Impact and Reflective: Teaching International Students

BPP Business School

Teaching International Students Scholarship Group

Dean’s Welcome Message

As both Dean of the Business School and the Dean of International Higher Education at BPP University I am delighted to acknowledge the collaboration across our academic community in producing this compendium. International students inspire us every day as we understand their different academic journeys, prior experiences and challenges they may face in adapting to a new culture and new higher education system. As a community we are honoured to play our part in the future of so many young people from different regions of the world and it is incumbent on us to continuously strive to enhance their experience and for us to learn from them.

Our ethos which shapes our thinking towards our international students is ‘Connect First, Educate Second’ - the belief that we need to invest in making everyone feel comfortable and part of BPP before we can expect effective learning can begin. By using our 4-step learning methodology – prepare, apply, collaborate, and consolidate supported by a rich virtual learning environment we can create a structured routine across all modules enabling familiarity and effective skills development with minimal uncertainty.

But beyond institutional systems and structures, the true impact of what we do comes from our faculty and their commitment to ensuring a positive, inclusive, and joyful experience for our students. By creating a space for scholarship and innovation within our context of teaching international students we have been able to foster creativity and thought leadership which in turn drive tangible benefits almost immediately. Our scholarship goes beyond the expected areas of internationalisation and begins to address topical, sector-wide issues with a clear purpose of setting high standards for ourselves and our students. The work in this compendium shows how we are breaking down barriers between our preconceptions of what students want and what works for them, how we are challenging each other to expand our teaching methods in the classroom and online, and how we are embracing what technology is bringing to our work both now and in the future.

Congratulations to Jennifer Park and all participants involved in the Teaching International Students Scholarship Group.

Sarah McIlroy

Dean of the Business School and the Dean of International Higher Education

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Beyond the Unconscious Bias Against International Students: Shifting From ‘It’s them’ to ‘It’s me’

Jennifer Park, Associate Professor, MSc. MBA. SFHEA
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Introduction

Unconscious bias, stereotypes, prejudice, discrimination, racism, privilege, and inequality are some words people are cautious to use or feel uncomfortable using. However, I intend to reflect on myself with some of these words and plan to challenge others with the question: do we have unconscious bias and prejudice against international students?

This article is based on my personal reflections and questions as a person who advocates for international students in UK HE. It is my opinion and suggestion; therefore, you do not need to agree. However, I hope this at least brings an opportunity for reflection.

Issues

Unconscious bias (hidden bias) is the “unconscious attitudes and stereotypes that impact our understanding, actions, and decisions in an oblivious way. Typically, the [hidden] attitude is directed towards a specific social group” (Suveren, 2022, p.415). Even though the term unconscious bias was created in 1995 (Suveren, 2022), it has gained more attention in higher education over the last decade. Particularly in UK HE, because of the attainment gap between ethnic minority students and their white counterparts, racial inequality based on unconscious bias has been the centre of the discussion. As UK HE focuses on ethnic minority, BAME (Black, Asian and Minority Ethnic) students, in some ways, there is still more focus on UK-domicile students, as the distinct experiences of international students are overlooked. As such, what I want to ask here is not about ethnic minority, UK-domicile students, but about international students. What unconscious bias do we have against our international students, and how does it impact on our daily conversation?

Biases are from stereotypes and prejudices (Moule, 2009). As humans, we have read, seen, listened to, and experienced different situations that might have shaped our own stereotypes and prejudices. Because of our individual or group experience towards certain groups of students, we might have unconsciously shaped our own biases against our international students. Unfortunately, this (unconscious) bias might have also impacted on how we describe our international students in daily conversation.

HESA (2023) suggested that the number of international students in UK HE has significantly increased since the UK Government's "International Education Strategy" was announced. However, the increasing number of international students in UK HE has not led UK lecturers to accept our international students as who they are. Even though we recognise international students' diversified cultures, we seem to see these cultures mainly as national cultures. As a result, many of us might not recognise international students' different learning cultures as part of the different (national) cultures. We cannot and should not expect international students' previous learning experiences to be the same as UK students because they differ based on their backgrounds (Haggis, 2006).

Even though we understand it is important to acknowledge the diverse cultural backgrounds of our international students, when it comes to different educational backgrounds, rather than adjust our pedagogic approach for them, we insist they adopt the British pedagogical approach (Ploner, 2017;Lomer and Mittelmeier, 2021;Park, 2023) without realising it can lead to a negative learning experience for international students. When I studied for my Master's degree in the UK for the first time in my life, I was not part of class discussions nor challenged lecturers. It did not mean I did not want to learn. Where I came from, students were not allowed to ask questions nor interrupt the class, as it was considered disrespectful to professors. We were supposed to sit down, listen, and learn. However, as my previous UK lecturers did not understand how other Asian students and I had been educated in our own cultures, they constantly criticised us for non-engagement in discussion, hence a lack of learning. But how did they know we were not learning? Who said students only learn when they are part of discussions or vocal in class? Without being part of class discussions or showing my engagement to lecturers, I still learnt a lot and accomplished more than I planned.

My question here is, when we see quiet (white) UK students in discussion, do we see them the same way we see quiet international students; they are not learning? Or do we consider they might have reasons not to be part of the discussion, for example, personal challenges? Also, if we believe students only learn when they are engaged in discussion or are part of activities, how can we acknowledge different learning styles?

Warwick (2006) identified several issues that international students face in their UK HE experiences, including prejudice. When we have prejudice and deficit attitudes towards international students—see them as problems and challenges— we can be disrespectful towards them, which can demotivate them. According to research on international students, many lecturers describe international students as students with a *lack of critical thinking*, *lack of engagement*, and *lack of academic skills for British education* (Marlina, 2009;Lomer and Mittelmeier, 2021;Park, 2023). Those students are already stereotyped as they do not want to learn and do not like group/collaborative learning (Turner, 2012). According to McKay et al. (2018) and Lomer and Mittelmeier (2021), the words 'lack', 'problems', 'challenges', and 'struggles' are mostly used to describe international students (Park, 2023). But why do we have such a deficit attitude towards international students? Isn't it possible we describe them in such a negative way because of our unconscious bias?

However, as unconscious bias against international students might be subtle, we might not recognise them in ourselves. In my 'Teaching international students training', I emphasise the importance of the language we use, as the language might shape our bias in our minds. One example is 'Simple English' vs. 'Plain English.' Simple is different to plain. Plain English means "clear, straightforward expression… avoids obscurity, inflated vocabulary… *It is not baby talk, nor is it a simplified version of the English language"* (Eagleson, n.d.). However, if we keep referring to simple English or simplified teaching content for international students, in some ways, we might have already stereotyped our international students as students who do not have certain academic abilities to study in UK, HE and unconsciously undermine them.

Another example is academic misconduct. The increasing number of academic misconduct cases, especially with advanced AI programmes, is not only about the context of international students. However, when we discuss academic misconduct cases, why do we try to link international students and the number of academic misconduct cases? Rather than say, 'International students do not understand plagiarism' or 'We have many academic misconduct cases because our students are international students,' have we ever tried to understand why international students struggle to understand the concept of academic misconduct?

A few weeks ago, one of my colleagues told me that she found, in certain cultures, paraphrasing sentences is seen as disrespect to authors. Research on international students' academic integrity suggests international students from certain Asian countries copy other authors' work to show their respect (Hayes and Introna, 2005). Also, students from some non-western countries might not have encountered the words 'plagiarism' or 'academic misconduct' until they started their studies in Western HE, or they may not even have equivalent words to plagiarism in their language (Amsberry, 2009). Some collectivist cultures also see information as something to be shared, therefore it should be owned by the whole society, not only by the author (Mundava and Chaudhuri, 2007). Fatemi and Saito (2020) argued that academic integrity is practised differently in different cultures/countries; hence, having proficient English writing skills is not sufficient for international students to avoid unintentional plagiarism. How ignorant I was to imagine the whole world interprets academic integrity or academic misconduct in the same ways as the UK, and when they do not, consider them as having less academic ability.

I am not suggesting that we disregard academic misconduct when it comes to international students. I agree with educating international students about the importance of academic integrity in UK HE. However, have we ever asked our international students whether they have encountered the same educational practices in their own country, and explained the different practices in UK HE? Have we ever tried to investigate why international students do not understand what academic misconduct means? Or have we already decided to see them as students who do not have the academic ability and plagiarise to cheat?

I admit I was ignorant and had bias against international students until I started to research much about international students in UK HE. For a long time, I admit I have had the same unconscious bias against international students in my classes. The funny thing is, I was one of those international students who endured lecturers' biases against non-white students who could not speak English at the same level as UK domestic students. It's quite ironic, isn't it?

Suggestions

When I was young, in South Korea, we had this nationwide movement: 'It's my fault, not yours.' It was quite a powerful movement as people started to look at themselves first before they blamed others. Maybe it is time for us to shift our approach towards international students as well: from 'it's them' to 'it's me.'

