

Work placement: Organizational socialization among international engineering students

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Some degree programs require students to complete self-sourced work placements as a condition for graduation, which is challenging for many international students as they face significant contextual constraints. The literature has indicated typical contextual challenges international students face while attempting to strengthen organizational socialization (OS) during placements in a host country. Despite this, there is still a need for further research on how international students develop perceptions of their workplace context and how these perceptions impact their OS. The current study addressed this gap in the literature, adopting a grounded approach. Data was collected through 27 in-depth interviews with nine international undergraduate engineering students from an Australian university. Findings feature a perception-response model of OS, which helps inform research and practice to enhance international students' placement experiences.

Keywords: Workplace learning, work placement, organizational socialization, international students, student agency

Organizational socialization (OS) is “a learning and adjustment process that enables an individual to assume an organizational role that fits both organizational and individual needs” (Chao, 2012, p. 1). OS refers to how workplace individuals procure the “knowledge, behaviors, and relationships” (Ali et al., 2022, p. 336) to facilitate successful outcomes during the workplace experience. Organizational culture impacts OS and is critical for ensuring a sense of “safety, respect and belonging” (Marinelli et al., 2022, p. 46), a crucial aspect for international students. The process of OS is integral to students' workplace learning during placements and the quality of workplace relationships.

Research indicates that OS is challenging for many international students undertaking work placement in their host country as they face significant contextual constraints such as differences in language and culture (Goodwin & Mbah, 2019; Jackson, 2017; Lim et al., 2016; Mikkonen et al., 2017; Morgan, 2017), host organizations' inability to provide culturally inclusive placement experiences (Felton & Harrison, 2017; Lalor et al., 2019; Lim et al., 2016; Nuttall & Ortlipp, 2012), and inadequate university support (Goodwin & Mbah, 2019; Gribble et al., 2015; Zunz & Oil, 2009). Contextual constraints faced by international students in work placements have been well stated in the literature (Vu, Ferns, & Ananthram, 2022). Despite this, there is limited research on how international students, particularly engineering students, develop perceptions of their workplace context and how these perceptions, in turn, affect their OS during self-sourced placements.

The current study examined the OS of nine international undergraduate engineering students undertaking self-sourced work placements in Australia, their host country. International students were

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defined as students studying in Australia on a student visa. The field of engineering was selected for the current study for two reasons. First, skills requiring engineering graduates' expertise are on the Skills Priority List to address the skills shortage in Australia (Australian Government, 2021). Second, as a graduation prerequisite, students must complete 480 hours of exposure to self-sourced professional practice, of which industry placements are a component (hereafter referred to as a 'work placement' or briefly 'placement'). However, engineering placements are largely not embedded in the curriculum or formally assessed and may lack explicit integration of theoretical aspects from campus-based learning to workplace learning.

Australia is a well-established destination for overseas study, and "International students have always been an important source of labor for Australia, both while they are studying and through post-study work rights" (Australian Government, 2021, p. 11). Work-integrated learning, particularly work placement, is positioned "as a strategic imperative for enabling a sustainable workforce" (Ferns et al., 2022, p. i). Amidst concerns over challenges faced by international (engineering) students, enhancing international students' capacities to engage in work placements is a key action in the Australian national work-integrated learning strategy (Universities Australia et al., 2015). Findings from the current study are useful for informing stakeholder strategies in tailoring contextual conditions conducive to enhancing the OS among international students on placement.

Organizational Socialization and the Role of the Workplace Context

Kramer (2010) observes that OS comprises four stages: anticipatory, encounter, metamorphosis, and exit. During the anticipatory OS stage, individuals learn about organizations for whom they desire to work. In the encounter stage, organizational newcomers such as new employees and students on placements engage in workplace learning and adaptation before transitioning to a metamorphosis stage characterized by their mastery of organizational roles and task performance. Finally, the exit stage is when an individual leaves an organizational position voluntarily or involuntarily.

The OS of workplace newcomers, such as new employees and students on placements, is affected by newcomers' characteristics, the workplace context, and the person-organization interactions (Vu, Bennett, & Ananthram, 2023). Within its scope, the current study focused on international students' perceptions of their workplace context and the impacts of these perceptions on students' OS. The OS literature establishes that workplace context plays an important role in newcomers' OS (Gruman et al., 2006; Kim & Moon, 2021; Marinelli et al., 2022; Mornata & Cassar, 2018; Nordsteien, 2017). Workplace context refers to "situational opportunities and constraints that affect the occurrence and meaning" of people's behavior in work settings (Johns, 2006, p. 386). Two broad aspects of workplace context that affect the OS of workplace newcomers are OS tactics and socialization agents (Ellis et al., 2017; Gaunt et al., 2017; Mornata & Cassar, 2018; Nifadkar & Bauer, 2016; Nordsteien, 2017).

