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Using Digital Tools to Address Pedagogical and Linguistic Challenges in a Sino-Foreign Undergraduate Program

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Abstract: *The growth of Sino-foreign cooperative universities, departments and courses in China necessitates further discussion of how to develop teaching approaches that suit students attending these institutions. Despite substantial analysis of the commercial dimensions of Sino-foreign university partnerships, discussion of effective teaching strategies within these settings remains underdeveloped. This paper shares the author's experience of developing and delivering a Western civilization course to 210 students attending a Sino-foreign undergraduate program at a Chinese university over the course of one academic year. Specific attention is paid to how digital tools can be used to address the challenges of unfamiliar teaching styles, limited language comprehension, and the lack of prior exposure to course content. Student feedback and anecdotal observations are drawn upon to underscore the potential utility of certain digital course aids deployed in the classroom and lecture hall, as well as being accessible to students through an online platform.*

Keywords: *Chinese students; Sino-foreign university; digital tools; critical pedagogy; internationalisation*

Introduction

The internationalisation of higher education has provoked a range of discussions around its administrative, economic, and pedagogical dimensions (Jones, 2009; Knight, 2011; De Wit, 2020). Since the Chinese State Education Commission actively began to encourage cooperation between Chinese institutions and foreign partners in 1995, the growth of Sino-foreign partnership universities, institutes and courses has been consistent (Lu, 2018; Yang & Wu, 2021). As noted by Che (2023), academic discussion on the educational practices within this internationalised system remains underdeveloped, with attention often focusing on its administrative and managerial aspects.

The present study seeks to address this deficiency through a critical reflection on the delivery of a Western civilization course taught in a Sino-foreign undergraduate program at a Chinese university. Students on the course, majoring in accounting and finance, are eligible to apply to continue their degrees abroad (predominantly in the USA) after completing two years of English-taught study across a general education curriculum (Haixia Xueyuan, n.d.). In order to develop a meaningful pedagogical bridge between traditional Chinese secondary education and Western university teaching, our course was developed using the critical pedagogy of Brazilian philosopher of education Paulo Freire (1921-1997). Course design sought to introduce students to a partnership model of teaching, in contrast to the hierarchical 'narrative' teaching model in which students are passive receivers of information (Freire, 2000, pp. 71-72; Peters & Mathias, 2018). Alongside the goal of facilitating an empowering learning environment, elements of the partnership model were also employed to try and address the well-acknowledged challenges of class participation and understanding for students attending university courses taught in their second language (L2) (Hu, 2019).

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The course required us to consider critically how to select appropriate content and teaching activities for Chinese students with limited prior exposure to the field. Longstanding debates around the teaching of Western civilization note its problematic origins as an academic subject, alongside suggestions for how innovative methods can refocus teaching away from a top-down, 'great men' approach (Allardyce, 1982; Matta, Da Silva, Amorim & Boaventura, 2018). Most discussion of the subject is situated firmly within a Western (predominantly American) context, and this paper considers how the course is received by Chinese students with distinct understandings and expectations.

The decision to employ digital tools to support our course was made with three main priorities in mind; firstly, to make all course materials (including lecture notes, slides, sources for discussion, external databases and assessment information) fully available to students through an online platform; secondly, to facilitate class activities during which students would be asked to open discussion materials on their mobile devices, with the encouragement to work at their own pace and use translation tools if necessary; thirdly, to facilitate teaching that aligned with a Freirean partnership approach, without neglecting the key content required for students to participate and complete assessments to a high standard.

This paper suggests the utilisation of digital tools provides possible solutions to some challenges facing Chinese students in the internationalised university such as unfamiliar communication styles, classroom expectations, and customs of foreign academic staff (Knight, 2014; Kihwele, Taye & Alduais, 2022; Noman, Kaur, Mullick & Ran, 2023). We address the relative lack of research into teaching practices, materials and pedagogies employed within the Sino-foreign university context, focusing on both the distinct circumstances, needs and expectations of Chinese students, alongside subject-specific concerns around content selection and delivery.

Theoretical Framework and Related Literature

Internationalisation of Chinese Higher Education

The process of internationalisation in higher education has sparked debates around teaching, learning and research, alongside more nebulous issues concerning societal engagement, economic competitiveness, and even international diplomacy (Chen, 2011; Lu, 2018; Wilkins, 2020; Wen, Wang & Cui, 2022; Bhardwaj & Kumar, 2023). The arrival of modern universities in China was part of the baggage of colonialism, Yang (2014, p. 153) describes them as 'an imported concept' loaded with potential tensions and troubled institutional histories. The development of higher education in China began in the late nineteenth century when Western and Japanese influences initiated the first stages of a modern university system (universities opened in Tianjin (1895), Beijing (1898), Nanjing (1902) and Hunan (1903). After the founding of the People's Republic of China in 1949, Soviet influence dominated university policy until the 'reform and opening up' of the country by Deng Xiaoping in 1978, when a conscious effort was resumed to internationalise the higher education system in the hope of supporting Chinese aspirations to modernity and globalism (Huang, 2003; Chen, 2011). The policy between 1978 and 1992 focused on supporting Chinese students going abroad and attracting foreign academics across a range of fields, notably English-language education, to make up for the preceding period of isolation (Huang, 2003; Yang, 2014). In 1995, the State Education Commission announced a policy of actively encouraging cooperation between Chinese institutions and foreign partners, and by 1999 the number of such projects had passed seventy (Huang, 2003).

Sino-foreign partnerships and collaborations in various forms have continued to grow in recent years, with many foreign universities seeking to take advantage of the huge pool of students ambitious to associate with a prestigious foreign institution. The system can be divided into three general categories; university-level partnerships (between a Chinese and foreign university, of which nine had been established by 2018, see Appendix A); institute level (an international 'branch campus' (IBC) within an existing Chinese university; and finally at degree level, where courses taught in China are supported and recognised by a partner institution abroad (Lu, 2018; Yang & Wu, 2021).

International universities themselves are a diverse category, with varying degrees of cooperation and involvement from the partner institutions, funding arrangements, and staff and student bodies (Knight, 2015). The Ministry of Education office responsible for 'Chinese-Foreign Cooperation in Running Schools' uses two categories. Firstly, cooperative 'institutions' (currently totalling 186), includes both full university-level partnerships and subject-focused departments within Chinese universities. The second category of 'cooperative school projects' (currently numbering 1207) includes degree courses completed in China and accredited or recognised by a foreign partner institution (Ministry of Education, n.d.).

Due to their use of English as the medium of instruction (EMI), international partnerships align with key policy goals of the Ministry of Education to encourage English proficiency (Hu, 2019). Nonetheless, Hu (2019) discovered that across several (nominally) EMI courses at Chinese universities there remained significant use of Chinese by local staff, reduced participation and cognitive complexity during tasks when working in English. Research within international branch campuses (IBCs) at Chinese universities has revealed further challenges; faculty members' country of origin exerted a substantial influence over teaching practice and communication style, which could strike Chinese students as 'confusing and intimidating'(Noman, Kaur, Mullick & Ran, 2023, p. 6).

Students attending courses in their non-native language face a range of challenges (Li, Wang, Liu, Xu & Cui, 2018; Lin, Wen, Ching & Huang, 2021; Zhao & B'beri, 2022). As Cheng and Fox (2008, p. 316) found in their analysis of L2 students studying at Canadian universities, issues included 'significantly higher levels of anxiety and shyness when asking for help' from teaching staff, and misunderstandings around cultural expectations and roles in the university environment. Chinese students studying overseas face similar challenges; Zhang-Wu (2018) noted the key differences in educational traditions between the USA, where teaching and learning is closely related to discussion and collaboration, and China, where language learning is often focused on literacy and can leave students under-prepared for university teaching.

Recently, teachers working within international universities have begun to share their experiences of introducing different pedagogies to students from cultures in which these methods are less established (Kaur, 2020). Che (2023), an Assistant Professor of International Studies at Xi'an Jiaotong Liverpool University, invited students to create short podcasts related to seminar topics, which positively influenced discussion and engagement during seminars. This strategy mitigated students' potential anxieties about speaking proficiency (podcasts could be prepared in private prior to class), and engagement with class texts.

Pedagogical Approach

In order to place discussion and collaboration at the core of our teaching practice we chose to develop our course with reference to the critical pedagogy of Brazilian philosopher Paulo Freire (1921-1997). Freire (2000, pp. 71-72) described several systems he felt obstructed effective learning, including an over-reliance on 'narrative' teaching and the 'banking' concept of education (in which students receive, file, and store deposited information). The remedy for this hierarchical pedagogy is to invite students to become 'partners' within a learning environment of mutual exchange, trust, and collaboration (Freire, 2000, p. 75; 2005). With specific reference to the teaching of history, Freire (2005) advocated presenting material to students in a way that invites critical analysis and personal reflection. Critical pedagogy continues to inform university teaching internationally, especially a focus on students as partners, in spite of prevailing neoliberal trends within higher education (Peters & Mathias, 2018).

Freirean concepts of partnership and student empowerment contrast with the traditional Western civilization course, associated with the American university curriculum during the early twentieth century and frequently denigrated as part of a political project to promote Western cultural superiority (Allardyce, 1982; Peters, 2021). In its earliest iterations, the course reflected beliefs within the conservative academy that had 'long universalized European history into the general history of

mankind' (Allardyce, 1982, p. 706). The key content of the course, which peaked in popularity between the 1920s and 1950s, was summarised by Bavaj (2011, p. 1) as taking students 'on an intellectual journey that began in ancient Greece and culminated in present-day America, meandering quite literally from Plato to NATO.' The fortunes of the course began to fail during the 1960s, in lockstep with the tribulations of American foreign policy and changing academic trends (Grafton, 2006; Brint, Proctor, Murphy, Turk-Bicacki & Hanneman, 2009; Marino, 2010; Conrad, 2019; Naumann, 2019). The rise of the social history movement, history 'from below', and the trauma of the Vietnam War all accelerated a transition away from what Allardyce (1982, p. 725) described as a 'wilted course'.

In the twenty-first century, concerns have arisen over the utility and relevance of such survey-style courses taken by students majoring in a different field. Sipress and Voelker (2011, pp. 1062; 1066) identified a 'concern for issues of cultural literacy and citizenship education' driving content selection and teaching methods, repurposing debates from the Western civilization course to foster 'argumentative discussion'. The growing sophistication and access to digital technology, including the emergence of virtual museums, libraries and open-source repositories of historical data has further democratised the field (Matta, Da Silva, Amorim & Boaventura, 2018). Nonetheless, developing a modern, partnership approach to teaching Western civilization remains a daunting task; Caferro (2018) outlined his initial reservations about teaching the course, and subsequent decision to bring the discussion of methodology to the forefront, challenging Eurocentrism and focusing on a deep- reading of primary sources. In our course design we sought to acknowledge and problematise certain elements of this historiography and focus on how students can engage with the course content through debate and discussion (Spaska, Savishchenko, Komar & Maidanyk, 2021; deNoyelles & Kovacevich, 2022).

Course Design

Course Setting and Institutional Background

This paper discusses the Western civilization course taught to students at the Straits College (海峡学院 – Haixia Xueyuan, or 'Haixia') of Minjiang University (闽江学院), located in Fuzhou, the capital of Fujian province on China's South East Coast. The course was delivered as part of the Sino-US Program, which operates a '2+2' model: students complete two years of study in finance or accounting alongside a general education curriculum and English language training in Fuzhou, they may then apply to continue their studies at a foreign university (some students complete four years of study in China and apply for postgraduate study abroad after graduation). Since its establishment in 2009, Haixia's Sino-US program has admitted over 1600 students, with over 300 continuing their studies internationally at institutions including Temple University in Philadelphia, Portland State University, Cardiff and York Universities in the United Kingdom (Haixia Xueyuan, n.d.).

Minjiang University is a mid-ranking public university (formed in 2002 with the merger of Fuzhou Normal College and Minjiang Vocational University), with approximately 16,000 students and 1000 staff. Notably, Chinese Premier Xi Jinping served as president of the university from 1990-1996 (concurrent with his other official roles in Fujian province) and has continued to offer support, visiting personally in 2021 to mark its sixtieth anniversary (Edurank, n.d; Minjiang University, n.d). Teaching responsibilities at Haixia for both subject teaching across the general education curriculum and English courses are divided between Chinese and foreign staff (with some of the latter also delivering courses at the neighbouring Fuzhou Melbourne Polytechnic, an international branch campus of Melbourne Polytechnic hosted at Minjiang University) (Fuzhou Melbourne Polytechnic, n.d). Facilities and resources available to students are typical of public universities in China, including a large library, good access to English-language materials, digital projectors and high-speed wireless internet (many students choose to make notes and follow teaching content using digital devices in class).

Western Civilization is one of the required courses for accounting and finance students in the Haixia Sino-US program. Teaching and assessment are delivered in English, and the main teaching materials include an English-language textbook and a short module guide. Teaching across the department is not connected to a virtual learning environment, assignments are submitted directly to teachers (plagiarism checks, anonymity and other measures are implemented at the discretion of the course convenor), and communication is hosted on the Chinese messaging and social media app QQ. The course discussed in this paper was delivered during the academic year 2022/23 to 210 students in three classes; 142 students (separated into two classes of around 70 students) during the autumn semester, and a class of 68 students during the spring semester. Each class received three ninety-minute lectures per fortnight, alongside one ninety-minute seminar-style class delivered by a local Chinese teacher.

Developing an Online Platform to Support Students

During planning for the 2022/23 semester, in particular the preparation of lecture materials and sources, we made the decision to provide students full access to *all* materials used in the preparation of lectures and class activities. Specifically, it was decided to make these materials available through an online platform, accessible through either a web link or a QR code. This decision was informed partly by the fact that many Chinese students have translation tools built into their web browsers, and it is far more convenient to translate new or unfamiliar vocabulary when accessed digitally rather than through printed materials. Furthermore, encouraging students to use their own devices to access source materials during class was intended to address the limitations on participation imposed by the traditional lecture setting, and allow students to examine multimedia sources in detail and at their own pace.

The platform chosen for hosting the course website was Notion, which offers a range of functionalities and is often used for personal or collaborative organisation, scheduling, project planning and management. For the needs of the course (primarily uploading text and images to an easily navigable platform), the free-to-use tier of the platform was sufficient, however, purchasing additional storage space for video recordings and other large file-size materials is available through a paid subscription. During the second semester of the 2022/23 academic year, Notion embedded a translation function using GPT-3, and this was used to provide AI-generated Chinese translations of some source texts and introductions (approved by the local teacher).