To remove unconscious bias against international students, I suggest several actions we can take:

1. As per Haggis (2006), many of us ask the question 'What is wrong with our international students?'. However, we can ask questions such as, 'What kind of good skills do our international students have?' or 'What is brilliant about our international students?' instead.
2. Rather than 'International students are not engaged in class because they do not want to learn,' how about we ask ourselves 'What aspects of our curriculum or teaching are stopping our international students from being engaged in learning?'
3. Rather than stating, They are international students; therefore, they have lack of academic skills to study in the UK,' how about we ask ourselves, 'How much do we understand their previous learning experience, and what kind of better support can we provide for their learning experience in our class?'

I am not saying I now do not have unconscious biases against international students. However, I am at least trying to remove those biases from myself and reflect every day. How about you?

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Reflections on Teaching Spanish Secondary Students and Indian MSc Students in a UK Educational Context

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Introduction

As a teacher, I have spent many years teaching students in an international context. This has involved either delivering the English curriculum to international students or teaching international students an English-based curriculum in the UK.

Of particular interest to me is the reaction of international students in different settings. Specifically, I will contrast my experiences teaching Spanish secondary school students in an international school delivering the typical English curriculum at Key Stages 3, 4, and 5 with those of delivering an MSc Management programme to students largely drawn from India studying in the UK.

The secondary students attending an international school in Spain were Spanish citizens. During their studies, they largely followed the English curriculum alongside a minimum legal requirement to study the core Spanish curriculum. At the age of sixteen, students could then choose to concentrate on A Levels or the Spanish Baccalaureate, the Spanish pre-university qualification.

As a teacher with considerable experience in the secondary age group, I found that the Spanish students were proactively engaged in their studies. This was demonstrated through active participation in lessons, asking questions, and, on occasion, challenging particular perspectives they were taught.

However, the demonstration of agency by students is not always supported by the Spanish curriculum they may have experienced in a traditional Spanish school. The Spanish curriculum, particularly in History, Geography, Literature, and Spanish language, relies heavily on memorization of dates and facts. The Selectividad (the Spanish university entrance examination) also relies heavily on memory recall.

There is a degree of similarity in the pedagogical approach adopted in the Spanish and Indian state education systems. Nair & Jog (2020) for example, identified the reliance of the Indian education system on memory-based assessments.

In some respects, I assumed that the reliance on rote learning common to both the Spanish and Indian state education systems would result in a similar experience in the classroom. I anticipated that my MSc students would demonstrate a degree of agency similar to that of my Spanish students. However, all too often, my MSc students are passive consumers of education, often reluctant to

engage in discussion or, beyond a few individuals, to answer questions, and they almost never challenge what they are being taught.

My key interest in this paper is to explore potential reasons for the responses of the students.

The Effect of Cultural Differences

Hofstede's Cultural Dimensions suggest that the three countries involved have differing cultures. A brief description of these cultural differences is set out below.

The question I want to address is whether there is a cultural difference between India and Spain that might explain the observed engagement levels of Spanish and Indian students.

An Analysis of the Cultures of India, Spain, and England Using Hofstede's Cultural Dimensions Model

1. Power Distance: India has a relatively high score of 74, demonstrating a strong preference for hierarchy and respect for authority, with great respect for power and privilege. Spain has a lower score of 57, but this is still significantly higher than the UK, which has a score of 35.

2. Individualism: India has a low score of 24, suggesting a strong commitment to the 'group' and an unwillingness to be seen as different. Spain has a significantly higher score of 67, indicating an individualistic society, while the UK has a score of 76, indicating a highly individualistic culture that encourages individualism.

3. Motivation towards Achievement and Success: The UK has a relatively high score of 66, indicating a success-driven culture. India shares a similar score at 56, while Spain has a lower score of 42.

4. Uncertainty Avoidance: India and the UK share similar scores of 40 and 35, respectively, indicating an acceptance of uncertainty. Interestingly, Spain, with a score of 86, shows a low acceptance of uncertainty.

5. Long Term Orientation: India and Spain have similar scores of 51 and 47, indicating they are normative countries that give greater preference to 'fate.' The UK, with a score of 60, suggests a more results-driven culture.

6. Indulgence: India and Spain, with scores of 26 and 44 respectively, are not considered indulgent. They believe their actions are controlled by social norms, and indulgence is viewed as somewhat wrong. The UK, in contrast, with a score of 69, is considered highly indulgent and compulsive.

(The Culture Factor Group, 2024)

The Hofstede analysis demonstrates the cultural differences between the UK, Spain, and India, but it does not explain the differences in my own observations regarding students' willingness to engage. Vizmonte & Ligot (2024) argued that cultural dimensions significantly impact educational achievement. Their study suggests that 55% of the variance in country performance can be attributed to cultural differences. Their research indicates that Long Term Orientation is a positive key indicator for success in PISA scores, while the Power Distance Ratio has a negative impact. The study highlights how cultural differences interact with the educational context.

Morera (2019) also identified the Power Distance Ratio as a key determinant of students' willingness to interact with their teachers. The higher the ratio, the less likely an individual student is to challenge or undermine the teacher (the 'figure of authority'), thereby limiting the likelihood of engagement in the classroom. Secondly, Individualism plays an important role in classroom behaviours. A low score indicates an unwillingness to be different from the cultural group, while a high score indicates a willingness to stand out, answer questions, and be different. Thirdly, a high level of Uncertainty Avoidance indicates an unwillingness to challenge existing ideas. Finally, a high score in Motivation for achievement and success supports displays of academic success, whereas a lower score indicates an unwillingness to be conspicuously successful.

Can Cultural Differences Explain the Willingness of Indian and Spanish Students to Engage in the Classroom?

The work conducted by Vizmonte and Morera suggests that cultural differences may contribute to the differences in students' willingness to engage. India's very high-Power Distance ratio suggests a considerable degree of deference to perceived figures of authority. Spain's ratio is considerably lower, with Morera's interpretation suggesting that this likely translates into a greater willingness to question and, in the context of the UK classroom, engage.

The Individualism score for India is low, while that of Spain is considerably higher. Again, this supports the willingness of individual students to engage in the classroom.

These two factors appear to support the argument that culture plays a significant role in explaining the levels of engagement between the two sets of students. However, Spain has an extremely high level of Uncertainty Avoidance, while India shares a significantly lower score, similar to that of the UK. This suggests that Indian students may be more willing to challenge established ideas. Similarly, India has a Motivation score that is closer to that of the UK than to Spain.

This suggests that Indian students are willing to challenge existing ideas and possess high levels of motivation. Given this, it seems reasonable to expect students to engage—perhaps less willingly initially than my secondary school students, as their natural willingness to challenge ideas and strong motivation come to the fore.

I would argue that cultural factors may contribute to the students' reluctance to engage to the same extent that I observed in my secondary school students. However, this does not fully account for the MSc students' engagement, given the Uncertainty Avoidance and Motivation scores.

Other Factors That May Affect Engagement

The evidence suggests that cultural factors affect students' willingness to engage, but the Cultural Dimensions analysis does not address the similarities that exist between UK and Indian cultures. Given these two cultural similarities, it seems likely that other factors may be affecting MSc student engagement.

a) Prior Learning Experience: Many of my Spanish students had either attended an international school earlier in their academic careers, thereby exposing them to the UK education system for a considerable length of time or were transitioning during formative years when they were more open to new ideas. My Indian students, on the other hand, have only experienced one form of education system and are transitioning at a relatively late stage in their academic careers. The challenge of studying in a new cultural context is significantly higher for them.

b) Time for Adjustment: Secondary school students have a significant amount of time to adjust to a new cultural context. MSc students, however, have limited time to acclimatize, with most students typically studying in a 12-month programme and spending limited time in the classroom. Expecting MSc students to engage at the same level as secondary school students, who may have had two, three, or more years to acclimatize, would be demanding.

c) Confidence in Speaking English: Secondary school students are required to operate in English for much of each school day. MSc students, with a typical eight-hour-a-week lecture schedule, are required to use English less regularly. It is not surprising that an MSc student might feel less confident using English in a classroom environment compared to a secondary school student who uses English five days a week in a range of different contexts.

d) Life Phases: Secondary school students, in their teenage years, are naturally at an age where they may question authority and accumulate educational experiences. Maringe & Jenkins (2015) suggest that the engagement of postgraduate international students is heavily influenced by career pressures and educational experiences.

e) Personal Investment and Career Pressure: MSc students have made a significant investment in their futures and may prioritize grades over engagement.

f) Lack of Cultural Diversity: The monocultural aspects of the two groups may emphasize the cultural characteristics outlined by Hofstede's Cultural Dimensions. In the case of the Spanish secondary school students, the relatively lower respect for authority compared to the MSc students might manifest in students being more willing to challenge the figure of the teacher (the figure of authority), creating a cultural norm within the classroom. Conversely, the MSc students' respect for authority

becomes the prevailing norm, and any student wanting to engage must overcome this peer-induced norm, which for many would be a significant personal challenge.

In conclusion, although cultural dimensions significantly impact student engagement, they are only part of the explanation for the differing behaviours exhibited by the two groups of students. While there may be multiple non-cultural reasons for students' behaviour, time for acclimatization seems to be a major factor. Students, given time, are more likely to adapt to a different cultural educational context. Time would allow MSc students to acclimatize to the UK educational environment. Given that this will, for many, be an unobtainable luxury, the challenge must lie with educators to create a classroom environment that recognizes and addresses the multifaceted factors influencing student engagement.

