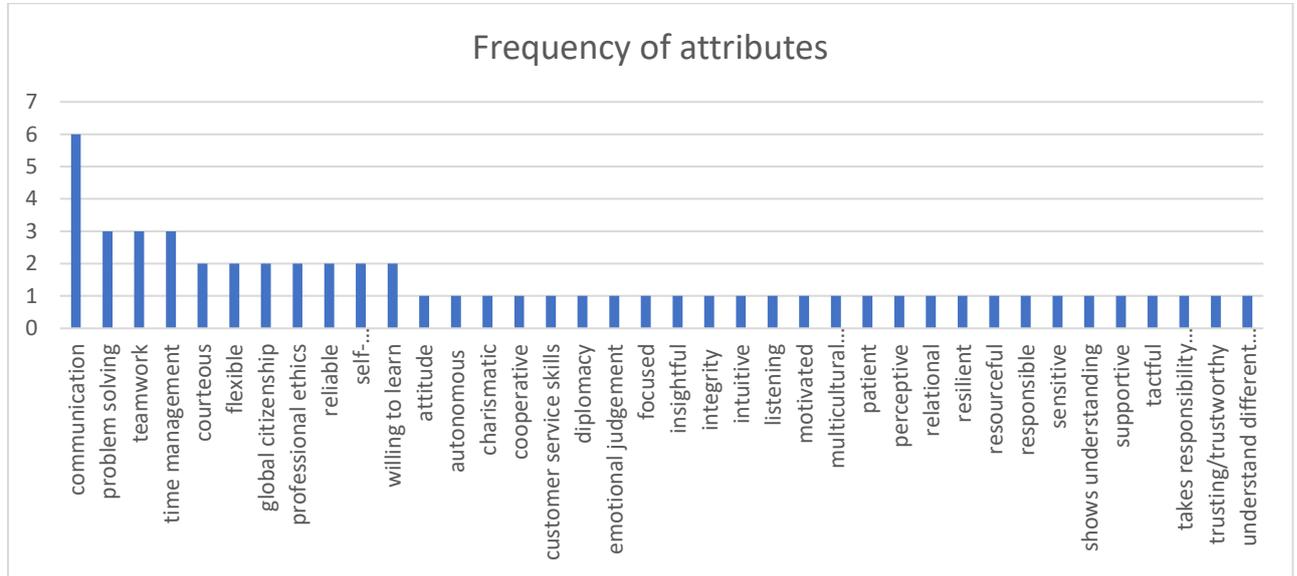


Figure 2: Frequency of attributes mentioned by authors in Appendix 1

Because the soft skills that enable individuals to work together remain a) ill-defined, and b) erroneously and variously described, there is a view that they are optional, innate and, concerning 'hard skills' such as project management methodology skills, subservient (Godin 2017). The irony is that, because their importance remains undervalued, a deficit of the competencies that enable collaborative effectiveness has the potential to undermine any project led by managers who possess even the most outstanding of project management hard skills. A recent study suggested that 40% of failed projects were due to a deficit of soft skills, manifested in poor or damaged working relationships (PwC 2014). Simply putting some people together and expecting them to work as a team is not enough; team-members must be able to work harmoniously and productively to achieve mutual goals (Belbin 2017).

A second issue is that it is impossible to measure what is not defined and codified adequately. Globally, the education system has demonstrated responsiveness to industry requirements by creating new courses to prepare students for new industries, new technologies, and new employment paradigms. If industry agrees on the graduate attributes needed for a new work environment, then education establishments – partly due to competitive market forces and accreditation requirements - will respond. However, while industry remains ambivalent about the terminology for the required attributes, and while those attributes themselves remain undefined and amorphous, education systems are unlikely to fill the gap. Industry organisations need to agree on a descriptor and a definition. It is thus time to draw together the various descriptors into a single phrase – collaborative competencies - that provides a clear indication of what is required for the modern workforce, and project management in particular.

Terminology

In efforts to find an appropriate descriptor for soft skills, a bewildering array of terms are used. Appendix 2 provides a sample that seeks to demonstrate the degree to which project managers and academics have sought to find an alternative to the pejorative term soft skills.

