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Research Article

DEVELOPING CRITICAL THINKING CAPABILITIES FOR INTERNATIONAL POSTGRADUATE LEARNERS IN A NEW ZEALAND ITP

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ABSTRACT

This is an exploratory study evaluating key factors contributing to the development of critical thinking capabilities for international postgraduate business learners in a tertiary education organisation in NZ. The study adopted qualitative methods through semi-structured interviews and purposive sampling to obtain primary data from 26 participants from three different groups: learners, lecturers and managers in a tertiary institute. The findings of the data analysis through thematic analysis showed:

- The top six challenges for critical thinking development for international postgraduate learners are language barriers, cultural background, previous education system, time management, and prior experience with critical thinking.
- The study proposed three approaches to improve critical thinking capabilities: pre-course strategies, in-course strategies, and post-course strategies.

INTRODUCTION

Critical thinking (CT) is a key capability for every individual to function effectively as a global citizen (Facione & Facione 2013, Peach & Clare 2017). CT has been defined as the ability and willingness to form objective judgments based on well-supported reasoning, evidence, key principles or criteria, and key perspectives (Guo, 2013; Cone et al., 2016). CT is important for individuals to effectively contribute to making well-reasoned judgements in the decision-making process (Kalelioğlu & Gülbahar, 2014). Studies show that critical thinking capabilities are even more imperative to function in the 21st century, and individuals are expected to possess higher order thinking capabilities to function effectively in increasingly complex contemporary work and social environment (Kalelioğlu & Gülbahar, 2014; Sellars et al., 2018). Mehta (2015) points out the training and development of CT capabilities for individuals begins in early childhood and continues through tertiary education level in New Zealand. CT is an ongoing process which continues well after the formal education process and continues throughout the professional work and social lifespan of an individual (Brookfield 2002, Thornhill-Miller, Camarda et al. 2023). Postgraduate study requires all learners to have adequate levels of CT ability to perform in the learning tasks to complete their study programme (Saadati, Tarmizi, & Bayat, 2010). However, studies have shown that international learners appear to have inadequate levels of CT capabilities reflected by lower levels of understanding, analysis and evaluation which contributes to lower levels of performance (Crenshaw, Hale, & Harper, 2011; Fell & Lukianova, 2015).

- What are the key challenges and barriers for the development of CT capabilities for international postgraduate learners?
- What strategies or approaches provide a supportive context for international postgraduate learners to improve their CT capabilities?

LITERATURE REVIEW

It is asserted that CT skills are essential for learners to function effectively in academic and work contexts (Saldıray and Doğanay 2024), and it is one of the top ten most in-demand capabilities for employment (Cai & Sanrakan, 2015). A survey in 2013 by the American Association of Colleges and Universities (AACU) found that 75% of employers wanted tertiary institutions to place more emphasis on critical thinking, real world problem-solving, communication, and creativity, and 93% of these employers thought these skills should have a higher priority in tertiary studies (Haynes, Lisic, Goltz, Stein, and Harris (2016). Another study stated that CT skills were ranked as one of the most important skills related to professional development (Allen and Van der Velden. 2012; Thornhill-Miller, Camarda et al. 2023). Hence, the evidence shows strong support for a greater need for the workforce to be equipped with higher levels order CT skills (Zare and Othman (2015).

In the context of New Zealand education, CT is classified as a lifetime skill by the Tertiary Education Commission in the Statement of Intent 2015–2019 (Mehta, 2015). Educators have echoed employer perspectives that the cultivation of CT skills is a core purpose of higher educational institutions (Hill, Walkington, & France, 2016). However, employers have indicated the current levels of CT capabilities of college graduates are reported to be deteriorating (Camarata, 2017). Thus, a key role of higher education is to support the development of CT capabilities through questioning and reflecting on their own experiences to enhance levels of higher order thinking skills (Evans, Nguyen, Richardson, & Scott, 2018).

The evidence points to CT capabilities being learnt skills, in that they are developed over a period of time and refined with continuous practice (Njiraini, 2015). Against this backdrop, the idea has been mooted that international learners are perceived to have less well-developed CT capabilities, for example lacking skills of analysis, and not having sufficient levels of critiquing and interpretation (Egege & Kutieleh, 2004). Whilst all learners face challenges in developing their CT skills, international learners also have to contend with thinking critically in a second language which exacerbates the challenges for development of their critical thinking capabilities (Aston 2023; Floyd, 2011). This would suggest communication – written or verbal skills may also be a contributor to lower levels of CT capabilities. For example, this may be the case when teachers report that international learners' writing is frequently descriptive or that learners are not able to mount logical, coherent and persuasive reasoning to support critical thought in writing (Fell & Lukianova, 2015). Thus, weaker levels of communication and writing skills might be a contributing factor linking the lack of criticality in learner evidence in assessments (Fell & Lukianova, 2015). Poorer levels of CT capabilities in international learners have also been associated with cultural and linguistic differences, where some cultures do not encourage CT (Shaheen, 2016), for example when criticality is seen to be challenging the status quo and considered disrespectful. The cultural context might also be associated with educational approaches in places where the learner originates from, for example, where learning adopts surface learning approaches (Egege & Kutieleh, 2004; Shaheen, 2016), didactic and passive learning, rote learning approaches (Fell & Lukianova, 2015), all of which do not lend themselves to supporting in-depth development of critical learning capabilities.