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Using TACTICS to enhance feedback literacy

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Introduction

Feedback is considered to be one of the most powerful influences on student learning and achievement (Carless and Boud, 2018; Hattie & Timperley, 2007). However, it seems that too often this potential power is not fully harnessed or worse, feedback can even be a source of dissatisfaction for students and tutors alike (Carless and Boud, 2018). BPP University has a robust, research-grounded set of principles underpinning its Feedback practice (the TACTICS framework) and in this think-piece, I will explore how we could use these principles to further enhance our feedback practice, particularly as our assessment and feedback practices evolve.

The power of feedback

The power of feedback stems from its ability to help students close the gap between *where they are* and *where they are aiming to be* (Sadler, 1989).

(Sadler, 1989)

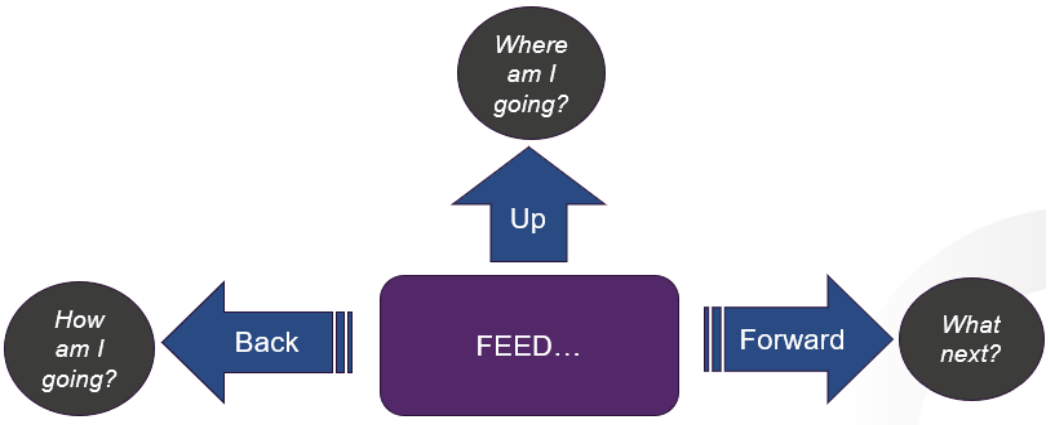
The potential benefit of this to our students in terms of improving their academic outcomes and/or attainment is obvious. However, it is clear from the literature that many HE students and educators think that feedback is not achieving this benefit as well as it might. Student dissatisfaction with feedback can stem from things like getting too little, or too much for it to be usable, or receiving it too late for it to be useful. In turn, we as educators can be dissatisfied when we feel that students do not value or use the feedback that we go to so much trouble and precious time to provide (Molloy, E., Boud, D., and Henderson., 2019)

So how do we make feedback more effective?

Sadler (1989) identified three conditions necessary for students to benefit from feedback in academic tasks. He argued that the student must know i. what good performance is (i.e., must possess a concept of the goal or standard being aimed for); i.e., how current performance relates to good performance (for this, students must be able to compare current and good performance); iii. how to act to close the gap between current and good performance.

Another influential model of effective 'Feedback' (which supports Sadler's conditions above) incorporates the ideas of 'Feed Up, Feed Back and Feed Forward' (Hattie & Timperley, 2007). This model involves answering the following three key questions for a student:

- *Where am I going?* (What are the goals?) – this is Feed Up
- *How am I doing?* (What progress is being made toward the goal?) – this is corrective Feed Back
- *Where to next?* (What activities need to be undertaken to make better progress?) – this is Feed Forward



(Hattie & Timperley, 2007)

In the context of our current assessment practice at BPP Business School, markers have been largely covering the above three questions within their feedback by making linkages to overall Learning Outcomes/Goals (Feed Up); offering corrective comments (Feed Back); and adding recommendations and suggested next steps (Feed Forward). As we evolve to holistic marking by Learning Outcomes and rubric-based feedback, helping students answer these questions on their work will remain important. The automated rubric-based feedback by Learning Outcome will cover Feed Up explicitly, and elements of Feed Back and Feed Forward implicitly, and so it will be particularly important that the individualised feedback comments added on top of this clearly cover Feed Back and Feed Forward so that students understand their key areas to improve, and how they should go about achieving this.

Enhancing feedback literacy

Linked to the above, feedback can be defined as "information provided by an agent (e.g. teacher) regarding aspects of one's performance or understanding" (Hattie & Timperley, 2007, p. 81). However, this definition could suggest a limited (and limiting) one-way process with us, the educators as *providers* and our students as *receivers* of this information. Current notions of the most effective feedback model highlight the centrality of the student's own agency and role in the feedback process, such that feedback is "a *process* through which learners make sense of information from various sources and use it to enhance their work or learning strategies" (Carless and Boud, 2018, p.1316). This concept of feedback as a 'dialogue' with a greater sense of agency placed on the students means that our role as educators is shifting from providers of feedback to facilitators of opportunities for feedback, helping students develop their own "feedback literacy" (Carless & Winstone, 2020, p. 4). A feedback literate student is one who has "the understandings, capacities and dispositions needed to make sense of information and use it to enhance work or learning strategies" (Carless & Boud, 2018,

p. 1316), i.e. they seek out information on their performance, and are able to make sense of it and use it to improve their performance.

Feedback literate students will develop important skills of self-criticism and 'metacognition' of the relative importance of the criteria their work is being assessed against such they can make academic judgements in increasingly sophisticated ways (Carless, 2020) Needless to say, these skills go beyond academia and will also benefit our students in terms of their employability and lifelong learning (Dawson, Carless & Lee, 2020).

The TACTICS framework

The TACTICS framework for Feedback which was developed by BPP University as part of its Assessment and Feedback Policy (BPP University, 2024) is closely linked to Nicol and Macfarlane-Dick's (2006) 'Seven principles of effective feedback' and also incorporates all of the principles discussed above.

As such, all of our assessment marking and moderation teams should be striving for a model of feedback that aligns with the TACTICS principles, notwithstanding of course the challenges we face around balancing the constraints of quality/consistency with student numbers/available time and the importance of linguistic and cultural considerations that we also need to factor in for our primarily international student demographic.

Our successful compliance with the various elements of the TACTICs framework is arguably achieved (if to differential extents) across all of these criteria, which the table below summarises, while also making some suggestions on how we might further enhance our practice in this area, particularly as our marking and feedback practice evolves:

Effective Feedback element:	**How achieved:**	**Continuous Improvement:**
Timing *The student has enough time to act on feedback. Depending on purpose, to be effective, feedback is returned soon after an assessment or assignment and is forward looking.*	All marking and moderation is scheduled so that summative grades and feedback are released through the next possible Board following an assessment date. All formative feedback is released within 4 weeks of the assessment date (in practice usually sooner). Feedback opportunities are also provided throughout the teaching term through in-class activities, and mini-formative quizzes.	Are we maximising students' opportunities to seek out/receive feedback through mini-formative tasks/assessments, and helping them to see feedback as an **ongoing, 2-way process** rather than a 1-way event only following formative and summative assessments? Is there sufficient time allocated to feedback? Can we better encourage and enable students to seek out and use their feedback on formative and summative assessments? Are there opportunities to use more **linked or overlapping assessments** so that students can use feedback to improve performance?
Amount *Select two or three points about a student's assessment evidence for comment, feedback is on important points and comments are on as many strengths as on weaknesses.*	Standardised Business School Feedback guidance requires markers to make 2-3 key actionable points, balanced between strengths and weaknesses depending on the grade achieved.	Are we ensuring a balance of **feedback and feed forward** is included in all Feedback comments? Is there scope to use **in-text comments i**n a more systematic way to supplement the overall feedback comments and rubric-based feedback?

Clear *Feedback should be about the task, processing of the task, and self-regulation. The student is clear about the next steps he/she needs to take to improve.*	Standardised Business School Feedback guided by the Learning Outcome requires markers to make 2-3 key actionable points, on top of the automated rubric-based feedback by Learning Outcome which will include implicit feedback and feedback forward.	Are students given sufficient opportunity to ask questions for clarifications about their feedback in the spirit of feedback being a **2-way process of dialogue**? As above, are we ensuring a balance of feedback and feed forward is included in all overall Feedback comments?
Tone *Supportive and implies the student as agent. Using internal and external feedback mechanisms, the student is stimulated and motivated to become increasingly autonomous (self-regulation, self-management, metacognitive knowledge).*	Business School tutors, markers and moderators are all trained on suitable language to use for our international student demographic. The same tone is used regardless of the quality of the student's submitted work, and the feedback should be personalised (even if using feedback banks etc.) The tone to be used per standardised feedback guidance is constructive and supportive (while still being appropriate and in line with the grade provided). Feedback is presented in such a way that: • the student is able to hear what you intend to convey • shows that you value the student as a person who learns (Brookhart, 2008) • helps the student become an effective self-assessor and self-regulator (managing their own learning)	Linked to the above, are we helping and encouraging our students to develop the skills and behaviours of autonomous learners? Could there be more opportunity to use **oral feedback**, whether individually or in plenary (e.g. giving general feedback in class following the formative?) Are there more opportunities to use **self-assessment, peer assessment with** our students? Linked to this, could we make more use of exemplary and/or **marking exercises** within our teaching to facilitate the development of student feedback literacy?
Informs Teaching *Assessment information can be used by lecturers to shape their teaching.*	Module leaders act as moderators and/or review marker and moderator reports and are able to adapt teaching materials where they think might be beneficial to student assessment performance in this area.	Are there opportunities to improve the frequency/quality of this **feedback loop**? E.g., adapting teaching and learning materials on topics/LOs which students perform less well during assessments?
Constructive *Giving information on how the standards (learning outcomes/assessment criteria) are met or not met, future developments and indicative actions for improvement.*	Feedback comments (including Feed Up, Feed Back and Feed Forward) are made in a constructive manner and focus on the work and the standards against which it is being assessed. If the standards are not met, the feedback is clear about what future developments are and includes **actionable ways students** can understand and work towards the standards they're aiming for.	As above, are we ensuring a balance of **feedback, feed up and feed forward** is included in all overall Feedback comments?
Specific *Pin –pointed*	Feedback is as specific as possible to enhance students' ability to understand and use it. It is linked to the assessment brief/marking criteria/Learning Outcomes rather than being generalised and/or including the marker's own preferences/wishes.	

