

Sources of Australian and Chinese preservice teachers' classroom management self-efficacy: a qualitative study

Siyu Duan

siyuduan89@outlook.com

Chongqing Academy of Education Science <https://orcid.org/0000-0002-3724-459X>

Gosia Marschall

University of Cambridge <https://orcid.org/0000-0001-9459-314X>

Kerry Bissaker

Flinders University <https://orcid.org/0000-0002-8008-3744>

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Abstract

Drawing on semi-structured interviews, this study examines the sources of Australian and Chinese preservice teachers' classroom management self-efficacy (CMSE). While the findings shed light on the central role of enacted experiences in shaping CMSE, they also reveal the potential of different program structures and cultural aspects influencing the salience of different self-efficacy sources across the two contexts. Furthermore, the study concurs with previous research, indicating that classroom management knowledge alone is insufficient in supporting CMSE development, underscoring the need to clearly distinguish between knowledge and self-efficacy sources. These findings bear significant implications for effective teacher education program designs.

1. Introduction

Novice teachers often struggle with classroom management (CM), which may lead to disruptive student behaviours, low student engagement and, consequently, teacher burnout and teacher attrition (e.g. Dicke, Elling, et al., 2015; Korpershoek et al., 2016). To effectively manage classrooms, teachers must possess professional knowledge, skills, and confidence in their own ability to do so (Duan, Bissaker, & Xu, 2024; O'Neill & Stephenson, 2011). The latter, termed as classroom management self-efficacy (CMSE), has been reported as a powerful predictor of teacher performance (Holzberger & Prestele, 2021; Lazarides et al., 2021) and student achievement (Burić & Kim, 2020; Hettinger et al., 2021), warranting further attention to CMSE in both education and research.

To support beginning teachers in effectively managing the classroom, it is important to understand how CMSE develops. Bandura (1997) posited that individuals assess their self-efficacy by interpreting information from four sources: enactive mastery experiences (ME), vicarious experiences (VE), social and verbal persuasions (SVP), and physiological and affective states (PAS). Teacher self-efficacy (TSE) and its sources can vary across cultural contexts (Bandura, 1995). Yet, so far, the construct of TSE remains rooted largely in western countries, with comparative studies in TSE/CMSE being scarce. This research gap is notable given increasing classroom diversity worldwide (Klassen, Usher, & Bong, 2010; Vieluf, Kunter, & van de Vijver, 2013). This study, therefore, explores the CMSE sources of Australian and Chinese preservice teachers (PSTs) and their potential cultural dimensions.

1.1 Sources of TSE

Due to limited research on CMSE sources, the literature review attends to sources of TSE in general, establishing a foundation for understanding their potential influences on CMSE.

Enactive mastery experiences

ME conceptualised as experiences of success achieved through personal actions, are frequently considered as the most influential source of TSE (Marschall, 2023; Morris, Usher, & Chen, 2017; Yada et al., 2019). However, despite this evidence, different conceptualisations of ME across research have a

potential to leave “obscured what is known about the source and its influence on the development of teaching self-efficacy” (Morris, Usher, & Chen, 2017, p.805). For example, ME have often been operationalised through the years of teaching experience (Ruble, Usher, & McGrew, 2011) or opportunities to practise (Poulou, 2007), suggesting a positive correlation between experience and TSE. However, longitudinal research showed that this relationship can be nonlinear, increasing from early-to-mid career, then declining afterward (e.g. Klassen & Chiu, 2010), making teaching experience a unreliable proxy for ME. When conceptualised as teachers’ appraisals of their past performance, ME were consistently found to have a positive relationship with TSE (Marschall, 2023; Tschannen-Moran & Hoy, 2007). However, even here, care needs to be taken when extrapolating the relationship between ME and TSE. For example, Morris and Usher (2011) observed an analytical issue with the concept across studies, seeing that teachers’ evaluations of ME can often be informed, not just by the enactive act itself but also by positive feedback received on this act, e.g. “They told me I did it well (p.243)”. This study, therefore, conceptualises ME through teachers’ references to their own actions and strategies, without comparison to others (VE) or reliance on external evaluations (SVP).