Organizational Socialization Tactics

OS tactics refer to strategies and approaches employed by workplaces to facilitate newcomers' OS (Kim & Moon, 2021). Such tactics affect the OS outcome among newcomers, including role clarity, task mastery, and commitment to the workplace (Gruman et al., 2006; Mornata & Cassar, 2018; Nordsteien, 2017).

OS tactics fall under two broad categories: institutionalized socialization tactics and individualized socialization tactics (Jones, 1986). The former refers to organizational strategies and approaches relating to structured training programs for newcomers (Jones, 1986). Through institutionalized

socialization tactics, organizations provide relevant information to newcomers and create opportunities for newcomer-insider interactions, thus facilitating newcomers' OS (Kim & Moon, 2021; Mornata & Cassar, 2018; Nordsteien, 2017). The second category is individualized OS tactics characterized by an absence of structured organizational orientation programs and mentorship for newcomers (Ali et al., 2022; Jones, 1986). These tactics, therefore, stimulate newcomers' proactive behavior to enhance OS (Gruman et al., 2006; Kim & Moon, 2021).

Socialization Agents

Socialization agents refer to people in a workplace (e.g., co-workers and supervisors) through whom newcomers learn about the workplace to enhance OS (Wang et al., 2015). Socialization agents can be both enablers and barriers to the OS among workplace newcomers (De Vos & Freese, 2011; Ellis et al., 2017; Gaunt et al., 2017; Nifadkar & Bauer, 2016; Spagnoli et al., 2012). For example, socialization agents such as supervisors and co-workers can be crucial sources of emotional and technical support for newcomers to enhance OS (De Vos & Freese, 2011; Gaunt et al., 2017; Kim & Moon, 2021). However, supervisors and co-workers can be sources of constraint when they are unsupportive of newcomers and when there are conflicts with newcomers (Nifadkar & Bauer, 2016).

THEORETICAL UNDERPINNING AND RESEARCH QUESTIONS

This study examined international engineering students' OS during work placements. The study adapted Billett's notion of "relational interdependence" between individuals and their workplace, considering international students' engagement in "individualising the social and socialising the individual" (Billett, 2006, p. 54). The notion of "individualising the social" emphasizes the importance of local workplaces identifying international students' characteristics (e.g., unfamiliar with local workplaces) and subsequently tailoring support for them. On the contrary, "socialising the individual" highlights the imperative for international students to learn and adapt to local workplaces' cultures and common practices. However, the current study solely investigated international students' perspectives and experiences. Therefore, it did not examine how local workplaces customized support for international students on placement (i.e., "individualising the social"). Rather, the study investigated how student participants adjusted to fit into their local workplaces, hence "socialising the individual".

There are two aspects related to OS in the context of engineering placements in this study. First, OS involves individual efforts to address personal and organizational needs, as Chao (2012) posited. Second, the engineering placements necessitated that students exercise agency to meet their personal and organizational needs. Specifically, the placements were self-sourced and not integrated into the curriculum or formally assessed, requiring students to direct and self-regulate their learning while on placement.

To investigate student agency, this study adopted three key attributes of agentic learners identified by Billett (2015, p. 115): (i) *proactive* "when engaging in activities and interactions in both education and practice settings"; (ii) *focused* regarding "effortful engagement" to enrich learning; and (iii) *intentional* in directing learning "towards particular purposes, often associated with securing the kinds of capacities they need to move smoothly into work upon graduation" (Billett, 2015, p. 115).

This study was also grounded in *social constructivism*, which posits that "people construct their world and make sense of experiences during interactions in it" (Licqurish & Seibold, 2011, p. 12). The study examined international students' OS in workplace settings and therefore investigated students'

behaviors as both individuals and as group members (Wagner III & Hollenbeck, 2009). Research into workplace people's behaviors as individuals considers their *internal processes*, such as making decisions and perceiving their workplace context. In contrast, an investigation into their behaviors as group members concerns their *social processes*, such as interactions with workplace insiders (Wagner III & Hollenbeck, 2009).

Wagner and Hollenbeck (2009) observe that it is vital to examine how people develop perceptions of their workplace context and how these perceptions, in turn, affect their behaviors. Two questions accordingly guided the study:

1. How do international undergraduate engineering students develop perceptions of their workplace context?
2. How do these perceptions affect their strategies for maximizing workplace learning?

METHOD

Research Context

This study is part of a broader project investigating international students' experiences before, during (the focus of this article), and following placements. The study was conducted with nine final-year international undergraduate engineering students enrolled in an Australian university. The participants undertook placements at different firms across Australia and at different times. The duration of placements was between eight and 12 weeks.

