

Building the Project Talent Pipeline: Professional Competence for Aspiring Project Managers

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Abstract

This study explores the work readiness of aspiring project managers as they transition from academic training to professional roles, centering learner perspectives often overlooked in existing research. Grounded in Social Cognitive Career Theory (SCCT), it examines how self-efficacy, outcome expectations, and career goals shape perceptions of preparedness for project management careers. Drawing on qualitative data from online focus groups with 32 international postgraduate students enrolled in a UK-based Strategic Project Management programme, the study employs thematic analysis aligned with SCCT constructs. Findings highlight the capabilities learners value, their confidence areas, and perceived skill gaps, along with reflections on how their academic experience supported their career development. The study offers practical insights for educational institutions and employers to enhance training strategies, support learner transitions, and address global talent shortages in project management.

1.0 Introduction

The demand for project managers is rising globally due to the increasing reliance on project-based work (Borg et al., 2023; Vaz-Serra & Mitcheltree, 2021). With project-related activities comprising a significant portion of the global economy (Ding et al., 2024; Alkhudary & Gardiner, 2021), industries face talent shortages (Borg et al., 2021). According to the Project Management Institute (2017), the project labor force is expected to increase by 33%, creating approximately 22 million new jobs over the next ten years. In addition, by 2027, employers will require nearly 88 million people in project management-related positions. This projected demand places immense pressure on both organizations and higher education institutions to produce work-ready project professionals capable of stepping into these roles immediately. However, research on careers in formal project management roles remains limited, even as these professionals play an increasingly vital role in the workforce (Alkhudary & Gardiner, 2021; Borg et al., 2023; Borg et al., 2021; Borg & Scott-Young, 2020a, 2020b; Burga et al., 2020; Keegan et al., 2018).

While the value of structured graduate education is widely acknowledged, the transition into project management roles often lacks clear direction. Traditionally, career paths in project management have been unstructured, relying on individuals ‘falling into’ the role rather than following a planned trajectory (Burga et al., 2020; Havermans et al., 2019), and accordingly, there has not been much focus on learners’ perspectives during their transition from university to the workplace (Okonkwo et al., 2024).

To address the talent gap, training aspiring project managers is crucial, with more universities offering project management degrees as a potential solution (Borg et al., 2023; Burga et al., 2020). Graduates have the opportunity to develop ‘work readiness’, a combination of values, behaviors, and skills essential for professional success (Okonkwo et al., 2024; Borg & Scott-Young, 2020a, Verma et al., 2018). It is argued that academic qualifications alone are insufficient for workforce readiness; graduates must also

cultivate essential skills to manage the complexities of project environments, including stakeholder coordination, uncertainty, and cultural diversity (Masole & van Dyk, 2016; Okonkwo et al., 2024).

Despite growing efforts to align curricula with employer expectations, most studies prioritize the employer's voice, leaving learner perspectives underexplored. This study responds to that gap by centering the experiences of international learners as they assess their own readiness for project-based careers. Such a learner-focused lens is especially critical in international postgraduate contexts, where cultural and labor market differences can further complicate workforce transitions.

This study applies the Social Cognitive Career Theory (SCCT) to examine aspiring project managers' perceptions of workforce readiness. SCCT (Lent et al., 1994) explains how individuals form career beliefs, goals, and actions through three key constructs: self-efficacy, outcome expectations, and personal goals, offering an integrated perspective on how learners assess their preparedness and future career paths.

Grounded in SCCT, this research explores how students form beliefs about their readiness for project-based work through the following research questions:

RQ1. What skills and capabilities do aspiring project managers view as critical for being prepared for the workforce?

RQ2. Which skills and capabilities do they feel confident in for effective project management?

RQ3. What specific skill areas do they believe require further development?

RQ4. How do they evaluate the role of their academic training in equipping them for their careers?

The study employed qualitative focus groups with international learners, offering insights into their project management preparedness. By understanding these factors, organizations can develop targeted training programs, enhancing aspiring managers' motivation, job satisfaction, and long-term retention (Borg et al., 2023; Okonkwo et al., 2024). Supporting aspiring project managers is vital for sustaining a

robust PM talent pipeline amid global shortages (Borg et al., 2021). The remainder of the paper presents the literature review, followed by the methods, analysis, discussion, and conclusion.

2.0 Literature Review

This section first explores how work readiness is conceptualized in project management education, before introducing the SCCT as the guiding framework for our investigation.

2.1 Work Readiness in Project Management Education

Work readiness is a key outcome of higher education and a key requirement for effective transition into professional roles. In this study, we adopt a definition aligned with Caballero and Walker (2010), viewing work readiness as a blend of values, behaviors, and discipline-specific and transferable skills that enable graduates to contribute meaningfully from the outset.