Conclusion

Feedback, if used as effectively as possible, has huge power to enhance students' performance and attainment. The TACTICS framework which underpins BPP's feedback policy incorporates many of the key principles of effective feedback and is a strong foundation for effective feedback. As the table above demonstrates, it equally provides a good basis to help our students develop more agency over their own learning and assessment, through facilitating the development of their own feedback literacy.

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Creating a “Comprehensive and Effective Feedback Ecosystem”

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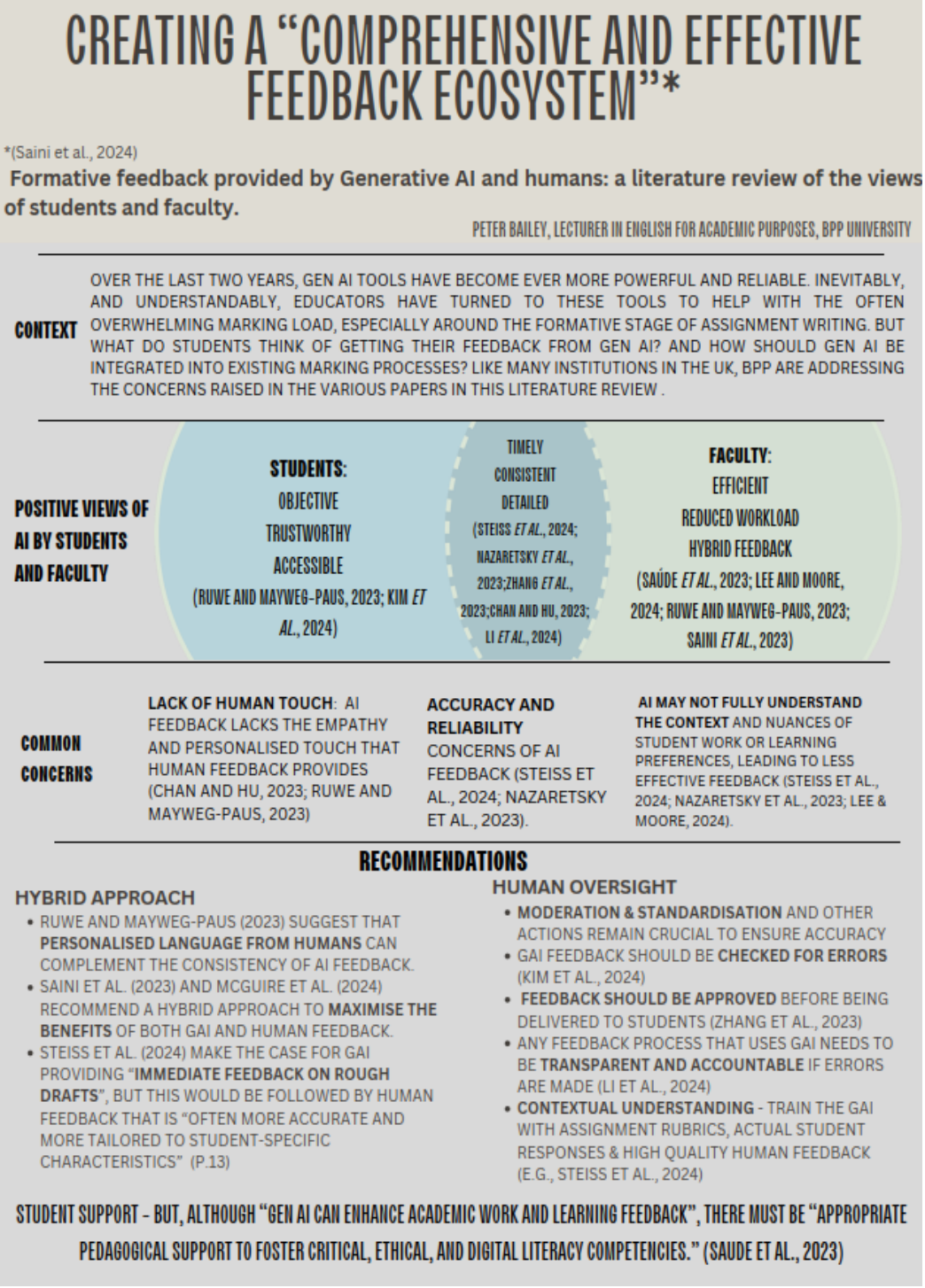

Cognitive Load Theory and Its Application to Teaching International Students in Higher Education

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Introduction

The increasing diversity of students in higher education, particularly international students, has introduced unique challenges and opportunities in teaching and learning. **Cognitive Load Theory (CLT)**, developed by Sweller and colleagues (Sweller et al., 2011), offers a framework for understanding how the mind processes and retains information, particularly in complex learning contexts. CLT is especially relevant in higher education, where students are often required to engage with sophisticated, unfamiliar content. For international students, these challenges are further compounded by **language barriers**, **cultural differences**, and **varied educational backgrounds**, all of which influence cognitive load during the learning process (Chiu et al., 2013; Sweller et al., 2019).

Cognitive load refers to the mental effort required to process information and complete a task. It is divided into three types: **intrinsic**, **extraneous**, and **germane load** (Paas & van Merriënboer, 2003). **Intrinsic load** is often heightened for international students due to the complexity of the subject matter and unfamiliarity with the language of instruction. Simultaneously, **extraneous load** increases as students navigate differing pedagogical approaches and learning environments (Kalyuga, 2011). When cognitive resources are overly taxed by these two types of loads, **germane load**, which is devoted to processing and understanding material, is diminished. This makes learning more challenging.

In higher education, effective **instructional design** plays a key role in managing cognitive load, particularly for international students. This literature review explores the application of CLT in higher education, with a focus on teaching international students. By examining **language barriers**, **cultural factors**, **gender**, and **age**, this review provides insights into how instructional practices can be adapted to enhance learning outcomes for this diverse group of students (Mayer & Moreno, 2003; Sweller et al., 2019).

Cognitive Load Theory in Higher Education: The Context of International Students

Cognitive Load Theory (CLT) offers a valuable framework for understanding the unique challenges faced by international students in higher education. CLT categorises cognitive load into three types: **intrinsic**, **extraneous**, and **germane** (Sweller et al., 2011). Each of these presents particular challenges for international students, who often deal with **language barriers**, **cultural differences**, and **varied educational expectations**.

Intrinsic load is related to the inherent complexity of the subject matter. For international students, intrinsic load is often amplified by unfamiliarity with the academic content presented in a second or third language (Paas & van Merriënboer, 2020). This language barrier not only complicates comprehension but also intensifies the cognitive effort required to process new and often complex information. For example, a student might struggle to grasp advanced accounting concepts while simultaneously translating the material, leading to cognitive overload. To mitigate this, educators can break down complex information into **smaller, more manageable units**. This process, often referred to as "chunking," is particularly effective for reducing intrinsic load in students who are still grappling with language comprehension. By dividing larger concepts into digestible pieces, students can engage more fully with the material without overwhelming their working memory.

Extraneous load, unlike intrinsic load, arises from the way information is presented, rather than the complexity of the content itself. Poor instructional design—such as disorganised slides, excessive textual information, or unclear instructions—can exacerbate extraneous load, especially for international students. This group often faces additional obstacles, including unfamiliar teaching methods and unclear communication due to language differences (Sweller et al., 2019). For instance, international students accustomed to teacher-centred instruction may find it difficult to adjust to **student-centred**, **inquiry-based learning environments**. This shift in pedagogical styles can create an additional cognitive burden, diverting attention from the content to understanding how to engage with the learning process. To reduce extraneous load, educators should focus on providing **clear, structured instructional materials** and employing **multimedia resources** that aid comprehension (Van Merriënboer & Sweller, 2010). **Visual aids**, **well-organised slides**, and **step-by-step instructions** are particularly beneficial for international students as they help clarify complex material while minimising cognitive strain.