Engineers Australia accredits engineering degrees, and the 480 hours of exposure to professional practice—a prerequisite for graduation—can be accumulated from several placements (Engineers Australia, 2019). However, difficulties in securing placements (Vu, Ananthram, & Ferns, 2023) have led Engineers Australia to consider a range of activities, including conference and seminar attendance, industry-based projects, and placements in engineering or non-engineering firms.

Design

A grounded approach was adopted as it enables rich insights into under-researched phenomena (Corbin & Strauss, 1990; Creswell & Poth, 2017; Saldaña, 2016). Data was gathered through semi-structured interviews, allowing the interviewer to move beyond pre-determined questions to acquire evidence that is meaningful to the interviewees and important to the study (Creswell & Poth, 2017). Narrative interviewing enabled data collection by facilitating research participants to relate narratives about personal experiences and attitudes toward a topic or phenomenon (Mueller, 2019; Riessman, 2012).

Participants and Data Collection

Ethical clearance was obtained before commencement. International undergraduate engineering students from the university who were undertaking or had completed at least a placement in Australia met the recruitment criteria. Participation was voluntary, informed consent was obtained, and participants were assured that their responses would be anonymized. Student participants (Table 1) were recruited using online advertisements (e.g., Faculty Facebook) and a snowball approach. The sample size ($n = 9$) was determined by the saturation of data (Creswell & Poth, 2017) that occurred following 27 in-depth interviews.

TABLE 1: Participant demographics.

Pseudonym	Gender	Discipline	Country of origin
Ahmad	M	Mining Engineering	Indonesia
Monifa	F	Chemical engineering	Nigeria
Lan	F	Chemical Engineering	Vietnam
Joshua	M	Electrical Engineering	Singapore
Yong	M	Mining Engineering	Korea
Edgar	M	Mechanical Engineering	Zambia
Badal	M	Electrical Engineering	Nepal
Enitan	M	Software Engineering	Nigeria
Thanh	M	Electrical Engineering	Vietnam

Interviews were conducted online (through WebEx) and transcribed using Otter software. The participants each attended three 45-minute interviews about their experiences before, during, and following their most recent placement. The topics of how participants developed perceptions of their workplace context and how these perceptions affected their strategies in maximizing OS were intentionally explored and/or emerged across the three interviews. In addition, for those having completed rather than undertaking a placement, the interviews asked interviewees to reflect on the time they undertook their placement.

Complying with a grounded approach (Corbin & Strauss, 1990), broad and open-ended interview questions were employed to enable participants to construct their experiences and perceptions using their own terms. Following are some examples: Can you tell me about your most recent work placement experience? What were/are your strategies for learning and adapting to your workplace? Why those strategies? In addition, specific questions were used to facilitate participants' recall of their workplace learning experiences. Some examples of specific questions include: What were/are opportunities for, and constraints to, your learning and adaptation? How did/do you employ those opportunities? How did/do you overcome those constraints?

Analysis

Inductive thematic analysis was employed in iterative segmenting, regrouping, connecting, and synthesizing data (Corbin & Strauss, 1990; Saldaña, 2016). Data coding was preceded by interview scripts being imported into NVivo (version 12) to systematically identify, compare, and synthesize data segments. The data coding process established codes, categories, and themes. A code was assigned to "a salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data"; a category refers to a group of codes with commonalities; and a theme was the "outcome of coding, categorization, or analytic reflection" (Saldaña, 2016, p. 4; p. 15). For example, lack of opportunities for discipline-related learning and language barriers are some codes relating to research question 1, which focused on participants' perceptions of their workplace context. These codes fall under the category of contextual constraints to OS. Interpretation and synthesis of categories enabled the identification of theme(s). Data coding and analysis were conducted in three stages, as shown in Table 2.

TABLE 2: Data analysis process.

Analysis stage	Analysis technique	Aspect of interest
1. Synthesis and analysis of individual narratives	Sequential ordering (Riessman, 2012)	Complete narratives of individual students
2. Synthesizing findings across participant narratives	Inductive thematic analysis (Corbin & Strauss, 1990; Saldaña, 2016)	<ul style="list-style-type: none"> • Developing perceptions of workplace context (RQ1) • Impacts of perceived context on students' strategies in OS (RQ2)
3. Developing a model of perception-response in OS	Data interpretation and synthesis (Corbin & Strauss, 1990; Saldaña, 2016)	Interrelations of key themes

FINDINGS AND DISCUSSION

This section analyzes and discusses the findings, including (i) an analysis of three example student narratives, (ii) a synthesis of findings, (iii) theoretical contributions, (iv) practical implications, and (v) limitations and suggestions for future research.

Analysis of Three Example Narratives

Three example student narratives that encompass diverse placement experiences were selected for analysis. Each narrative is a composite of three interviews with each participant. Presenting and analyzing data through example narratives personalizes participants' lived stories and enables depictions of complete and insightful experiences and perceptions. However, data from all nine participants was used to synthesize the study's findings.