The layout of the website was designed to be as straightforward as possible; a landing page containing a navigable table linking through to various content, tagged and colour-coded by item type (lecture, sourcebook, external database etc.). The landing page also contained links to information about key dates for the course, assignment deadlines and specifications, a referencing guide and contact information for the instructors (see Appendix B). This layout was intended to be as user-friendly as possible, and to work effectively when viewed either on desktop or mobile devices, individual site pages could also be easily shared through a browser-generated QR code. Class communication was hosted through the Chinese messaging platform QQ, with QQ groups created for each cohort, and links to sources, lecture notes and other materials shared directly with students the day before each class to encourage them to preview. Information related to formatting, presentation and example papers were shared directly with students via site links around assignment deadlines, and this information could be edited or in response to student questions.

The primary rationale behind the decision to make all course materials available through an online platform was to indicate to students that the course would be a collaborative and open partnership (notes and knowledge from the teacher were not hidden in an inaccessible 'black box'). Students could (and did) request additional resources such as maps and timelines be added to the site, and an 'image of the week' related to class content was updated regularly to try and keep students interested and engaged. Students were also able to follow along in real-time with lectures, using their own devices to translate or revisit unfamiliar L2 language. This was intended to offset

students' issues with understanding spoken English, a consequence of the frequently literacy-focused objectives of language learning in Chinese schools (Davitishvili, 2007; Zhang-Wu, 2018).

Class Design

Lectures were designed with concerns about accessibility, L2 support, and partnership teaching in mind, and delivered in a uniform structure. Firstly, the lecture title was introduced, and students were shown a QR code that would take them to the relevant webpage for the source discussion materials for the session (see Appendix B); secondly, students were introduced to three key questions around which the lecture would be structured; finally, five to eight key terms were introduced and explained (and translated if necessary). The lecture was then delivered in three thirty-minute sections (with a short break at halfway), each section containing fifteen to twenty minutes of teacher-led lecturing, followed by a ten-minute source discussion. During the time allotted for source discussions, students were encouraged to access source materials on their own devices through scanning the QR code.

This structure aimed to encourage students to develop familiarity with the website, which was also used to share information about assessment deadlines, course activities and links to external databases and information sources. It was hoped that using the website in class together would give students confidence to visit it independently for their own needs. The pattern of introducing lectures with three questions and a list of key terms was designed in anticipation of challenging L2 content, and in order to clearly preview how the ninety-minute teaching period would be broken down into more manageable sections. Finally, uploading full lecture notes and slides meant students were free to focus on following the lecture, and if necessary use the materials to scaffold their comprehension, rather than try to simultaneously listen in L2, make notes, and prepare to participate in class discussion.

A Source-Focused Course

Source analysis is an effective way of deconstructing the historical method and encouraging students to consider how scholarly agency influences and informs historiography (Caferro, 2018). Each lecture period was designed around three separate source discussions, during which students were asked to discuss a range of materials in pairs or small groups. The central role allocated to source discussion was intended to counterbalance the perceived necessity of presenting some information in a traditional teacher-led lecturing style as a consequence of students' limited prior subject knowledge. Selection of materials was intended to expose students to 'traditional' sources for Western Civilization, such as portraits of monarchs and modern photographs of notable buildings and cities, alongside clips from film adaptations, extracts from journals and diaries. Source analysis and discussion was used to try and foster an atmosphere of Freirean partnership in class, in which students had plenty of opportunities to direct discussion and share their personal views and responses.

Assessment design for the course also reflected the central importance of source discussion and student choice; the first written assignment was a source analysis task (worth 20 per cent of the overall grade), in which students were asked to choose from any source discussed during lectures that resonated with them. Many students chose portraits of English monarchs Elizabeth I and Henry VIII, others chose artworks such as Spiridione Roma's *The East Offering its Riches to Britannia* (1778, commissioned by the East India Company), a diagram showing conditions aboard slave ships presented by British abolitionists, and illustrations from Vesalius' *De Humani Corporis Fabrica* (1543). The final essay assignment (worth 40 per cent of the overall grade) was also designed around student choice; they could write about the significance of a historical figure, political or religious movement, the changing role of women, or impact of science and technology. These assessments were chosen to enable students to engage with the histories that most interested them. As per department requirements, students were also required to complete two short quizzes, which were

conducted open book and focused on matching key terms to their definitions. Attendance and class participation were also monitored.

Findings

Quantitative Feedback

In order to gather quantitative data on satisfaction with the course, students were asked to complete a short module evaluation questionnaire after the final lecture, containing eight questions with an agree/disagree range of 1 (strongly disagree) to 10 (agree completely) (see Appendix C, student feedback). In semester 2, an additional four closed questions were added seeking specific feedback on how students had used the online platform. At the end of the questionnaire, students were invited to give any general comments or criticisms on the course. The total number of respondents at the end of semester 1 was 114 (out of a total cohort size of 142, 80 per cent), in semester 2 the total number of respondents was 66 (out of a total cohort size of 68, 97 per cent). For ease of understanding questions were provided in both English and Chinese, and some students also provided feedback in Chinese.

As the student feedback indicates, students reported high levels of satisfaction across the course, especially regarding approachability and supportiveness from the two instructors (question 7). Semester 1 and 2 cohorts both reported lower levels of satisfaction related to their understanding of assignments and quizzes (question 5), indicative of a need to spend more time and commit more resources to clarifying student assignment requirements and expectations. The additional questions (9-12) were added to the MEQ for the second-semester cohort to try and better understand how students were using the website. Reassuringly, 98 per cent of students stated they had used the website to review lecture content (question 9), with similarly high levels for students using the platform to check deadlines and assignment information (question 10: 95 per cent) and as a gateway to external databases and information sources (question 11: 94 per cent). Finally, 71 per cent of students reported using the website for another unspecified reason, informal conversations with students indicated that such reasons might be to learn more about images and other multimedia discussed during class, or to show friends and classmates. At the end of the academic year, the website had been accessed 5,727 times.

Qualitative Feedback

Alongside quantitative feedback, at the end of each semester, students were given the opportunity to anonymously share their comments and criticisms about the course. The majority of students either chose not to comment or used the form as an opportunity to thank the instructors. More targeted comments, highlighting a specific criticism or area of success, were received and coded into three general categories; teaching-related issues; language-related issues; and targeted positive feedback.

Teaching-related issues included calls for more interaction between instructors and staff, and more extensive use of discussion activities. After semester 1, one student suggested that classes could incorporate different teaching methods, "…such as a group debate on an issue in class. It makes people more interested in history." Another student felt the amount of time dedicated to open discussion was insufficient, requesting that instructors "assign some thought questions after class for oral answers, which can connect current social issues with historical events. It's an open question. Everyone can say whatever they want. We don't have to worry about whether what everyone says is right or wrong, simple or complicated, we just have to express our own ideas." A different student was concerned that as the Western civilization course is not directly related to the major (finance or accounting), "students actually pay little attention to this course", they went on to suggest that "the course content is too much, [and] the knowledge points are explained quickly." Another student commented, "I think the class maybe can be more interesting. Give more special

stories to people and events in history." This feedback reveals concerns among some students around the volume of course content, and a desire for more opportunities to engage with it on their own terms through more frequent discussion.

The second main area of critical feedback was related to language issues. For a predominantly lecture-based course (albeit with regularly scheduled source analysis discussions), it is perhaps unsurprising that some students felt intimidated by the presentation of a substantial amount of information unrelated to their major. One student commented "I hope we can occasionally use some simple words during class," while another stated, "I have some difficulty understanding the foreign teacher in class, as my English proficiency may not be sufficient." Another student was concerned that they "did not understand this event or words very fast, I should [like] some more details about that, maybe because I am not very good at the Western civilization, but I would like to know more!" Raising a subject-specific concern, one student reflected that "maybe because it is the history of Western civilization, many names in it contain German or French". Clearly, some students felt that either their own language level was insufficient to maximise their engagement with the course, or that teaching language during lectures was insufficiently graded.

Finally, some students provided targeted positive feedback after each semester. After semester 1, students appreciated that "[the instructors] always prepare all things we will use, I'm so thankful,' described the course content as interesting, and praised the "way of teaching" employed on the course. After semester 2, one student wrote "your website is so good, I always use it to finish my essay," while another commented, "teachers are very good and approachable, and the difficulty of the courses is also very suitable for our current English level. I really like both teacher[s], because of this class, I am interested in the history of Western civilizations."

Reflections and Discussion

This course was designed and delivered by a newly-appointed foreign lecturer with a teaching and research background in the British university system, with the support of an experienced local teacher responsible for course administration, student support, and leading seminars. The instructor profiles are significant, as the opportunities and challenges of international staff in the internationalised university setting can be an important influencing factor on expectations and learning culture (Knight, 2014; Kihwele, Taye & Alduais, 2022). In our case, we feel that collaboration between English and Chinese instructors helped to develop a course that was more informed around students' backgrounds and linguistic needs. The main discussion areas arising from our experience with this course relate to students' linguistic proficiency, utilisation of the materials made available through the online platform and addressing differences in educational culture that affected students' approach to learning.

Students' Linguistic Proficiency

Management of students' confidence in working in L2 was central to the successful delivery of the course. As anticipated, qualitative feedback from students indicated some class members felt the spoken delivery of lecture content was above their English level. We hope that access to written lecture notes, slides, databases, and assignment briefs through the online platform enabled students to revisit (and translate if necessary) course materials. Decisions about teaching style and content included strategies to mitigate intercultural misunderstanding through the using content summaries, previewing key vocabulary, and using students' native language for some materials (Davitishvili, 2007).

We aimed to be conscious of our potential biases as instructors around students' English proficiency and avoid mistaking linguistic ability for progress in the course (Ryan & Viete, 2009). In the lecture setting, Ryan and Viete outline how prior English study may not equip students for 'discipline-specific and often fast-paced' delivery, or to recognise codes and prompts in assignment outlines and questions (Ryan & Viete, 2009, p. 306). With this in mind, we gave students the option

to access materials in L2 and used bilingual teaching and assessment guidelines (supported by the native co-teacher) to try to limit potential misunderstandings (Lin, 2019). Feedback indicated that some students still felt overwhelmed by the content and pace of lectures, and further work in this area is necessary if the goal of supporting students across all linguistic ability levels within a diverse cohort is to be realised.

Use of the Online Platform

A central part of the course design was to develop an empowering and collaborative learning environment through open access to materials via an online platform. In 2015, the Chinese government announced the national 'Internet +' policy of integrating internet functions with traditional industries (including education), drawing upon growing online infrastructure and the ubiquity of smartphones and smart devices (Meng, Li, Chu, Wu & Wan, 2023). Analysis of large, department and institution-wide online platforms offered by external providers such as Moodle and Open edX indicated a range of advantages, including increased access, course content management, and flexibility to suit students' specific needs (Liu, Lomovtseva & Korobeynikova, 2020). Experiences of online teaching in both secondary and higher education during the COVID-19 pandemic indicated substantial receptibility and high levels of perceived usefulness towards digital learning (Jiang, Islam, Gu, Spector & Chen, 2022).

The main advantage of these tools is empowering students to choose how, when, and where to engage with learning materials. Developing a platform with the support of an enthusiastic local teacher was a stimulating and rewarding experience that resonates with the trend among some instructors to be active in this innovative area of teaching practice (Zhu, 2020; Sathish & Nethravathi, 2022). With particular reference to the international student context, digital tools have been found to be a popular way of introducing Chinese students to foreign teaching styles and expectations, undermining potential barriers to engagement and confidence (Zhang, Robb, Eyerman & Goodman, 2017). High levels of engagement with our platform, based on total site visits and positive qualitative feedback, indicate such platforms can be an effective source of support for students.

Navigating Intercultural Expectations

Internationalised higher education is an important setting for exploring the interaction between educational systems. As Sawir notes, acknowledging the risk of essentialising national education cultures, some East Asian and Southeast Asian nations appear to nurture a more 'passive-receptive' learning style than Western counterparts (Sawir, 2005, p. 570). Multilingual classrooms in Sino-foreign universities pose a range of pedagogical challenges, including 'success anxieties' among students who fear incorrectly answering questions during discussion, with educational background exerting a potentially greater effect on learning behaviour than L2 proficiency (Ergenc, 2020, p. 2).

Levels of class participation varied dramatically across our cohort of 210 students. Some were enthusiastic and frequent participants in class discussions, while others remained silent and appeared disengaged during these activities. Key factors influencing participation appeared to be language ability and confidence, lack of interest in lecture content, and a general unfamiliarity with discussion-focused teaching. We feel that our class design gave students opportunities to participate in a partnership-focused learning model but accepting the different personalities and attitudes among the group inevitably led to a range of responses to teaching style.

Cross-cultural factors affecting teaching and administrative staff across a range of roles influence the 'cultural meeting place of the classroom', and it is important to acknowledge the impact of international staff on teaching and assessment in the Sino-foreign setting (Coleman, 2003, p. 366). Especially for students on courses taught by foreign staff in their home country who may only be immersed in the foreign culture and language during the teaching period, it can be difficult to quickly transition between cultural and linguistic modes (Healey, 2016). Our experience delivering a

Western civilization course presented further challenges, as students' prior exposure to the material was generally limited. Some students felt that the volume of course content was too high, and that material was not explained clearly enough. This feedback highlights the importance of striking a balance between fulfilling the coverage requirements of a survey-style course with the pedagogical goal of encouraging students to become partners in their learning.

Implications and Limitations of the Study

Supporting Critical Pedagogy in Internationalised courses

The tools outlined in this study were developed to address challenges, both pedagogical and linguistic, in the fast-growing internationalised higher education setting in China. This course was developed using Freirean principles of critical pedagogy, specifically, an attempt to avoid narrative teaching through scheduled discussions during lectures, increased student agency in selecting coursework topics, and student empowerment through open access to course materials (Freire, 2000; 2005). As recent contributors to the discourse of students-as-partners have outlined, learning in partnership aims to influence students' approach beyond the classroom or lecture theatre, and can be 'enduring and unconfined' (Peters & Mathias, 2018, p. 64). Our aim with the course was to nurture a critical mindset that would benefit students throughout their undergraduate journey.

We hope that this example of implementing partnership teaching in the Sino-foreign university setting will encourage course designers and instructors to continue to experiment with critical pedagogy (Che, 2023). Despite the acknowledged challenges of introducing new roles for instructors and students, greater democratisation of the learning environment evidently has the potential to create rewarding experiences and successful outcomes for students (Kaur, 2020). A range of digital tools to overcome barriers to partnership teaching arising from linguistic challenges in the Sino-foreign university can be used to enhance the potential of students as active partners in their education.

A Considered Approach to Linguistic Challenges

As outlined by Hu (2019, p. 8) empirical research into the linguistic challenges of teacher-student interactions in Chinese educational settings is necessary to avoid perpetuating the 'yawning gap between optimistically envisioned policy goals and the reality on the ground.' Our provision of teaching materials in written form in L2 was implemented to address Chinese students' frequent imbalance between reading proficiency and experience with native speech (Zhang-Wu, 2018). Addressing linguistic challenges is an important first step in establishing a more student-centred environment in class, which is often at odds with students' secondary education experience of structured, teacher-centred learning (Noman, Kaur, Mullick & Ran, 2023).