Germane load is the cognitive effort directed towards **schema construction**, which is essential for deep learning. Enhancing germane load involves designing learning environments that encourage understanding, retention, and the integration of new information into existing knowledge structures. For international students, germane load can be enhanced through instructional materials that are **culturally responsive** and **accessible** (Paas & van Merriënboer, 2020). Activities such as **scaffolded learning**, **group discussions**, and **problem-solving tasks** promote deeper engagement with the material (Sweller et al., 2011). However, language proficiency and cultural differences can

hinder schema construction, making it crucial for educators to provide **additional support**. Offering **culturally relevant examples** and giving extra time for language processing can help students engage meaningfully with academic content.

Technology-enhanced learning tools can also support cognitive load management. Multimedia platforms, virtual simulations, and online assessments can reduce both **intrinsic** and **extraneous load** by providing interactive, engaging experiences that enhance comprehension (Mayer & Moreno, 2003). These tools can be especially beneficial for international students, as they allow learners to revisit content, practice problem-solving, and work through material at their own pace.

International students often experience heightened cognitive load due to **language proficiency** and **cultural differences**. For example, students studying in English—their second or third language—must allocate cognitive resources to translate and comprehend academic content, which often leads to **cognitive overload** (Chiu et al., 2013). Furthermore, **cultural differences in learning preferences** can exacerbate cognitive load. Students from educational systems that emphasise **rote memorisation** may find it difficult to adapt to **discussion-based** approaches common in Western universities (Sweller et al., 2019). These shifts in pedagogical expectations create additional burdens, as students must navigate unfamiliar learning methods while simultaneously processing complex information. Instructional strategies that are sensitive to these cultural differences can alleviate some of these challenges, enabling international students to achieve better academic outcomes.

The Influence of Gender, Age, and Emotional Factors on Cognitive Load in Higher Education

Gender, age, and **emotional factors** also significantly influence the cognitive load experienced by international students in higher education. These demographic and emotional factors intersect with CLT, shaping how learners manage cognitive resources and process information in academic settings.

Gender-related differences in cognitive load are often influenced by cultural and societal expectations. Female students from **patriarchal societies** may face additional cognitive burdens, particularly in fields like **science, technology, engineering, and mathematics (STEM)**, where male participation has historically been higher (Seufert & Brünken, 2020). These students may experience increased **extraneous load** as they navigate **societal pressures** to succeed while also managing the stereotypes and biases that exist within these academic environments. This added cognitive strain can lead to higher stress levels, which, in turn, reduces students' ability to fully engage with complex material (Kalyuga, 2011). Gender-related challenges highlight the need for instructional strategies that support **gender equity** and reduce unnecessary cognitive load, helping to create a more balanced and inclusive learning environment.

Age is another critical factor affecting cognitive load, particularly for older international students who return to education after an extended break. These students often juggle academic responsibilities alongside work and family commitments, which can significantly deplete cognitive resources (Seufert & Brünken, 2020). Managing these dual roles can lead to **heightened intrinsic load**, especially when mature students face complex academic tasks alongside their personal obligations. Moreover, older students may struggle to adapt to **new technologies** or **modern learning approaches** that the younger students may be more familiar with, further increasing cognitive load. However, younger students may still face emotional and motivational challenges, such as anxiety and lack of confidence, which affect their cognitive performance (Ramirez & Beilock, 2011).

Emotional and motivational factors also play a pivotal role in shaping cognitive load. Emotions such as **anxiety**, **stress**, and **isolation** can significantly impair a learner's cognitive capacity, particularly for international students who may experience **cultural displacement** and the pressure of adapting to a new academic environment. Anxiety can overwhelm working memory, limiting the cognitive resources available for processing academic content (Ramirez & Beilock, 2011). This increase in **extraneous load** prevents students from engaging in deep learning and developing the necessary cognitive schemas for understanding complex material (Um et al., 2012).

The impact of stress, particularly in **high-stakes academic situations** such as exams, further exacerbates cognitive load. International students often experience heightened stress due to **academic expectations**, as well as familial and financial pressures, which can manifest as test anxiety (Ramirez & Beilock, 2011). In these situations, students may focus more on the fear of failure than on the academic task itself, leading to cognitive overload and diminished performance. **Test anxiety**, which diverts cognitive resources from the task at hand, limits students' ability to recall and apply knowledge effectively during assessments (Um et al., 2012). This highlights the need for stress-reduction strategies that can alleviate cognitive load, such as **mindfulness** or **stress management workshops**, especially for international students dealing with unfamiliar educational systems (Um et al., 2012).

By understanding the **intersection of gender**, **age**, and **emotional factors** with cognitive load, educators can design more inclusive strategies that support a wider range of students. For instance, educators can incorporate **scaffolded learning approaches**, which gradually introduce more difficult content while providing additional support for those struggling with cognitive load due to emotional or demographic pressures. Strategies that recognise **gender** and **age-specific challenges**—such as using more representative examples and providing varied feedback formats—can reduce unnecessary cognitive burdens and help create more **equitable learning environments**.

Future Directions and Gaps in Cognitive Load Theory

The educational landscape is being transformed by **technology-enhanced learning tools**, which offer promising solutions for managing cognitive load. Tools such as **Virtual Reality (VR)**, **multimedia platforms**, and **adaptive learning systems** have the potential to optimise learning

experiences by presenting information in a more interactive and immersive format, thus reducing extraneous load (Chen et al., 2022). For instance, VR allows students to engage complex tasks in controlled, distraction-free environments, making it easier to absorb intricate material. This is especially relevant for international students who may struggle with understanding abstract concepts due to language barriers.

Adaptive learning systems further refine cognitive load management by offering personalised learning experiences. These systems track students' progress and adjust the difficulty of tasks based on real-time feedback, ensuring that intrinsic load remains at an appropriate level without overwhelming learners (Sweller et al., 2019). By tailoring content to students' individual needs, adaptive tools not only enhance **germane load** but also facilitate deep learning and schema construction (Mayer & Moreno, 2007).

Despite the potential of these tools, several **gaps remain in the literature**, particularly regarding their application to international students. Most existing research on CLT focuses on general learning populations and overlooks the specific needs of international students, who often face additional challenges such as **language barriers**, **cultural adaptation**, and **emotional stress** (Chiu et al., 2013). While adaptive learning tools can adjust task difficulty, there is limited research on how these systems can be adapted to address the **linguistic and cultural diversity** of international learners (Sweller et al., 2019). For instance, tools that offer **multilingual support**, culturally relevant examples, and customisable interfaces could significantly reduce cognitive overload for international students, enabling them to focus on the content rather than the format of delivery.

Another critical area for future exploration is the use of **artificial intelligence (AI)** to support **international students with learning needs**, such as dyslexia or ADHD. These students often face additional cognitive challenges, struggling to manage intrinsic and extraneous load due to difficulties in processing information. AI can provide **personalised learning solutions** that adapt to individual learning needs, offering customised feedback, simplified content, and multimodal resources that cater to different learning styles. For example, AI-driven platforms can include **text-to-speech options**, **adjusted task complexity**, or **additional scaffolding** to support comprehension, thus reducing extraneous load (Chen et al., 2023; Herm, 2023). Such tools also have the potential to offer real-time feedback and progress monitoring, helping international students with cognitive or linguistic challenges work through material at their own pace and reduce cognitive strain.

Furthermore, **emotional, and motivational factors** must be considered in future research, particularly for international students who experience heightened stress during high-stakes assessments (Ramirez & Beilock, 2011). AI tools that incorporate features like **stress management** or **peer support** networks could help reduce the emotional burden on students, fostering a more inclusive and supportive learning environment. These tools may help alleviate **extraneous cognitive load** by addressing emotional challenges, thus freeing cognitive resources for learning (Um et al., 2012).

In addition to linguistic and cultural challenges, international students face significant cognitive burdens due to emotional stress, societal pressures, and demographic factors such as age and gender. These issues can heighten both extraneous and intrinsic load, further complicating the learning process. However, emerging technological solutions, such as AI-driven adaptive learning systems and immersive multimedia platforms, offer promising ways to manage these cognitive demands. By focusing on these areas of research, educators and developers of **technology-enhanced learning tools** can create more **inclusive** and **cognitively supportive environments** that cater to the diverse needs of international students, particularly those with **learning disabilities** or **emotional challenges**. Addressing these gaps will lead to more equitable and effective learning outcomes for students from varied cultural and educational backgrounds.

Conclusion

Cognitive Load Theory (CLT) provides an essential framework for understanding how students process and retain information, particularly in the complex environments of higher education. For international students, CLT is especially relevant as it highlights the challenges associated with **language barriers**, **cultural differences**, and **unique emotional and motivational factors**. By examining the three types of cognitive load—**intrinsic**, **extraneous**, and **germane**—educators can develop instructional strategies that optimise learning, reduce unnecessary cognitive strain, and promote deeper understanding (Sweller et al., 2011; Paas & van Merriënboer, 2020).

The additional influences of **gender and age** on cognitive load further underscore the importance of **tailored instructional approaches**. Female students, particularly from patriarchal societies, may experience increased cognitive burdens due to societal pressures, while older international students often face the challenge of balancing academic work with other responsibilities (Seufert & Brünken, 2024). Strategies such as reducing extraneous load and providing **scaffolding** are crucial in supporting these learners.