While project management programmes traditionally emphasize technical proficiency, employers increasingly value broader capabilities such as communication, adaptability, and leadership (Ahsan et al., 2013; Gruden & Stare, 2018). This skills gap has prompted calls for universities to better align curricula with workplace expectations (Borg et al., 2023; Cavanagh et al., 2015; Finch et al., 2013; Okonkwo et al., 2024).

Importantly, while many studies prioritize employers' perspectives (such as Borg & Scott-Young, 2020), fewer foreground learners' own evaluations of their readiness. This gap is particularly significant for international postgraduate students, such as those in our study, who face additional barriers related to unfamiliar labor markets and cultural norms. Understanding their perceptions is essential for designing educational approaches that build relevant, transferable capabilities, and also aligns with SCCT's emphasis on the role of context and self-beliefs in shaping career outcomes.

2.2 Theoretical Underpinning

Our research explores aspiring project managers' perceptions of project work using three models from Social Cognitive Career Theory (SCCT): interest, choice, and performance (Lent et al., 1994, 2019). These models suggest that career choices result from interactions between self-efficacy beliefs, outcome expectations, and personal goals (Lent et al., 2002). Supportive environmental conditions facilitate the progression from interests to career behaviors (Lent et al., 2019).

Career self-efficacy, defined as confidence in completing career-related tasks, interacts with socio-contextual factors, encouraging career goal identification. Outcome expectations, beliefs about the outcomes of performing tasks, significantly influence occupational interests. Anticipated outcomes can be physical, social, or self-evaluative, impacting career behaviors (Lent et al., 2019; Lent et al., 2002).

In this research, we explore how aspiring project managers perceive project work using the SCCT models of career interest, choice, and performance (Lent et al., 2019). We assess whether aspiring project managers consider themselves adequately prepared to meet the skill requirements for a successful project management career. Besides, we suggest that aspiring project managers' views on project work align with academic and institutional expectations of what constitutes a successful project manager.

3.0 Methods

Our research aligns with the interpretivist research paradigm, which emphasizes understanding social actions from the perspective of those involved. Guided by SCCT, which emphasizes the interaction between personal beliefs and contextual influences, this study investigates how aspiring project managers perceive their readiness of the workplace, by focusing on how their self-efficacy, expectations of outcomes, and career ambitions influence their experiences in the project management field. The following subsections outline the data collection process, participant profile, and approach to data analysis.

3.1 Data collection and sampling

To examine participants’ views on work readiness in project management, the study employed focus groups. The interview guide was collaboratively developed by the research team based on key research questions. Sample questions included:

- Which competencies do you feel most confident about as you prepare for a project management role?
- Can you provide examples of when you have successfully applied these skills?
- What skills require further development for your professional success?

To address the research questions of the study, data collection took place in 2024 through four online focus groups, each lasting approximately 1.5 hours. Moderators facilitated discussions to ensure diverse perspectives were captured. The study involved 32 international learners who had recently graduated from a UK-based MBA in Strategic Project Management at a public university, all of whom had at least two years of management experience.

Participants were recruited through convenience and purposive sampling via the university’s alumni mailing list and course database. Most learners were from Nigeria and other South Asian nations. Their varied professional and cultural backgrounds influenced their perspectives on work readiness, particularly regarding differing expectations between their home countries and the UK labor market. Their diverse industry backgrounds enriched the study’s insights.

Focus groups were selected as the primary method to foster interaction and reflection, generating richer data than one-on-one interviews (Gupta, 2024; Morgan, 2018). Group discussions encouraged peer-led knowledge sharing, allowing participants to compare their preparedness for project management roles. Table 1 provides a summary of participant demographics, highlighting the diversity of the sample. This demographic breakdown adds context to how age and professional maturity may influence perceptions of work readiness.

Table 1: Demographic Details

Age Group	Male (M)	Female (F)	N: Number of Participants
25–34	10	8	18
35–44	7	4	11
45–54	2	1	3
Total	19	13	32

The focus group discussions were audio-recorded with participant consent and transcribed verbatim. The collected information was analyzed using the SCCT framework, ensuring a structured approach rooted in self-efficacy, outcome expectations, and career objectives.

3.2 Data Analysis

A thematic analysis approach was applied to identify patterns in the qualitative data (Braun & Clarke, 2006). The study employed structured first and second-order coding to enhance the research's credibility (Gioia et al., 2013; Gioia, 2021); a sample is illustrated in Table 3. The analytical process followed several distinct phases, outlined in Table 2.