Narrative 1: Overcoming perceived cultural barriers through relationship-building and flexible information seeking

Monifa, from Nigeria, was an international chemical engineering student who obtained an unpaid, eight-week placement through a formal application process at the end of year three. Monifa was confident in her communication skills as vice president of a student club and used English as her first language. However, she perceived three significant constraints to workplace learning.

First, she lacked Australian work experience, noting she "was very nervous and scared ... being in that setting for the first time [for] my first placement." Second, Monifa realized that there were limited learning opportunities since the business of the host organization was unrelated to her chemical engineering discipline, and there was no formal training program for students. Consequently, Monifa became disoriented in the early days of the placement:

This was a mechanical engineering company, but I'm studying Chemical Engineering ... so most of the time, I didn't even know what I was trying to put forth. ... [I]t was a really small company [so I would] do a different task every day, depending on what was available for me to do and who needed extra help that day.

As there was no formal learning program for students on placements in the organization, it was essential for Monifa to self-initiate learning opportunities such as asking questions to workplace insiders. However, she faced a third barrier relating to her cultural background, remarking that people

in her culture would look down on her if she asked too many questions at work. She noted, “back home ... if you ask too many questions, you’ll be looked down on.” This affected Monifa’s preconception of the Australian workplace: “I was always scared that if I asked questions, they would think I wasn’t qualified for the job or ... I’m not skilled.” She accordingly refrained from asking questions at work, thus slowing the process of OS.

Monifa was then determined to address the perceived cultural barrier: “I had to, like, force myself to always ask questions.” Her strategy was to build good relationships with workplace insiders to be comfortable asking questions. She initiated informal and casual conversations during lunch breaks with workplace insiders. Having established good relationships, she was “able to ask them questions and not feel too nervous ... [, and] could reach out to them for help anytime and not feel uncomfortable.”

Monifa subsequently realized that “[m]ost of the time here [in Australia], when you ask questions, people are willing to help you.” This differed from her initial assumption about the Australian workplace context and made her more comfortable asking questions to enhance her OS. In addition to building relationships, Monifa implemented flexible and effective information-seeking strategies, which she shared as follows:

[F]ind ways to ask the question politely. If you feel like the question is too direct, maybe try emailing them. ... If you don’t feel like asking directly, you can ask them for their opinions ... [and] you might be able to get them to explain things from a different angle, and you might understand it better.

Monifa also sought feedback from insiders about her performance and used this information to direct subsequent learning and performance. She reflected on the benefits of proactive relationship building, asking questions, and seeking feedback, all of which occurred in a company outside her chemical engineering discipline: “I gained skills outside of what I would have learned ... if I had worked in maybe a chemical engineering company”.

Narrative 2: Enhancing opportunities for hands-on learning through extra efforts in task completion culture learning

In year four of his studies, Joshua, an international electrical engineering student from Singapore, employed his networks to secure a paid placement at a mining site. Joshua was confident about his intercultural communication skills due to his experience on student committees and in student clubs.

Joshua remarked that the workplace insiders he encountered were “very open to discussions. ... and even admitting that they were wrong or right. ... [So] I wasn’t afraid to ask questions.” Joshua also affirmed that his supervisor was “knowledgeable” and that “having a mentor like him was very important.” He, therefore, employed every opportunity to learn from his supervisor.

Despite the above-mentioned contextual advantages, Joshua had three concerns. First, he had no Australian or engineering-related work experience: “It was, like, my first real professional experience.” Second, he felt culturally isolated in the workplace: “I was the only Asian. ... So, it was kind of weird.” Third, the tasks he was assigned were “mostly office work,” contrasting with the “hands-on” learning opportunities he had expected.

Joshua addressed his first two concerns—limited local work experience and perceived cultural isolation—by observing how workplace insiders perform their tasks and interact: “seeing how other people

acted.” Joshua then proactively interacted with workplace insiders, asking them questions to acquire further information about task performance and the workplace culture.

Notably, Joshua responded to his third concern by proactively seeking opportunities for hands-on learning. He made extra efforts to complete assigned tasks before requesting additional assignments of varied tasks: “I tried to do as much as I can [could]. ... [I]f I am [was] done with a certain task, I would ask if there was anything I could do extra.” Of interest, Joshua reflected on his workplace learning and progress by keeping a diary. He noted that practicing reflection based on a diary helped students understand “how much you’ve changed since the beginning of an internship” and formulate questions to ask next.

Joshua’s strategies in maximizing OS can be summarized as proactively learning about the workplace culture, interacting with insiders, seeking additional assignments of varied tasks, and using a reflective diary to record his progress and strategize the next steps. At the end of the placement, Joshua reflected that “the overall experience was great. It was very hands-on; I learned a lot about the site itself. It was good transferring your skills from uni theory to actual practical work.”