Student feedback and anecdotal reflection on the course indicated an advantage in providing access to course materials in written form and clearly explaining expectations for class participation. Making materials digitally available maximises students' access to quick and easy translation tools on their devices, encouraging engagement in class discussion and debate. This strategy addresses the reality that, despite often taking place within 'international' or 'English-language' departments, students often work bilingually during independent study and when preparing assignments that will ultimately be submitted in English (Hu, 2019). The frequently-asked question of 'how much' Chinese is used on international courses (especially when co-taught by a local instructor) is also confronted, as students gain a clear understanding of when and where L2 participation is expected.

We developed our platform with the advice and support from local Chinese teachers, and strongly believe that such tools benefit immensely from critical workshopping by colleagues. As with many international departments, Haixia Xueyuan benefits from the employment of both local Chinese staff and foreign instructors with a range of national and professional backgrounds. The introduction of systematic processes such as monthly or per-semester teaching practice meetings

can improve the dissemination of ideas and give Chinese staff the opportunity to raise issues related to different educational traditions and perspectives (Noman, Kaur, Mullick & Ran, 2023).

Limitations of the Study

There are a number of limitations to this study that could be addressed in future research to develop a more nuanced understanding of teaching methods in Sino-foreign undergraduate courses. The cohort size of 210 students was limited by enrolment numbers on the program, and a larger and more diverse student group (including, for example, different majors and years of study) would provide opportunities for gathering a more robust dataset. The cohort in this study was relatively homogenous: all students had the same major and a comparable academic record (sufficient to secure admission to the program). Value could be added if the use of similar digital tools was trialled with students from different majors and across a range of English ability levels.

The digital platform was newly created for the 2022/23 academic year and evolved in response to student requests for additional materials and to address issues encountered by the instructors. The replicability of this study is therefore limited to a certain extent by the iterative development and inherent flexibility of the platform itself: we aimed to improve and refine it on a regular basis and anticipate using student input to shape the platform in future. Instructors will inevitably gear digital tools to their specific needs, and analysis of bespoke versions of the platform will also require critical analysis.

Finally, this study would benefit from the experiences of different instructors using similar digital platforms in their own courses across different academic majors and diverse teaching styles. This study indicates that some students benefit from these tools in a lecture and discussions-based Western civilization course, however, our understanding of their potential could be greatly enhanced through implementation and analysis in other academic fields. Further insights could be reached by trialling similar methods with colleagues across different departments and institutions.

Conclusion and Future Research

This paper has shared a course design that addresses key teaching issues in Sino-foreign university education. We used digital tools to facilitate a partnership model of teaching, provide linguistic support, and deliver a meaningful Western civilization course to students lacking prior subject experience. Notable successes of the course include the development of a bespoke online platform which invited students to access and utilise course materials at their own discretion. Inviting students to scan QR codes to access materials on their own devices during teaching periods was a popular function that drove engagement and participation. A source-focused approach to Western civilization resonated well with some students, especially those with higher English language ability most capable of leading class discussions. While some students reported a lack of confidence around participation, the centring of lectures around source discussions nonetheless helped introduce important methodological debates within the field. These activities will hopefully provide a useful reference point for students continuing their studies in foreign universities, where seminar and discussion classes are more common.

Despite making progress in some areas, we encountered a range of challenges in the delivery of this course that reflect both course-specific and general obstacles to student performance in the Sino-foreign university. Student feedback and our anecdotal experience revealed the issue of varied L2 ability continued to be a significant barrier to student participation. A number of reasons could underpin this issue, such as the predominantly literacy-focused language education of the Chinese school system, limited prior exposure to native English speakers, and unfamiliarity with a new academic field. Despite our use of digital tools to provide additional written resources alongside oral discussion, some students felt unable to fully maximise their learning experience as a result of comprehension difficulties. This issue was connected to the second challenge of limited participation

in class discussion, when some students' unwillingness to engage in spoken activities was linked to a lack of confidence in English.

The Sino-foreign university provides a rich environment for the development of new teaching practice strategies, necessitated by the need for a pedagogy that is sensitive to linguistic challenges and students' grounding in a different learning culture. Many existing platforms support comments, questions, and discussion boards, which if used effectively could encourage a greater sense of student participation and ownership of their learning. Course design in the Sino-foreign university must remain sensitive to the particular needs and expectations of students and aspire to a collaborative and critical approach to methods, content, and delivery.

Note

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Appendix A: Chinese Sino-Foreign Cooperative Universities

Sino-Foreign University	Established	Location	Foreign University	Chinese University
University of Nottingham Ningbo China	2004	Ningbo, Zhejiang Province	University of Nottingham (UK)	Zhejiang Wanli University
Beijing Normal University - Hong Kong Baptist University United International College	2005	Zhuhai, Guangdong Province	Hong Kong Baptist University (Hong Kong)	Beijing Normal University
Xi'an Jiaotong - Liverpool University	2006	Suzhou, Jiangsu Province	University of Liverpool (UK)	Xi'an Jiaotong University
New York University Shanghai	2011	Shanghai	New York University (USA)	East China Normal University
Wenzhou-Kean University	2011	Wenzhou, Zhejiang Province	Kean University (USA)	Wenzhou University
Duke Kunshan University	2013	Kunshan, Jiangsu Province	Duke University (USA)	Wuhan University
The Chinese University of Hong Kong, Shenzhen	2014	Shenzhen, Guangdong Province	Chinese University of Hong Kong (Hong Kong)	Shenzhen University
Guangdong Technion - Israel Institute of Technology	2016	Shantou, Guangdong Province	Technion Israel Institute of Technology (Israel)	Shantou University
Shenzhen MSU - BIT University	2017	Shenzhen, Guangdong Province	M.V. Lomosomov Moscow State University (Russia)	Beijing Institute of Technology

Source: Lu (2018)

Appendix B: Images Showing Online Platform

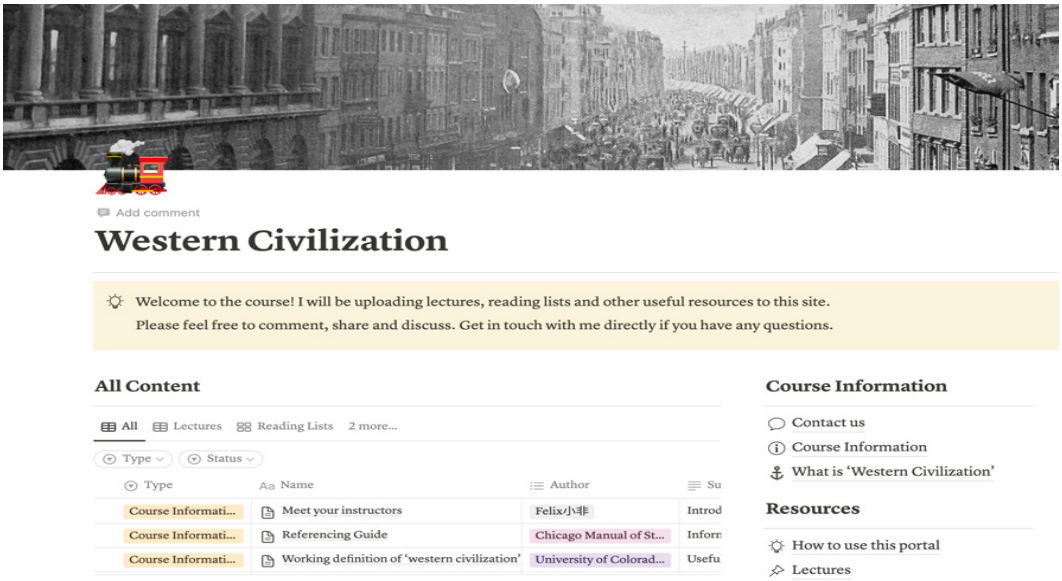

Figure 1: Online Platform Landing Page (desktop view)

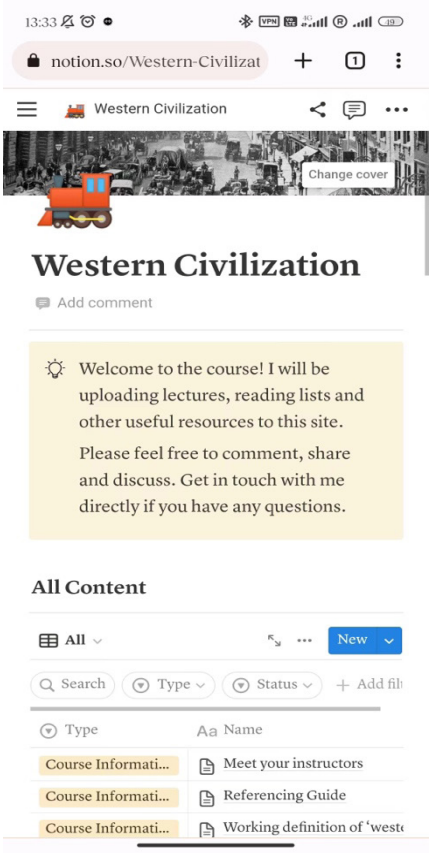

Figure 2: Online Platform Landing Page (mobile view)

Figure 3: Source for Discussion with English and AI-translated Summary (mobile view)

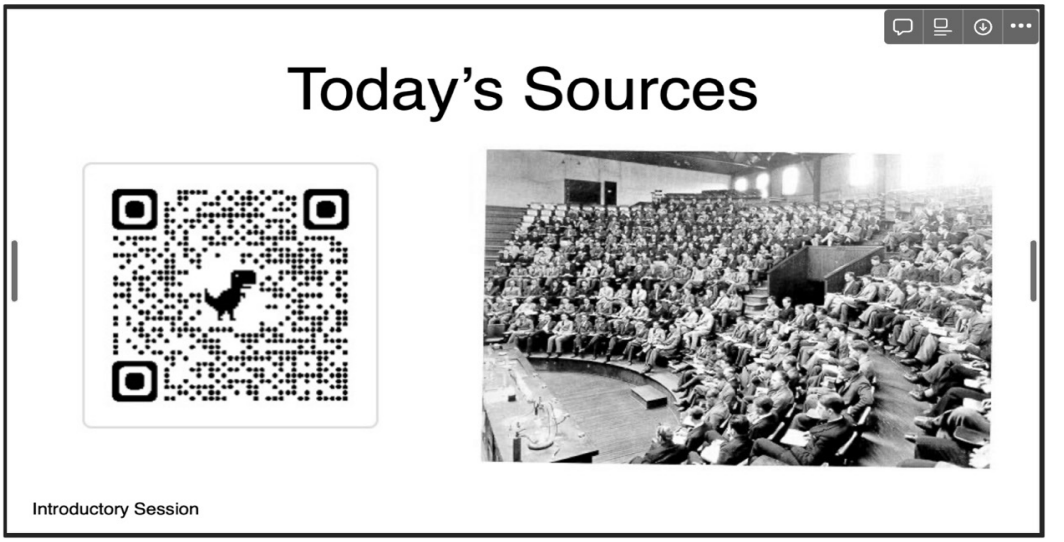

Figure 4: Example Lecture Slide with QR code Linked to Website Sourcebook

Appendix C: Student Feedback

Question	Average Score Semester 1/2
1. I enjoyed taking this course.我喜欢这门课	9.31/ 9.35
2. The course content was interesting. 上课内容很有趣	9.42/ 9.5
3. The pace of teaching was appropriate. 上课节奏合理。	9.52/ 9.65
4. I had access to all resources I needed. 我能获取到所有需要的资源。	9.46/ 9.42
5. I understood the assignments and quizzes. 我理解作业和小测	9.13/ 9.18
6.I received helpful feedback. 我从老师那得到有用的反馈。	9.60/ 9.67
7. The instructors were approachable and supportive. 老师平易近人，并乐于帮助。	9.84/ 9.83
8. The online materials were useful and accessible. 网络资源有用，并能获取	9.56/ 9/70
9. I used the website to review content around lectures 我用 [lecturer] 设计的网站复习讲课内容	N/A/ 98
10. I used the website to check information about deadlines and assessment 我用网站查看作业截止日期和课程评价。	N/A/ 95
11. I used the website to check external databases and sources of information 我用网站查看外部数据库和信息来源	N/A/ 94
12. I used the website for another reason 我出于其它原因使用过这个网站。	N/A/ 71

Does Science Education Contribute to Citizenship Education in Turkey?

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Abstract: *This research aims to explore the connections between science and citizenship education and how science education contributes to citizenship education in Turkey. To achieve these goals, we focused on two research questions: First, what does the science curriculum in Turkey encompass concerning citizenship education? Second, how do science educators perceive their role in contributing to citizenship education, and how do they foster students' citizenship skills? Multiple data sources were employed to provide comprehensive answers to these research questions. In this context, the science curriculum in Turkey was analyzed, and interviews were conducted with science educators using a semi-structured interview protocol. The data were processed using the Maxqda Qualitative Data Analysis Program and subjected to content analysis. The research findings underscore that there is a relationship between science education and citizenship education. Science courses have the potential to cultivate citizenship competencies. However, science educators feel that science education is falling short of meeting its citizenship objectives due to various challenges they encounter. It is essential to train and support teachers to seamlessly integrate citizenship skills into science education.*

Keywords: *Citizenship Education, Curriculum, Science Education, Science Teachers*

Introduction

Since the French Revolution, many nation-states have focused on constructing national identity through citizenship education (Carretero, Haste & Bermudez, 2016). However, the concept of citizenship and citizenship education has evolved beyond merely building a national identity. Citizenship education transcends being just a subject in the national curriculum. It is an educational process designed to equip students with the knowledge, skills, and understanding they need to actively and responsibly participate in a democratic society. Democratic citizenship education emphasizes the importance of producing informed, active, and responsible individuals, not just within their own countries, but on a global level as well. The perception of citizenship education varies by country. Often, subjects like religious education, geography, history, social studies, and other social sciences are associated with it (Mckenzie, 2000; Kuş, 2020). In today's world, pressing issues such as climate change, pandemics, mass migrations, and wars affect not just individual countries or regions, but the entire globe. Amid these events, liberties are curtailed and human rights are gravely compromised. These circumstances underscore the increasing role of science in our daily lives and the ever-growing importance of citizenship skills in addressing societal challenges. If we genuinely value citizenship education, it must go beyond merely being a course title. We must recognize that global citizens require the knowledge, attitudes, skills, and values emphasized by various scientific disciplines.