Table 2: Thematic Analysis Process

Thematic Analysis Steps	Process Overview
Data Familiarization	Multiple transcript reviews to identify patterns related to SCCT: career interest, choice, and performance. Collaborative discussions ensured consistency.
First-Order Coding	Inductive coding captured key participant insights, including experiential learning, team collaboration, guest speaker interventions, employability skills, and confidence-building activities.
Second-Order Coding	First-order concepts were grouped into broader themes, such as workplace readiness, technical skills, leadership, problem-solving, anticipated career benefits, and institutional support. Themes were refined to align with SCCT dimensions.
Aggregate Dimensions	Second-order themes were synthesized into three overarching SCCT categories: self-efficacy, outcome expectations, and career development.

Table 3: Sample of Data Structure

First-Order Concepts	Second-Order Themes	Aggregate Dimensions
Practical learning: real-world examples, guest speakers, hands-on projects, MS Project training, teamwork exercises	Technical proficiency & practical application	Self-efficacy (Confidence & Readiness)

Career motivation: employability confidence, long-term career aspirations	Employability & career progression	Outcome Expectations (Career Impact & Benefits)
Academic preparation: course structure, theory-practice balance, gaps in PM training	Structured academic preparation	Personal Goals/Career Intentions (Institutional Influence & Skill Growth)

3.3 Methodological Rigor

Reliability and validity were strengthened through inter-coder reliability checks, data triangulation, and participant validation. Feedback sessions ensured accurate representation of participants' perspectives in the findings.

4.0 Results

The analysis yielded a structured set of insights aligned with the SCCT framework, comprising three aggregate dimensions: self-efficacy, outcome expectations, and career development. Each dimension was built from second-order themes and supported by first-order participant quotes. Below, we present some of the key findings with illustrative excerpts.

In relation to self-efficacy, participants reflected on their ability to apply both technical and soft skills in professional settings. Many described feeling confident in areas like teamwork, communication, and stakeholder management, often attributing this confidence to course assignments, simulations, and group work, as illustrated in the following verbatim.

“I feel like the team-based projects really gave me confidence to work with different people, manage conflicts, and deliver results under pressure” (Participant 6)

Several learners also highlighted the value of practical tools, such as the project management software, MS Project, in boosting their confidence.

“Using MS Project in class helped me feel ready to handle real-world planning and scheduling”
(Participant 13)

Echoing others on the value of real-world applications, another participant remarked:

“Given the confidence to work with real successful projects- it’s not just theoretical anymore”

(Participant 17)

In a similar vein, aligned with outcome expectations, participants frequently linked their learning experiences to future career outcomes, expressing strong expectations that the course would enhance employability, job market competitiveness, and career progression. The integration of theory with practice emerged as a key motivator. Learners valued modules that connected academic content with industry insights, as reported in the following excerpt:

“Not only the idea of the theories, but actually what happens in the world outside. Practices and the way things are being done in the industry, so it's very much connected to that” (Participant

22)

This was echoed by others who appreciated hands-on exposure:

“Amazing software, hands-on project work, and guest speakers gave us a glimpse of the real world” (Participant 19)

5.0 Discussion & Implications

In the discussion section, we will interpret the findings in the context of existing literature and the SCCT theory. We will explore how the identified themes contribute to our understanding of how aspiring project managers’ self-efficacy, outcome expectations, and career goals shape their experiences in the field of project management.

5.1 Theoretical Contribution

- Demonstrates how SCCT can be extended to project-management education by showing how self-efficacy, outcome expectations and career goals jointly frame students’ perceptions of ‘work readiness’ in a project-based discipline.

- Introduces a learner-centered lens to work-readiness literature by shifting the conversation from employer-defined skill gaps to students' own narratives.
- Highlights the role of contextual (cross-cultural) factors in SCCT processes by illustrating how international students weigh UK-specific workplace norms while judging their confidence and expected outcomes.

5.2 Practical Implications

For Educational Institutions:

- Integrate *industry-authentic* learning (guest speakers, live cases, project simulations) across every modules to reinforce theory-practice alignment.
- Provide customized cultural-competence training and labor-market briefings for international cohorts entering the UK PM sector.

For Both Educators and Employers:

- Design onboarding bootcamps based on learners' identified gapes (such as stakeholder engagement, workplace norms, project scheduling).
- Co-fund university-industry collaborations to pilot scalable models of work-readiness.

For Employers:

- Adapt recruitment processes to reflect learners' strengths and development areas.
- Refine job ads, interview focus, and early training to target the most relevant skill gaps and improve new hire fit.

6.0 Conclusion

This study examined how aspiring project managers assess their work readiness as they transition from academic study to professional roles. Anchored in SCCT, it examined how self-efficacy, outcome

expectations, and career goals shape learner perspectives. Drawing on qualitative data from international postgraduate students in a UK-based programme, the research presents a learner-centered understanding of work readiness that complements existing employer-focused studies. By centering learner voices, this study calls for more practice-oriented, and culturally responsive approaches in project management education. The insights presented can inform curriculum design and support strategies that better equip international learners for global project management careers.

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