Narrative 3: Overcoming perceived cultural isolation through impression management and proactive interactions

Badal, an international electrical engineering student from Nepal, acquired a 10-week unpaid placement at a motor museum in year four. He sought an unpaid placement to avoid “any pressure ... [or] technical deadline,” which was related to his attempt to balance study and two part-time jobs (both unrelated to his engineering discipline).

Badal perceived three major contextual constraints to workplace learning at the museum. First, Badal’s preconception of the museum workplace context differed from what he experienced. For example, before the placement, he did not expect “to do anything physical.” However, on placement, he was surprised to find himself “pushing or pulling off those vehicles ... constantly wiping and cleaning cars and other motorbikes—whatever they had.” From an engineering student’s perspective, he described these tasks as “simple jobs” with limited opportunities for engineering-related learning.

Second, he worked in a culturally diverse environment but lacked skills and confidence in intercultural communication. He noted that in his culture, “if you don’t know that person, you just don’t talk to them.” This aspect of his culture constrained him from conversing with people at the museum: “I don’t know anyone. How would I go and talk to all the people?” Third, Badal was “nervous because of being new ... [and] the one colored person in the whole museum.” A sense of cultural and social isolation initially constrained Badal from starting conversations with workplace insiders in the early days of the placement, which minimized opportunities to learn from co-workers.

Badal’s strategies in addressing the aforementioned contextual constraints featured his adjustment of workplace learning objectives and unique techniques for building self-worth. These strategies, in turn, facilitated communication in a culturally diverse working environment.

When realizing that the museum did not offer opportunities for engineering-related learning, Badal adjusted his initial workplace learning objectives. He shifted his priority from seeking engineering-related learning to improving communication skills in a culturally diverse workplace. This adjustment of workplace learning objective was based on his awareness that he would encounter “people from different cultural backgrounds” in his post-study work.

Notably, Badal addressed perceived cultural barriers and isolation by building self-worth, which enhanced his confidence in workplace communication. He asserted that an appropriate “learning approach is the most important” way to engage co-workers to learn from them subsequently. He built self-worth by contributing “new ideas,” such as creatively arranging vehicles on display. With enhanced self-worth, Badal found it easier to converse with workplace insiders. He strategically initiated casual conversations with co-workers, using the motor museum as a common frame of interest: “I started talking to them, asking questions about, you know, lots of things in that [museum], and they were happy to answer.”

Badal’s ability to contribute to the workplace enhanced his sense of self-worth and confidence in communicating with workplace insiders. As a result, he gained respect from workplace insiders, who became more approachable and supportive. Badal reflected on his learning outcomes relating to the adjusted learning objective: “it was [a] very good experience ... [regarding] how to work in a team and how to seek help. ... I [have] improved myself, definitely.”

Synthesis of Findings

A feature of the student participants in this study was that they aspired to work in Australia after graduation and considered work placements as a pathway to post-graduation employment in this country. Lan, for example, asserted, “my main goal was trying to find a job in Australia.” As “recruiters want to see whether applicants can adapt to local environments” (Lan), participants tried to maximize OS while on placement to enhance their career prospects. All participants indicated a high level of engagement in their placements. Edgar observed that “most international students have come a long way to be here, so they tend to be ... hardworking ... [and] focused on, you know, getting things done. Because it’s a big opportunity, nobody wants to waste it.”

While engaging in OS, individuals attempt to address organizational and personal needs (Chao, 2012). However, in this study, most participants revealed that addressing personal needs (e.g., discipline-related learning) was challenging while undertaking self-sourced, unstructured work placements, either paid or unpaid. In addition, except for Lan and Enitan, whose workplaces provided structured orientation programs and formally assigned supervisors, other participants indicated a lack of institutionalized OS tactics, emphasizing that there were limited structured, formal training programs for students on placements. Therefore, concerning the four stages of OS identified by Kramer (2010)—anticipatory, encounter, metamorphosis, and exit—student participants’ narratives suggest that they were involved primarily in the first two stages due to the limited length of time (ranging from eight to twelve weeks) and particularly the nature of unstructured placements.

Two broad themes corresponding to the research questions were identified: preconceived context versus reconfirmed context (RQ1) and initial versus adjusted strategies in OS (RQ2).

Preconceived Versus Reconfirmed Context (RQ1)

All participants observed that two aspects determined contextual opportunities for, and constraints to, workplace learning: (i) the relatedness of assigned tasks to students’ academic discipline and intended career; and (ii) workplace insiders’ characteristics, including approachability, accessibility, supportiveness, expertise, and trust. Findings reveal two types of contexts participants perceived: preconceived context and reconfirmed context (Table 3). The preconceived context was mainly established before participants entered the workplace, and this context was (inter)subjective as it was formed through information exchanges with peers and senior students. In contrast, the reconfirmed

context was formed during workplace learning based on participants' lived experiences with the workplace and was, therefore, less subjective.

