

## **Critical Thinking Skills: Challenges Faced by International Students in Finance and Accounting Degrees**

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### **ABSTRACT**

*The gap between academic standards and expectations of British academics and those of international students has a direct impact on student success. And where this expectation gap is identified, the institutions have a responsibility to look to close it. Researchers identified more extensive areas of conflict such as learning styles, participation, collaboration, independence and deficiencies in critical thinking. This study aims to identify the specific challenges international students encounter in developing the critical thinking skills required at British universities. This research conducts interviews and questionnaires with international students in UK universities to highlight the challenges faced in gaining CT skills. The data collected is analysed using thematic and factor analysis. The findings reveal that previous educational experience, cultural differences and lack of support from academics are a few prominent among many challenges that international student face in acquiring critical thinking skills.*

**Keywords:** Critical Thinking, Higher Education, International Students, Language Barriers

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### **INTRODUCTION**

Critical thinking is considered the foundation on which workplace decisions are based and a skill that potential employers expect new graduates to possess (Aston, 2023; Burbach, Matkin, & Fritz, 2004; Pithers & Soden, 2000).

Critical thinkers are capable of contributing to the country's economic and political development and well-being. For these reasons, most university degree programs set critical thinking as one of the key learning goals for students (Din, 2020; Chen and Hwang, 2020; Burbach et al., 2004; Ennis, 1993; Greenlaw & DeLoach, 2003; Pithers & Soden, 2000; Williams, 1999). Critical thinking skills are usually incorporated into the degree outcomes and module objectives. Unfortunately, according to Arum and Roksa (2011) and Blaich (2007), students are not improving their skills in critical thinking. This is particularly alarming for finance students who need this skill more than most in their studies and subsequent careers.

Despite the debate about students lacking critical thinking skills and business programs developing new frameworks to tackle the issue, it is necessary to understand the issue from the students' perspective. This is particularly important when it comes to international students studying in British universities.

The Higher Education Statistics Agency's (HESA) January 2021 bulletin revealed that 12% of the students in HE institutes are non-UK students. Some of these students end up working in the UK or even if they go back to their home countries to work, the British degree should aim to set the standard in terms of the outcomes it fosters and the education it provides. Therefore, these students don't just need English language competencies but they also need to acquire skills that lie right at the core of British University education, skills to which critical thinking is central.

British universities assert that international students coming to study in the UK lack critical thinking skills which leads to their underperform in essays, dissertations and theses. Academics note international students' lack of "higher order thinking skills", differentiating critical thinking from the lower-level intellectual abilities of understanding, remembering and applying (Fell and Lukianovaa, 2015). UK universities host a significant number of international (non-EU) students. The Office for National Statistics reported that "in YE June 2023, people initially arriving on study-related visas accounted for 58% of long-term emigration of non-EU nationals at 115,000. This is an increase from 64,000 (50% of long-term emigration) in YE June 2022" (ONS, 2024). It is also important to report that the analysis of the most recent cohort shows that more international students are staying for longer and some transitioning into work visas (ONS, 2024). Therefore, the questions about the extent of their adaptation to the British academic environment loom large. Academics and professionals are concerned about their lack of critical thinking in academic writing leading to a lack of problem-solving skills in work life.

Fulfilling the educational expectations of a new culture can be difficult (Aston, 2023). Therefore, this research aims to explore and investigate the challenges international students face in understanding and gaining critical thinking skills. This research question will be explored based on different themes

generated from literature where researchers worked on some of the challenges. These include language, culture and previous education experience.

Recent studies focused on critical analysis skills as a product of language proficiencies include (Bakhrudinova, 2021; Wale and Bishaw, 2020; Fell and Lukianova, 2015; O'Sullivan and Guo, 2010; Cheng, 2000; Clifford et al., 2004), cultural differences (Ge et al, 2022; Lun, 2010; Salili & Hoosain, 2007, Howe, 2004), cognitive style (Vyncke, 2012; Jones, 2005; Egege and Kutieleh, 2004) and lack of group working skills. Several other studies (Shaw et al, 2020; Robertson et al. 2000; Lee & Carrasquillo, 2006, and Kumaravadivelu, 2003) have focused on investigating the lack of critical thinking skills from the academics' perspective, whereas researchers such as (Sudrajat et al. 2020) have looked at critical thinking challenges from the student's perspective. However, these studies involve disciplines other than Finance or focus on the cultural and educational challenges facing specific nationalities such as Chinese (Ge et al, 2022; Song and McCarthy, 2018; Huang, 2008) and Russian (Shaw et al, 2020; Fell and Lukianova, 2015). Researchers (Harris, 2006) have also found a strong direct link between a lack of critical thinking skills and poor academic writing. However, to the best of this researcher's knowledge, the concept of critical thinking skills, discussed from a student's perspective, is not widely explored within the field of finance.