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Science and Citizenship Education

Undoubtedly, there are interconnections between citizenship education for fostering responsible citizenry and scientific literacy, as highlighted in science education (Bayram-Jacobs, Wieske & Henze, 2019). Today, the goal of science education is to cultivate scientifically literate and responsible citizens across the entire student population, not solely future scientists and engineers. This implies that students are equipped to grasp the concepts, principles, and processes of science (Bayram-Jacobs, Wieske & Henze, 2019).

When examining the concepts emphasized in science education in recent years—such as ethics, morals, values, skills, socio-scientific issues, technology, society and environment, critical thinking, culture, law, politics, GMO crops, vaccinations, and climate change—it's evident that these concepts are directly relevant to citizens and, by extension, citizenship education. To equip young individuals for life beyond school, recent educational reports from various parts of the world have advocated for a science education that prioritizes scientific literacy, relates science to everyday experiences, and underscores the social dimensions of science (European Commission, 2015; Evagorou & Dillon, 2020). In its report titled Science *Education for Responsible Citizenship*, the European Commission (2015) articulates the following:

> We need science to inform policy, objectively. We need science to inform citizens and politicians in a trustworthy and accessible way. We need to make decisions together rather than from polarised positions and to take responsibility for those decisions, based on sound scientific evidence (p. 5).

The emphasis on the significance of science education for citizens is not a recent development. Over a century ago, Dewey (1910) argued that the school curriculum should encompass the social and moral aspects of science. He believed that science education was insufficient, offering only "ready-made material" and failing to acknowledge science as a metacognitive process. Notably, scientific research focusing on "science for citizenship" saw an uptick in the 1990s and early 2000s (Reiss, 1993; Solomon, 1994; Bingle & Gaskell, 1994; Kolstø, 2000; Kolstø, 2001).

The literature advocates for the integration of citizenship education into science courses via Science, Technology, Society, and Environment (STSE) topics (Davies & Thorpe, 2003; Mansour, 2009; Osborne, 2000; Sadler, 2004). Such integration encourages students to delve into the interplay between science and society, fostering a more comprehensive grasp of their roles as informed and accountable citizens. By confronting real-world challenges and instilling critical thinking and decision-making abilities, students enhance their scientific literacy and become actively involved in democratic deliberations. Numerous works highlight the pivotal role of science in citizenship education across various domains. Foremost among these is the "scientific literacy" skill that every conscientious citizen should possess (Vesterinen, Tolppanen & Aksela, 2016; Wellington, 2002; DeHart Hurd, 1998; Laugksch, 2000). The practical application of science informs life competencies and undertakings, necessitating the inculcation of citizenship values in students (Kolstø, 2008). Notably, socio-scientific subjects serve as vital instruments for cultivating citizenship abilities (Sadler, 2004; Solomon, 1994). Chen and Cowie (2013, p. 2) pinpoint three primary rationales for emphasizing science within the context of citizenship: First, citizens require scientific knowledge to comprehend socio-scientific matters. Second, an absence of scientific expertise can lead to marginalization and exclusion. Third, authentic and sustainable scientific inquiries are more attainable when approached from a citizenship perspective. Given these factors, it's imperative for science courses to underscore the tenets of "scientific literacy", the essence of scientific knowledge, and the decision-making framework pertinent to scientific concerns (Barbosa, 2004).

"Science education for citizenship" is defined as the approach to science education that aims to equip students for active, informed, critical, and responsible involvement in situations where an understanding of various scientific aspects can enhance the quality of their participation (Kolstø, 2001). Westheimer and Kahne (2004) delve into the intrinsic connection between science education

and citizenship. They pinpoint three primary traits students should embody to be considered citizens: personal responsibility, participation, and justice. Science education plays a pivotal role in moulding critical, globally-conscious citizens. Furthermore, citizenship education offers avenues for hands-on experiences, discernible social and environmental impacts, and empowers individual and communal voices (Sperling, 2009).

Environmental topics addressed in science education represent another crucial domain concerning citizenship. Including any environmental concept or process in science, textbooks can greatly enrich the citizenship values that shape students' environmental awareness (Siatras & Koumaras, 2013). In September 2015, the UN endorsed the Sustainable Development Goals for 2030 (SDG-2030) to tackle an array of global challenges. The goals strive to eliminate poverty, foster social and economic development, combat climate change, and ensure equal opportunities and access to quality education in line with the post-2015 education and development agenda (UN, 2015). A robust connection exists between the objectives of education for democratic and global citizenship and the Sustainable Development Goals. Citizenship education equips citizens with an understanding of the significance of the Sustainable Development Goals by addressing worldwide challenges. National and international collaboration is pivotal in attaining these goals. Through citizenship education, individuals are motivated to raise awareness, assume responsibility, and collaborate, all of which contribute to a sustainable global future. Furthermore, it is acknowledged that many sustainable development challenges, such as droughts, climate change, energy transitions, biodiversity depletion, economic growth, technological advancements, employment, and industrialization, are intertwined with scientific concepts that science education addresses. To realize these objectives, it is vital for citizens to maintain environmental sustainability and scientific literacy. Given the multitude of societal and global challenges, science education is poised to make significant contributions to citizenship education.

Citizenship Education and Science Education in Turkey

In Turkey, from the establishment of the Republic (1923) until the 2000s, the foundation of citizenship education policy revolved around the duty-driven formation of national identity. In this regard, particularly social science courses such as history, geography, and social studies, which contributed to the formation of national identity, were viewed as citizenship courses. However, Since the 2000s, in alignment with the harmonization process with the European Union, there have been significant shifts in the citizenship education policy in Turkey. Within this framework, numerous modifications have been introduced to citizenship courses. In 2005, a curriculum grounded in constructivist education was developed, wherein citizenship education was envisioned as a multidisciplinary approach, with contributions expected from all subjects (MoNE, 2005). The primary objective of citizenship education is to nurture democratic individuals who respect human rights, are environmentally conscious, and value diverse cultures. However, this interdisciplinary approach was short-lived. Starting in the academic year 2010-2011, "citizenship" began to be offered as a standalone course, but only for the 4th grade. At the secondary level, the responsibility for citizenship education was solely entrusted to the social studies course (Kuş, 2014; Kuş, 2020). This approach has severed the link between science education and citizenship education. The foundation of contemporary citizenship education in Turkey centres on democratic citizenship, which upholds national values, thinks globally and is environmentally conscious.

Shifts in science education in Turkey began in the 1990s with the "Science-Technology-Society" concept, mirroring global trends. In 2005, science education underwent a transformation influenced by educational reform, with its content thoroughly revised based on the Science-Technology-Society and Environment (STSE) approach. While the science curriculum was framed around STSE, direct links were not established between the curriculum topics and this framework. As a result, the manner in which to integrate subjects with daily life and citizenship competencies remained ambiguous. Consequently, the primary objective of the science curriculum, last updated in 2018, was articulated

as to heighten the individual's awareness of the interplay between the individual, environment, and society; and to foster an understanding of sustainable development concerning society, economy, and natural resources (MoNE, 2018). This curriculum accentuates the notions of scientific literacy, technological literacy, and environmental literacy, which are essential for contemporary citizens, in addition to numerous values and skills integral to citizenship education. Additionally, the European Qualifications Framework, which encompasses qualifications in science and technology that bolster students' lifelong learning, is integrated. In this vein, the science curriculum's contribution to the objectives of citizenship education is paramount. However, in Turkey, the relationship between science education and citizenship education remains tenuous, and research in this domain is sparse (Özden, 2011).

Turkey is dedicated to exerting efforts at both the national and international levels to realize the SDG 2030 objectives and to undertake the requisite steps for sustainable development. In the Sustainable Development Goals Assessment Report compiled by the Turkish government, it is underscored that Turkey has advanced in many of the goals but still necessitates enhancements across various tiers, spanning policy, strategy, and execution (SDGAR, 2019). The shared tenets of citizenship education and science education (like sustainability, environment, socio-scientific issues, scientific literacy, and society) appear pivotal in achieving the Sustainable Development Goals. Yet, despite their significance, the connection between science education and citizenship education has not been distinctly defined. This frailty in the relationship between science education and citizenship education is not just a national issue for Turkey; it is a challenge recognized on a global scale. Davies (2004) states that although there is literature showing the relationship between science education and citizenship education, there is currently a weak relationship between science education and citizenship tools. Davies (2004) also states that science and citizenship (as well as science education and citizenship education) are closely intertwined. During the current nascent stage of citizenship education, there is a pressing need to delve deeper into how this collaboration can materialize.

This research seeks to examine the links between science and citizenship education in Turkey. To achieve these objectives, we centred on two primary research questions. Firstly, what aspects of citizenship education are encompassed in the Turkish science curriculum? Secondly, how do science educators perceive their role in contributing to citizenship education, and how do they foster students' citizenship skills? To address these questions, this article relies on interviews with eight science educators and contextualizes these interview insights by analyzing the science curricula in Turkey.

Method

Research Design

In this study, a qualitative research design was employed. Qualitative research is an inquisitive and interpretative method that seeks to understand the essence of a problem in its natural setting (Guba & Lincoln, 1994; Klenke, 2016). Such research strives for a profound understanding of the event or phenomenon under analysis (Morgan, 1996). Therefore, qualitative researchers typically collect data from various sources, such as interviews, observations, and documents, rather than relying on a single data source (Creswell, 2013). This study delves into the relationship and contribution of science education to citizenship education in Turkey. To this end, the perspectives and experiences of science educators regarding the science-citizenship relationship were explored, and this phenomenon was contextualized within the science curriculum.

To achieve this, the science curriculum was first reviewed. Subsequently, to address the research question, interviews with science educators were meticulously analyzed.

Data Collection

In this study, multiple types of data (documents and interviews) were utilized to provide clear answers to the research questions. Yin (2014) suggests that using more than one data source helps encompass a broader spectrum of perspectives, behaviours, and attitudes, thereby enhancing reliability. In this regard, the science curriculum, which serves as the foundational guide for science educators and outlines the core content of the subjects to be taught, was examined. In Turkey's secondary schools, science educators teach science for 4 hours a week in grades 5 through 8. Curricula are made available on the official website of the Ministry of National Education (http://mufredat.meb.gov.tr/). In the second phase, interviews were conducted with science educators, who are responsible for implementing the curriculum, using a "Semi-Structured Interview Protocol". The interview questions were formulated based on the themes highlighted in the curriculum after analyzing the science curriculum (see Appendix A). The interview protocol was initially pilot-tested with a science teacher. During this pilot test, questions that the teacher found challenging to comprehend were clarified and made more understandable, and additional sub-questions were incorporated. Once the form was finalized, interviews were conducted with 8 teachers. In qualitative research, the study group comprises individuals familiar with the research topic and capable of articulating their experiences. For this study, criterion sampling, a type of purposeful sampling method, was utilized to select the group. Face-to-face interviews were conducted with eight science teachers. All interviews were carried out in the teachers' native language (Turkish) and were video-recorded. The interviews with the teachers typically lasted between 27 and 35 minutes. Throughout the interviews, the researcher was careful not to impose their assumptions or biases.

Table 1. Demographic Information of the Teachers Interviewed

Participant	Subject Taught	Gender	Years of Teaching	Education Level
ST1	Science	Male	20	Bachelors
ST2	Science	Male	7	Bachelors
ST3	Science	Male	13	Masters
ST4	Science	Male	26	Bachelors
ST5	Science	Female	19	Bachelors
ST6	Science	Female	15	Masters
ST7	Science	Female	27	Bachelors
ST8	Science	Female	17	Masters

As indicated in Table 1, the study sample comprised 8 science teachers. Of these, 4 were male and 4 were female. The teachers' years of experience ranged from 7 to 27 years.

Data Analysis

The data collected from the science curricula and science educators via a semi-structured interview protocol were subjected to thematic analysis. Thematic analysis is a method employed to delve deeper into the content of texts, identify patterns (themes) within the data, and subsequently analyze and report on these findings (Braun & Clarke, 2006). In terms of the analytical procedure, the research data were organized according to the six-stage thematic analysis outlined by Braun and Clarke (2006). These stages include (1) familiarization, (2) generating codes, (3) searching for themes, (4) reviewing codes, (5) defining themes, and (6) producing the report.

Curriculum Analysis

Thematic analysis began with the examination of the science curriculum. The curriculum's introductory section encompasses the objectives of science teaching, as well as associated values and skills. This is followed by units, topics, and outcomes for each grade level. The researchers meticulously read the science curriculum multiple times. Through these repeated readings and during the coding process, it was observed that the codings predominantly pertained to the "*science, technology, society, and environment*" approach, which underpins the science curriculum. Since citizenship education in Turkey is not delivered through an interdisciplinary approach but rather as an independent course, there is no explicit link to citizenship education within the science curriculum. Nonetheless, given that the concepts of "*science, technology, society, and environment*" relate to citizenship education, these notions were designated by the researchers as the framework for thematic analysis. In the pursuit of identifying themes, the *"values and skills"* segment in the science curriculum was also pinpointed as a distinct theme due to its relevance to citizenship education. During the coding phase, emphasis was placed on the relation of each statement in the science curriculum to citizenship education and the concepts that citizens require in a democratic society (see Appendix B). The Maxqda software was employed for qualitative data analysis. To enhance the internal validity of the data procured, direct quotes from the curriculum were incorporated into the findings section. Citations from the science curriculum are abbreviated as 'SC', followed by the respective page number.

Teacher Interview Analysis

Following the analysis of the science curriculum, teacher interviews were examined in the subsequent phase. This is because teachers are the executors of the curriculum and are responsible for linking it to citizenship education. Therefore, their perspectives on the themes derived from the curriculum are crucial. In this phase, all teacher interviews were initially transcribed and uploaded to the Maxqda software as Word files. The interviews were meticulously coded based on the themes that emerged from the science curriculum analysis (i.e., scientific literacy, technology, society, environment, values, and skills). Beyond these themes, a new theme titled "*problems*" surfaced, highlighting challenges in achieving the citizenship objectives of science teaching, as expressed by the teachers during the interviews. Subsequently, all codes were revisited, and the data were categorized under seven pertinent themes (Table 2). In this study, all thematic analyses were driven by the data. To bolster the internal validity of the data, direct quotations from the gathered data are presented in the findings. In these quotations, teacher names were omitted, and instead, abbreviations were used. For example, (ST-1/M) denotes the first male science teacher, while (ST-2/F) signifies the second female science teacher.