Vicarious experiences

VE refer to observing others modelling behaviour and attaining success. Models convey knowledge about effective skills and strategies, and provide comparative standards for people to appraise their own capabilities—i.e. referential comparison (Bandura, 1997). Teachers’ VE can take various forms (Marschall, 2023), including direct classroom observations (actual modelling), watching recorded lessons (symbolic modelling) (Morris, Usher, & Chen, 2017), reviewing one’s own teaching video (self-modelling) (Gale et al., 2021), mentally rehearsing teaching (cognitive self-modelling) (Bautista & Boone, 2015), engaging with simulated classroom scenarios (simulated modelling) (Palmer, 2006), a description of a successful situation (cognitive modelling) (Bandura, 1997), and reflections based on one’s former teachers (Ma & Cavanagh, 2018). Research, however, has yielded mixed results regarding the influence of VE on TSE (e.g. Bruce et al., 2010; Ma & Cavanagh, 2024; Yada et al., 2019). This may reflect the implicit nature of observational learning (Usher & Pajares, 2008), the varying modes of VE, or indeed entanglement of VE with other self-efficacy sources (Marschall, 2023). Cultural or structural factors (e.g. contexts where PTS have limited teaching opportunities) which may be at play here, remain underexplored.

Social and verbal persuasions

SVP represent social affirmation of one’s capabilities in TSE appraisal (Bandura, 1997). They can be particularly influential for individuals with little direct experience (Morris & Usher, 2011; Tschannen-Moran & Hoy, 2007) or with particular characteristics and vulnerabilities (Marschall, 2023). SVP can be in the form of evaluative feedback on teaching performance, which should be sincere and specific to particular actions (Marschall, 2023; Pajares & Urdan, 2006), as well as balanced, weighing up what an individual can handle emotionally (Marschall, 2023). SVP can also happen indirectly and subtly. According to Bandura (1997), social evaluations are often hidden in social practices where little is

expected of the performers, such as “they are assigned unchallenging tasks, praised excessively for mediocre performance and treated indifferently for faulty performance, repeatedly offered unsolicited help, or given less recognition than others when they perform as well” (p.102). Such implicit persuasions, however, have remained largely unexamined in the context of teaching.

Physiological and affective states

When appraising their self-efficacy, individuals also draw on the information conveyed by their PAS, including stress, fatigue, anxiety and mood (Bandura, 1997). While quantitative research consistently reported the significant role of negative states in TSE appraisal (e.g. Pfitzner-Eden, 2016), qualitative studies often revealed that teachers rarely mention this source of self-efficacy information when discussing the development of TSE (Gale et al., 2021; Ma & Cavanagh, 2024; Marschall, 2023). Consequently, PAS is considered as the weakest TSE source. Morris, Usher and Chen (2017) explained that this might be due to the challenge of recalling ongoing affective experience rather than salient events. This discrepancy may also highlight the personal cognitive processing through which individuals interpret these affective experiences. Marschall (2023) explained that people do not always consciously recognise the process of making meaning from affective experiences. Consequently, conceptualisations of, and conclusions around, PAS as a significant TSE source remain inconclusive.

Mastery of Knowledge

Palmer (2006) discussed concepts of “cognitive content mastery” and “cognitive pedagogical mastery” to describe teachers’ “success in understanding something” (p. 339). Following this research, it has been suggested that achievement of learning goals, i.e. sense of subject content and/or pedagogical knowledge, serves as an additional source of TSE (Bautista & Boone, 2015; Phan & Locke, 2015). However, despite the commonly assumed notion that teachers with high levels of subject content/pedagogical knowledge tend to have stronger TSE (Hammack & Ivey, 2017; Hull, Booker, & Näslund-Hadley, 2016; Newton et al., 2012), some studies have found no significant relationship (Dicke, Parker, et al., 2015) or even negative relationship (Fives & Alexander, 2004) between knowledge and TSE.

Bandura (1986) proposed that self-efficacy mediates the relationship between knowledge and action. In this sense, TSE refers not to confidence in one’s knowledge, but to the perceived capability to capitalise on this knowledge in practice. Marschall (2023) found that a lack of pedagogical subject knowledge can lead to negative emotions among PSTs, which may, in turn, contribute to a lower TSE. However, she points out that those with strong knowledge are not necessarily immune to self-doubt. The reasons for this can be many. For example, those with strong knowledge may set themselves exceptionally high standards, which can, in turn, create doubts about TSE (Dicke, Parker, et al., 2015; Fives & Alexander, 2004). Consequently, we find it problematic to treat knowledge as a source of self-efficacy. We concur with Marschall (2023) in considering knowledge as necessary but not sufficient for high TSE. This was reflected in the present study. For example, one Australian PST explained: “It was great to know all of the things that I could use or having all of the equipment with me in my brain. But I didn’t really know if they fully worked or not without having used them in person in the classroom.” (Au-5).