Hence this study contributes to knowledge enhancement aimed at providing clarity on international learners' challenges in developing higher levels of CT. This knowledge can support stakeholders such as international learners, higher educational providers, and employers/managers in their reflection on the challenges and strategies to improve levels of CT.

RESEARCH METHOD

We collected qualitative primary data using semi-structured interviews for this study. The qualitative data was obtained from international postgraduate learners (existing and graduates) studying in Auckland, lecturers who have taught on postgraduate programmes, and managers with industry experience. As this study intended to tap into "rich" data rather than data quantity, we opted to apply qualitative methodology using purposive sampling from a relatively small sample of participants for the study (Lopez & Whitehead, 2013). Data collection was drawn from 26 participants comprising 3 groups of participants and online interviews. Prior to data collection, this study obtained ethics approval. Each of the participant groups were asked to respond to semi-structured interview questions on barriers and challenges for developing critical thinking (CT) capabilities and approaches to improve CT capabilities of learners. This study adopted thematic analysis to analyse interview transcripts (Braun & Clarke, 2012; Nowell, Norris, White, & Moules, 2017). This thematic analytical approach enabled the study to report that it yielded information on two key themes and several sub-themes for each key theme (Braun & Clarke, 2012).

FINDINGS

The findings section presents thematic qualitative data analysis from the three participant groups: students (S), graduates (G), lecturers (L) and managers (M).

The qualitative data analysis is organised along two overall themes. The first theme reports on CT barriers which relate to the first research question, while the finding for the second theme (research question 2) reports on participants' suggested strategies for improving CT capabilities.

THEME 1: BARRIERS TO CT

Overall findings - Student participants (S, G)

The findings show that language barriers, cultural backgrounds, previous education systems, time management, and prior experience with CT are barriers that international postgraduate students face in developing CT capabilities. We present participant evidence of these specific sub themes below:

Language barrier

"English is my second language... quite hard to express my opinion, my argument in writing." (S1)

"The way of thinking in Chinese is different from English. I need to do CT in English. This is the language barrier for me." (S8)

"English is not my first language... the hardest one is when I'm writing the assignment because they require us to write in high level, like academic writing." (G2)

Culture

"In Indonesia, you tend to not think critically about things, you do accept things as they are. It could be based just on the cultural... like respecting your elders, you don't question your elders, you don't question your seniors." (S6)

"In Korean culture, we don't speak our own opinion... Just listen… you just hesitate to say it when you have conversations with older people, it might be rude to say your opinion." (S10)

Previous education system

"In Indonesia, how they teach is quite different, it's more like one way. It's hard for me to talk with the lecturer, because we are like not like in the same level." (G2)

"In China… only see one-sided opinion, and it develops stereotype opinions. The education environment… I teach you and you just listen, you don't ask questions. The teachers really can't take challenges. They will take it as disrespectful if you ask a question." (G5)

"The teachers always have the right to say things as a norm, the students have to believe what the teacher said is true. The habit of argument or discussion, we don't have that kind of thing in our education system. We don't think twice about that, it's more like one-way communication." (S7)

Time management

"There's a lot of literature and then how you compare this literature with the other one. It just takes up your time. You need to read a lot of things". (G3)

"It's only lack of time… It does not allow me to analyse everything critically. (S2)

"…the time… you can get lost in your own train of thoughts... time management, sometimes thinking critically would reduce your working speed. And if you're facing deadlines, that may not be a luxury that you have all the time." (S6)

Prior experience with CT

"In my country, in my previous studies, there was no CT at all. So, this is my first time, first experience of applied CT. So, it's hard to do CT…. whenever I write an assessment, it becomes too descriptive." (G8)

"When I came here, and I took the first class, I was overwhelmed. This level of CT is new to me. There was no formal training for CT in the Philippines, CT was not utilized at this level. When I submitted my draft, the professor told me that everything I write is descriptive. I'm not using CT." (S3)

"The first time the lecturer asked me to think critically... I didn't have an experience about this in Korea, I had no idea what CT is at first." (S10)

OVERALL FINDINGS: LECTURERS (L) PARTICIPANT

The overall findings of the data analysis for lecturers show that language, previous educational system and prior experience with CT are factors identified as barriers toward CT capabilities for students. The sub-sections below present the specific findings for each sub-theme with examples of participant evidence.

Language barrier

The data analysis also shows that the English language barrier is a factor that lecturers also mention as a challenge that students faced for developing CT capabilities.