Table 2. Main Themes Emerging from the Data Analysis

Data Source	**Themes**						
	t-1	***t-2***	***t-3***	***t-4***	***t-5***	***t-6***	***t-7***
Science Curriculum	*scientific literacy*	*technology*	*society*	*environment*	*values*	*skill*	
Teacher Interview							problems

Findings

Science/Scientific Literacy

Scientific knowledge from various fields, essential for scientific literacy, is frequently incorporated into the science curriculum. This knowledge is categorized under four main subject areas: "*Earth and Universe," "Living Things and Life," "Physical Events," and "Matter and Nature*." For instance, the initial unit on "*Earth and the Universe*" covers objectives related to the Earth, sun, moon, stars, and planets across all grade levels. The "*Living Things and Life*" section provides scientific details about human anatomy, animals, plants, DNA, and cells. Within the realm of scientific literacy, there is a pronounced focus on scientific process skills in the curriculum's objectives. These skills are highlighted with phrases such as adopting a scientific research approach, emphasizing safety in scientific studies, making observations, measuring, classifying, recording data, understanding the evolution of scientific knowledge, and embracing scientific and ethical principles. Furthermore, the curriculum frequently underscores that "scientific knowledge is not fixed and can evolve and advance."

> In the process of discovering nature and understanding the relationship between human and environment, adopting scientific process skills and scientific research approach and producing solutions to the problems encountered in these areas (MoNE 2018, p. 9).

In this study, science teachers strongly highlighted the significance *of scientific knowledge,* viewing it as directly linked to citizenship education. They regarded being *scientifically literate* as an essential attribute for modern citizens. Within this theme, initial discussions centred on the elaboration of scientific concepts. Teachers conveyed that through science classes, students grasp concepts vital for daily life. Lacking knowledge of these concepts would hinder their understanding of many phenomena. Possessing this foundational knowledge allows them to achieve scientific literacy, evolving into scientifically informed citizens. Underlining the importance of scientific literacy, teachers broadly noted that the primary goal of science classes is to cultivate scientifically literate citizens. Such literacy empowers students with problem-solving skills relevant to everyday life, comprehension of their biological development, and abilities like research, inquiry, and critical thinking. Addressing the tie between scientific literacy and citizenship education, ST-2/M remarked:

> *In our laboratory lessons, we typically conduct experiments following the steps of the scientific method. If students can apply these steps in their daily lives, they can address numerous problems* (ST-2/M).

Conversely, some teachers drew a link between scientific literacy and active citizenship, asserting that individuals lacking scientific literacy cannot be active citizens. Additionally, a few teachers mentioned that scientifically literate individuals can make significant contributions to the country and societal harmony.

> *One of the most important characteristics of an active citizen is the ability to inquire. In science lessons, we teach students to question all events that occur in nature. In this way, students gain the ability to question, which is the most basic characteristic of an active citizen* (ST-5/F).

Technology

In the curriculum, there are specific sections emphasizing technology. The technology category is addressed in the context of space exploration, human necessities, our country's scientific research and technological advancements, certain devices, and engineering.

In order to increase our country's capacity for scientific research and technological development, socio-economic development and competitiveness, it is important that students experience the applications of science and engineering (MoNE 2018, .p.10).

The teachers interviewed did not draw a strong connection between technology and citizenship. Opinions on this theme were quite limited, with a few comments primarily centred on space technologies and understanding technological devices. One science teacher remarked on the subject:

> *Technology is everywhere today. There is science in all the technological tools we use in our homes, schools and daily lives. For example, the use of electric vehicles is rapidly spreading. We make them the subject of our lessons. Science teaching contributes to understanding the technological structure of these tools* (ST-1/M).

Society

The science curriculum reveals that certain topics are linked with society. For instance, in the objectives section, there is an emphasis on students taking responsibility for everyday problems, showing interest in events around them, and enhancing their reasoning skills through socio-scientific subjects. Discussions of certain topics highlight non-governmental organizations. For example, the Red Crescent, a blood donation organization, is highlighted when discussing the topic of "blood", while the Green Crescent is underscored in the context of combatting alcohol and smoking. Additionally, there are notes on the significance of organ donation for social solidarity, the importance of first aid, the dangers of unsupervised drug use, and the economic impact of illegal electricity consumption. The curriculum suggests that these topics are primarily addressed in the context of civic responsibilities.

> To take responsibility for daily life problems and to use science knowledge, scientific process skills and other life skills to solve these problems (MoNE 2018, p.9).

In the study, science teachers directly associated science with society (everyday life) and linked it to citizenship within the context of science and society. Teachers noted that while the topics covered in science courses might appear abstract, they are elements students encounter frequently in daily life. Science teachers highlighted that the course delves into all living entities, such as humans, animals, and plants, and that the knowledge acquired about these organisms can be beneficial for students in their day-to-day lives. Every science educator pointed out that through the science course, students first become acquainted with themselves and their bodies, gaining insight into biological changes. A significant connection was drawn between science education and health, emphasizing that the course educates students about healthy eating, sleep habits, detrimental behaviours, and first aid.

> *Through science teaching, the individual discovers himself/herself and learns the biological structure of the body. He learns things that can harm his health. In this respect, it makes an important contribution to public health. They also learn first aid. This is also a kind of citizenship responsibility* (ST-7/F).

Another domain bridging daily life and science pertains to hazards and safety. Several science educators mentioned that through this course, students acquire knowledge about potentially dangerous daily situations, such as electricity, poisoning, and the mixing of harmful chemicals (like acids and bases), thereby helping prevent certain hazards. Furthermore, teachers highlighted the direct influence of scientific advancements on societal life, noting that scientific research propels society forward and significantly contributes to civilization. In this regard, a tight-knit connection was established between science, society, and citizenship.

> *Children are interested in science through science teaching. They become aware of scientific developments. In the future, they may become scientists themselves and make an important contribution to their country and to the whole of humanity* (ST-3/M).

Science educators mentioned that they introduce socio-scientific issues in the classroom, emphasizing that these topics have a direct connection to citizenship. The socio-scientific topics most frequently discussed by teachers include global warming, climate change, various environmental issues, the COVID-19 pandemic, GMOs, organ donation, genetics, child labor, and human rights.

> *Many events in society have scientific causes and effects. The best example is Covid-19, climate change and other environmental issues. All of these come up in science lessons...* (ST-1/M).

Environment

The content related to environmental issues is prominently featured in the science curriculum, directly linking it to citizenship education. In the "*general objectives of the science course*" section, which appears at the beginning of the science curriculum, numerous objectives related to the environment are listed. For instance, specific objectives of the science curriculum contain the following statement, "to make the individual realize the mutual interaction between the individual, environment, and society; to develop an awareness of sustainable development regarding society, economy and natural resources" (MoNE 2018, p. 9). The curriculum contains numerous references to environmental topics, including environmental problems, recycling, natural disasters, climate and climate change, natural environments, biodiversity, renewable energy, and nature conservation. Specific environmental problems addressed include noise and light pollution, space pollution, household solid and liquid waste, and acid rain. The curriculum also discusses the adverse effects of environmental pollution on human health and suggests solutions to these environmental challenges. The causes, potential consequences, and preventive measures related to global climate change are detailed. Additionally, topics such as recycling, reuse, and the economic benefits of recycling facilities are covered. The curriculum also emphasizes aspects directly related to citizenship education, such as environmental protection, the conscientious use of resources, and conservation.

> Students consider how environmental problems may affect the future of the world (MoNE 2018, p. 53).

> Makes inferences about environmental problems that may arise in the future as a result of human activity (MoNE 2018, p.29).

In the study, science educators frequently highlighted environmental topics as being directly related to citizenship education. Teachers drew a clear connection between effective citizenship and various environmental concerns, including environmental problems, protection, recognition, awareness, and sustainable development. They asserted that science education helps students recognize and comprehend their environment, fostering increased sensitivity and consciousness towards environmental matters. Educators pointed out that through science teaching, students gain a deeper understanding of environmental issues like global warming, climate change, greenhouse gases, industrialization, erosion, and various forms of pollution. This understanding enables them to brainstorm solutions to these challenges. The strong link between science, the environment, and active citizenship was a recurring theme. Science educators stressed that an active citizen should be an advocate for environmental protection. Through science education, students cultivate habits such as environmental conservation, appreciation for nature, thriftiness, and maintaining cleanliness. Additionally, some educators mentioned that their courses familiarize students with international environmental treaties and highlight nations that significantly contribute to global pollution.

> *The most fundamental impact and contribution of science education to citizenship is on environmental issues. Science education aims to develop environmentally responsible individuals. It develops knowledge, skills and values related to the environment. In particular, they can understand the causes of what happens in nature. One of the most fundamental aims of citizenship education is to develop environmentally aware individuals* (ST-5/F).

> *In a democratic society, citizens show interest in the environment. Nowadays, climates are changing, different natural disasters occur in different parts of the world. Science teaching can contribute to individuals becoming active citizens in all these issues* (ST-2/M).

Values and Skills

Science educators highlighted that values including scientific integrity, respect-love, compassion, patriotism, and responsibility are crucial in science teaching. They emphasized that science education fosters love and respect for all living beings in students. Through collaborative projects, students cultivate values of responsibility and compassion, becoming more conscious of their environmental responsibilities. Additionally, some teachers mentioned that students' scientific endeavors can significantly benefit their country. By learning about notable Turkish scientists, students also nurture a sense of patriotism.

> *When it comes to patriotism, we think more about military service, but we do not think about that, we think more about inventions. Contributing to the defence of the country through scientific development is the greatest contribution to the country* (ST-8/F).

The teachers interviewed emphasized that science education cultivates numerous skills essential for citizens. They highlighted that modern citizens should possess critical thinking, inquiry, scientific literacy, and problem-solving skills and that science education significantly contributes to honing these abilities. Notably, they pointed out that addressing socio-scientific issues in science lessons aids in the development of these vital skills. Teachers also mentioned that through experiments, students enhance their observational skills, enabling them to better perceive natural phenomena around them. For instance, teachers underscored that after conducting experiments, students create tables and graphs, interpret the results, discuss the significance of using evidence, and refine their expertise in using technological equipment in the laboratory.

> *There are many socioscientific issues in science teaching. When we address these issues, students' communication, questioning and observation skills improve. They learn to listen and understand each other* (ST-7/F).

Problems

In the study, while science educators acknowledged a theoretical connection between science and citizenship, they contended that in practice, science education often falls short of its goals due to various challenges. Initially, the predominant concerns were related to infrastructural deficiencies and the issues stemming from an education system heavily reliant on standardized testing.

Challenges tied to the physical environment encompass overcrowded classrooms (with 35-40 students), the absence or inadequacy of laboratories and their equipment, a lack of sufficient instructional materials, and the unavailability of appropriate activities. Moreover, all educators expressed that the test-focused nature of the education system impeded the full realization of science education's potential. They noted that classrooms tend to prioritize solving test questions over engaging in scientific activities and discussions. The educators also pointed out the external pressures they face from parents and administrators due to exams. They emphasized that this exam-

centric approach acts as a significant barrier for science education to effectively promote citizenship education, leading students to prioritize test performance over real-life applicability.

Some educators highlighted issues stemming from the curriculum, students, and parents. They mentioned the inadequacy of the curriculum content, students' lack of readiness, and challenges in collaborating with parents. One educator also brought up the unique challenges posed by having refugee students in the classroom.

> *As I have said before, science is life itself. But because our education system is exam-oriented, we are moving away from the main purpose of science education. As a result, we are also moving away from citizenship education. We are educating students who can only solve test questions, but cannot solve problems in everyday life* (ST-4/M).

> *There are refugee students in the classes, we have difficulties communicating with these students. Since they do not understand me, they are busy with different things, they do not listen to the lesson and the atmosphere of the class can be spoilt*(ST-2/M).

Results and Discussion

In this study, which examined the relationship between science education and citizenship education in Turkey, the following conclusions were drawn: both the science curriculum and the perspectives of science educators conceptualized the connection between science and citizenship in terms of the environment, society, and scientific literacy. While the curriculum contains explicit objectives related to scientific literacy, educators underscored the importance of being scientifically literate as an essential attribute for contemporary citizens. Teachers conveyed that citizens equipped with scientific literacy develop crucial skills such as problem-solving, research, inquiry, and critical thinking. Furthermore, they posited that citizens lacking this literacy are unlikely to be active participants in their communities. The notion of integrating citizenship education within science is frequently framed and advocated for through the lens of scientific literacy, as supported by various studies (DeHart Hurd, 1998; Jack et al., 2017; Kerr, 1996; Oberhauser & Prysby, 2008; Laugksch, 2000; Wellington, 2002).

The theme most frequently highlighted in both the science curriculum and teachers' perspectives, in the context of science citizenship, was the "environment". Given the escalating global concerns about environmental issues, particularly climate change, environmental content has been incorporated into the science curricula of many countries. Notably, the science curriculum in Turkey, updated in 2018, encompasses an extensive array of environment-related topics. Science educators primarily drew a direct correlation between active citizenship and environmental challenges as well as environmental conservation. In the literature connecting science and citizenship, the environment has long been a focal concept, especially within the realm of socio-scientific subjects (Zeidler & Keefer, 2003; Sadler, Klosterman, & Topcu, 2011; Siatras & Koumaras, 2013; Sperling & Bencz, 2015).

Another domain where the connection between citizenship and science was explored was "society". The curriculum established the link between science and society through socio-scientific topics. Conversely, science teachers related science education to aspects we encounter in daily life, such as living organisms, the environment, safety, and health. The association between science education and everyday life predominantly revolves around scientific literacy and socio-scientific issues. The primary rationale for incorporating the concept of "society" into science education in many countries recently, conceptualized as the nexus of science, technology, society, and the environment is to anchor science education in daily experiences and underscore citizenship-related objectives (Davies, 2004; Sadler, Barab & Scott, 2007; Wellington, 2003). Xiao (2020) noted that one of the primary goals of school science is to equip students for their daily lives, leading to a heightened emphasis on nurturing citizens with robust literacy and a sense of duty. Prominent among the goals of school science are notions pertaining to democracy, participation, the environment, sustainability, social justice, and global citizenship. Consequently, recent educational reports globally

accentuate the significance of science education in fostering scientifically literate students (European Commission, 2015).

Socio-scientific issues are explicitly and directly incorporated into the science curricula in Turkey. In this study, teachers indicated that they introduced socio-scientific topics related to the environment, health, and human rights to their classrooms and endeavored to foster a discussion-rich environment. It is posited that employing socio-scientific issues not only aids students' scientific literacy or cognitive development but also bolsters their social and emotional growth (Topcu, 2010; Topcu, Sadler, & Yilmaz-Tuzun, 2010). As these subjects have societal implications, they encourage individuals to be sensitive and responsible towards social concerns. Socio-scientific issues can be categorized under one of three main areas: citizenship, scientific literacy, or sustainable development (Ratcliffe & Grace, 2003). In essence, a significant objective of science teaching is character development, which encompasses moral decision-making and the advancement of democratic citizenship (Driver et al., 2000; Sadler & Zeidler 2005).