The emotional and motivational aspects of learning are integral to managing cognitive load effectively. Anxiety, stress, and cultural adaptation can overwhelm students' working memory, impeding their ability to engage with and absorb new material (Ramirez & Beilock, 2011; Um et al., 2012). Addressing these emotional factors through **supportive instructional strategies** is essential to improving the learning experience of international students.

Finally, as **technology-enhanced learning tools** continue to develop, there are promising opportunities for optimising cognitive load management. However, further research is necessary to adapt these tools to **culturally diverse** and **linguistically varied** student populations (Chen et al., 2022; Sweller et al., 2019). By addressing the specific needs of international learners, educators can create more inclusive learning environments that foster success for all students, regardless of their cultural or linguistic backgrounds.

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A review of Instructional design principles and its effectiveness for inclusive teaching from international students perspective

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Introduction:

Instructional design is a critical aspect of the learning experience as it facilitates the dissemination of knowledge. Instructional design (ID) is the systematic approach to create learning materials, activities, and teaching practice based on learning theories (Hart, 2020). ID can help improve the teaching and learning process, which can lead to higher student satisfaction and faculty development.

Despite the variety of ID theory available, engaging a diverse learner population, particularly international students who face unique challenges such as language barriers and cultural differences, remains a significant challenge. In 2017/18, the number of new overseas entrants to UK universities was just around 469,160, increases in the last four years saw overseas entrants numbers reach a new high of 679,970 in 2021/22 (Shearing, 2024). The increasing number of international students at UK universities highlights the need for further investigation into how IDs can be applied to engage and improve learning outcomes for international students. This paper aims to critically review various instructional design frameworks, including Merrill's Principles of Instruction, Mayer's Multimedia Principles, and Universal Design for Learning (UDL), to explore how these can be applied to optimise learning experiences for international students in UK universities. The structure of the paper is as follows; first, an overview of some of the challenges faced by international students, then a review of the IDs mentioned above and recommendations.

Challenges faced by international students

International students face a number of challenges studying in the UK such as language barrier, domestic responsibility, different educational norms, cultural differences, and varying levels of familiarity with instructional technologies (Astley, 2024). While there have been studies that recognise cultural differences and promote inclusion and integration, there has not been a lot of focus on how instructional design can effectively support effective engagement of international students. With the growing number of international students in the UK (Bolton et al, 2024), institutions must recognise not just the cultural difference but also the neurodiversity of students. Neurodiversity is important to be recognised in the context of international students as there is less research on the experience of neurodivergent people from the BAME community (Autism, 2024). There is also an unwillingness to disclose within these communities to avoid stigma (Kaur, 2024). Nonetheless, lack of support for neurodiverse students negatively impacts students' learning experience in higher Education (Gurbuz, 2018).

An effective instruction is one that motivates students to acquire specific objectives such as skills, knowledge, and attitudes (Isman, 2011). However, the traditional ID in many western Universities fail to address the needs of international students such that it is not structured to bridge the language, socio-cultural and previous experience gap of international students (Ecochard & Fotheringham,

2017). Findings from quantitative research showed that faculty to believe that academic support for international student is the responsibility of the institution and not the content-area instructors (Agostinelli, 2021). This disconnect limits opportunities for integrating ID principles that could bridge these gaps. Furthermore, there is significant skills deficits in areas like ICT in education for international students (Price, 2016) as well as employability skills such as critical thinking skills and communication globally (UNICEF, 2022). Therefore, In the light of these issues, there is a need to adapt ID principles to support teaching and learning in a way that effectively caters to diverse international students without the need for re-adaptation or disclosure from students.

Review of ID

This section of the article will review three ID frameworks Merrill's first principles, Mayer's multimedia principle and universal design for learning.

Merrill's first principles (MFP)

Merrill's principles are principles identified and collected from instructional design theories. The premise of his work is that these sets of principles identified can be found in most ID theories and models although the terms used to state them might differ. The five principles are problem centric, activation of prior experience, demonstration of skills, application of skills, and integration of these skills into real-world activities (Merrill, 2002). The table below shows a brief explanation of all five principles (Merrill, 2002).

Table 1: Merrill's first principles

Problem centric	Research from cognitive theory shows that learning is promoted when learners engage in solving real problems. contextual learning leads to better transfer of knowledge and skills to practical.
Activation	Learning is facilitated when the first activity in a learning cycle activates relevant prior knowledge. Learners are directed to recall, relate, direct, or apply relevant knowledge from previous experience.
Demonstration	Demonstrations help learners visualise the application of concepts and understand the processes involved, making it easier for them to grasp complex ideas. Merrill suggests it is better to show rather than tell the learners. Demonstration is facilitated by the use of examples and non-examples, mapped out structures, guidance, and visual aids.
Application	Learners apply what they have learned in meaningful contexts. This stage is crucial to reinforcing knowledge and enabling skills transfer. Merrill suggests that practice should be consistent with instruction goals, diminishing support provided, problems should be varied, and it should be followed by corrective feedback based on specific criterion.
Integration	Learners integrate their new knowledge with existing cognitive structures. Learners may be encouraged to reflect on or summarise what they have learned and examine how it relates to their prior knowledge.

Source: created by author

MFP has been applied by a number of scholars with generally positive results. In a study by Badali et al (2020), MFPs were used as a framework to implement active learning strategy in a MOOC. MFPs were applied to the intervention group while the control group studied the same material but without reinforcing MFP. Pre and post tests were used to assess the effectiveness of MFP.

It was found that although similar learning environments were used for both the intervention and control group, incorporating Merrill's principles not only enhanced learning outcomes but also positively influenced participants' satisfaction levels. This study is consistent with Gardener (2011) findings who utilised MFP as a framework for applying active learning strategies to a science-based module found students who received instruction based on MFP group performed better in the “remember” and “understand” levels of learning and showed significant improvement in their problem-solving abilities compared to those who received traditional instruction. Furthermore, students who received MFP indicated higher positive experience of the module particularly due to its problem-centred approach. Although both studies did not specifically involve international students as participants, MFP can still serve as a valuable framework to implement active learning strategies in a way that engages international students. Problem-centred principle and activation principles for instance recognises the importance of the context of the learners, drawing on prior knowledge and real-world knowledge experiences to make learning relatable and engaging. By demonstrating learning in ways that honour diverse cultural perspectives and recognise language barriers, MFP can effectively support the unique needs of international students.

Mayer's 12 Multimedia principles

In this digital age, a significant number of higher education institutions use some form of Multimedia for instructions for both online and face-to-face classes. This could be teaching slides, video, simulations etc. Mayer (2002) defines multimedia learning as the process whereby learners build mental representations from words and images presented together. This includes book-based environments, computer-based environments, game environments, among others. The principles are based on three assumptions.

Dual channel: When designed effectively, information presented through visual and audio format can enhance learning. It is based on the cognitive theory that the human brain has separate channels for processing visual and audio information.

Limited capacity: Humans have a limited capacity for processing information in each channel at one time.

Active Processing: Active rather than passive processing is essential for constructing meaningful understanding from multimedia presentations. This is where learners select, organise, and integrate information with existing knowledge into long term memory.

Table 2: Mayer's 12 Multimedia principles

Multimedia effect	Learners perform better when they receive explanations in both words and pictures rather than in words alone.
Spatial Contiguity Effect	Learning is improved when corresponding words and pictures are presented close together rather than far apart.
Temporal Contiguity Effect	This principle emphasises that narration and animation should be presented simultaneously rather than successively. The underlying idea is meaningful learning occurs when verbal and pictorial information are processed together in working memory as it facilitates integration
Coherence Effect	Learning is hindered when extraneous information is included in multimedia presentations. This principle is grounded in the idea that irrelevant information can distract learners and overload their cognitive capacity, impeding the learning process.
Modality Effect	Learning is more effective when words are spoken rather than written, particularly when paired with visuals. This approach leverages both auditory and visual channels, reducing cognitive overload and enhancing processing capacity, as visuals and written text both initially engage visual working memory.
Redundancy Effect	Learning is less effective when the same information is presented in both visual and verbal formats simultaneously. Presenting redundant information can lead to cognitive overload, as learners may struggle to process the same content through multiple channels.
Personalisation Effect	Multimedia presentations should be designed in a conversational style rather than a formal style.
Voice Effect	Narration should be delivered in a human voice rather than a machine-generated voice. The idea is that a human voice can create a more relatable and engaging learning experience, fostering a connection with the material.
Interactivity Effect	Learning is enhanced when learners can interact with the multimedia content, such as through quizzes or simulations. The active processing assumption posits that engagement through interaction promotes deeper cognitive processing and understanding.
Pre-training effect	This principle highlights the importance of prior knowledge in reducing cognitive load. Cognitive theory suggests learners first build component models before developing causal models. Without familiarity, learners face a heavy cognitive load trying to grasp both simultaneously. Pretraining eases this burden by allowing learners to focus on causal relationships without also needing to learn the components.
Signalling Effect	The signalling principle posits that learners can achieve better understanding and retention of information when multimedia presentations include structured cues, such as outlines, headings, and connecting words. Signalling aids cognitive processing by helping learners select relevant information and organise it into a coherent structure, thereby improving transfer performance.