This research, therefore, aims to investigate students' views on challenges faced when it comes to critical thinking, the reasons for poor critical thinking and the role played by their British institute in helping its students develop this skill.

The main and sub-research questions are set below.

### **Main Research Question**

“What challenges do international students face in gaining critical thinking skills”?

#### **Sub-research questions**

- What is the impact of language proficiency in gaining critical thinking ability?
- How do cultural differences affect the ability to gain critical thinking?
- How does previous education setup affect the ability to practice critical thinking skills?
- What challenges do students face in UK universities to acquire and polish this skill?

This study seeks to make a modest contribution to the development of knowledge, theory and practice. SOLO taxonomy is applied in a new setting to test applicability. Hence, the research contributes to the theory. The literature contribution will be made by exploring the CT challenges faced by Finance students as limited work is been done in this field.

## LITERATURE REVIEW

### Critical Thinking: A Skill or an Art

Critical thinking skill is one of the key skills, complementing other core concepts such as problem-solving, and social and academic skills within a university degree. Business education degrees put equal weight on all the skills and aim to augment this core with a little extra on a specific skill when it comes to studying within a specialised field. However, when it comes to critical thinking, university lecturers continue to struggle to engage students in critical thinking activities and similarly, students seldom use these skills. Part of the problem highlighted by Smith (2003) is that students are taught and assessed through methods dictating “what to think” rather than “how to think”. According to Schamel and Ayers (1992) teaching students learning skills solve part of the problem as students learn best through observation rather than participating in an exercise with a defined conclusion.

To succeed in this technically advanced society, critical thinking competence is paramount. Therefore, university education must focus on fostering critical thinking skills. This can be achieved by offering students opportunities where they are required to evaluate their thought processes by incorporating problem-based learning techniques.

While there is no dearth of research in the field of critical thinking, a widely accepted definition is missing (Sanders and Moulenbelt, 2011, Johnson and Hamby, 2015). This critical thinking definition varies. Some definitions are narrowly constructed and others define it as part of a package of skills (Stassen et al. 2011). A capacity to weigh evidence was the first definition given by Paul (1993). This is followed by some other researchers such as Schamel and Ayers (1992) describing critical thinking as a set of skills that are required to make logical analyses.

It will be safe to argue that most definitions are limited in approach or are incomplete. This trend was then followed by researchers including some other aspects such as assumption recognition, separating facts from openings and processes facilitating the making of an evaluation (Mayfield, 2001; Lipman, 1995; Seigel, 1993). From there on, the focus was shifted to cognitive skills.

It was argued that good cognitive skills are positively related to having good critical thinking skills. This, therefore, leads to further discussion about whether having these skills means these will be applied by students (Ennis & Norris, 1991). In a research conducted by Moore (2013, p.1), “at least seven definitional strands were identified in the informants’ commentaries, namely critical thinking: (i) as judgement; (ii) as scepticism; (iii) as a simple originality; (iv) as sensitive readings; (v) as rationality; (vi) as an activist engagement with knowledge; and (vii) as self-reflexivity”.

It could be argued that the definitions above and numerous others are not complete, most are very broad and taken together, and they do not indicate what the institutions actually need to teach.

Learning outcomes are positively or negatively related to the learning approaches adopted by the students for their academic tasks. Deep, surface and achieving approaches are identified as different learning approaches by the experts (Stassen et al. 2011). The deep approach brings in life experience as well as relating previous knowledge to newly learned material meanings. Surface learning, in contrast, is associated with memorising the facts and viewing learning in an isolated manner. Achieving the learning outcomes approach lies between the first two approaches referring to the ability to switch between deep and surface approaches without having a distinctive approach.