Science educators have underscored the connection between science lessons and values including scientificity, respect-love, benevolence, patriotism, and responsibility. The values highlighted most frequently were scientificity, responsibility related to environmental concerns, and patriotism in the context of serving society. The skill most often linked with citizenship was "observation," which was associated with experiments and environmental occurrences. Other skills stressed by the teachers included questioning, interpreting tables and graphs, problem-solving, and critical thinking. In recent times, science education in many countries has not only centred on imparting knowledge but also on fostering skills like problem-solving, critical thinking, information literacy, and media literacy that students require in their daily lives (Joris et al., 2022; Jiménez-Aleixandre & Puig, 2012; Puig et al., 2019).

One of the most notable findings of this research is the perspective of science educators who feel that, while there is a close theoretical relationship between science and citizenship, science education often falls short in achieving its citizenship-related goals in practice. The literature has long suggested that science education holds significant potential to foster responsible and active citizenship (Lester, Ma, Lee, & Lambert, 2006; Levinson, 2010; Mansour, 2009; Ratcliffe & Grace, 2003; Reiss, 1993; Vesterinen et al., 2016). Yet, despite this strong theoretical linkage, various studies indicate fundamental challenges in realizing citizenship objectives within science education (Mansour, 2009; Pike, 2007).

Conclusion and Implications

In a democratic society, the primary goal of citizenship education is to nurture citizens who possess ethical values, can think critically, understand the causes and effects of scientific and technological developments, and participate democratically. The findings of this research underscore the connection between science education and citizenship education in Turkey. They also highlight the potential of science classes to bolster citizenship competencies, encompassing knowledge, skills, attitudes, and values. Education policymakers ought to explicitly accentuate the significance of citizenship skills in the science curriculum. Science classes should be structured to cultivate citizenship skills, including scientific literacy, critical thinking, problem-solving, inquiry, debate, and democratic participation. The integration of socio-scientific topics and environmental education in the curriculum should be promoted. Additionally, teachers need training and support to seamlessly incorporate citizenship skills into their science lessons.

Considering the global objectives of the SDG 2030, there is a pressing need to bolster a citizenship-oriented approach in science education worldwide. Science education should underscore the significance of environmental protection and sustainability to students, and active participation in scientific endeavors should be promoted through hands-on experiences. Moreover, educational policies should be formulated with a solution-oriented approach to address societal challenges. In

alignment with the Sustainable Development Goals, it is crucial to nurture citizens capable of offering scientific solutions to environmental, social, and economic issues.

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Appendix A : Semi-Structured Interview Protocol

1. Which subjects do you teach in science education?
   a. Do you include socio-scientific topics in your lessons? Why?
   b. What are the methods you use when teaching the subjects?

2. What is the main purpose of science teaching?
   a. Which of these aims do you prioritise and why?

3. Is there a relationship between science teaching and citizenship?
   a. How do you interconnect science, technology, society and environment with citizenship education?

4. Do you include socio-scientific topics in your lessons? Why?

5. How can science teaching contribute to citizenship competences?

6. Which skills do you focus on in science education teaching process?
   a. How do you develop students' skills?

7. Is there anything else you would like to add?

Appendix B - Generated Themes (Science Course Curriculum, 2018)

THE SPECIFIC OBJECTIVES OF THE SCIENCE CURRICULUM

The main objectives of the Science Curriculum, which aims to raise all individuals as science literate, are as follows:	**Themes**
1. To provide basic knowledge about astronomy, biology, physics, chemistry, earth and environmental sciences and science and engineering applications,	scientific literacy
2. In the process of exploring nature and understanding the relationship between human and environment, to adopt scientific process skills and scientific research approach and to produce solutions to the problems encountered in these areas	environment scientific literacy
3. To make students realise the mutual interaction between the individual, environment and society; to develop awareness of sustainable development of society, economy and natural resources,	environment
4. To take responsibility for daily life problems and to use science knowledge, scientific process skills and other life skills to solve these problems,	society scientific literacy
5. To develop career awareness and entrepreneurial skills related to science,	
6. To help to understand how scientific knowledge is created by scientists, the processes through which this knowledge is created and how it is used in new research,	scientific literacy
7. To arouse interest and curiosity in the events occurring in nature and society, to develop attitudes.,	environment society
8. To create awareness of safe working by realizing the importance of safety in scientific studies,	scientific literacy
9. To develop reasoning ability, scientific thinking habits and decision-making skills using socioscientific issues,	scientific literacy
10. To ensure the adoption of universal moral values, national and cultural values and scientific ethical principles	values

SPECIFIC SKILLS IN THE CURRICULUM	**Themes**
a. Scientific Process Skills	scientific literacy
b. Life Skills *Analytical thinking *Creative thinking *Entrepreneurship *Communication *Collaboration *Decision making	skills
c. Engineering and Design Skills *Innovative thinking	skills

VALUES IN THE CURRICULUM	**Themes**
The "root values" in the curricula are: justice, friendship, honesty, self-control, patience, respect, love, responsibility, patriotism and benevolence. These values will come to life in the learning-teaching process by being handled both on their own, together with the sub-values they are related to, and together with other root values	values

Appendix B- Generated Themes (Science Course Curriculum, 2018)

5TH GRADE SCIENCE CURRICULUM

Unıt: Sun, Earth and Moon / Earth and Universe	**Themes**
In this unit, it is aimed for students to recognise and comprehend the basic structure, shape, size and features of the Sun and the Moon; to comprehend the rotational motion of the Sun; to comprehend the rotational and wandering motions of the Moon; to explain that the phases of the Moon occur depending on the motion relationship between the Earth and the Moon; to comprehend the movements of the Sun, the Earth and the Moon relative to each other; to gain knowledge and skills about the destructive natural events seen on Earth.	*scientific literacy* *environment*
1. Structure and Properties of the Sun Recommended Duration: 6 lesson hours Subject / Concepts: Structure and rotational motion of the Sun 1.1. students explain the properties of the Sun. a. The geometrical shape of the Sun is explained. . b. It is explained that the Sun consists of layers like the Earth. c. The rotational motion of the Sun is explained. 1.2. students prepare a model to compare the size of the Sun with the size of the Earth.	*scientific literacy*
2. Structure and Properties of the Moon Recommended Duration: 4 lesson hours. Subject / Concepts: Structure of the Moon 2.1. The functions of the Moon are explained. a. The size of the Moon is mentioned. b. The geometrical shape of the Moon is mentioned. c. Information is given about the surface structure of the Moon. ç. The atmosphere of the Moon is mentioned 2.2. Students discuss their ideas that living organisms can live on the Moon.	*scientific literacy*
Unit: Human and Environment / Organisms and Life	**Themes**
In this unit, it is aimed that students will be able to question the causes and consequences of environmental problems, biodiversity, endangered and endangered species and what needs to be done to protect these species, sensitivity to environmental problems caused by human activities and gain knowledge and skills to solve these problems.	*environment*
1. Biodiversity Recommended Duration: 6 lesson hours Subject / Concepts: Biodiversity, natural life, endangered species, habitat, ecosystem 1.1. Inquires the importance of biodiversity for natural life. Gives examples of plants and animals that are extinct or in danger of extinction in our country and in the world. 1.2. Discusses the factors threatening biodiversity based on research data	*environment*
2. Human and Environment Relationship Recommended Duration: 10 lesson hours Subject / Concepts: Environmental pollution, environmental protection and beautification, human-environment interaction (human impact on the environment), local and global environmental problems	*environment*
2.1. Expresses the importance of the interaction between human and environment. The negative effects of environmental pollution on people's health are mentioned. 2.2. Offers suggestions for the solution of an environmental problem in his/her neighborhood or in our country. 2.3. Makes inferences about environmental problems that may occur in the future as a result of human activities.	*environment*

The Movement of International Education Towards the Globalising Approach: Comparing the International Baccalaureate Diploma Programme and the International A-Levels

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Abstract: *One prominent trend in international education is the growth of commercial, profit-driven international schools all around the world, delivering an international curriculum to local students. The increase in such schools is complemented by the evolution of the "international curriculum" themselves. Two of the most common curricula that are used by international schools are the focus of investigation - the International Baccalaureate Diploma Programme (IBDP) and the International Advanced-Levels (IAL). Through an analysis of the curricula history, curricula set-up, and the teaching and learning of the curricula, this paper argues that the IBDP can be seen as moving from an idealist and internationalist curriculum towards a more pragmatic and globalist curriculum, while the IAL has always been a strongly globalist curriculum. Completing the IBDP or IAL is increasingly seen simply as a pathway towards entry into an internationally recognised university.*

Keywords: *International Education; International Curriculum; International Baccalaureate Diploma Programme; International A-Levels; Internationalist; Globalist*

Introduction

In 2004, Cambridge and Thompson dubbed international education as "ambiguous and contradictory". This fundamental dilemma is then solidified by the growth of international schools at rates never seen before to a clientele that was never the subject of research of international education (Bunnell, 2021). In fact, the main source of growth in international education today is through the increase in the number of commercial, profit-driven schools being set up around the world, delivering an international curriculum but serving local children/parents.

However, the focus of investigation of this paper is different from most literature on this topic as it focuses on the formal international curriculum used at the secondary level, the International Baccalaureate Diploma Programme (IBDP) and the International A-Levels (IAL). The scarcity of literature on the IAL in the discussion of this topic is even more pronounced than the IBDP and this paper intends to fill this epistemic gap. Even within the discussion of the current wave of neo-liberalisation in education, the analysis of these curricula is absent, in favour of more overt representations of neoliberalism such as the increased privatisation of schools themselves, the caps on national education budgets, and the usage of large-scale assessments results in global competitiveness rankings. From an academic perspective, understanding this will enable more

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clarity in developing an understanding of what an international education means. Understanding the IBDP's and IAL's historical and ideological contexts provides valuable insights into the evolving landscape of international education. This could consequently help with strategic planning, not just by profit-motivated firms and investors, but also by governments, accreditors, regulators, and other stakeholders in international education.

In fact, even within the field of international education itself, the tension of whether the purpose of education is utilitarian or intrinsic underscores the complexities of preparing students for a rapidly changing global society. Within the dichotomy of the "globalist" approach and the "internationalist" approach, it is argued that both these curricula are moving closer towards a "globalist" approach to International Education in the 21st century, despite the IBDP still having some "internationalist" tendencies.

International Schools and International Curriculum

The dilemma appears in trying to group the latest wave of schools which claim to be international but only meet some of the characteristics of an international school. For example, the many international schools springing up in Malaysia, today, totalling up to 160 across the country and the rest of East and Southeast Asia which cater to the local community but offer the IB or the International A-Levels (International Schools Database, 2023). Therefore, Hayden & Thompson (2013) have tried to group international schools into three types – Type A, B, and C, summarised in Figure 1 below.

Type	Clientele	Consumer Objectives	Producer Objectives	Examples
Type A - Traditional	Globally Mobile Expatriate Families	Pragmatic	Not-for-profit	International School of Geneva (Ecolint), International School of Yokohama, Alice Smith School
Type B - Ideological	The "Internationally Minded"	Ideological - Promoting World Peace	Not-for-profit	United World School, London International College (Spring Grove), Green Schools
Type C - Non-Traditional International Schools	Elites and "aspirational middle class" of the host country	To experience a different (higher quality) form of education from the national education systems	Mainly for-profit private businesses	Cognita Schools, Nord Anglia Schools, GEMS, Taaleem, and Bright Scholar.

Figure 1: Different Types of International Schools
Source: Adapted from Hayden & Thompson (2013); Bunnell et al., 2017

Type A schools are the original international schools which were started up to cater to expatriate families but over time has also evolved. In its most traditional form, these schools are simply national schools located outside the country of origin i.e., "national international schools". While Type A International Schools cater to a clientele that has moved to a different country for other reasons besides education, Type B International Schools brought students from all over the world as their raison d'etre. The idea behind this is that "if young people are able to live and study together with those from different national and cultural backgrounds with a view to breaking down

the barriers that so often arise through ignorance and prejudice" (Hayden & Thompson 2013, p.6). Type C schools seem to be a hybrid of national and international schools – a school catering to mainly one nationality but using an international curriculum and in some cases offering both the national and international curriculum in parallel (Hayden & Thompson, 2013).

In fact, Hill, back in 1994, was slightly ahead of the times when he cited Cole-Baker who notes that both national and international schools can offer an international education and getting an international education is more of a state of mind, a state of mind of international mindedness (Hill, 1994; Hill, 2012). According to Hill, in an international school, this is developed with the formal curriculum as a contributing factor alongside the more powerful contact with the diverse group of students and staff, but in a national school, due to the absence of this diversity, the formal curriculum becomes paramount (1994, p 8). Therefore, it is likely that Cole-Baker pre-empted the recent growth of the Type C International Schools when thinking about national schools which could promote an international state of mind, in a looser sense. In other words, most Type C international schools may struggle to establish their legitimacy as International Schools bar the usage of a formal international curriculum (Bunnell et al, 2017). It is the formal curriculum which is the main institutional pillar that could legitimise their claim as an international school and therefore the need to look at the formal curriculum is more important than ever now.

Theoretical Framework

As Cambridge and Thompson put it, "international education, as currently practised, is the reconciliation of a dilemma between ideological and pragmatic interests" (2004, p.164). On one side of the spectrum is the pragmatic approach, called the "globalist" approach, and on the other is the ideological approach, called the "internationalist" approach, summarised in Figure 2 below.

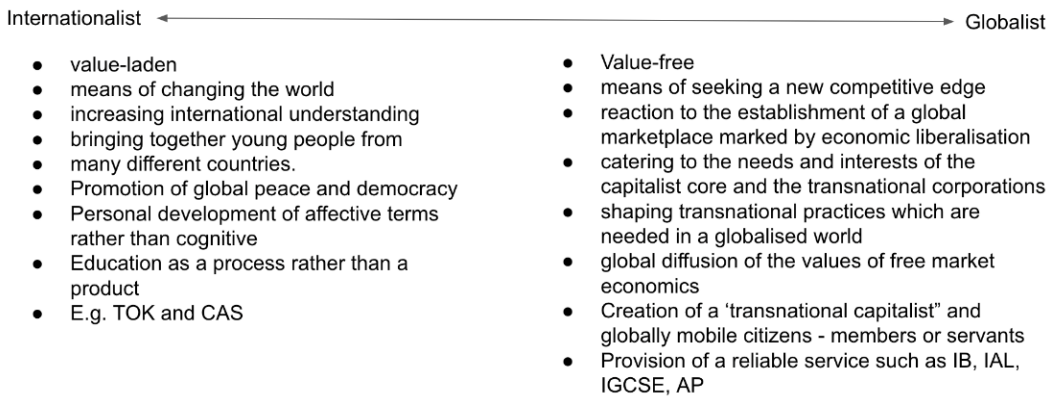

Figure 2: Dichotomy between Internationalism and Globalism in International Education
Source: Adapted from Cambridge & Thompson (2004)

The Globalist Approach

The globalist approach to international education is where international education is seen as a pragmatic response to societal changes brought about by globalisation in general and the spread of the ideology of neo-liberalism around the world (Cambridge & Thompson, 2004; Machin, 2017). Globalisation is creating a world in which the social, cultural, and technological, political, and ideological aspects of life become increasingly homogenous and in which economic interdependence and growth are driven by the principles of free market and international education is an outcome of this homogenisation (Foskett & Maringe 2010, p. 24). Life all around the world is mainly based on the neoliberal idea that human value is based on the person's contribution to the labour force,

i.e., human capital. Education, therefore, serves the purpose of developing the skills and knowledge of each individual who is a factor of production in the economy (Roebyns, 2006; Spring, 2015). Combined with the growth of the international marketplace and the pre-eminence of multinational corporations, education that develops skills and knowledge that is fit for purpose for the international economy becomes even more important.