"*The language barrier might be a problem for a lot of international students. They want to express themselves, they want to critique, they want to show their logical thinking, their reasoning. But it is hindered by the language skill." (L1)*

"*…international students have good CT capabilities, but they struggle with expressing it and getting the CT in written form… in academic writing." (L2)*

Previous education system

"*…different education system where CT has not necessarily been a focus." (L3)*

Prior experience with CT

"*They haven't necessarily had to do this before. The difficulty is selling it to students as something that would be beneficial to them. It is actually a critical skill you want to have." (L3)*

OVERALL FINDINGS: MANAGERS (M) PARTICIPANTS

The overall findings of the data analysis for managers report cultural background and one-sided thinking as barriers toward developing CT capabilities in students. The sub-sections below present the specific findings with examples of participant evidence.

Cultural background

"*The issues with international graduates mostly have to do with like cultural background. They were taught to not question authority; they were taught not to question things that their managers have told them." (M2)*

One-sided opinion

"*Some international students, their points of view are very solid… having this strong view disables you to think outside the box. If you have a narrow mind, a strong view, even though I keep explaining to you [my own opinion], you're so focused on your own view that you fail to understand." (M3)*

THEME 2: STRATEGIES TO IMPROVE CT

This second theme presents evidence of suggestions by students, lecturers and managers to improve the development of CT capabilities

Student participants' overall findings to improve CT

The student participants presented a range of ways to improve CT capabilities reported below.

In-class discussion

In-class discussion is one approach that students think can support the development of CT capabilities.

"*What I find that could be useful: brainstorming and finding relationships between one subject to another, this will help develop a better idea in writing your assessment." (G4)*

"*Online sessions or offline sessions in classroom give us tasks for group discussion... to provide some positive or negative features of different events, so they can encourage students to provide more critical analysis in their assignments." (S2)*

"*…discussions in class about all aspects… they ask us to explain something and give us time to discuss in group… more time to have more discussions." (S9)*

In-depth feedback

"I really read the feedback but, in some parts, it is not really deep. Maybe provide detailed feedback, like... What do you mean about this one?... to be really helpful to students." (G3)

"Proper feedback is also important because students need to know where the fallacies are that they have made." (S6)

Personal sessions

"They can guide us more in detail, they can talk to us one on one. It's more effective, because in groups, it's harder to know the situation that the student is facing." (S5)

Active learning / debate

"Give students like a more active kind of learning… have a debate session between students and force them to take different positions. The debate is actually one (...) thing that actually forces you and trains your CT… even though you may not actually agree with what you are saying, but you're forced to think about the other opposite party's thinking." (G9)

"…more interactive… it will open up their ideas (...) and how they can counter arguments or support each other's argument." (G10)

"When the lecturers are more engaged with the students, if the lecturers open a dialogue between the students and appreciate the ideas given by the students… that's a good thing for them and for the students to grow and think critically." (S6)

Workshop

"Try to give students more opportunity to get this workshop before they actually join the programme. So, in a way that should help them, prepare them better for doing the course." (G4)

"Provide more workshops... specific workshops for areas where students are having trouble with CT." (G6)

Experiential learning

"…maybe some other skills to support the CT. So, it's not only on a classroom basis, but also experience basis……outbound, and learn some new skills, like teamwork, leadership, ...get extra lessons, like LinkedIn learning." (G2)

Qualified mentor

"…provide professionals and qualified mentors… make sure that whoever is helping is actually qualified enough to help... guidance with the help of proper mentors." (G1)

"…provide high calibre lecturers that would really benefit the students." (G7)

Preparatory course

"…they need to create, maybe incorporate in one of the early courses or subjects [something] on how to do CT systematically." (G3)

"…do more like a specific course on CT... if the students want to join, they can." (S5)

"They could make an extra class to practice it. Maybe students will be interested in it if they help to develop it. They could take the class and then have a chance to like speak and discuss with each other." (S10)

Promote awareness of CT

"…give them information on CT, do it upfront, tell them the very first day that you're supposed to think critically, and this is how CT is [done]." (G1)

"…informing about the importance of this and providing maybe more opportunities for practice… to see how CT is actually part of a successful career." (S9)

LECTURERS' OVERALL FINDINGS TO IMPROVE CT CAPABILITIES

Networking

"I would encourage (...) the university to work with industry, bringing guest lecturers and working on projects. I think that would give a variety of approaches. Otherwise, students will get bored..." (L1)

Academic writing support

"… only challenge that we are having is, how to express their CT when they are writing a report, because we assist them with only that part, (...) academic writing. So, I think that the academic writing part has to be supported, which we are doing through our student success team." (L2)

Lecturer participants - internal collaboration

"…we have a peer review, we have lecturers coming to our class at the lecture to give us feedback in terms of how we teach, in terms of how we engage in discussion." (L1)

"It would probably be a good idea to talk to all the lecturers and get their opinions (...) on what they're doing around CT. Because if we do that, and we've got an understanding of who's doing what, (...) we can probably better scaffold the skills." (L3)

MANAGER PARTICIPANTS: OVERALL FINDINGS TO IMPROVE CT CAPABILITIES

The findings below present the managers' perspectives and strategies to improve CT capabilities.