### **Challenges International Students face in gaining and applying critical thinking skills**

Research on challenges international students face in gaining/applying critical thinking skills includes several factors. The transition period for PG degrees (1-year course) is argued to be three to nine months which is one of the hindrances to understanding and also application of critical thinking 'in the round'. Studies have found that students lack confidence in their English abilities (Robertson et al., 2000; Senyshyn et al., 2000; Tompson and Tompson, 1996) and fear making mistakes (Jacob and Greggo, 2001), which may inhibit their class participation and ability to apply the skills acquired. Some universities have established support services to assist international students with their studies. These include English-language courses, tutoring, and supplemental courses that focus on specific academic content and skills. International students in a Master of Business Administration program in the UK were given a CD-ROM program to strengthen their English (Wu et al., 2001). Because the materials focused on general topics rather than business-related content, students did not feel it met their needs. They also preferred more teacher interaction and many felt, rightly or wrongly, that their English skills were already sufficient.

Furthermore, cultural issues such as the fact that some education systems such as the East Asian system are known to be both authoritarian in delivery and exam-driven (which is labelled as surface learning) have also been identified as significant barriers to the absorption and application of critical thinking concepts. In contrast, the learning system offered by Western universities is defined as a deep learning experience as it is more interactive in delivery and content (Watkins & Biggs, 2001; Lun, 2010). Therefore, when students from East Asian countries join Western universities, they are either unable or unwilling to participate (Gieve, 1998). Therefore, a complete reorientation is required to help international students from authoritarian and surface learning educational backgrounds gain the compulsory skill for UK students which is critical thinking.

Other factors include a change in career focus, a one-year PG degree is not enough to gain CT skills, and small PG class sizes (Robertson et al. 2000; Lee & Carrasquillo, 2006, Kumaravadivelu, 2003) that place a premium on the quality of interaction with the course content.

### SOLO Taxonomy

Biggs’s (1978) SOLO (Structure of Observed Learning Outcomes) taxonomy is useful for considering critical thinking in students. The SOLO taxonomy categorizes observed learning outcomes as pre-structural, unstructured, multistructural, relational, and extended abstract, based on the complexity of the underlying cognitive skills.

Researchers such as Tsui (2002) highlight that cognitive skills which are determined in the upper two levels of SOLO taxonomy are associated with critical thinking. In contrast, the lower two levels are related to acquiring knowledge. However, Tsui (2006) argues that the upper levels could only be achieved if the lower levels are also expressed. As the lower two levels are the basic requirements to be fulfilled by the institutions, therefore, to allow students to perform well in all aspects of university education, institutions will have to play a part in offering opportunities that push students to gain the skills required to achieve the upper two levels. This study, therefore, aims to identify the challenges students face in reaching the upper level of this SOLO taxonomy.

Figure 1 below the framework this study follows. The study identifies the challenges international students in finance degrees face both personal, environmental and university-specific. These will be compared to the challenges already identified in the literature in other degree programs or generally. The student's perspective on how they helped or are helping themselves and what the institution is offering. Finally, the recommendation will be made to support the institutions and students to gain critical thinking skills and reach the upper level of SOLO’s taxonomy.

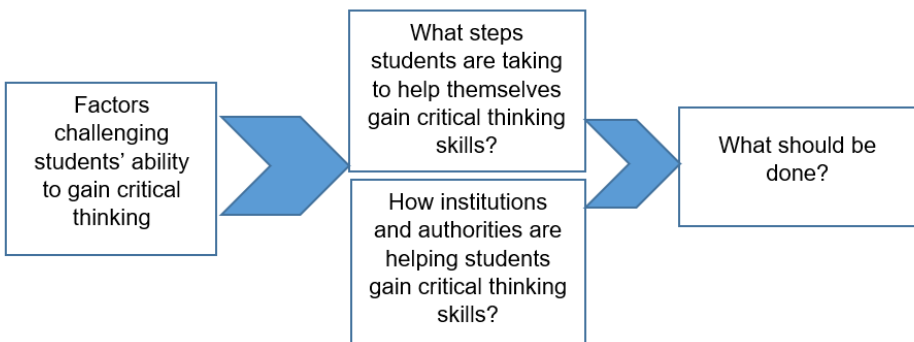


Figure 1 Conceptual framework (Source: Author)

The recommendations will be based on both the responses from the interviewees and the literature published in the area of developing critical thinking.

## **RESEARCH METHOD**

Constructivism is an epistemological perspective where human perception and social experience are demonstrated. Therefore, it can be argued that the constructivist point of view is both pragmatic and relativistic by holding that no single methodology is valid and that other methodologies may be appropriate for research in social science (Goertz and Mahoney, 2012).