Self-efficacy sources and cognitive appraisal

Both the theoretical work (Bandura, 1997) and wider research (e.g. Mok, Rupp, & Holzberger, 2023) emphasised that “self-efficacy is not the simple product or sum of one’s experiences” (Morris et al., 2017, p. 798) but rather a result of one’s cognitive processing of those experiences. Consequently, in the context of teacher education, what matters is not merely successful ME but teachers’ reflection and interpretation of this ME in relation to goals and contributing factors (e.g. task difficulty, effort expenditure and success attribution) (Marschall & Watson, 2022). Limited research has sought to clarify the conditions under which teachers derive the greatest benefit from different sources of TSE/CMSE. By examining how the CMSE sources can be optimised, we aim to offer insights into enhancing PSTs’ overall placement experience.

1.2 Cultural perspective

Cross-cultural studies on TSE, focusing on validating factorial structure of TSE (Klassen et al., 2009; Vieluf, Kunter, & van de Vijver, 2013; Yada et al., 2019; Yada, Tolvanen, & Savolainen, 2018), continue to demonstrate its positive impact on educational process and outcomes (Klassen et al., 2009; Scherer et al., 2016). However, little cross-cultural research focused on the process of TSE development. Drawing on Hofstede’s research (1980), Bandura (1995) points to a four-dimensional model of cultural values (individualism/collectivism; power distance; uncertainty avoidance, and masculinity/femininity) and its potential influence on self-efficacy (Oettingen, 1995). This study considers broad cultural similarities and differences and, where possible, utilises Hofstede’s (1980) four dimensions to explain potential differences in PSTs’ CMSE appraisal.

According to Oettingen (1995), self-efficacy appraisals in individualist contexts may rely more on personal achievement, whereas in collectivist contexts modelling and feedback may be more influential. Emotional states may also play a more direct role in individualist than collectivist settings. Although China is typically characterised as collectivistic and Australia as highly individualistic (Oyserman, Coon, & Kimmelmeier, 2002), this distinction warrants greater nuance. In low power-distance cultures, students are granted greater autonomy, whereas in high power-distance contexts they are expected to follow authority. Accordingly, self-efficacy in the former may be grounded in self-selected tasks, and in the latter in authority-directed activities (Oettingen, 1995). Australia is often characterised as relatively egalitarian, while China places greater emphasis on hierarchy and respect for authority (Hofstede, Hofstede, & Minkov, 2010). Uncertainty-accepting cultures value autonomy, initiative, and ambiguity tolerance (Ouyang et al., 2025), leading individuals to derive self-efficacy more from personal achievements and vicarious experiences than from external validation (Oettingen, 1995). Whereas in high uncertainty avoidance cultures, clearly delivered and consistent feedback may exert strong influence (Oettingen, 1995). China and Australia both score relatively low on uncertainty avoidance (Hofstede, Hofstede, & Minkov, 2010). Finally, masculine cultures emphasise differentiated gender roles and competition. Individuals in such contexts are more sensitive to self-efficacy information related to successes that surpass those of competitors (Oettingen, 1995), however this may also “increase psychological stress and create a fear of failure” (Ouyang et al, 2025, p. 3). In contrast, feminine cultures

instead prioritise cooperation and well-being (Hofstede, 2011), implying a greater role for social support. Both Australia and China score high on masculinity (Hofstede, Hofstede, & Minkov, 2010).

1.3 Research questions

The aim of the present study was to understand the development of Chinese and Australian PSTs’ CMSE. This study addressed the following questions:

- 1. In what ways do Bandura’s (1997) four self-efficacy sources influence the development of CMSE as conceptualised by Chinese and Australian PSTs?
- 2. In what ways, if any, do cultural dimensions become visible in the process of Chinese and Australian PSTs’ CMSE appraisal?

2. The study

2.1 Participants

Of 624 survey respondents (June–September 2023), 94 volunteered for interviews; 18 (9 Chinese, 9 Australian) were selected. To maximise variation, we sampled six participants at each CMSE level (low, medium, high) using the CM subscale of the TSES (Tschannen-Moran & Hoy, 2001).

The 18 participants represented primary (n = 7) and secondary (n = 11) schools, though only one primary PST was from the Chinese group. All but two were female (one per country). Ages ranged from 18–27 (n = 16) and 33–37 (n = 2), with Australians older on average. Participants were recruited from one university in Australia and one in China. Table 1 outlines structural differences between the two programs.