While the table in Appendix 2 offers a vast range of descriptors from the literature, it is telling that the most common term – interpersonal skills – accords with the project management literature and the PMBoK. However, of interest also is that the term collaborative skills come from the literature about collaboration and networking, otherwise known as boundary spanning (Williams 2002). Figure 3 below demonstrates not only how frequently each descriptor is evident in the literature surveyed, but also the many variations on what arguably should be a relatively simple concept.

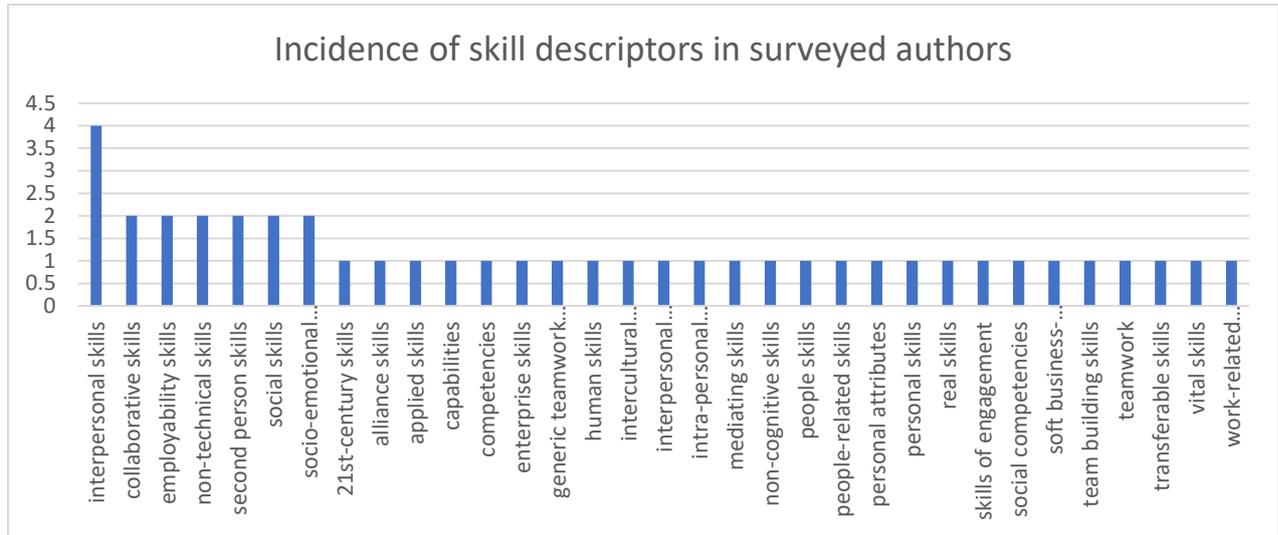


Figure 3: Incidence of descriptors in surveyed authors

While ever there is a lack of clarity regarding the accepted terminology, there is unlikely to be an appropriate focus upon ensuring that these skills are defined, measured and, importantly, taught. Godin's (2017) suggestion that soft skills are seen as innate tends to complicate the educative aspect of this skill area. Despite this complication, there is a need to adopt a nomenclature that a) is not a pejorative description (i.e. "the football administrators were 'soft' on the player's misdemeanour"), b) describes the context in which the developed skills will be applied – in collaborative activity and c) draws all the disparate terms together into a single phrase descriptor.

Towards an appropriate terminology

Given that soft skills are essential for project success (Zhang, Zuo & Zillante 2012), then it follows that they need an appropriate name that describes their contribution to projects, and the workforce generally. While this discussion is not the first to attempt to coin an appropriate definition, the approach taken is unique, in the sense that the criterion used is that a descriptor should describe the context and application of the skill-set (collaboration), rather than adopt a name in opposition to another set of skills (hard, cognitive, or technical skills). A surgeon's skills may be described as 'surgical skills'; those of a pilot 'flying skills'; those of a carpenter 'word-working skills' – all terms that specifically describe the activity in which the competencies, usually developed after a significant period of training, are utilised. By contrast, the term 'soft skills' fails, at a conceptual level, to describe the context in which they will be used, partly because it is trying to define something in deficit to that which is generally considered valuable – hard skills.

The case for the word 'collaborative.'