TABLE 3: Preconceived versus reconfirmed workplace context.

	Preconceived workplace context	Reconfirmed workplace context
Difference	<ul style="list-style-type: none"> • (Inter)subjective • Formed before placement • Shaped by participants' preconceptions which were affected by their cultural background and previous knowledge/experience 	<ul style="list-style-type: none"> • Less subjective • Formed during placement • Resulted from participants' reflections on their lived experience with the workplace context
Similarity	<ul style="list-style-type: none"> • Socialization agents (e.g., supervisors and co-workers) perceived by student participants as the most influential aspect of the workplace context 	

These two types of perceived contexts shared a notable characteristic. All participants remarked that socialization agents were the primary aspects of the workplace context that affected students' OS. For example, Joshua asserted, "how I learned the most was basically asking for help from the co-workers."

The two types of perceived contexts differed in several ways. For the preconceived context, it was formulated in the anticipatory stage of OS before participants started their placements. Participants' preconceived workplace context was subjective or intersubjective since it was shaped by their cultural backgrounds and informational exchanges with fellow international students.

The preconceived context was subjective as it was affected by participants' cultural identity and related, culturally bound behavior. For example, Ahmad (Indonesian) mentioned significant workplace hierarchy in his culture, Monifa (Nigerian) noted the risk of being belittled by workplace insiders when asking many questions, and Badal (Nepalese) indicated a reluctance to converse with strangers. Participants entered the Australian workplace mindful of their cultural background, which affected their preconceptions of the workplace.

The preconceived context could also be intersubjective since it was formulated through informational exchanges with fellow international students. Participants' previous experience and knowledge shaped their preconceptions of the workplace context. Before their placements, participants preconceived their workplace context mainly through informational exchanges with fellow internationals. Monifa explained why international students tended to turn to fellow internationals for information before placements: "we're going through the same issues and problems, and so they would better understand my situation." Edgar asserted that he preconceived his workplace context mainly through "my conversations with my fellow international students."

Unlike the preconceived context, the reconfirmed context was formed primarily in the encounter stage of OS, when participants had started their placements. The reconfirmed context is less subjective as it resulted from participants' reflections on their experiences within the workplace. Through interactions with workplace insiders, participants adjusted their preconceptions about the workplace. For instance, influenced by her cultural background, Monifa initially assumed that if she asked too many questions while on placement, she would be belittled. After interacting with workplace insiders, Monifa recognized that her assumption was inappropriate as people in her workplace were helpful and willing to answer questions. Likewise, during his first days on placements, Badal was influenced by his

culturally bound practice, which constrained him from starting conversations with strangers. He later realized this did not apply to his workplace context in Australia.

Initial Versus Adjusted Strategies in Organizational Socialization (RQ2)

Participants employed two categories of strategies in OS: initial strategies and adjusted strategies (Table 4).

TABLE 4: Initial versus adjusted strategies for OS.

	Initial strategies	Adjusted strategies
Difference	<ul style="list-style-type: none"> • Affected primarily by the preconceived context • Two distinct behaviors: <ul style="list-style-type: none"> ○ Reacting to the preconceived context that usually leads to ineffective OS (e.g., reluctance to interact with co-workers) ○ Contributing to the formation of the reconfirmed context through reflection on lived experiences within the context 	<ul style="list-style-type: none"> • Affected mainly by the reconfirmed context • Two distinct yet interrelated behaviors: <ul style="list-style-type: none"> ○ Personalizing the social—changing some aspects of context to address personal needs ○ Socializing the personal—adjusting personal behaviors to fit into the workplace context and satisfy organizational needs
Similarity	<ul style="list-style-type: none"> • Driven by a desire to enhance OS as a pathway to post-study employment in the host country 	

Initial strategies in OS.

Participants’ initial strategies included (i) those which reacted to the preconceived context and (ii) those which amended the preconceived context and, at the same time, established the reconfirmed context.

Since their preconceived context was (inter)subjective, participants’ reactions to this context were ineffective for OS. Some initially refrained from conversing with or asking questions to workplace insiders. For example, Ahmad admitted that his preconceptions of the Australian workplace context were shaped by his perceived home country’s workplace culture, where there are notable power distances between managers and subordinates. While regarding his supervisor as an important information source, Ahmad initially sought feedback only from colleagues during his placement experience as he found it less intimidating. He noted, “I’m afraid if I perform badly, [he will] scold me. ... [F]rom colleagues, it’s not that bad because they’re my colleagues.” Similarly, influenced by their home cultures, Monifa and Badal were initially reluctant to converse with or ask questions to workplace insiders.