Table 1
Structural Design of the two teacher education Programs

Program	Australia	China
Length	4-year program (undergraduate) 2-year program (graduate entry)	4-year program (undergraduate only)
Professional placement structure	3 weeks in Year 2 for UG 5 weeks in Year 3 for UG 8 weeks in Year 4 for UG 6 Weeks in Year 1 for GE 8 weeks in Year 2 for GE	One block placement in the final year
Placement Duration	70–90 + days total (varies by program)	8–9 weeks in total

2.2 Method: Semi-structured interviews

Semi-structured interviews were conducted to explore key areas and elicit participants' perspectives. Following Marschall (2023), the guide did not explicitly adopt the four sources framework (Bandura, 1997) but covered the following topics:

- PSTs' perception of their CMSE,
- PSTs' placement experience in terms of CM,
- PSTs' university study experience in terms of CM,

The researchers' reflexivity during interviews were used to minimise analytical bias in this cross-cultural study (Galletta & Cross, 2013). For instance, we noticed that while Chinese participants frequently reported observing peers, Australian participants did not. Probing this discrepancy, we asked Australian PSTs whether they had opportunities for peer observation. Their responses indicated that peer observation was less emphasised in Australia, suggesting structural rather than cultural differences in teacher education and school contexts. This reflexive approach ensured that our interpretations of CMSE sources remained contextually grounded.

2.3 Data collection

Semi-structured interviews were conducted face-to-face or online. All interviews with Chinese participants were conducted online in Mandarin, while most Australian interviews (n = 6) were face-to-face in English. Interviews averaged 40 minutes, were audio-recorded, transcribed verbatim, and, where necessary, translated into English by the first author.

2.4 Data analysis

Interview data were analysed using a deductive thematic analysis approach (Braun & Clarke, 2022), guided by the four sources framework (Bandura, 1997). First, transcripts were read multiple times to ensure a thorough familiarization. Second, data were systematically coded into the four predefined categories (see examples in Table 2), while allowing flexibility to capture additional codes/themes relevant to CMSE development. Next, the impact of these codes/themes on CMSE was examined by analysing the extent to which participants explicitly connected these experiences to their CMSE. Finally, findings were structured according to the four sources, with both pattern-based trends across participants and in-depth insights from individual cases.

Table 2
Examples of data coding related to CMSE and its sources.

Code example	Expression
CMSE	
CMSE	<i>The diversity is amazing, but it's hard to manage. I don't want to say impossible, but it is hard.</i>
Sources	
Enactive mastery experiences (ME)	<i>I think the relationship building and listening to the kids and tailoring the lessons and learning tasks to see their interests did work quite well, definitely above average, but not [ten] out of ten.</i>
Vicarious experiences (VE)	<i>During my placement I also observed other teachers, especially those who were more experienced in the field (...) I learnt from these teachers how to ask questions, how to guide students and how to give appropriate feedback according students' answers.</i>
Social and verbal persuasion (SVP)	<i>They [mentor and principal] were also really helpful because they gave me useful feedback. And I could use them to improve my practice.</i>
Physiological and affective states (PAS)	<i>I felt a bit intimidated before I started [to teach].</i>

3. Findings

3.1 Enactive mastery experiences (ME)

When explicitly asked to rate the success of their past CM performance during placement (out of 10), PSTs in the two countries differed significantly in their self-ratings. For example, most Australian participants used affirmative language, referring to the outcomes of their actions. For example:

I think the relationship building and listening to the kids and tailoring the lessons and learning tasks to see their interests did work quite well, [I would rate them] definitely above average, but not [ten] out of ten. (Au-9)

In contrast, while Chinese participants also reported successful ME, they used more tentative language and provided less detail in their self-assessments. For example: “I think I handled it [CM] relatively well” (Ch-7); or “I personally feel to some extent I did well in CM” (Ch-5). This difference might be explained by the different cultural values. Phan and Locke (2015) found that, influenced by collectivist culture, Vietnamese teachers placed greater emphasis on external evaluations (SVP) over self-oriented evaluations (ME) when appraising TSE. Since China is typically characterised as more collectivist, Chinese PSTs may downplay their achievements to align with norms of modesty (Li, 2016). Whereas Australia is commonly described as more individualistic, where personal achievement are more openly expressed (Hofstede, 1980).

We wondered whether the difference in the strength and detail of the expressions could have significant bearing on CMSE appraisal. Thus, further attention was paid to other aspects of this interpretation, including task difficulty and task authenticity.