This study adopted a qualitative approach following Shkedi's (2005) argument that to explore the reasoning based on human experience, a qualitative approach is appropriate. Semi-structured interviews were selected as the main method for data collection. Researchers such as Mason (2002) are of the view that semi-structured interviews give the interviewer and respondent control and flexibility which structured interviews do not offer. Under this approach, both the interviewee and the interviewer co-generate the data. However, the interviewees' behaviour is misjudged if they do not recall experiences accurately. Furthermore, the interviewee may not expand their answers. And this limits the idea of in-depth analysis.

### **Interview Sample**

A sample of 20 students is selected for interviews including those currently studying accounting and finance degrees in the UK or graduates that have completed their degrees within the last three years. A purposive sampling technique is used to select the respondents. Online video interviews are conducted to save time and cost and a summary of the content was made at the end of each interview to ensure the informants' views had been understood. All interviews, which lasted 30-40 minutes, were performed at a place and a time chosen by the students. All interviews are recorded and transcribed after acquiring the relevant consent. The interviewees' identities are protected and codes are used to present their views. The data is analysed using thematic analysis techniques where the themes are generated from the literature.

### **Follow up Questionnaire sample**

The second stage of this study was to rank the factors that were highlighted by the students in an interview that they believe affect their ability to gain critical thinking skills. A critical thinking workshop was arranged for international students where the basics of critical thinking ideas were introduced and importance was highlighted in quantitative degrees such as finance. At the end of this workshop,

students were invited to fill in a questionnaire which only included the themes that were highlighted in the interviews. All participants were invited to fill in the questionnaire. Students were asked to rank the challenges. Likert scale questions were used in 210 questionnaires. Omitting the incomplete questionnaires, 80 were finalised for data analysis.

## RESULTS

A considerable level of similarity and understanding of critical thinking is reported by the respondents to the existing literature.

The following section will outline international students’ perceptions of the teaching and learning context. This will be followed by an examination of challenges faced by these students in gaining critical thinking skills.

Table 1

*Interviewee Profile*

<b>Code</b>	<b>Age</b>	<b>Gender</b>	<b>Currently studying</b>	<b>Completed the degree</b>
CT1	24	<b>M</b>	No	Yes
CT2	23	<b>M</b>	Yes	No
CT3	30	<b>F</b>	Yes	No
CT4	22	<b>F</b>	Yes	No
CT5	28	<b>M</b>	No	Yes
CT6	30	<b>M</b>	No	Yes
CT7	33	<b>M</b>	No	Yes
CT8	23	<b>M</b>	Yes	No
CT9	29	<b>M</b>	No	Yes
CT10	36	<b>F</b>	Yes	No
CT11	21	<b>M</b>	Yes	No
CT12	34	<b>F</b>	Yes	No
CT13	32	<b>M</b>	No	Yes
CT14	22	<b>M</b>	Yes	No
CT15	25	<b>F</b>	No	Yes
CT16	28	<b>M</b>	No	Yes
CT17	34	<b>M</b>	Yes	No
CT18	35	<b>M</b>	Yes	No
CT19	29	<b>M</b>	Yes	No
CT20	20	<b>F</b>	No	Yes

Note. Gender: 30% (Female- F) 70% (Male-M), Age: 40% (20-25) 60% (25-30), Status 45% (completed) 55% (currently studying)



### **Academic writing – Home country experience**

The home country's education system is highlighted to be one of the key hindrances/influences by researchers (Vyncke, 2012). Egege and Kutieleh (2004) labelled this authoritative education system, already described, as 'surface learning'. When interviewees were asked, "What is academic writing from your point of view and how was your academic writing experience in English in your home country?". The responses were mixed. While the majority of the respondents blamed the lack of a freer education style in their home country, some appreciated the knowledge and skills they acquired before starting their degree in the UK. For example one of the respondents said:

*"As with all jurisdictions, academic writing in Nigeria follows the same process as I have found in my Master's program in the UK. In my opinion, academic writing is any formal process of writing that is structured, involves skilful conceptualisation, and synthesises information in an impartial or unbiased way. The primary goal is to base an argument on facts and clear evidence"* (CT11).