The world appears to have embraced the use of the word collaborate to describe activities where individuals and organisations join forces to accomplish specific goals. Collaborating can be defined as 'exchanging information, altering activities, sharing resources, and enhancing the capacity of another for mutual benefit and to achieve a common purpose' (Himmelman 2002, p.3). Lambert (2003) notes that the increased complexity of product development, along with the mobility of workers, and an increasingly competitive global environment means that companies can no longer rely on the archaic, introspective silo model of operating. Instead, organisations and governments are changing the way they operate, moving from a win/lose paradigm towards a win/win/win operational reality (Amidon 2003). The new environment of 'complexity, uncertainty, and continual technological and organisational change' (Ramazani & Jergeas 2015, p. 42) has helped develop the notion of collaboration as a critical skill-set for the 21st-century workplace.

However, just as there was a growing understanding of the subtle differences between management and leadership in the 1990s and beyond (DuBrin, Dalglish & Miller 2012), so too there is a growing recognition that an undifferentiated use of words leads to confusion (Keast & Charles WIP). While the descriptor commonly used in the PMBoK of interpersonal skills captures an element of this relational situation, its generality lacks the impact that would be provided by placing the skillset within a collaborative context.

The terminology used in various editions of the PMBoK demonstrates a growing inclination toward the use of the word collaborate (in its various forms including collaboration and collaborative) to describe the activity that is undertaken in the project environment. As is evident from Figure 4, the PMI has increasingly described the activities undertaken in projects as collaboration. This increase is also matched by the use of the word interpersonal to describe one aspect of the skill set required to undertake this activity. To return to the earlier point about terminology describing what a skill set is for (e.g. surgical skills for a surgeon), while interpersonal skills perhaps describe an interaction between two or more people, it does not place that skill set in relation to a specific activity, such as managing a project.

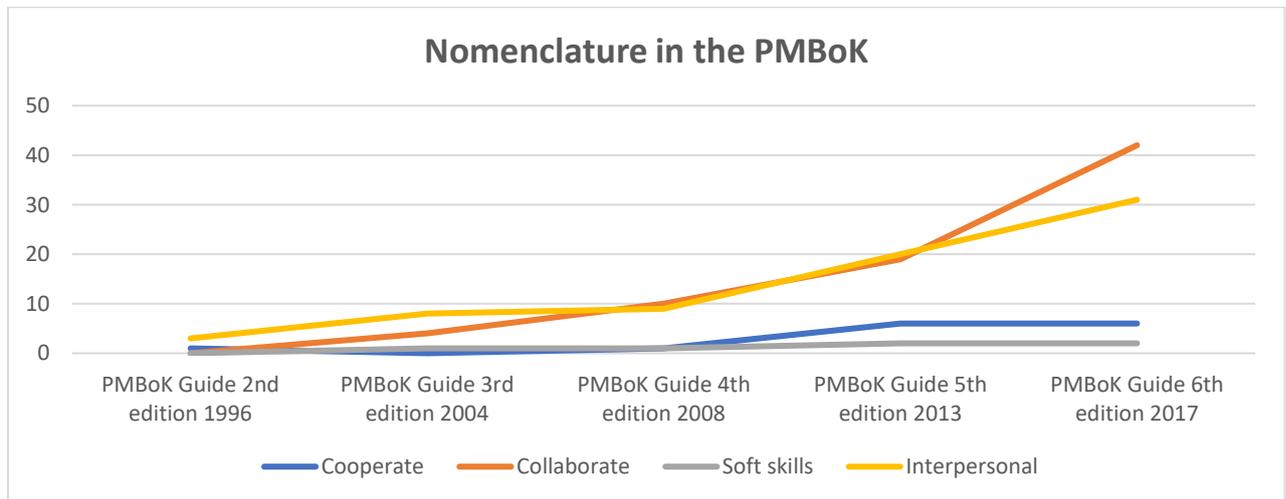


Figure 4: instances of 'collaborate' and 'interpersonal skills' in the PMBoK

The increase in the use of collaborating is not only evident in the PMBoK: it is an extension of the trend around the world and across disciplines to specify the activity that is used to generate innovation, solve intractable societal problems, and undertake projects of all types and sizes. Figure 5 below shows how the use of the word collaborate is evident across domains, with a comparison of the use of the word between the Australian Government's flagship

innovation program, the Cooperative Research Centres (CRC), 'Guidelines for Applicants,' and that of the PMBoK. (Australian Government 1990, 1991, 1992, 1994, 1996, 1998, 2000, 2008, 2015)