Considerations of task difficulty played a prominent role in both Australian and Chinese PSTs' CMSE appraisal. Easy successes were insufficient to convince PSTs of their capabilities. For example, one Chinese PST, despite acknowledging their success during placement, questioned its significance. They wondered: "Yes, I think I did a good job. Maybe because I've been assigned to a good school and the students were quite good. I did not have to worry about the discipline in the class" (Ch-7). This aligns with Bandura (1997), who emphasised that success has little impact on self-efficacy if the task is perceived as too easy or cannot be attributed to one's own effort. Theoretical tenets also point out that difficulties provide opportunities for individual growth—turning 'tough times' into success could represent a significant source of CMSE (Bandura, 1997) Bandura (1997). However, most participants—both Chinese and Australian—reported being unable to overcome challenges which, consequently, eroded their CMSE. For example, one Australian PST dwelled on their negative experience and became sceptical of their CM capability: "I could never say that a person who excluded a five-year-old child from the classroom did really well...I know that in this [CM] area I am not being my best self" (Au-2). In this sense, if the tendency to focus on negative aspects is not mediated, ME can have a detrimental effect. Such mediation can be achieved by the involvement of others (e.g. mentors), who can help provide more authentic assessments (Marschall, 2023), offer an incremental scaffolding of the challenging experience (Marschall & Watson, 2022) and help build a strong support network during placements (Marschall, 2021, 2023).

In both teacher education programs, PSTs were assigned to an experienced mentor who the PSTs could lean on as needed. However, considering task authenticity, both groups of PSTs frequently noted that their placement experiences differed significantly from those they would encounter as in-service teachers, especially in the area of CM. An Australian PST reflected: "I do feel like I had a lot of support especially from my mentor teacher. But I think [I was] almost too supported" (Au-6). It appears that the 'supportive' set-up, while valued by PSTs, may have reduced scenario authenticity and influenced projections of their CM performance. Consequently, PSTs expressed apprehension about being the sole bearers of responsibility for student behaviour in their own classroom. For example, one Australian PST said they worried about "the reality of I am the teacher and there's no one here to help me...next year when I've got my own students... [when] it is all falling on my shoulders" (Au-5). Marschall (2023) helps unpack this issue further, by emphasising that for PSTs "the most powerful ME were those which provided challenge that was overcome with minimal or no assistance from others" (p. 5). Similarly, the increased PSTs' autonomy during placements, was expressed by some Australian PSTs, "taking on all roles and all responsibilities" (Au-8), as contributing to building a stronger CMSE.

Unfortunately, the Chinese participants were found to experience far less autonomy during placements than their Australian peers, frequently alluding to aspects such as the "mentor wasn't very hands-off" (Ch-3) and "there weren't that many opportunities for [independent] practice" (Ch-4) as obstacles to

developing their CMSE. While this reluctance of Chinese placement schools to involve PSTs in hands-on teaching may be due to the reality that “the placement school prioritises academic performance of their students” (Ch-4), it might indicate further that Chinese PSTs perceive ME as less significant to their CMSE. It certainly emphasises a striking contrast between the Chinese program design and the Australian one, in which they are expected to assume sole responsibility for 80% of teaching in the last 3 weeks of their placement. Consequently, cultural differences may be less influential than course structure and task authenticity on both Chinese and Australian PSTs.

3.2 Vicarious experiences (VE)

Many participants pointed to the role that VE played in enhancing their CM knowledge. For example, a Chinese participant explained:

During my placement I also observed other teachers, especially those who were more experienced in the field (...) I learnt from these teachers how to ask questions, how to guide students and how to give appropriate feedback according students’ answers. (Ch-8)

Both groups of PSTs, however, did not explicitly link those highly valued modelling experiences to their CMSE. This might relate to the distinction between knowledge acquisition and sources of self-efficacy as noted by Marschall (2023), in which, echoing Bandura, she points out knowledge to be a necessary but not sufficient factor in self-efficacy appraisal. Although this finding might reject the notion of knowledge being a source of CMSE (Palmer, 2006; Morris et al. 2017), the role of modelling experiences can act as a source by demonstrating how knowledge is effectively enacted (Marschall, 2023). Differing from cognitive content/pedagogical mastery (Palmer, 2006), modelling experiences, for example, may allow PSTs to see how mentors implement CM orientations and apply CM skills. In this sense, observing successful role models may increase CMSE by making a task seem achievable. Although this was not visible in our data, the findings of Marschall (2023) supported this role of VE, describing them as “providing access to pedagogical knowledge in action” (p.6).

Bandura (1997) helps us understand this nuance by explaining that the more prior skills individuals have, the easier it is to integrate them with modelled information. This suggests that, when PSTs have limited CM knowledge, observing others serves a predominant role of knowledge acquisition. However, with growing CM skills and strategies, witnessing successful experiences in models may begin to serve as motivation to apply these skills in practice, and hence potentially enhance CMSE. One possible explanation may be the insufficient CM content in current teacher education program (Kwok, 2021; Montague & Kwok, 2022). In such context, PSTs might perceive VE primarily as opportunities to acquire CM knowledge, instead of affirmations of their own CM capability.