Source: created by author

Issa et al. (2011) applied several MMP principles, including the Redundancy Principle, Spatial Contiguity Principle, Coherence Principle, and Personalization Principle, during a 50-minute lecture for third-year medical students. The study revealed no significant differences with Spatial Contiguity, Coherence, or Personalization Principles, but found a notable impact with the Redundancy Principle.

In contrast, Ayub et al.(2018) study focused on how MMP principles are perceived by Malaysian learners studying Japanese, in a mobile learning environment. This study explored five MMP principles: the Multimedia Effect, Spatial Contiguity Principle, Temporal Contiguity Principle, Coherence Principle, and Modality Principle. Interestingly, the Redundancy and Personalisation Principles were deemed inapplicable for mobile-based Japanese language learning, whereas the Multimedia Principle, Spatial and Temporal Contiguity Principles, Coherence Principle, and Modality Principle were considered effective by the respondents.

The differences in results suggest that the Multimedia Principle (MMP) should be applied with careful consideration of the context. It is crucial to determine which principles are most relevant based on the specific instructional environment. MMP can be particularly beneficial in designing instruction for international students, who often face language barriers. For instance, Pre-training can help these students decode complex themes before engaging in classroom activities. Additionally, using human voice and conversational speech in digital materials can make learning more relatable for them (Chew, 2014). Incorporating multimedia that includes clear cues and labels, while excluding extraneous materials, can further reduce cognitive load and enhance student engagement.

Universal Design Learning

Universal Design for Learning (UDL) is grounded in neuroscience research on how the brain learns, aiming to optimise learning for all students (CAST, 2024). Although Universal Design originated in architecture, its principles extend to various domains, including education (Washington.edu). UDL emphasises accessibility, usability, and inclusion, defining the design of teaching and learning environments as being usable by all people, without requiring adaptation or specialised design (Washington.edu). As higher education serves a diverse student body, UDL offers valuable guidance for creating educational products and environments that support students from varied backgrounds and needs without needing constant adjustments.

The Centre for Applied Special Technology (CAST) developed three core UDL principles to guide teaching practices and curriculum design. Recent updates to these guidelines emphasise the importance of recognizing learners' identities, addressing biases, and incorporating cultural and linguistic practices.

Multiple Means of Engagement: This principle encourages curricula that foster joy and playfulness in learning, nurture students' interests and identities, and promote empathy and belonging.

Multiple Means of Representation: UDL guidelines here advocate for curricula that support diverse ways of making meaning, ensuring authentic representation of different identities and perspectives.

Multiple Means of Action and Expression: This principle focuses on allowing learners to demonstrate their knowledge in various ways. It promotes the creation of curricula that value different forms of communication and strive to build more accessible, inclusive learning environments (CAST, 2024).

UDL principles can enhance students' learning experiences and minimise educational barriers. They are particularly effective in designing accessible curricula and promoting social inclusion, especially for students with disabilities. UDL proposes an alternative to the bolt-on approach of supporting diversity in that it reduces the need for students to self-advocate or disclose.

It creates an inclusive and supportive learning environments for all students through:

- Flexibility in how students engage with learning materials and demonstrate their understanding.
- Presenting information in various formats to support so that students can access content in ways that suit their learning styles.
- Authentically representing a diversity of identities, perspectives, and narratives scaffolding student engagement by providing autonomy, varying challenge levels, and creating a safe learning environment (Hamilton and Petty, 2023).

The demography of international students varies across institutions, but UDL can potentially support inclusive curriculum and instruction design. A systematic review of empirical studies from 2015 to 2021 supports the notion that Universal Design for Learning (UDL) principles foster more inclusive and effective learning environments (Almeqdad, 2023). However, the review recommends inclusive practices, widespread adoption, and training for educators and policymakers to support UDL implementation.

A study at the Wisconsin Technical College System (WTCS) examined UDL implementation among pre-trained faculty and staff. Findings indicated that UDL principles were most frequently applied in online course delivery, followed by course design, and least often in course development (Chakpo, 2013). This suggests that while UDL is being integrated, there is still room for improvement in the initial stages of course creation. The study concluded that effective UDL implementation requires institutional commitment to supporting instructor development.

Another study assessed the impact of UDL training on teaching practices. Instructors who received UDL training showed significant improvements in engaging students and creating inclusive classrooms, as evidenced by pre- and post-intervention questionnaires completed by psychology students. The intervention group reported a more substantial shift in their perceptions of instructor effectiveness and engagement strategies compared to the control group (Davies et al. 2013).

Overall, UDL is recognised as an effective approach in teaching and learning in the context of international students, but its success hinges on strong institutional commitment.

Integrating Instructional Design

This section focuses on examining how elements of the various ID theories can interact with each other in designing effective instructions for international students.

Merrill's First Principles emphasises problem-centred learning through the activation of prior knowledge, demonstration, application, and integration of skills. The **Activation Principle** (MFP) can be supported by **Representation** (UDL) to authentically connect students with their prior knowledge. The **Pre-training Principle** (MMP) suggests that familiarising students with content beforehand, especially with support for language barriers, lays a strong foundation for engagement. Pre-training principles can be supported by **Engagement** (UDL) to allow multiple ways for students to perceive learning materials.

The **Demonstration Principle** (MFP) should employ **Multimedia Formats** (MMP) to enhance understanding and retention. Integrating interactive elements in pre- or post-session materials (activation/pre-training) aligns with UDL's advocacy for autonomy and student-centred learning, offering multiple ways to customise information display and perception.

When new knowledge is demonstrated, the **Signalling Principle** (MMP) should be applied to help students organise information coherently. Accessible materials should incorporate diverse ways of knowing and meaning making, with summaries, highlighted key points, and assistive technology to

optimise access. Providing guidance on utilising these features further enhances accessibility. Active learning strategies such as group reflection, gamification, storytelling which aligns **Engagement principle** (UDL) should be applied to motivate and sustain effort in the classroom.

The **Application Principle** (Merrill) encourages learners to express new knowledge through various means of action and expression (UDL), using tools that foster creativity and inclusion. Action-oriented feedback should be provided to enhance engagement, catering to different learning styles and reducing cognitive load. Finally, centring learning around authentic, real-world problems and relevant objectives helps students connect key concepts to the larger course goals, enhancing their appreciation of the material's value.

The table below demonstrates how MFP, MMP and UDL can be integrated for activities before the session, during the session and post session. The table is not exhaustive but suggest practical examples of how ID can be integrated to enhance international students' classroom experience.

Table 3: integrating instructional design principles.

Pre-session	**Instruction and practice**.	**Transfer and assessment (post-session)**.
Demonstrate relevance of the subject by providing a preview of the key problems and solutions. For example, a video with a transcript. Follow this with a brief quiz to activate prior knowledge, and provide links for deeper exploration, enhancing student autonomy.	Use multimedia presentations, such as annotated videos or interactive diagrams, to demonstrate problem-solving processes. Highlight key points and embed questions within the media for interactivity and deeper learning.	Incorporate digital technology to support audio or video feedback, which not only provide conversation-style feedback but also model effective communication skills.
Trigger interest by presenting relevant but relatable facts/statistics using multimedia around the topic. Incorporate assistive technology such as text-to-speech, Alt text.	Incorporate digital tools such as polls, texts, oral discussion to provide multiple ways for students to demonstrate their understanding.	Allow students multiple means to present their reflection on the topic.

Source: Created by author

Conclusion

As higher education continues to globalise, the ability to design instruction that is accessible, engaging, and effective for diverse student populations will become increasingly vital. This article evaluated the effectiveness of three instructional design principles – Merrill's first principle (MFP), Mayer's multimedia principle (MMP) and Universal design for learning (UDL) and their potential to address the challenges faced by international students in UK higher education.

The literature review emphasised that these frameworks, individually and collectively, provide significant opportunities to reduce barriers for international students, fostering more inclusive and effective learning environments.

One key finding is the synergy observed among these three frameworks, where elements from one can complement and enhance another. For example, the activation element of MFP can be enhanced by representation from UDL and signalling effect from MMP creating a more responsive and effective approach to engaging diverse international students. This synthesis underscores the importance of leveraging these frameworks to develop flexible, culturally responsive instructional strategies that meet the needs of all learners. It is crucial to emphasise that effective implementation of these strategies requires institutional commitment, professional development for educators, and a willingness to adapt and refine teaching approaches. Future research should focus on testing and evaluating the long-term impact of these integrated instructional design approaches on international students' academic performance, engagement, and overall educational experience.