Task assignment

"Give them a task or a challenge that they need to tackle themselves first. So, try to make them think their way out of it first, before (...) questioning us who've already done it before. Because that forces them to use their CT skills to solve these problems." (M1)

"I generally kind of throw them into the deep end to get them to pull out as many insights that you think are relevant. (...) I also give them a set amount of time, I say, just deliver what you can in the next hour or two. And the reason why I do that is because what I want to see is, not only what they can do, but also the questions that they come to me with, say, I saw this, I think this but I'm not sure if that's correct or not... It's trial by fire." (M2)

Practical CT exercise

"I sit down with them, and I take them through my thought process. I take them through my account, and I take them through why I think this or why I think that." (M2)

Job role research

"They need to first know that it's an important skill to have, especially for the later years of their careers. So, they might as well start to develop their CT skills… do a quick study on the exact role that you're applying for and see what type of problems you will face." (M1)

CV update

"I would recommend updating your CV. Specifically, if CT is an important part of the process, or the job that you're applying for. What we're looking for is how you tackle the problem, something that you did to overcome a business challenge. It doesn't necessarily have to be in a business context. It could even be at university, it could be something that happened within your community. What we're looking for a lot of the time from graduates is how did you overcome that problem or that issue? What the problem was and what kind of attitude you brought to the table as well." (M2)

Case study learning

Managers supported the adoption of case study learning that would improve the development of CT capabilities.

"If students have case studies, [they can] try to identify the issues (...) and write a brief summary of possible solutions. Then look at the answers and see if they're on the right track or not. I think that will help them a lot with CT. One of the examples was a food brand taking their products to China. Chinese people don't use forks and knifes. They use chopsticks, so we need to change the brands. We have to do something with the brand, [make changes] from a different perspective and to the point. Very basic, but very important." (M3)

DISCUSSION AND RECOMMENDATIONS

This section presents discussion of the findings relating to the barriers to CT and recommendations to improve CT for international learners.

BARRIERS TO CT

Overall summary

The findings show several factors contributing to challenges international postgraduate learners encounter for the development of CT capabilities. In this section, we frame the findings in the context of the wider contemporary literature.

Language barrier

Language is one explanation as to why international learners possess weak CT capabilities. Rashid and Qaisar (2016) report that when English is taught as a second language, learners face challenges in breaking down complex information into simpler elements and developing logical reasoning. This study goes on to suggest that if these learners were given an opportunity to write in their own language, they might do better at presenting logical thought for a similar task. (Rashid & Qaisar, 2016). Thus, contemporary literature supports our findings. When English is a second language for learners, it presents a challenging context for learners in which to apply CT in their learning tasks.

Cultural background

The previous experiences of international learners within their own cultural contexts makes it more challenging for these learners to transition to a more open and flexible learning or working environment (Blank, 2020). Thus, cultural contexts provide an explanation for international learners' attitudes towards avoidance of questioning and expressing their own views (Fell & Lukianova, 2015), as reported in our study. For example, cultural contexts favour deference and respect for elders and being vocal with opinions is perceived as disrespect towards them. Hence these cultural norms and backgrounds may discourage learners from thinking critically and voicing their own arguments (Kawashima, 2003; Mangena & Chabeli, 2005; Jenkins, 2011; Chan, 2013; Shaheen, 2016).

Previous education system

When the previous education systems present traits such as lack of questioning, didactic teaching, and where learners are busy taking notes, this creates a passive learning environment (Chan, 2013; Guo, 2013; Fell & Lukianova,2015). The participants in our study provide concurring evidence that the previous educational systems of international learners do not proactively support CT capabilities (Shaheen, 2016).

Time management

Our findings show learners cite lack of time when working on assessments as a challenge to the development of CT capabilities. One study suggests that tasks, activities and processes in undertaking CT are complex and time-consuming, especially when analysing large amounts of data and information (McLean, 2005; Torff & Sessions, 2006). Hence, underestimating time for the required tasks puts pressure to produce work with criticality (Jackson, 2015; Sedlak, Doheny, Panthofer & Anaya, 2003). From a lecturer's viewpoint, when there is an overemphasis on delivering content in the classroom, this leaves less time to incorporate CT activities (Kowalczyk, Hackworth, & Case-Smith, 2012).

Prior experience with CT

Our findings reveal learners were unaware of CT concepts, and that they heard of these concepts for the first time when arriving in New Zealand. It may well be that prior learning experiences of international learners may not have given them opportunities to think critically in the classroom (Peter, 2012). So, the unfamiliarity with learning demands in a self-directed student-centred learning process presents an uncomfortable learning context (Plush & Kehrwald, 2014).

One-sided opinion

Based on the findings, managers reported that some international graduates have narrow perspectives which do not enable learners to think outside the box and create barriers for critical analysis. Studies have reported that educational approaches that do not support open-mindedness, curiosity, and the questioning of issues, present roadblocks to the development of criticality in thought processes (Bar-Tal, Vered & Fuxman, 2020; Kang & Ho-wren, 2004; Peter, 2012).