Although all participants from both countries appreciated VE as means for acquiring CM knowledge, Chinese participants appeared to recognise more models when compared with Australian participants. In addition to actual modelling (mentors, other teachers in the placement school) and self-modelling

(observation of recordings of one's own teaching) mentioned by both groups, Chinese participants mentioned other forms: their own teachers in school, lecturers at the university, online videos, peers, and observations of simulated classroom scenarios. This observed difference might be attributed to China's stronger collectivism. For example, a widely known Confucian learning orientation—"三人行，必有我师焉。择其善者而从之，其不善者而改之" (When I walk along with two others, they may serve me as my teachers. I will select their good qualities and follow them, their bad qualities and avoid them), which epitomises the cultural mindset toward learning from others. It may also reflect the fact that, as discussed earlier, Chinese PSTs had fewer direct ME during placements and therefore relied more on observation-based learning.

When discussing referential comparison, Australian participants appeared to feel less confident than their Chinese peers when comparing themselves to what they considered to be effective models. For example, one Australian PST perceived a significant gap between their mentor's effortless authority and their own struggles in gaining students' attention:

He [mentor] didn't really have to do anything. He could just talk and everybody could hear him, I think when I came in. Yeah, it was a big difference...I like struggled quite a bit, especially like getting students attention. (Au-6)

These findings are similar to those discussed by Marschall (2023), where a PST Jacob reflected that observing a flawless performance of his mentor was "a bit daunting!", making him doubt his ability to get there— "How can I possibly meet the standards?" (p. 6). In contrast, less exceptional mentor's performance helped boost his TSE— "I do find relief in observing her mistakes and struggles (she is human too!) ... Seeing her limits enables me to put things on a measurable scale and my doing a similar, or even better, job becomes a possibility" (Marschall, 2023, p.6). This speaks to the aspect of similarity between the PSTs and models Bandura (1997). Perceived similarity enables others' success to enhance self-efficacy; substantial dissimilarity may leave it unchanged or undermine it.

This, however, does not allow us to explain the differences between Australian and Chinese participants in their treatment of proficient models as CMSE sources. For example, unlike the Australian PSTs, Chinese participants did not seem to explicitly distinguish between the significance of peer models and proficient models, considering them all as additional learning opportunities (e.g. "I've watched other teachers teaching, also my peers. I've found these to be really helpful", Ch-1). We can try to explain this difference in at least two ways. First, this might be attributed to the difference in program design, particularly the extent of opportunities for sustained and authentic ME. Compared to Australian PSTs, Chinese PSTs have engaged in far less classroom practice, which may prevent them from making accurate self-evaluations of their CM capabilities and, thus, from comparing themselves with models (Morris, Usher, & Chen, 2017). Second, Chinese participants' consistent attribution of proficiency to peers may be also driven by cultural values, such as the high power-distance dimension (Hofstede, Hofstede, & Minkov, 2010), under which peers are not merely "similar others", but are morally and culturally positioned as role models.

3.3 Social and verbal persuasions (SVP)

When reflecting on their CM performance, PSTs often mentioned the feedback they received. For example, as one Australian PST put it: “I actually did pretty well according to the feedback of my mentor teacher and my liaison¹” (Au-7). As Bandura (1997) asserted that “most people believe they know themselves and their predicaments better than others do, and this belief creates some resistance to social persuasion” (p.105). For a Chinese PST, who “got more positive feedback, which was somewhat in line with my perception of myself.” (Ch-2), the mentor’s feedback felt authentic and, hence, significant; whereas for an Australian PST who felt disappointed with her own performance, “really positive feedback (Au-2)” from the mentor did not seem of much significance. Together, these might suggest that verbal persuasions appear particularly important when PSTs’ ME are relatively scarce and when mentors’ feedback authentically reflects the situation as perceived and experienced by the PSTs. To have this impact, mentor’s feedback must be specific and tangible (Marschall, 2023; Morris, Usher, & Chen, 2017). For example, one Australian PSTs explained:

My mentor teacher was really good because he gave me basically a whole A4 sheet of very detailed feedback for every lesson. (...) Like it would be better if you’d done this in this situation (...) He’s not one of those teachers that just say “you are very good” kind of feedback. I’ve got very detailed feedback. I knew what I could change next time. (Au-7)

In this case, the specificity of the feedback made it directly relevant to the PST’s performance, which highlighted specific actions leading to success and areas needing improvement. Such well-framed constructive feedback can not only reinforce PST’s current sense of self-efficacy but also help them to understand what behaviours to replicate and how to enhance their performance in the future. Tenets of theory further emphasise this aspect, speaking about skilled feedback providers:

Skilled efficacy builders, therefore, do more than simply convey positive appraisals or inspirational homilies... persuasory mentors must be good diagnosticians of strengths and weaknesses and knowledgeable about how to tailor activities to turn potentiality into actuality (Bandura, 1997, p.106)