In fact, the World Economic Forum (WEF) defines human capital as the knowledge and skills people possess that enable them to create value in the global economic system (2017, vii). The WEF, in 2017, also called for greater connection between education and the skills needed for labour markets and asserted that it was not just the cognitive skills which were important but also the behavioural and noncognitive skills, all in preparation for the fourth industrial revolution (Fraumeni & Liu, 2021). This view was also guided by the neo-liberal evangelisation of Bretton Woods institutions which most likely dictated domestic policies, such as the General Agreement of the Trade in Services (GATS) by the World Trade Organisation (WTO) which also liberalised domestic markets for education. Machin (2017) pointed to a few watershed movements in Thailand, Malaysia, South Korea, and India, that showed the national application of this multilateral agreement to domestic policies which then led to the establishment of more international schools and foreign participation in the education systems in these countries, which is also a result of the Most Favoured Nation clause of WTO membership. These privately funded and sometimes profit-motivated international schools offer governments a pragmatic response to the demands of the growing middle classes for quality educational provision without increasing government expenditure (Machin, 2017). These multinational institutions also promoted a simple new strategy that focuses on learning for a simple reason – to develop knowledge, skills, and competencies for growth, development, and poverty reduction (Spring, 2015; Sidhu, 2007). It is the application of knowledge that increases the level of productivity, not just for the individual, but for the overall economy, measured through Total Factor Productivity (TFP) levels (Spring, 2015).

This pragmatism is also echoed by parents, students, schools, and multinational corporations (MNCs). Originally, the movement of labour across borders has moved families across borders as well which meant that expatriate parents need to think about their children's education – schools which taught a curriculum which was transferable back to the home country were needed. This has led to the aptly termed "market-driven" international schools, by Matthews (1989), who argued that these schools arise from the needs of expatriate communities and upwardly mobile host national families (Hayden & Thompson, 2008). Unsurprisingly, many of these schools had parents heavily influencing the boards of such international schools. One of the oldest international schools in Malaysia, the Alice Smith School is so-named as it was founded by a parent, Alice Fairfield-Smith, who wanted to provide a high-quality British education to her children and the children of other expatriate families in Kuala Lumpur, Malaysia, in 1946 (The Alice Smith School, 2022). Therefore, this manifested in the form of schools that were teaching a British curriculum to British students abroad, a French curriculum to French students abroad, and so on and so forth. This evolved into a curriculum that met the demands for educational qualifications that are portable between schools and transferable between education systems (Cambridge & Thompson, 2004). Instead of preparing students for different national systems that students may go back to, the alternative is to prepare students for one set of national examinations and then seek equivalency agreements with individual universities of different state systems (Tarc, 2009). With universities becoming more aware of some of the curricula used by international schools, some of these curricula then became the gold standard for entry into universities around the world, on both sides of the transaction, for the students and the universities. A quick survey of the entry requirements of universities around the world (Bocconi, University of Melbourne, London School of Economics, University of St. Gallen, Princeton, and University of Toronto) shows that the IB and A-Levels are usually on top of the list when outlining the "international" entry requirements for an undergraduate programme.

International schools consequently evolved into being the providers of qualifications that enabled graduates to enter universities around the world and get a job in the international labour market. It is the belief of both students and parents, that international schools, due to the quality

assurance through international accreditation and the spread of global quality standards, will enable social and global mobility (Cambridge & Thompson, 2004). In economic terms, international schools represent a market correction which offsets the lower utility (often) found in government-provided education (Machin, 2017). The extreme reiteration of this would be the privately funded, profit-motivated, international schools, that sell international education as the best form of education for their consumers. As MacDonald (2022) puts it, the selling point of international schools has changed from "your child will not fall behind academically while overseas and will have an amazing experience in the meantime" to "your child will be attending one of the world's best schools and will have a world of opportunity available after graduation." This could translate into higher productivity and consequently higher wages for those who attained this education (Brown et al, 2008; Roebyns, 2006). The aforementioned Alice Smith School, today, is promoted as a school for students aspiring to get into top universities around the world (The Alice Smith School, 2022). This top university qualification would consequently turn into a good job in the international labour market where these workers will enter the transnational capitalist class, progressing their way forward into a "stubbornly neo-liberal" global world order (Cambridge & Thompson, 2004; DeLong, 2022).

On one hand, in choosing to enrol their children into such international schools, both parents and students, are searching for symbolic capital that international qualifications can provide in order to further the social and economic advantage of their family by giving them access to a labour market that is becoming increasingly globalised, distinguishing them from their peers in national systems (Cambridge & Thompson, 2004; Lowe, 2000). Ramirez (2003) went further and commented that this "embodied the triumph of a schooled world 'credential society", one in which an educational credential is necessary for acquired employment (Springs, 2015). However, on the other hand, if analysed from the human capital theory, parents and students could be seen as aiming to not just get the credentials but also the skills that are required for the international labour market, which the national curriculum cannot provide. It is not just in developing countries that this is happening but also in the UK and Germany where rising dissatisfaction with local curriculum has pushed parents to send their children to international schools (Schwindt, 2003; Hayden & Thompson, 2008, p.46).

The final stakeholders in this narrative of international education are the MNCs, the lynchpin in this neoliberal world order. Back in 2005, the United Nations estimated that there were around 64,000 transnational companies, a rise from 37,000 in the early 1990s and generated around 53 million jobs around the world (United Nations Conference on Trade and Development [UNCTAD], 2005). In addition to multinational or regional organisations, these MNCs were the ones who were moving families around, creating demand for international education for their children abroad. However, as the presence of MNCs increased around the world, more and more people aspired to join these corporations that are "the dominant agents within in the world economy" and enter the transnational capitalist class (Giddens, 1990, p. 71; Sklair, 2001; Cambridge & Thompson, 2004). It is therefore unsurprising that MNCs are influencing global school policies and pressuring national school systems to educate and shape human behaviours for the corporate workplace (Spring, 2014, p. xiii). These MNCs at the turn of the century have already complained that "the educational systems of their home country could not be relied upon to supply all the technical personnel needed to keep ahead in industries where constant innovation was matter not simply of success, but of survival" (Sklair, 2001, p. 161). For example, though China produces the largest group of engineers each year, not many of them are suitable to work in multinational companies (Wang, 2008, p. 150). In the eyes of an MNC, in a world of open and available knowledge, a school must work to inculcate rational, intelligent, efficient, and legal habits of consumption and use (Brown et al, 2008).

The Internationalist Approach

While the globalist approach to international education can be seen as serving the needs of the global free market, the internationalist approach to education has a very specific agenda of changing the world. Looking back at the three goals of education outlined by Labaree (1997), namely democratic

equality, social efficiency, and social mobility, we can conclude that while the latter two could be seen as the goal of those taking the internationalist approach, the former could sit within this internationalist approach, as long the concept of global citizenship is used instead of a citizen of a single nation-state. From this perspective, international schools should promote effective and responsible global citizenship – putting a strong emphasis on the creation of an individual who cares about solving global issues such as international conflicts, poverty, and environmental crises.

Even back in Victorian England, it was already noted that "while free trade has done much and will do more, towards breaking down the barriers between nation and nation, a barrier stronger to divide peoples than prohibitory tariffs is mutual ignorance" (Bibby, 1956, p.25). It was in this belief that the International Education Society was founded, which led to the creation of the London International College at Spring Grove, London and two other International Colleges in Chatou, France and Godesburg, Germany, all fully functioning by 1867. The school was created not just for students to go through a formal curriculum of natural sciences, social sciences, and languages, but also for the informal curriculum in a space where boys from all over the world can come together and learn from one another (Bibby, 1956). While the schools in France and Germany lasted only until the Franco-Prussian War of 1870, the London school lasted about 20 years. The next reiteration of this approach to education came with Kurt Hahn, the founder of Schule Schloss Salem, Germany, and Gordonstoun School, Scotland (Cambridge & Thompson, 2004, p. 167).

While the globalist approach is based on self-interest, the internationalist approach is laden with value and embraces the moral development of the individual which would promote world peace (Cambridge & Thompson, 2004, p. 173). Schools that stick to this approach are few and significantly overshadowed by the faster growth in the other types of international schools. However, it is said that the two major networks of schools who are within this internationalist category, the International School Association (ISA) and United World Colleges (UWC) were instrumental in establishing the IBDP in the 1960s (Savvides & Bunnell, 2022, p. 3). Both, on their websites, focus on education as a force or instrument to unite people, promote peace, and build a better world. In fact, Cambridge and Thompson (2004) posited that the UWC was truly representative of an 'internationalist' approach to international education, right at the other side of the spectrum from the 'globalist' approach. The individual schools that are within this category are sometimes regarded as the first international schools in the world such as Ecolint and the International School of Yokohama. Ecolint today still boldly claims to be "educating for a better world", with a mission "to educate for peace", underpinned by their "humanitarian values" (Ecolint, 2016).

To achieve the goal of "changing the world", these schools not only try to bring young people from many different countries together to foster understanding and promote the development of solutions to the problems the world is facing but also emphasise a lot on service to the community and the wider society (Cambridge & Thompson, 2004). This is just as Hahn himself emphasised when he envisioned an educational system that would strongly commit to service, experiential learning, and character building (Price, 1970 as cited in Cambridge & Thompson, 2004). Education is therefore seen as a "process rather than a product", which could be seen as the opposite of the globalist view where the final qualification after leaving high school is what is the most vital (Cambridge & Thompson, 2004, p. 167). It is therefore not uncommon to see lots of community service programmes in internationalist-leaning schools.

In addition, while the original idea of education as a force for peace came in the aftermath of World War I, the world today is also faced with another pressing international issue, environmental unsustainability, and this has led to another education movement that could be categorised within this internationalist approach, which is the Green Schools movement, the first which opened in Bali in 2008 and the fourth opening soon in Tulum, Mexico. There is a 20% local student quota in such schools, but the overall student and teaching body are very diverse (Hardy, 2010). It will not be unexpected to see more of such schools with the main goal of promoting sustainability in the next few years as the threat of an unsustainable environment becomes more real day to day. It is also unsurprising to see that ISA schools are also part of the Eco-Schools Programme, organised by the

Foundation for Environmental Education (FEE), one of the world's largest environmental education organisations.

The Formal Curriculum: IBDP vs IAL IBDP

The International Baccalaureate, originally only a 16-19 curriculum, is an example of a programme that was created from the first principles to become an international curriculum (Thompson, 1998). "With the establishment of the International Baccalaureate Organisation (IBO) in the 1960s, international schools gained autonomy from nation-states and national education systems and 'International Education' became defined in contrast to national forms of pedagogic authority" (Dugonjic-Rodwin, 2021, pp.332-333). The lack of national constraints allowed the founders to come up with something more progressive than what a national curriculum prescribes, and this included a strong humanistic attitude to education, to make a difference for the world, not just to prepare someone to be a responsible citizen of a nation. As of October 2023, the IB is present in 5700 schools in 159 countries (IBO, 2023). The most established IB schools were among the pioneers during the years 1954–1971 when the IB began and today views themselves as the guardians of a highly internationalised ethos - in the words of one of its founders, as an 'experiment in international understanding' (Peterson, 2003; Dugonjic-Rodwin, 2021, p.340). The mission statement of the IBO states that "the International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect" (IBO, 2023). IB's global dreams of promoting "international understanding" come with a diffuse set of liberal-humanist, cosmopolitan visions and desires that emerge from longings for educational and social change (Tarc, 2009, p. 23). According to the IBO (2023), "an IB education aims to develop the awareness, perspectives and commitments necessary for global engagement".

The IBDP, the original programme by the IBO, is a programme taken by students in their final two years of high school. To gain the final IB Diploma, students will need to study 6 subjects, from 6 different subject groups - 3 or 4 subjects at Higher Level (HL) and the rest at Standard Level (SL). Taking a subject at HL technically involves a student going into further depth of each subject which in practice takes the form of the difference in the number of teaching hours, number of content/ topics covered, and/or the rigour of assessments. The subject groups and subjects within each group are outlined in Figure 3 below.

Subject Group	Subjects
Studies in Language and Literature (Studies in a language which the student is already competent in)	**Language A: Literature -** available in 55 languages and, by special request, for any other that has sufficient written literature. **Language A: Language and Literature,** available in 17 languages. **Literature and Performance -** available in English, and by special request in Spanish and French.
Language Acquisition (Studies in a new language or a language which student has experience in but not their main language)	**Modern Languages (nearly 80 different languages available)** **Language ab initio courses** – for pure beginners **Language B courses** – for students who have some experience in the language studied. **Classical languages** **Latin or Classical Greek**

Subject Group	Subjects
Individuals and Societies	**Business Management** **Economics** **Geography** **Global Politics** **History** **Information Technology in a Global Society** **Philosophy** **Psychology** **Social and Cultural Anthropology** **World Religions**
Sciences	**Biology** **Computer Science** **Chemistry** **Design Technology** **Physics** **Sports, Exercise and Health Science** **Environmental Systems and Societies (ESS)**
Mathematics	**Mathematics: analysis and approaches** **Mathematics: applications and interpretation**
The Arts	**Dance** **Music** **Film** **Theatre** **Visual arts**

Figure 3: Subject Groups and Subjects in IBDP
Source: Adapted from IBO (2023)

In addition, students will also need to complete the Diploma Programme (DP) Core, which is made up of an Extended Essay (EE) on a subject of their choice, a course in Theory of Knowledge (TOK) and a project relating to Community, Activity, and Service (CAS). TOK is intended to enable students to "reflect on the nature of knowledge, and on how we know what we claim to know" and CAS to "enhance their personal and interpersonal development by learning through experience" (IBO, 2023). Many schools use CAS as an opportunity to get the students closer to the local community or even work on global issues such as poverty, developmental issues, and environmental issues. The EE has a more value-free intention, as a "pragmatic preparation for undergraduate research" where students write a "mini-thesis" of 4000 words related to an IBDP subject of choice; however, one can also undertake an EE in World Studies where students are encouraged to "reflect on the world today in relation to issues such as the global food crisis, climate change, terrorism, energy security, migration, global health, technology and cultural exchange" (IBO, 2023). In terms of subjects that students must take, there is the requirement that students must not only study a language that they are competent in but also at least one other language in an attempt to promote "an understanding of another culture through the study of its language" (IBO, 2023). In addition, the Environmental Systems and Societies (ESS) subject intends to enable students "to adopt an informed personal response to the wide range of pressing environmental issues that they will inevitably come to face" (IBO, 2023).