Although the above statement runs contrary to the literature blaming the home country's education system (Vyncke, 2012), it is important to highlight that the above student is from an English-speaking country (majority). In contrast, a respondent from a country with no/little English language responded to the above question with the following statement:

*Academic writing was a completely new word that I came across when I started my degree in the UK. In my home country, we did write assignments but it was all copy pasted as there was no Turnitin (CT02).*

A majority of the respondents from English-speaking countries were well aware of academic writing skills and their requirements. Whereas, others where English is not spoken but taught, had no more than a very vague idea of what constitutes academic writing. Similarly, respondents who are taught in languages other than English had no idea about academic writing as the English language construct. This confirms Son and McCarthy's (2018) assertion that language barriers are one of the main challenges students face when it comes to acquiring skills that the British education system requires - specifically critical thinking skills. Further, it confirms the research findings that the writing skills of students' first language could influence their writing in English negatively or positively. Therefore, thinking in a foreign language impaired students' abilities to think critically when writing in English.

### **How important is Critical Thinking?**

To think critically underpins success in academic tasks (Jones, 2005). While it's difficult for a native English speaker, the expectation has a profound and

detrimental effect on the performance of students whose first language is not English. Huang (2008) found that non-English speakers perform less well in a task in English but perform well in their native language, as you would probably expect to be the case. This finding is in line with David et al (2005) who argue that thinking in a language other than your native tongue might result in greater cognitive load and that this will impair their ability to solve problems critically. When students were asked about their approaches to academic writing, a few mentioned critical thinking but the majority mentioned descriptive and persuasive writing as one of their key approaches.

When asked how important critical thinking was in academic writing, the majority of the students knew it was important however only a few could explain it in more detail. The students acknowledge that critical thinking involves an awareness of a multiplicity of perspectives however, in finance the discussion requires analysing different perspectives, reasons and consequences to offer the reader multiple perspectives of a given situation. Therefore, a consideration of the multiple perspectives and model assumptions used in the response constitutes critical thinking. One of the respondents for example explained the importance of critical thinking as:

*In academic writing, arguments or ideas are organised into lines of reasoning which involve asking specific questions and weighing up different points of reasoning, the negative and positive aspects (CT09).*

It was also notable that, some students identified that critical thinking was more complex than simply discussing and identifying the strengths and weaknesses of arguments. One explanation of this clear understanding displayed by the respondents could be because this is the feedback they received on their submissions and comments about what the marker is looking for when it comes to critical thinking. The majority of the respondents admitted to not having any idea about critical thinking. The ones who tried to define it gave some confused responses.

A considerable amount of diversity was displayed by the respondents regarding critical thinking. And that is even when, overall, the vocabulary used by the respondents was in line with the general idea of critical thinking such as evaluation and analysis. The understanding of what critical thinking might constitute was best described as broadly superficial.

### **Critical thinking-related academic writing problems**

Academic writing is not a concept that students think about to a great extent or depth. Few of the interviewees could understand the academic writing concept in the same way they had described their views about critical thinking. The non-verbal answers to this question were very interesting. Most of the respondents made fed-up faces and expressions which made it clear that academic writing and

problems related to this provoke strong feelings. *"I hate this word... Academic writing. This is forced but not taught"* (CT10).

References were something discussed quite a few times by the respondents when asked what is academic writing for them. *"I once asked my lecturer what she meant by academic writing. She said it is formal writing with good references"* (CT5).

When students were asked what problems they face in bringing critical thinking aspects to an academic piece of writing the majority of the respondents (i.e. the non-English speakers) agreed that language is the main challenge. One of the respondents claimed that:

*"When I read the assessment question starting with 'critically', I know exactly what I am required to do. However, when I start writing the assessment, I struggle to convey the message clearly in English. I tried the university's academic development services but they only correct the grammar which I can correct myself using software or a proofreader"* (CT15).

The lack of human dialogue characteristics is another important point made by the respondents. One of the students made a very valid point, arguing that *"critical thinking is not an isolated activity. The lecturers require us to write an individual essay after 10 weeks of teaching. I think the main challenge I faced is lack of idea transfer between peers and tutor"* (CT09).

Similarly, it was unexpected to see that some of the respondents think that most of the time the purpose of critical thinking in a particular assessment is not made clear by the tutor. It sometimes feels like the word critical thinking is used in coursework questions just to make it look complicated and to pressure students. Problem-solving is the key to critical thinking skills in finance teaching and learning but this remains largely unexplained for students who do not come from an English-speaking education background.

It is important to note here that respondents were also asked to highlight the challenges faced when they approached the support services offered by the institute. Some unexpected answers were received. For example, one of the students mentioned the fact that all academic writing support staff is native.