Strategies to improve CT

This discussion relates to the findings for research question 2 and provides action-oriented recommendations aimed at enhancing the development of CT capabilities of international postgraduate learners. We proposed three overall approaches to improve CT, categorised as pre-course strategies, in-course strategies, and post-course strategies.

PRE-COURSE STRATEGIES

The following strategies are recommended for implementation before the start of the study programme for international postgraduate learners as a cue to develop CT capabilities at an early stage of the study programme.

Promoting awareness of CT

Providing learners with course requirements and expectations early on can help learners become aware of what is expected of them academically and prepare them in advance to focus more explicitly on CT capabilities. Simply raising awareness of CT capabilities can support learners to better relate to skills that are relevant for their study programme as skills that are valued by employers after graduation (Mills et al., 2012; Cai & Sankaran, 2015).

Preparatory course in CT

According to Brookfield (2011), a preparatory course on CT can support international learners to clarify the expectations of the education system and the tasks they undertake in the context of CT capabilities development. The CT preparatory course may comprise elements such as reading, questioning, reasoning and writing as a starting point for CT capability enhancement (Mehta, 2015).

Provide professional and qualified mentors

One study indicated that highly qualified mentors can assist the development of learners' CT and analytical and reasoning skills (Callahan, 2016). The role of a teacher as a 'facilitator' in class who supports alternative views and also challenges these views through open-ended questions would scaffold the learners' understanding of CT (Wass, Harland, & Mercer, 2011; Murris, 2014).

IN-COURSE STRATEGIES

In-class discussion

It is asserted that in-classroom discussion is more effective than lecturing when it comes to fostering learners' CT skills as learners are encouraged to ask questions and verbally debate their ideas with one another, which usually helps learners to comprehend and retain ideas (Lennon, 2014). Thus, it is recommended to have more in-class discussion since it would support fostering an appreciation for the diversity of opinions and a capacity for self-critique and reflections (Hajhosseini, Zandi, Shabanan & Madani, 2016).

In-depth feedback

The purpose of feedback is to help learners learn how to correct faulty thinking and contribute to learning from past mistakes which is one way of improving CT capabilities (Sendag & Odabasi, 2009). In-depth feedback can offer some direction on how to improve their performance (Heft & Scharff, 2017).

Active learning / debate

The curriculum that incorporates active learning is claimed to encourage student engagement and foster and sustain positive habits such as open-mindedness, maturity of judgment, and confidence of reasoning that support the development of CT capabilities (Cone, et al., 2016). To enhance the development of CT capabilities such as being open to different perspectives, reasoning logically and accepting criticism, active learning approaches are recommended (Zare & Othman, 2015; Węgrzecka-Kowalewski, 2018).

Networking & Experiential learning

One additional suggestion is the adoption of experiential learning through organised service experiences by providing opportunities for practical, on-site experience in the learners' chosen field of interest (Arter, Wallace, & Shaffer, 2016; Sedlak, Doheny, Panthofer, & Anaya, 2003). These opportunities can stimulate the development of CT capabilities through the acquisition of specific knowledge from actual practitioners, enabling students to reinforce, challenge, and explicate concepts presented in a formal academic environment (Arter, Wallace, & Shaffer, 2016).

Workshop / academic writing support

An appropriate workshop approach is one that begins with an introduction to the foundations of CT that systematically contextualises these foundations through relevant curricular areas and incorporates CT practices into academic writing (Elder, 2004; Lennon, 2014). Therefore, the workshop for academic writing support should be embedded into the course to help learners in cultivating learners' CT abilities.

Post-course strategies

The following strategies are recommended for implementation at the end of the course programme, since this will support the development of CT capabilities after students graduate.

Practical CT exercise for graduates

CT skills play a significant role not only in academic achievement but also in the workplace (Masduqi, 2011). It is recommended for international postgraduate learners to continue the development of CT beyond graduation. Tertiary institutions can offer ongoing practical CT training that would help build up and strengthen the CT skills of graduates (Petty, 2019). Professional development training such as case study learning can support the development of CT capabilities. Case studies enable learners to "experience" real clients and stimulate graduates to make decisions in a simulated environment reflecting real life contexts (Popil, 2011; Shivakumar, 2012).

CT certification

One further suggestion is that tertiary institutions may consider having CT tests/surveys at the beginning and at the end of the programme to determine the CT development of learners over time. It may serve as a measure for colleges to reflect on the learners' development of CT capabilities throughout their study period. In addition to official academic performance certification, tertiary institutions could provide certification of the CT capabilities which would improve employability opportunities for learners (Mehta, 2015).

Limitations

As with all research, the small size of this study limits the generalisation of findings reported. The findings provide an indication of the challenges international students encounter in developing their CT capabilities. We suggest that a broader range of participants from multiple tertiary institutions as well as from different study programmes would provide more diverse samples in future studies.