Marschall (2023) warned us, however, that if individuals have little prior experience or are particularly vulnerable, feedback that is too extensive can have a negative effect on TSE. In this study, constructive feedback was not seen to erode CMSE. We wonder whether this issue might relate to the limited ME opportunities of our PST, who might have elevated the importance of feedback as a stand-alone source. We also wonder whether, once again, this relates to the knowledge acquisition aspect for those with limited understanding of their own skills. A comment from one Chinese PSTs, “I think it’s [feedback is] very important because you can learn a lot from these comments (...) you can get suggestions from various people” (Ch-4), might suggest that this is indeed the case.

SVP were also found to take implicit forms that convey affirmative information about PSTs’ capabilities. In our study, many PSTs seemed to view the opportunities to take over the classroom as positive

feedback from their mentors acknowledging their abilities. For example: “...he [mentor] let me take all the responsibilities for the lessons focusing on assignments...he might be confident in my abilities” (Ch-7).

3.4 Physiological and affective states (PAS)

Both groups of PSTs frequently mentioned their PAS without prompts during interviews: “I was really getting burnt out” (Au-5); “I felt depressed” (Ch-3). Morris, Usher and Chen (2017) suggested that focusing on specific states in relation to specific TSE domains may help clarify PAS effects. As this study focuses on CM, a domain widely viewed as challenging for pre-service and in-service teachers (Paramita, Sharma, & Anderson, 2020), this may be particularly relevant. However, although most participants—both Australian and Chinese—reported that they experienced negative affective states, they did not explicitly relate these states to their CMSE. This cross-cultural similarity may be partially contextualised by Hofstede’s masculinity dimension, where both cultures emphasise competence, performance and achievement. Within such cultural contexts, Australian and Chinese PSTs might be more inclined to evaluate their CMSE based on visible performance (e.g. ME or VE) rather than internal emotional cues. On the one hand, PSTs seemed to expect to experience negative states, due to the nature of the profession itself. Comments such as: “The dropout rate for graduate teachers scares me a lot. But I also feel like that’s something that empowers me to not quit, to not leave next year” (Au-5), indicates an awareness of how professional demands shape PAS. On the other hand, while PSTs in our study reported experiencing heightened arousal before or during teaching, such as feelings of nervousness, which could be perceived as indicators of incapability (Bandura, 1997), they tended to perceive these states as situational reactions rather than persistent traits. For example, feelings of nervousness were often reported to subside as PSTs become engaged with the class.

As Marschall (2023) warned that that too great an accumulation of VE, without ME, can lead to heightening negative PAS. The limited ME contributing to negative PAS might, perhaps, be visible in the expressions made by one Australian participants (Au-2). They described anticipatory stress when imagining themselves in the future classroom:

I'm sure there are many obstacles I cannot foresee. But I do foresee that if I went into a different environment like a classroom, I may feel like with all the pressures that exist on you as one teacher and 26, 28, 30 children may see me again being at a kind of mental capacity. (Au-2)

This PST linked these negative states to a difficult placement experience and disagreement with their mentor’s approach: “One child in particular which I was deeply unhappy with the way that I followed my mentor’s lead and excluded him”. They also seemed to suffer from these states “numerous times” and on “numerous occasions”. This ongoing rumination suggests that the affective impact of the placement experience remained unresolved and continued to inform CMSE judgments well beyond the immediate context in which it occurred (“But even now I still don’t know how I could have handled that differently”). This negative evaluation persisted despite receiving “really positive feedback about my behaviour management” from the mentor and the principal. That such feedback and experience failed to recalibrate

their CMSE highlights the potential limits of VE and SVP when PAS become the dominant interpretive lens through which CM capability is assessed. This might be one of very few indications of the significance of ME in regulating the influence of PAS in self-efficacy appraisals; a pattern that aligns with Bandura (1997):

...past successes and failures are stored as memories along with their affect. The set of memories provided the database on which judgements are made. Mood activates the subset of memories congruent with it through an associative mood network. Thus, a negative mood activates thoughts of past failings, whereas a positive mood activates thoughts of past accomplishments. The spread of activation from the emotion node makes mood-congruent memories salient. Appraisal of personal efficacy is enhanced by selective recall of past successes and diminished by recall of failures. (p.111)

In this sense, long-lasting PAS might influence PSTs' evaluative judgement through recalling efficacy information instead of perceiving information directly from the mood itself. Affective states are not independent antecedents of CMSE but represent reactions to various sources of self-efficacy information about CMSE. These emotional reactions may bias how PSTs process and interpret such information, especially when mood mismatches with performance attainments (see Wright & Mischel 1982, as cited in Bandura 1997). For example, people may be in a low-state mood even when successes occur. In this sense, triggering events may influence CMSE through affective priming (see Kavanagh 1983, as cited in Bandura, 1997).