The reactions mentioned above were followed by participants’ attempts to modify their preconceived context. For example, participants such as Joshua learned about the Australian workplace culture by observing the behaviors among workplace insiders. Others interacted with workplace insiders to improve awareness of the workplace context. Through their experiences in the workplace, participants amended preconceptions about their workplace context, resulting in the reconfirmed context, which guided strategies for adjusting OS.

Triggers of student agency.

Following their initial strategies in OS, participants were concerned about their OS due to a lack of local work experience, differences in language and culture, and possible cultural isolation at their workplace. Ahmad noted, "I'm just afraid of doing something wrong ... [due to] a lack of experience." Monifa said, "I was worried that I wouldn't be able to live up to the expectation of the job." Badal was concerned about "what they [workplace insiders] might be thinking about me or my cultural background or my accent." Such concerns triggered a need to exercise agency to maximize OS. Participants consequently knew that they needed to adjust their strategies by being more intentional, proactive, and focused on enhancing OS—the qualities reflective of Billett's (2015) notion of agentic learners.

Adjusted strategies in OS.

The adjusted strategies of participants in OS indicated an ability to interact with workplace insiders and address organizational and personal needs. To enhance OS, participants socialized the individual and, simultaneously, individualized the social (e.g., workplace culture)—the notion introduced by Billett (2006).

Participants socialized the individual to address the needs of their workplace. They adjusted their culturally bound behavior to fit into their Australian workplace culture (e.g., Monifa) and attempted to complete assigned tasks to meet the needs of their workplace (e.g., Joshua). Integral to these processes were modifying perceptions of their workplace context, as mentioned earlier.

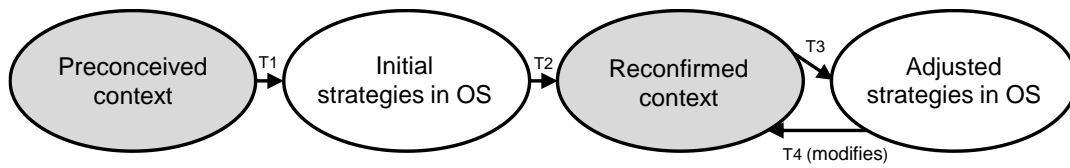
On the other hand, participants individualized the social to meet their personal and career needs (e.g., using placements as a pathway to post-study employment) and related workplace learning objectives (e.g., hands-on learning). Some participants changed the workplace context in ways conducive to achieving personal goals. For example, participants such as Monifa and Joshua positively influenced workplace insiders who, in turn, became more supportive of students. Participants influenced workplace insiders through relationship building (e.g., Monifa), impression management (e.g., Joshua), proactive interactions (e.g., Badal), and flexible information seeking (e.g., Monifa).

Others individualized the social by changing the perceived meaning of the workplace context. For example, some participants (e.g., Badal and Monifa) shifted their priorities from learning technical skills to building non-technical skills such as intercultural communication. These participants initially perceived their workplace context as useless because of limited opportunities for discipline-related learning and practice. However, they gradually identified valuable opportunities for building intercultural communication skills and adjusted their learning priorities accordingly. Through this approach, some participants modified their workplace context by changing their perceptions of its meaning.

Perception-Response Model of Organizational Socialization

Interpretation and synthesis of the themes indicated earlier informed the development of the Perception-Response Model of OS. The model comprises four components outlined in Figure 1, with relationships between the components indicated by ties (T).

FIGURE 1. Perception-response model of organizational socialization (OS).



As illustrated in Figure 1, the preconceived context affected participants' initial strategies in OS (T1). These strategies, in turn, enabled participants to amend the preconceived context, resulting in the reconfirmed context (T2). Participants' reflections on their experiences with the workplace context were integral to reconfirming the preconceived context.

Importantly, there were correlations between the reconfirmed context and participants' adjusted strategies in OS (T3 & T4). Participants adjusted strategies in OS based on the reconfirmed context (T3). In turn, their adjusted strategies (e.g., relationship building) modified some aspects of the context, such as enhanced supportiveness of co-workers (T4). Subsequently, the changed context affected participants' strategies in later times (T3 in later times).

Theoretical Contributions

By untangling students' psychological processes (e.g., developing perceptions) and social processes (e.g., interpersonal interactions) and the links between these two types of processes (Figure 1), the study makes two notable contributions to the literature on workplace learning and OS.