*All are born English- they can never understand the struggle a non-native speaker faces when it comes to understanding English, thinking in their mother tongue and translating their thoughts back to English. Not forgetting the fact that the concepts learned are also new* (CT18).

Another respondent remembered the words one of the staff members always used when approached for help. *'This is very easy. She used to say without thinking it wasn't easy for me* (CT20).

The majority of the students agree that native support staff couldn't help them the way they expected this help 'as they could not put themselves in our shoes. One of the reasons highlighted by these respondents was that 'they have never been in our shoes so they wouldn't know.

Although Finance is assumed to be more numeric, essay components test the depth of knowledge when it comes to decision-making based on numbers. Finance essays are designed to assess the deeper levels of learning to achieve the learning outcomes of the module.

The learning and development centre provides vital support to students and helps reduce the burden on academic staff by creating a favourable environment for students to gain essential essay-writing skills. However, the non-specialised support staff is another major challenge claimed by these respondents. One of the respondents offered an interesting perspective.

*“Over time I have experienced issues that put LDC staff and academics into conflict. This includes the conflicting information and advice being given from the LDC staff members” (CT7).*

It is important to understand that Finance essays are different from normal essays. Therefore, Finance essay writing skills vary and are not usually the same as in other subjects. Therefore, when it comes to critical thinking skills, specialised advice and help would go down better than general advice. Non-specialised support staff who are not aware of the critical thinking requirements in Finance courses will regularly make it confusing for students to gain the skillset that is the key to problem-solving within their subject.

**Challenges: Takeaway**

<b>Challenges</b>	<b>Agreement</b>
Language	65%
Socio-cultural background	43%
Previous education	72%
Native support staff UK institute support centres	88%
Lack of specialised support staff	92%

**Factor analysis**

The above table shows the five factors are considered the ones that hinder international student’s ability to gain critical thinking skills. A factor analysis is applied using the questionnaire data to highlight the most important factor. This will help to isolate constructs and concepts. The selected sample and variables are according to Yong and Pearce’s (2013) recommended 10:1 ratio. The factor model is shown in Equation 1 below:

$$X_j = a_{j1}F_1 + a_{j2}F_2 + \dots + a_{jm}F_m + e_j \tag{1}$$

Where  $j = 1, 2, \dots, p$

The factor loadings are  $a_{j1}, a_{j2}, \dots, a_{jm}$  which denotes that  $a_{j1}$  is the factor loading of the  $j$ th variable on the first factor.

We set a threshold for factor loadings based on Comrey and Lee’s (1992) ‘fair’ criterion of 0.45 (see also Tabachnick & Fidell, 2007) and items not meeting this threshold were excluded. There were no cross-loadings observed for items meeting

this threshold. Based on these exclusion criteria two items were loaded onto Factor 1. Two items were loaded onto Factor 2.

Table 2

*Eigenvalues And Explained Variance In Five Factors*

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor 1	2.02228	1.17485	0.7712	0.7712
Factor 2	0.84743	0.84743	0.3232	1.0944
Factor 3	-0.0000	0.00161	-0.0000	1.0944
Factor 4	-0.00161	0.24427	-0.0006	1.0938
Factor 5	-0.24588		-0.0938	1.0000

Five factors were initially extracted from the interview data. The first factor accounted for 0.7712 proportion with each subsequent factor accounting for a decreasing proportion. The eigenvalues for the four factors (Factor 1, 2, 4 and 5) accounted for the most variance (see Table 02), it was decided to use the four factors in the analysis.

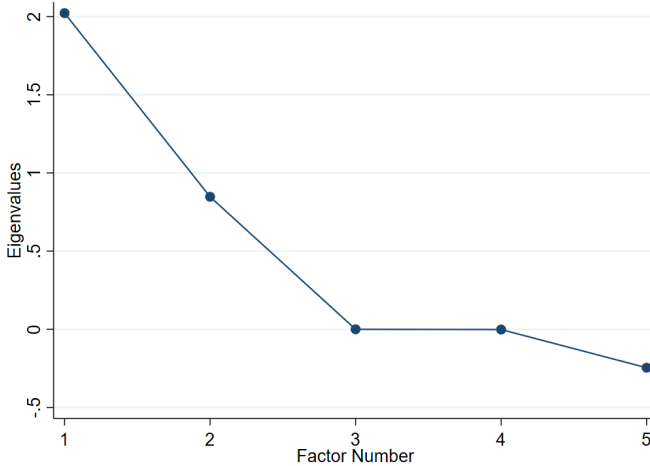


Figure 02 Scree plot showing the eigenvalues for factor extraction

Table 3

*Pattern Matrix Of Rotated Factor Loadings*

Items	Content	Factor	
		1	2
1	Language	-0.855	0.647
2	Previous Education	0.998	
4	Native support staff	0.999	
5	Lack of specialised staff		0.650

Note. Factor loadings lower than 0.45 are not shown.