4. Conclusions and implications

This cross-cultural qualitative study advances understanding of PSTs' CMSE development across contexts. Despite some cross-cultural differences, universal mechanisms for developing CMSE were evident, creating opportunities for cross-national exchange in designing placement experiences to strengthen PSTs' CMSE.

Owing to strong collectivist culture and the limited opportunities for hands-on professional experience, Chinese PSTs seemed to rely less on ME to build CMSE than Australian PSTs. However, the conditions under which PSTs derived the most benefit from their direct experiences were found to be consistent across both countries, i.e. effort expenditure and authenticity of these experiences. Bandura (1997) proposed several factors that might influence the power of mastery experience, including "...their preconceptions of their capabilities, the perceived difficulty of the tasks, the amount of effort they expend, the amount of external aid they receive, the circumstances under which they perform, the temporal pattern of their successes and failures, and the way these enactive experiences are cognitively organised and reconstructed in memory (p.81)". In this way, examining placement experiences through the lens of optimizing ME may offer an effective approach to enhancing PSTs' overall placement experience. Future research could aim to clarify more conditions that optimise ME, providing valuable insights into enhancing PSTs' placement experiences.

Although both Chinese and Australian PSTs referred to a broad range of models and appreciated observation as a valuable means of acquiring CM knowledge, there was no evidence that these experiences translated into enhanced CMSE. However, cultural factors, such as differences in individualism/collectivism and power distance, may shape how PSTs respond to observing proficient models and peers. Specifically, Chinese PSTs spoke of more models than their Australian counterparts and actively engaged in peer observations. However, a few Australian PSTs described decreased confidence after observing proficient models, reflecting the potential for VE to have a discouraging effect; a pattern not observed among Chinese PSTs. This has important implications for the use of observation in teacher education. Australian PSTs might need structured scaffolding and exposure to varied models for attainable self–other comparisons, while Chinese PSTs require support to promote reflective engagement that moves beyond passive knowledge acquisition and toward the development of self-efficacy. However, as Marschall (2023) cautioned, abundant VE must be integrated with authentic ME to avoid undermining CMSE; an aspect to consider in the program structure.

While closely intertwined with ME, SVP serve as a form of social validation for PSTs' CM abilities in both contexts. This highlights the importance of high quality and targeted social persuasions to guide PSTs to reflect on existing self-efficacy information and to form a healthy self-efficacy for CM. Despite the potential cultural differences (e.g. individualism-collectivism), no cross-cultural differences were observed regarding either the influence of SVP or the specific conditions under which verbal persuasions are effective also remain consistent between these two groups (i.e. persuasions are sincere and specific). Both Australian and Chinese PSTs saw that persuasive information came in the form of performance feedback and implicit persuasions. Although this study suggests that implicit persuasions exert a similar influence on CMSE as verbal persuasion (i.e. social validation), only one specific form conveying positive information was identified. Future research could benefit from exploring more forms of implicit persuasions, especially those that convey negative information.

PSTs in this study consistently reported experiencing negative affective states, which seemed to reveal a significant role of PAS in their CMSE development. However, our findings suggest that both groups of PSTs did not perceive their physiological or affective states as indicators of their CM abilities (i.e. a direct source). What we noticed instead was a close connection between affective states and other sources of self-efficacy, highlighting their role as a supplementary source of CMSE. That is, affective states can serve as both amplifiers and dampeners of other self-efficacy information. Future studies should benefit from exploring how affective states interact with other sources of self-efficacy, such as mastery experiences and vicarious learning, to provide a more comprehensive understanding of CMSE development.

5. Limitations

While this study provides insights into the development of PSTs' CMSE, several limitations should be noted. Participants frequently articulated CMSE through emotional language (e.g. confidence, frustration, anxiety), suggesting a close link between affect and efficacy appraisals. Future qualitative

research could incorporate sentiment analysis to systematically examine the emotional tone of responses and further clarify associations between emotional states and CMSE judgments. It also seems important to note that the interviews did not explicitly probe contributors to CMSE. This, we acknowledge, might have affected some aspect of the findings which appeared to be present in wider research but absent in this study. Therefore, we encourage the readers to pay attention to what was more so than to what was *not* mentioned.

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Footnotes

1. University liaisons support PSTs by conducting site visits, observing lessons, providing feedback, monitoring progress, and overseeing assessment in collaboration with school-based mentor teachers.