CONCLUSION

The development of CT capabilities is necessary to ensure learners can perform their roles in education, work and society (Peach and Clare, 2017) and the issue of CT is becoming more important with the growth of international tertiary education (Pham, Hoang et al., 2024). To ensure consistency in the quality of international graduates prepared for employment markets, tertiary institutions must heed the call of prospective employers to place high priority on the development of CT capabilities for international learners to become global citizens (Peach and Clare, 2017). The findings from our study show international postgraduate learners encounter challenges in six specific areas for the development of CT capabilities. It is suggested that tertiary institutions adopt pre-course, in-course, and post-course strategies to improve levels of CT capabilities among international learners.

REFERENCES

Arter, M. L., Wallace, L. N., & Shaffer, T. L. (2015). The use of reflective journals to stimulate critical thinking in the academic internship. *Journal of Criminal Justice Education, 27*(1), 140–156. https://doi.org/10.1080/10511253.2015.1109132

Aston, K. J. (2023). 'Why is this hard, to have critical thinking?' Exploring the factors affecting critical thinking with international higher education students." Active Learning in Higher Education. https://doi.org/10.1177/14697874231168341

Bar-Tal, D., Vered, S., & Fuxman, S. (2020). Between open-minded critical thinking and closed-minded allegiance: Educational tensions in societies involved in intractable conflict. *Political Psychology*. https://doi.org/10.1111/pops.12687

Blank, C. (2011). Cultural Barriers in the Workplace. Chron.com. https://smallbusiness.chron.com/cultural-barriers-workplace-22617.html

Braun, V., & Clarke, V. (2012). Thematic analysis. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds.), *APA handbook of research methods in psychology, Vol. 2. Research designs: Quantitative, qualitative, neuropsychological, and biologica*l (pp. 57–71). American Psychological Association. https://doi.org/10.1037/13620-004

Brookfield, S. (2002). Adult cognition as a dimension of lifelong learning. Lifelong Learning, Routledge: 89-101.

Brookfield, S. (2011). Teaching for critical thinking: tools and techniques to help students question their assumptions. John Wiley & Sons.

Cai, W., & Sankaran, G. (2015). Promoting critical thinking through an interdisciplinary study abroad program. *Journal of International Students, 5*(1), 38–49. https://doi.org/10.32674/jis.v5i1.441

Callahan, J. (2016). Encouraging retention of new teachers through mentoring strategies. *The Delta Kappa Gamma Bulletin: International Journal for Professional Educators, 83*(1), 1-70. http://www.deltakappagamma.org/GA-betaepsilon/Newsletters/2016_Jour_83-1_Early-Career-Educators_web.pdf#page=6

Camarata, S. (2017). The emerging crisis in critical thinking. *Psychology Today*. https://www.psychologytoday.com/nz/blog/the-intuitive-parent/201703/the-emerging-crisis-in-critical-thinking

Chan, Z. C. Y. (2013). A systematic review of critical thinking in nursing education. *Nurse Education Today, 33*(3), 236–240. https://doi.org/10.1016/j.nedt.2013.01.007

Choy, L. T. (2014). The strengths and weaknesses of research methodology: Comparison and complementary between qualitative and quantitative approaches. *IOSR Journal of Humanities and Social Science (IOSR-JHSS), 19*(4), 99-104. Retrieved from https://doi.org/10.9790/0837-194399104

Choy, S. C., & Cheah, P. (2009). Teacher perceptions of critical thinking among students and its influence on higher education. *International Journal of teaching and learning in Higher Education, 20*(2), 198-206. Retrieved from https://files.eric.ed.gov/fulltext/EJ864337.pdf

Cone, C., Godwin, D., Salazar, K., Bond, R., Thompson, M., & Myers, O. (2016). Incorporation of an explicit critical-thinking curriculum to improve pharmacy students' critical-thinking skills. *American Journal of Pharmaceutical Education, 80*(3), 1–5. https://doi.org/10.5688/ajpe80341

Crenshaw, P., Hale, E., & Harper, S. L. (2011). Producing intellectual labor in the classroom: The utilization of a critical thinking model to help students take command of their thinking. *Journal of College Teaching & Learning* (TLC), 8(7), 13–26. https://doi.org/10.19030/tlc.v8i7.4848

Davies, M., & Calma, A. (2020, February 18). Our business leaders must think critically. Pursuit; The University of Melbourne. https://pursuit.unimelb.edu.au/articles/our-business-leaders-must-think-critically

Egege, S., & Kutieleh, S. (2004). Critical thinking: Teaching foreign notions to foreign students. *International Education Journal, 4*(4), 75–85. https://eric.ed.gov/?id=EJ90381

Elder, L. (2004). Professional development model - Colleges and universities that foster critical thinking. Criticalthinking.org; Foundation for Critical Thinking. https://www.criticalthinking.org/pages/professional-development-model-college-and-university/435

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics, 5*(1), 1–4. https://doi.org/10.11648/j.ajtas.20160501.11

Evans, C., Nguyen, T., Richardson, M., & Scott, I. (2018). Managing the transition from undergraduate to taught postgraduate study: perceptions of international students studying in the UK. *Research in Post-Compulsory Education, 23*(2), 249–265. https://doi.org/10.1080/13596748.2018.1444386

Facione, P. A. and N. C. Facione (2013). Critical thinking for life: Valuing, measuring, and training critical thinking in all its forms. *Inquiry: Critical thinking across the disciplines, 28*(1): 5-25.