The factor loading of each factor can be seen in Table 3 above. The factor loading explains how much a factor explains the variable i.e. the correlation between the variable and the factor. It is clear above the loading for language, previous education, native support staff and lack of specialist staff are highly positive (negative for language) showing the strength of these variables in explaining the challenges international students face in developing critical thinking skills.

#### Factor 01: Language

A key aspect of critical thinking, as identified from interview responses, is argument building (Aston, 2023), a skill reportedly missing in many students. It was further noted that students from specific countries often struggle with substantiating their arguments with evidence. Additionally, both questionnaire responses and factor analysis underscored language barriers as a significant obstacle to developing critical thinking skills.

#### Factor 2: Previous Education

Interview responses highlighted that students' capacity for critical thinking can be significantly affected by their prior educational experiences, particularly if these did not emphasize critical thinking skills. Aston (2023, p. 1) argues that a deeper comprehension of the elements shaping human cognitive processes can enhance students' critical thinking abilities, thereby preparing them to positively impact the world. The analysis revealing that previous education is a key factor influencing the development of critical thinking skills suggests that the various social structures inherent in the educational backgrounds of students might also play a role in shaping their approach to understanding (Gyenes, 2021).

#### Factor 3: Native Support Staff

The COVID-19 pandemic introduced numerous challenges to international education, significantly impacting host universities. As a result, the relationship between university support services and international students has become crucial. This connection is essential not only for the operational recovery of universities but, more importantly, for the academic success and well-being of international students (Tran, 2020).

Respondents have identified a significant challenge in the form of inadequate empathy from native speakers within support services aimed at enhancing students' writing skills. This observation aligns with Nirro and William's (2022) study, which pointed out that students often struggle to seek assistance from these native-speaking support staff because they feel their difficulties in crafting critical arguments in writing are not fully understood.

#### Factor 4: Lack of Specialised Staff

Recognising the distinct nature of accounting and finance essays compared to standard essays is crucial. The academic writing skills required for these fields are technical and differ significantly from those needed for other subjects. Respondents acknowledge that academic writing instruction cannot adopt a "one-

size-fits-all" approach. Thus, having subject specialist staff could guide students more effectively towards appropriate academic writing strategies for technical subjects.

The above results are in line with the interview findings confirming the key variables affecting critical thinking skills in international students. Language and previous education were some of the key factors highlighted by the interview respondents and questionnaire respondents. It was unexpected to see that questionnaire results also highlight the lack of specialised staff as one of the hindrances in attaining critical thinking skills.

## **DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS**

Attaining critical thinking skills is argued to be a vital success factor in university-level courses (Pithers & Soden, 2000). Finance students in particular require this knowledge more than others as the key skill they require to gain the most they can from a finance degree is to learn problem-solving which is the main part of the critical thinking skill set. The employers in the field of finance class critical thinking and problem-solving as an essential skill within their hiring criteria. And so, the absence of demonstrable critical thinking has real-world implications for students entering or returning to the world of work.

It is worth noting here that some of the challenges highlighted by finance students were similar to those found by other researchers who conducted research not specific to finance (Tsui, 2002). Researchers agree that all students face challenges in this field, but the challenges international students face in this field are multiplied. One of the main barriers to expression is the fact that they don't only need to think critically but that this must also be done in a foreign language. Research is still looking to understand how much of an additional challenge this is as it is significant for universities to be aware of the challenges students may face and more importantly why limitations on students' success may exist.

The first research question addressed how language affects the ability of students to gain critical thinking, but before that, it is important to understand if students know what critical thinking is. Most of the respondents were able to define critical thinking based on their experience however, it was surprising to see that some had no clue whatsoever. The ones who gave a good definition also acknowledged that this is how their lecturer defined it for them when they were approached for further feedback. A majority of the students were disappointed with the fact that every coursework required them to use critical thinking yet, it was neither defined nor taught in the first instance. To have these expectations from international students without any support or training puts them at a clear disadvantage.