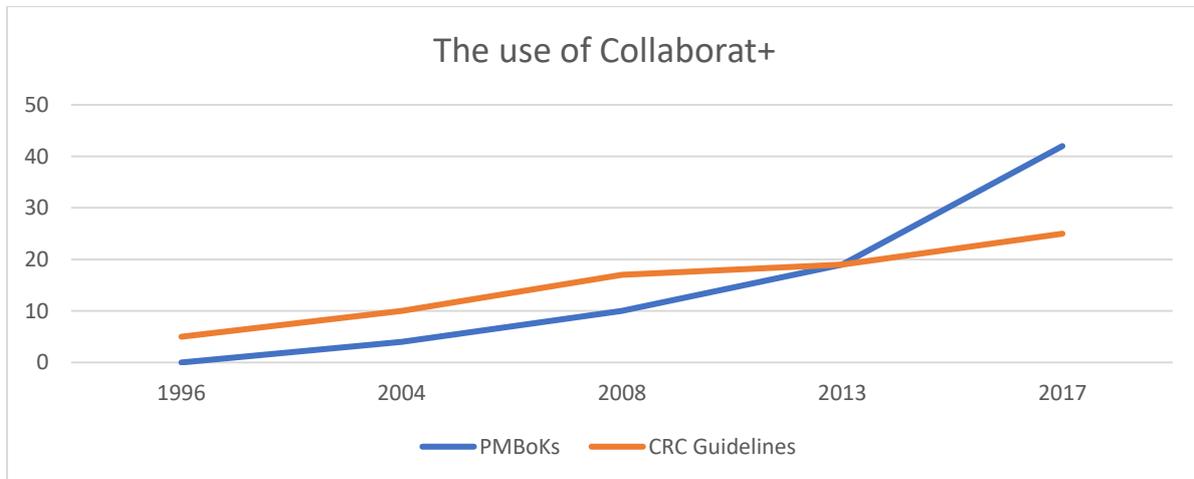


Figure 5: Instances of 'collaborate' in the PMBoK and the CRC Guidelines

The increased take-up of the language of collaboration to the point where it has been described as a 'fad' or an 'obsession' (O'Flynn 2009, p. 112) has not been matched by what Dickinson (2016, p. 47) calls 'a coherent theoretical model.' It seems that administrators and practitioners use of words sometimes leads to the academic community ex-post unpicking what the terms mean, and playing catch-up, rather than setting the pace.

The attributes of collaborative competencies are relatively well-known and described. What is missing is a coherent and consistently applied descriptor within the project management context.

Further questions

It is one thing to identify a phrase the project management – and broader – community can live with: it is yet another to adequately describe and codify what is meant by the term, in order to educate, assess and develop those competencies. Some further steps are required that are beyond the scope of this paper, such as:

- To identify and agree upon what is meant by the use of the term 'collaborative competencies' – in other words, what are they, what do they look like, how are the myriad of individual attributes ranked?
- Secondly, how should collaborative competencies be assessed? It is relatively easy to assess surgical skills – an operation is successful or not. However, human nature and experience being so subjective, it may be difficult to assess a person's interpersonal skills adequately. The reality is that each person can present differently on different days, in different situations, and to different people.
- How should collaborative competencies be taught? Can they be taught, or are they, as some suggest innate – more 'nature' than 'nurture'? What would the curricula look like? How early should these skills begin being taught in the education system?
- Finally, how should use of the term, and the training for these competencies, be promulgated? Is this something that accrediting bodies, such as the PMI, need to mandate RTOs to include in their curricula?

Conclusion

This paper has sought to introduce a cogent argument for the use of the term collaborative competencies instead of the commonly used pejorative term soft skills, or the vague term interpersonal skills. By providing a phrase that describes the purpose of the skill-set, and by defining what that skill-set looks like, the project management sector will afford these competencies the recognition they deserve and develop common parlance.

Declaration: The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article

Funding: The author(s) received no financial support for the research, authorship, and/or publication of this article.

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