Fell, E. V., & Lukianova, N. A. (2015). British universities: International students' alleged lack of critical thinking. *Procedia - Social and Behavioral Sciences*, 215, 2–8. https://doi.org/10.1016/j.sbspro.2015.11.565

Floyd, C. B. (2011). Critical thinking in a second language. *Higher Education Research & Development, 30*(3), 289–302. https://doi.org/10.1080/07294360.2010.501076

Guo, M. (2013). Developing critical thinking in english class: Culture-based knowledge and skills. *Theory and Practice in Language Studies, 3*(3). https://doi.org/10.4304/tpls.3.3.503-507

Hajhosseini, M., Zandi, S., Hosseini Shabanan, S., & Madani, Y. (2016). Critical thinking and social interaction in active learning: A conceptual analysis of class discussion from Iranian students' perspective. *Cogent Education, 3*(1-9). https://doi.org/10.1080/2331186x.2016.1175051

Haynes, A., Lisic, E., Goltz, M., Stein, B., & Harris, K. (2016). Moving beyond assessment to improving students' critical thinking skills: A model for implementing change. *Journal of the Scholarship of Teaching and Learning, 16*(4), 44–61. https://doi.org/10.14434/josotl.v16i4.19407

Heft, I., & Scharff, L. (2017). Aligning best practices to develop targeted critical thinking skills and habits. *Journal of the Scholarship of Teaching and Learning, 17*(3), 48–67. https://scholarworks.iu.edu/journals/index.php/josotl/article/view/22600

Hill, J., Walkington, H., & France, D. (2016). Graduate attributes: Implications for higher education practice and policy. *Journal of Geography in Higher Education, 40*(2), 155–163. https://doi.org/10.1080/03098265.2016.1154932

Jackson, D. (2015). Employability skill development in work-integrated learning: Barriers and best practice. *Studies in Higher Education, 40*(2), 350–367. https://doi.org/10.1080/03075079.2013.842221

Jenkins, S. D. (2011). Cross-cultural perspectives on critical thinking. *Journal of Nursing Education, 50*(5), 268–274. https://doi.org/10.3928/01484834-20110228-02

Kalelioğlu, F., & Gülbahar, Y. (2014). The effect of instructional techniques on critical thinking and critical thinking dispositions in online discussion. *Educational Technology & Society, 17*(1), 248–258. https://scholar.archive.org/work/6x6yubnqrzclhns4kqprujifl4/access/wayback/http://www.ifets.info/journals/17_1/21.pdf

Kang, N.-H., & Howren, C. (2004). Teaching for conceptual understanding. *Science and Children, 42*(1), 28–32. https://eric.ed.gov/?id=EJ722110

Kawashima, A. (2003). Critical thinking integration into nursing education and practice in Japan: Views on its reception from foreign-trained Japanese nursing educators. *Contemporary Nurse, 15*(3), 199–208. https://doi.org/10.5172/conu.15.3.199

Lennon, N. (2014). How professors infuse critical thinking into college courses. Seton Hall University. https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=6dd27719b7b0761ee2aaf9126b79578dc1929f07

Lopez, V., & Whitehead, D. (2013). Sampling data and data collection in qualitative research. In *Nursing & Midwifery Research: Methods and Appraisal for Evidence-Based Practice* (4th ed., pp. 123-140). Elsevier Mosby.

Mangena, A., & Chabeli, M. M. (2005). Strategies to overcome obstacles in the facilitation of critical thinking in nursing education. *Nurse Education Today, 25*(4), 291–298. https://doi.org/10.1016/j.nedt.2005.01.012

Masduqi, H. (2011). Critical thinking skills and meaning in English language teaching. *TEFLIN Journal, 22*(2), 185–200. https://core.ac.uk/download/pdf/233167362.pdf

McLean, C. L. (2005). Evaluating critical thinking skills: Two conceptualizations. *Journal of Distance Education, 20*(2), 1-20. https://files.eric.ed.gov/fulltext/EJ807829.pdf

Mehta, B. (2015). The teaching of critical thinking: Reviewing the perceptions of educators in tertiary institutions in New Zealand. Unitec Institute of Technology-Te Whare Wānanga O Wairaka. https://www.researchbank.ac.nz/server/api/core/bitstreams/c2d85746-1c81-4352-b02c-e81d6421d4be/content

Mills, L., Vrba, T., & Deviney, D. (2012). Enriching the short-term study abroad program: A case study. *Proceedings of ASBBS, 19*(1), 950–964. http://asbbs.org/files/ASBBS2012V1/PDF/M/MillsL.pdf

Murris, K. (2014). Corporal punishment and the pain provoked by the community of enquiry pedagogy in the university classroom. *Africa Education Review, 11*(2), 219–235. https://doi.org/10.1080/18146627.2014.927158

Njiraini, N. N. K. (2015). Exploring the importance of critical thinking in creating capabilities for self-reliance in international community development: A Kenyan context. Theses.gla.ac.uk; University of Glasgow. https://theses.gla.ac.uk/6455/

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods, 16*(1), 1–13. SagePub. https://doi.org/10.1177/1609406917733847

Peach, S. and R. Clare (2017). Global citizenship and critical thinking in higher education curricula and police education: A socially critical vocational perspective. *Journal of pedagogic development, 7*.