First, the study establishes two types of perceived contexts (i.e., preconceived context and reconfirmed context) and corresponding strategies (i.e., initial and adjusted strategies) employed by international student participants to enhance OS when on placement. The findings about participants' perceptions of their workplace context support and further the notion of subjective workplace context that Vu, Bennett, and Ananthram (2023) have identified. Vu, Bennett, and Ananthram (2023) indicated two types of contexts that affect the OS among organizational newcomers: objective context (i.e., the actual practices of the workplace) and subjective context (i.e., individual perceptions of the context). The current study extends the subjective context by establishing two types of perceived context. In essence, this study elucidated how international student participants minimized the subjectivity in their perceptions to formulate the reconfirmed context.

Second, the findings advance previous research on organizational newcomers' ability to change their workplace context, particularly by positively influencing workplace insiders to enhance their supportiveness (De Vos & Freese, 2011; Ellis et al., 2017; Korte & Lin, 2013). The current study establishes that students on placements can change some aspects of their workplace context by (i) influencing the context in ways conducive to achieving both organizational and personal goals and (ii) changing the meaning of the context to address personal and career goals by adjusting workplace learning priorities to make use of relevant, advantageous conditions of the context.

Practical Implications

While this study focused on a sample of international undergraduate engineering students engaging in unstructured work placements in Australia, the findings relating to their perception-response

patterns in OS could apply to international students from other academic disciplines and in other countries.

The findings have practical implications for international students undertaking work placements in the host country, educational institutions, and host organizations. Two important findings could guide stakeholder strategies. First, there are correlations between international student participants' perceptions of their workplace context and their strategies in OS. Such correlations highlight the importance of enhancing international students' capacities to exercise agency in developing appropriate perceptions of their workplace context and adjusting their OS strategies accordingly. Second, workplace insiders (e.g., supervisors, mentors, co-workers) are the most influential aspect of the context for the OS among students on placement, as also observed by Ali et al. (2022) and Marinelli et al. (2022). Thus, students need to interact with workplace insiders to learn from them.

International students must be mindful that to address personal goals and related workplace learning objectives (e.g., improving technical skills) when undertaking placements, they must be capable of developing appropriate perceptions of and attitudes toward their workplace context. Appropriate perceptions of their workplace context can only be developed through interactions within the context, particularly with workplace insiders. Students must also be aware that they could change the workplace context in ways conducive to enhancing OS. To this end, they could positively influence workplace insiders (e.g., relationship building, impression management) or change the meaning of the workplace context by amending their priorities for workplace learning.

Student engagement in OS during self-sourced, unstructured work placements is largely beyond the immediate control of educational institutions. Educational institutions need to support students to better prepare for their transition into the workplace (Jackson et al., 2017; Vu, Bennett, & Ananthram, 2022). This study advocates previous research on the benefits of supporting the development of host country language competence, knowledge of local workplace culture, and intercultural communication skills (Felton & Harrison, 2017; Jackson, 2017). Where appropriate, international students should be encouraged to participate in volunteering, community groups, and student clubs from the early phase of their university studies.

International students' perceptions of their workplace context may be (inter)subjective and negative, leading to their ineffective strategies in OS. As such, host organizations need to create a psychologically safe environment to enhance international students' engagement and interactions. Workplace insiders should be encouraged to initiate frequent interactions with students on placement, thus enhancing students' appropriate perceptions of the workplace and empowering them to exercise agency.

Limitations and Suggestions for Future Research

The study has two limitations. First, data was drawn from a single stakeholder group at a single university. Future research could collect data from students and workplace insiders. It would be interesting to compare the perceptions of different stakeholder groups regarding workplace context, student performance, and the interplay between the two. Second, the study focused on engineering students. Future research might examine international students in other disciplines. Cross-disciplinary research would contribute to the knowledge of how students exercise agency to maximize learning while attempting to satisfy the expectations of multiple stakeholders.

CONCLUSION

The study's findings suggest that self-sourced, unstructured work placements not formally embedded in the curriculum or formally assessed require students to exercise agency to address personal and organizational needs. International engineering students in this study faced significant contextual constraints that prompted them to maximize workplace learning and adaptation by actively engaging in a cyclical process of perception-response. The study identified two workplace contexts (preconceived and reconfirmed contexts) and two resultant categories of strategies (initial and adjusted strategies) adopted by students to maximize their OS. The Perception-Response Model in OS (Figure 1) synthesizes these findings, demonstrating that student engagement in OS during self-sourced placements is a personalized process that depends on their perception of the workplace context and their adjustment of OS strategies. These results highlight the importance of fostering international students' agency to enhance their OS during self-sourced placements.

The findings also underscore the need to enhance equitable experiences for international students undertaking placements in a host country. The student participants in this study encountered difficulties in meeting both personal and organizational needs. Some struggled to address personal goals due to their focus on fulfilling organizational objectives. This has implications for institutional strategies in preparing international students for work placements and collaborating with host organizations to enhance international student placement experiences and outcomes. In addition, government agencies could play a role in fostering local employers' willingness to engage with international students and tailor support for this student population.

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