To improve this, finance students should be introduced to key skills required for this degree and for a career in finance early on. This could be done by arranging a weekly session or a mini compulsory course where different written pieces are

shown, and compared and where students are asked to identify the aspects within assessments that have used the critical thinking skillset. This practical approach will help international students understand the course and lecturers' expectations right from the outset. This approach is also in line with research conducted by Pinza-Tapia et al (2021) and Kopotun et al (2020) showing that workshops have a positive impact on students' speaking and critical thinking skills.

Similar to some of the existing research (Jawoniyi, 2014), this research also found lack of English proficiency inhibits students from developing critical thinking skills. The English test for a student visa does not test for skills that are required for assessments and coursework. Sutiani (2021) argues that Implementation of the developed learning model in the teaching and learning activities has proven to be able to improve students' critical thinking skills. Therefore, the entry test should be subject-specific - something that tests students' knowledge before entering the course, especially for PG courses. If students do not pass this, they should be enrolled in the above-mentioned course before starting their degree. This will combine the language support service and skills classes to tackle the challenge of defining and applying critical thinking.

The second research question explored how cultural differences and previous education undertaken (mainly the different learning styles) affect the ability of students to develop critical thinking. Most of the respondents agree that their past learning strategies influence their ability to understand and adapt new skills – especially without them being given sufficient time and training to get up to speed. A majority of the respondents mentioned exams being the only assessment method. These students were writing the coursework, in a foreign language and experiencing the similarity threat for the first time. Those students who completed their first degree in their home country were under more pressure as PG degrees require critical thinking more than within a UG course. Lun (2010) also agrees that “with appropriate adaptation, critical thinking instruction can be beneficial to the intellectual development of students regardless of their cultural backgrounds”.

To help students learn the necessary skills, the academic and support staff needs to understand their students' cultural background and learning skills before they start their degree. This is possible to identify through an initial screening seminar in the induction week. The information should then be released to the lecturers so that they are in a better position to understand and to pre-empt students' frustration when it comes to critical thinking in writing. The second step would be for the lecturers to ensure that classes are interactive and teach students to question themselves by encouraging them to explore every aspect of a case study or question (Tran, 2020).

Finally, there are the challenges international students face when it comes to the support offered by the university to consider. All universities in the UK offer Learning and Development support which involves helping students with their writing. However, the respondents believe that the support is not enough to help



them gain the required skills in Finance degrees, especially for critical thinking. The support staff appear not to be aware or at least responsive to the challenges overseas students face. And most importantly the lack of speciality in finance writing is a major omission within their provision. The support staff only understood that their job was to correct grammatical and spelling errors (Nirro and William (2022). Research by Utomo et al (2023) identifies that the hybrid-based learning model rooted in STEAM principles has been shown to enhance student's ability to acquire information online, fostering the development of their critical thinking skills in the educational process (Ardiansyah & Wasan, 2022). Such Hybrid-based learning empowers students to learn independently through the use of technology, thereby fostering a culture of critical thinking and creativity in the learning process.

Students also claimed that because the support staff are not specifically trained to advise on finance essays they are not pushed to work on critical thinking – something which the lecturer requires. Another problem is that lecturers avoid giving draft feedback and this makes it even more difficult to know whether or not the current state of the essay includes the skills the marker is looking for. It is important to understand that Finance essays are different from generic academic essays. Therefore, Finance essay writing skills vary and are subject-specific. Therefore, it is worth trying to put into place a collaborative mechanism between the Learning and Development Centre and the Finance department that may better promote essay writing performance and skills improvement. Current research also supports the collaborative learning and critical thinking skills development association. Warsaw et al's (2020) findings revealed that CL had a positive and significant impact on learners' critical thinking skills. Another challenge which is mentioned by some of the respondents is a lack of empathy or understanding from the support staff. It is claimed that since the support staff are mostly native English speakers, they do not understand the specific problems students have when it comes to academic writing and critical thinking. General 'learning style analysis before offering support' training should be arranged for these staff members as a matter of good practice.

Fundamentally, all involved parties need to understand that there are complex issues at play here that it's inappropriate to think that international students are both unable to think critically and that language is the only reason behind this.

Previous research focuses on international students' critical thinking skills in pre-sessional courses. This research highlighted the challenges at the degree level in more specialised accounting and finance degrees. In line with previous studies with students, this study provides evidence for the trainability of students' CT skills, but it also shows that the skills and attitudes needed for degree level do not improve automatically.

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