Peter, E. E. (2012). Critical thinking: Essence for teaching mathematics and mathematics problem solving skills. *African Journal of Mathematics and Computer Science Research, 5*(3), 39–43. https://doi.org/10.5897/ajmcsr11.161

Petty, A. (2019, May 21). Try these exercises to strengthen your critical thinking skills. The Balance Careers. https://www.thebalancecareers.com/strengthen-critical-thinking-skills-2275911

Pham, H.-H., et al. (2024). International education as an export sector: An investigation of 49 Vietnamese universities and colleges using Bayesian analysis. *Globalisation, Societies and Education, 22*(2): 207-225.

Plush, S. E., & Kehrwald, B. A. (2014). Supporting new academics' use of student-centred strategies in traditional university teaching. *Journal of University Teaching and Learning Practice, 11*(1), 1–14. https://eric.ed.gov/?id=EJ1025646

Popil, I. (2011). Promotion of critical thinking by using case studies as teaching method. *Nurse Education Today, 31*(2), 204–207. https://doi.org/10.1016/j.nedt.2010.06.002

Rashid, S., & Qaisar, S. (2016). Developing critical thinking through questioning strategy among fourth grade students. *Bulletin of Education and Research, 3*8(2), 153–168. https://pu.edu.pk/images/journal/ier/PDF-FILES/11_38_2_16.pdf

Reed, L. (2018, January 4). Building Critical Thinking Skills to Solve Problems at Work. Business.com. https://www.business.com/articles/building-critical-thinking-skills-at-work/

Saadati, F., Tarmizi, R. A., & Bayat, S. (2010). Assessing critical thinking of postgraduate students. *Procedia - Social and Behavioral Sciences, 8*, 543–548. https://doi.org/10.1016/j.sbspro.2010.12.075

Saldıray, A. and A. Doğanay (2024). Action research to develop critical thinking skills in the context of citizenship education in higher education. *Thinking Skills and Creativity,* 53: 101584.

Sedlak, C. A., Doheny, M. O., Panthofer, N., & Anaya, E. (2003). Critical thinking in students' service-learning experiences. *College Teaching, 51*(3), 99–104. https://doi.org/10.1080/87567550309596420

Sellars, M., Fakirmohammad, R., Bui, L., Fishetti, J., Niyozov, S., Reynolds, R., Thapliyal, N., Smith, Y., & Ali, N. (2018). Conversations on critical thinking: Can critical thinking find its way forward as the skill set and mindset of the century? *Education Sciences, 8*(4), 205. mdpi. https://doi.org/10.3390/educsci8040205

Şendağ, S., & Ferhan Odabaşı, H. (2009). Effects of an online problem-based learning course on content knowledge acquisition and critical thinking skills. *Computers & Education, 53*(1), 132–141. https://doi.org/10.1016/j.compedu.2009.01.008

Shaheen, N. (2016). International students' critical thinking–related problem areas: UK university teachers' perspectives. *Journal of Research in International Education, 15*(1), 18–31. https://doi.org/10.1177/1475240916635895

Shivakumar, K. (2012). The Case Study Method in Training and Management Education. *The IUP Journal of Soft Skills, 4*(2), 55-64. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2169791

Torff, B., & Sessions, D. (2006). Issues influencing teachers' beliefs about the use of critical-thinking activities with low-advantage learners. *Teacher Education Quarterly, 33*(4), 77-91. https://files.eric.ed.gov/fulltext/EJ795227.pdf

Thornhill-Miller, B., et al. (2023). Creativity, critical thinking, communication, and collaboration: assessment, certification, and promotion of 21st century skills for the future of work and education. *Journal of Intelligence, 11*(3): 54.

Wass, R., Harland, T., & Mercer, A. (2011). Scaffolding critical thinking in the zone of proximal development. *Higher Education Research & Development, 30*(3), 317–328. https://doi.org/10.1080/07294360.2010.489237

Wegrzecka-Kowalewski, E. (2018). Critical thinking in intensive language programs for international students in U.S. Universities. Proquest.com; University of Pittsburgh. https://www.proquest.com/docview/2166850455

Williams, T. (2017, May 30). Study: Nearly half of millennials get an "f" in critical thinking. GoodCall.com. https://www.goodcall.com/news/critical-thinking-011043/

Zare, P., & Othman, M. (2015). Students' perceptions toward using classroom debate to develop critical thinking and oral communication ability. *Asian Social Science, 11*(9), 158–170. https://doi.org/10.5539/ass.v11n9p158