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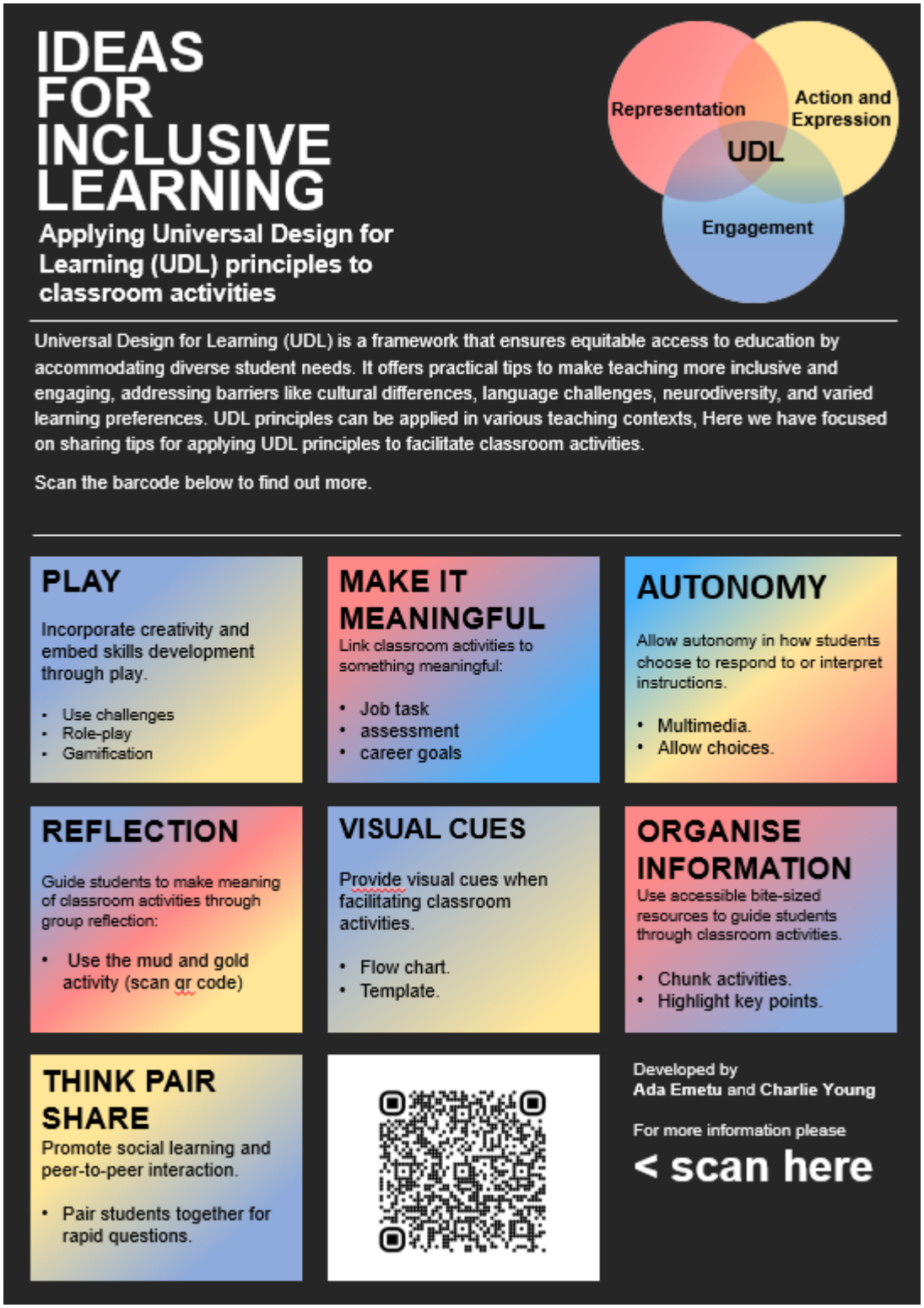
Ideas For Inclusive Learning

Charlie Young, *Award Leader for the Master's in Digital Marketing*
and Ada Emetu, *Business School Faculty Member*



Teaching Data Analytics to International Students

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Author Biographies

Jennifer Park (MSc, MBA, SFHEA) is an Associate Professor in Educational Practice, Associate Dean (Training and Development) at BPP Business School. She has worked for BPP Business School since 2012 and has taken various roles in different academic areas. She is also pursuing her PhD in Higher Education at the University of Surrey. Drawing on her own experiences as an international student, her research interests are grounded in improving pedagogy and curriculum for international students. Other research interests include inclusive teaching, decolonisation of curriculum, unconscious bias against international students and sociology in Education.

Paul Fear is a dedicated lecturer and Award Leader for the MSc Management programme at BPP University. He is a member of the Teaching International Students Interest Group which shares best practice and research with other colleagues within BPP. With a rich background in education and leadership, Paul previously served as the CEO of the British Accreditation Council for Independent Further and Higher Education for nearly five years. Before that, he was a school principal in London and Norway, bringing extensive teaching experience from both the UK and international settings.

Alastair Murray (SFHEA) is an Award Leader for two postgraduate accounting programmes at BPP University: the MSc Accounting and Finance (which comprises an ACCA stream and a non-ACCA stream including sustainability and cloud/AI technology), and the Graduate Diploma in Accounting (an ACA-aligned programme run in collaboration with KPMG). He is a chartered accountant, having trained with Deloitte before working in a range of finance roles in industry, including finance transformation and training, which led him to discover his passion for teaching and learning, and into a career in higher education. He is a Fellow of the HEA and is a member of BPP University's scholarship group, with special interest in the areas of assessment and feedback, student engagement and technology in education.

Peter Bailey is an EAP lecturer specialising in Academic English and teaches on in-sessional courses in BPP Business School. With an MA in Applied Linguistics and English Language Teaching from King's College London, a Diploma in English Language Teaching to Adults, and a BA (Hons) in Literature and Philosophy, Peter is also a Fellow of the Higher Education Academy. With nearly thirty years of teaching experience, he has taught Business and General English, and IELTS preparation in the UK and abroad. His current research interests include the CEM model and the role of Gen AI in supporting students' learning.

Shilpa Pulapaka (SFHEA), a Lecturer and Module Leader at BPP University, teaches on the BSc and MSc programmes. With over 15 years of experience in teaching international students across India, Australia, and the UK, Shilpa is passionate about enhancing teaching strategies rooted in up-to-date research. Currently pursuing a second Master's in Educational Neuroscience offered jointly by UCL and Birkbeck, she is dedicated to deepening her understanding of pedagogical science and aspires to pursue a PhD in a related field.

Ada Emetu (FHEA) is a faculty member in the Business School, specificalising in accounting and business. Since joining in January 2023, Ada has taught a variety of BSc and MSc modules. Passionate about inclusivity in education and leveraging technology to promote inclusion and enhance student experience, she has actively contributed to discussions on using technology as a tool to promote diversity, delivering presentations and research insights in this area.
With a forward-thinking approach, Ada continuously seeks innovative methods to bridge learning gaps, ensuring every student benefits from an equitable and dynamic learning environment.

Charlie Young is the Award Leader for the Master's in Digital Marketing at BPP Business School, UK, he lectures on Digital Marketing, Customer Experience Strategy, and Global Strategy. With a background in psychology and business, he has nearly two decades of industry experience, driving digital transformation and business growth for companies in Southeast Asia where he led digital initiatives for clients in a variety of industries. Now based back in London, Charlie is passionate about shaping learners' journeys, focusing on inclusive learning, psychological safety, and enhancing the student learning experience. He has been recognized for his commitment to student-cantered teaching.

Tasmia H. Chowdhury, MBA, AFHEA, is a lecturer and award leader at BPP Business School with nearly 20 years of experience. With a BSc in Computer Science, she has excelled as Head of Marketing for International Voice Business and in retail category management, managing global partnerships and driving success. A Subject Matter Expert in data analytics, Tasmia develops industry-relevant modules integrating technical and business knowledge. A certified Agile and PRINCE2 practitioner, she combines project management expertise with a dynamic teaching style, enriched by her skills as an internationally recognized debater and adjudicator.

End Note

The Teaching International Students Interest Group was launched in 2024, and this is their first compendium project. The group is dedicated to enhancing international students' learning experience through investigation and promotion of inclusive teaching strategies to support international student academic success. It serves to connect colleagues with an interest in teaching international students, share knowledge in the field and support aspirations for future research as well as providing recommendations to the Business School for enhancing teaching international students.

The theme of this first compendium is teaching international students and is an opportunity for members of the interest group to disseminate best practice and impactful examples of teaching international students within BPP University Business School, beyond the wider BPP University and BPP Education Group and with other universities.

The artifacts published from this compendium take a variety of formats including posters, reflective commentaries, articles and thought leadership pieces. These pieces were shared at the Business School Academic Conference which had the theme ' innovation and impact in teaching and learning in the Business School.' The compendium showcases a range of relevant scholarly activity including cognitive load theory and its application to teaching international students in higher education, beyond unconscious bias against international students, teaching data analytics to international students and human vs AI feedback.

We hope that you enjoy this first edition and look forward to sharing future scholarly projects on teaching international students that will be undertaken by the Business School.

Alex, Dawne, Jen and Jane.

Footnote:

Editorial work for this compendium was completed by:
Alex Griffiths, PhD, EdD, FRSA, Associate Professor of Academic Leadership and Director of Academic Governance & University Proctor.
Dawne Irving-Bell, PhD, PFHEA, NTF, Professor of Learning and Teaching leading on Scholarship.
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Alastair, Peter, Charlie, Paul, Ada, Shilpa, Jennifer

Team photograph taken after the presentation at BPP Business School Conference (28th Nov 2024) Unfortunately, Tasmia was not available to join the main group when the photograph was taken.

Tasmia