The IB also promotes a progressive mode of education where education is seen as both a means and an end, often referred to as the "IB Way". The IB Learner Profile is at the core of IB Education and teachers teaching any IB subjects are supposed to be linking back their entire teaching and learning process to the Learner Profile (Lominé, 2020). The 10 attributes that IB learners should strive to be are inquirers, knowledgeable, thinkers, communicators, principled, open-minded, caring, risk-

takers, balanced, and reflective. In a typical IB school, this list together with an explanation of each of the attributes is present in every classroom. This is then supported with the in-class activities as well, whatever the subject or content covered is. Various research has shown that awareness of the IB Learner Profile is high among IBDP students (Lineham, 2013; Wells, 2016; Rizvi et al, 2014). In a training session for new teachers in IB Business Management, for example, it was emphasised that whatever the topic being covered in class is, teachers should always ask "What am I doing, today, in this specific class, regarding the attributes of the learner profile?" (Lominé, 2020). This, according to the trainer, is what differentiates an IB Education from any other programme of study. The ultimate responsibility of an IB Educator is not just to prepare good mathematicians, good biologists, or good historians, but to prepare young people – the decision makers of tomorrow – to live in a complex multicultural society undergoing a rapid process of change and opening up a new world order (Renaud, 1991, taken from IBO, 2008).

Nevertheless, Hill, contended that in international education, the IBDP included, "very little is really new. It is repackaged, rethought, re-engineered" (2012, p. 256). The story of the creation of the IBDP, therefore, is not complete if the precedence to it is ignored. As noted in the previous section, international schools such as Ecolint started preparing all their students for one pre-university qualification to reconcile the different needs of universities around the world. Families that were enrolled in Ecolint simply wanted an international passport to higher education, which they saw the IB could provide (Hill, 2002). The massification of the IBO in the 1990s and the recent growth of Type-C international schools which has adopted the IBDP also prove that this is still the case (Rizvi, 2009, p. viii). This programme can be seen as providing students with the necessary skills and qualifications to enter a range of higher education institutions around the world, more than the other goal of increasing the student's awareness and understanding of the connections between the academic disciplines they are engaged in every day and the real world. IBDP is sometimes promoted as a stronger passport to universities internationally, not limited to a specific country, unlike the IAL which is still perceived as a more relevant path for those who want to go to the UK specifically. In addition, instead of the IB Diploma, an IB Certificate can be awarded on a course-by-course basis to students who choose not to do the full IBDP and students who satisfactorily complete a course may be eligible for university credit (IBO, 2015).

Therefore, today, the IBDP is caught between two goals – recognition by universities around the world and fostering international understanding. If the IBO wishes to meet the former goal, the latter must be compromised (van Oord, 2007, p.216). With the IBDP, the IBO has given in to "the pressures of it being a means to an end, which is to enable access to the next level of education" (Tarc, 2009, p.24). On one hand, neoliberal reforms around the world have led to a rapid increase in the adoption of IBDP but it has also marginalised the humanist and progressive visions of the entire organisation (Rizvi, 2009, p.viii). This is supported by other allegations that the IB is good for business and the elite but not for the state and societal equity (Resnik, 2009). Students doing the IBDP do not even know the mission statement of the IB, but it is the rigour of the assessment and worldwide mobility that helps create the market currency of the IBDP (Lineham, 2013, p.273).

IAL

While the IBDP can be seen as being created specifically for international education, the origins of the International A-Levels are more nuanced. As Machin (2017, p.133) put it, "in a curious oxymoron, nearly 40% of the world's (so-called) 'international' schools offer variants of the National Curriculum for England". The origins of the International A-Levels were simply a case of 'exportation' to begin with when it was just the English curriculum being extended to students in schools outside the UK because of British colonisation, in their attempt to provide a British education to future colonial administrators, but then slowly 'adapted' to evolving global needs (Thompson, 1998). At the time of Thompson's categorisation, there was only one examination board offering the International A-Levels but today four different boards are offering this qualification internationally. In addition to

Cambridge Assessment International Education (CAIE) which was the first to offer the IAL back in the 1950s, Pearson Edexcel, Oxford AQA, and the Learning Resource Network (LRN) have also started offering this qualification. The latter is the most recent player in the game, as recent as 2021 when LRN's first IAL cohort started (LRN, 2022).

In a clear case of "Adaptation", Oxford AQA promotes its International A-Levels as "benchmarked to UK standards" and Pearson Edexcel promotes its qualification as "built on the UK Educational System" (Oxford AQA, 2023; Pearson Edexcel, 2022). In addition, Oxford AQA, Pearson Edexcel, and LRN's International A-Level modular system was adapted from the UK A-Levels modular system that was sat by candidates in the UK between the years of 2000 and 2016; while the CAIE International A-Levels is more aligned with the current UK A-Levels with its linear assessments and synoptic elements. UK ENIC (previously UK NARIC) which is the UK National Information Centre for the Recognition and Evaluation of International Qualifications and Skills, in three separate reports have confirmed the comparability of the International A-Levels offered by all three exam boards to the UK A-Levels (UK NARIC, March 2016; UK NARIC, June 2017; UK NARIC, November 2017). In addition, the Universities and Colleges Admissions Service (UCAS), the UK's shared admissions service for higher education, dubs the International A-Levels an example of "UK-generated qualifications designed for the global market" (UCAS, 2023).

In terms of the overall structure, the IAL also replicates the UK A-Levels. The typical student takes three different A-Level subjects in two years and the grades from these three will be their main passport to get into university. Some students do attempt to take more than three full A-Levels and in addition to taking more A-Level subjects, students sometimes complete an Advanced Subsidiary (AS) Level in a subject of choice (which is half of the A-Levels). The number of subjects offered varies between the different exam boards, but CAIE offers the most extensive selection with 55 different subjects (CAIE, 2023). One of the more unique subjects offered by CAIE at this level (and also at IGCSE) is a subject called Global Perspective and Research (GPR) which aims to develop learners' thinking skills of analysis, evaluation, and synthesis through the study of a range of global topics selected by the schools themselves, similar to IBDP's TOK (CAIE, 2020). In addition, Pearson Edexcel offers an Extended Project Qualification (EPQ) which requires a student to complete a dissertation, an investigation/field study, a performance, or an artefact, not dissimilar to the EE in IBDP (Pearson Edexcel, 2019). Nevertheless, none of these are mandatory requirements, not even the three full A-Levels that students typically take, and students can get standalone certificates for each A-Level that they take which is sufficient for proof of successful completion of an A-Level subject. From an administrative point of view, the flexibility of the International A-Levels even allows schools to choose different exam boards for different subjects. Some schools also combine International A-Level subjects with UK A-Level subjects. For example, students may have two subjects which are International A-Levels and one which is a UK A-Level. There are also no specifically prescribed subject groups or subjects that students have to take which provides schools the flexibility to offer only subjects that they see fit and for students to only take subjects that they are interested in. Subject combinations therefore could be as narrow as Economics, Business, and Accounting or as diverse as Economics, Biology, and Art & Design. As CAIE (2023) puts it, the subjects can be offered in almost any combination and learners can specialise or study a broad range of subjects.

The IAL is a more result-oriented programme of study, focusing on the value of the qualification as a university entry requirement that it offers the students. Comparing the teacher training offered by Pearson Edexcel and IBDP, the one by Pearson Edexcel was focused on how the exams are assessed and what is covered in the specification. Even the introductory slide was focused on Pearson Edexcel being "the UK's largest awarding body" which "sets the standard for worldwide recognised qualifications" (Pearson Edexcel, 2022). In other words, Pearson Edexcel is unashamedly simple with regard to what it means to be a provider of international education - it sells itself simply as a qualification provider that is recognised internationally. CAIE did attempt to create a comprehensive curriculum to rival the IB with the Advanced International Certificate of Education (AICE), but it failed to achieve the mass-market popularity of the IAL or IGCSE (Lacey, 2008). In the

official documentation, CAIE still tries to promote the Cambridge Learner profile with 5 attributes: engaged, confident, responsible, reflective, and innovative, but it still links these attributes to what universities value highly (CAIE, 2020).

The focus of the IAL in terms of giving students qualifications to enter university comes to no surprise as even from the origins of the A-Levels, this programme of study was created by universities to provide students with a more standardised passport to enter a British university. The humble beginning of CAIE was just the University of Cambridge's attempt to increase the standards of teaching in schools to consequently attract its share of the cream of the school leavers to the University of Cambridge and provide students with a "local" alternative to sit for the exams instead of going all the way to Cambridge (Leedham-Green, 2008; Watts, 2008). The history of the other exam boards that provide the International A-Levels, apart from LRN, also have very similar UK universities origins – Pearson Edexcel with its origins at the University of London and Oxford AQA with its origins in the universities in Manchester, Leeds, and Liverpool (Pearson Education Ltd, 2023; AQA, 2023).

Discussion

In examining the educational frameworks and characteristics of the IBDP and IAL, several fundamental distinctions come to light. The IBDP may seem like it embodies the internationalist approach to international education with its holistic, progressive approach to education free from national constraints as the curriculum focuses on fostering global engagement, critical thinking, and personal development through its core components, such as the EE, TOK, and CAS. The IB Learner Profile emphasizes attributes like inquisitiveness, open-mindedness, and caring, underpinning an ethos that transcends traditional subject-focused education, promoting the idealism of global citizenship and world peace. Together with the encouragement of multiple languages and engagement with various cultures, all these clearly represent the internationalist tendencies of the IBDP.

However, the same people who promote the internationalist virtues of the IB also contend that the IBDP can sometimes be prioritized as being a means to access higher education over fostering broader understanding and intercultural awareness (Hill, 2012; Tarc, 2009). A fundamental dilemma, therefore, arises for the International Baccalaureate Organization (IBO) in reconciling globalism with internationalism. As the IBDP gained popularity around the world, the desires of those who would be undergoing the IBDP also changed towards a more practical reason – the acquisition of intellectual and professional skills – seen not as the means and an end, but simply as a means. Instead of seeing education as a process, even the IBDP is succumbing to the "diploma disease of international education", as it is the product, the IB Diploma, that is emphasised when motivating students to do the IBDP (Dore, 1997). In practice, the internationalism of the curriculum gets further diluted. The TOK and EE offerings only take up less than 10% of a candidate's final IBDP score (3 out of 45) and these are sometimes seen as a chore by students. In addition, although passing CAS (which is graded on a Pass/Fail basis) is a requirement for gaining the IB Diploma, one very rarely fails this component - this is supported by messages posted on various online boards and the only instance of someone claiming to fail the CAS is due to the lack of a competent CAS supervisor in their school (Farbar, 2019). Underlying all of these is the IB Learner Profile, which although recognised by IBDP students, there is no clear evidence that students understand, appreciate, and embrace the values of the IB Learner Profile (Wells, 2011). The pressure to maintain the IBDP's status as a premier university entry passport sometimes compromises its core values, which also prompts criticisms of it catering to the global elite and reinforcing educational inequalities. Although less promoted, the IB can also be seen as giving in to internationalism by allowing students to take just a few standalone IBDP subjects in areas where they have a particular interest or strength, similar to the IAL subjects, to gain university credits.

On the other hand, the IAL, rooted in the British curriculum, is clearly globalist and retains a more straightforward mission and assessment structure, emphasizing subject-based achievement as the main criterion for university entry. This approach aligns with the historical origins of the A-Levels,

initially conceived by universities to standardize the university entry process. Unlike the IBDP, the IAL lacks a comprehensive superstructure and is more result-oriented, primarily serving as a qualification for university admission. The globalism demonstrated by the philosophy and implementation of the IAL is undeniable, despite having some token gestures towards internationalism such as CAIE's GPR. However, there is a risk that the IAL may be going too far to the globalist side of the spectrum and lose the balance between global market demands and maintaining educational standards, especially with the further growth in the number of IAL providers. It is possible that market competition amongst these providers will lead to grade inflation and a reduction in the vigour of assessments to ensure that schools, which are increasingly judged by the results of their students, continue to use a specific provider.

Nevertheless, not all is lost in the internationalist cause of international education, especially the IB. Although the fast growth of Type C schools may be due to the emerging global middle class and their desire to enter the global war for talent, most of these schools are also relatively homogenous, and therefore there should be a bigger role for the formal curriculum to play in inculcating the "international attitude" required. Hayden & Thompsons' 1995 study concluded that the formal curriculum and organisational features of international education are less important in the formation of an international attitude, but this is due to the exposure of students to different cultures within the school being the most important contributor. However, in the absence of students of different cultures in Type C schools, an international curriculum could be a bigger promoter of an international attitude.

Both the IBDP and IAL reflect broader shifts in the landscape of education, navigating the balance between being a means to an end and being an end in itself. Although the IBDP and IAL represent distinct approaches to international education, shaped by their origins, objectives, and historical contexts, the current wave of neoliberalism in the international economy has brought both the IBDP and IAL closer to one another on the globalist side of the spectrum (see Figure 4 below). These two internationally recognised qualifications are increasingly seen as the provider of symbolic capital needed to further the social and economic advantage of its holders to gain a place in an internationally recognised university, which would consequently give them access to an increasingly more lucrative globalised labour market, distinguishing them from their peers in national systems. The newer IAL boards are on the more extreme side of the spectrum, with one simple pragmatic purpose, to give students the qualification needed to get into internationally known universities.

The neoliberal tendencies of the entire field of international education are also supported by the increasing number of profit-making players in the IAL offerings around the world, who still see a gap in this market, challenging the hegemony of long-standing providers of international curricula such as CAIE and IBO. In fact, the field of international curricula today can be analysed as a market, which is increasingly taking an oligopolistic structure, where multiple suppliers of international curricula are vying for market power. In addition, it is also worth pointing out that even international education cannot escape from the neoliberal plague of inequality as access to these curricula remains in the domain of the more well-off in society. The only saving grace in this regard is the idealistic visions of Type B international schools and the potential that Type C international schools can grow their coverage far enough to be able to provide enough access for everyone in the host country to aspire towards joining the international labour market, not just for the upper middle class in each country, who are currently still the main consumers of these schools.

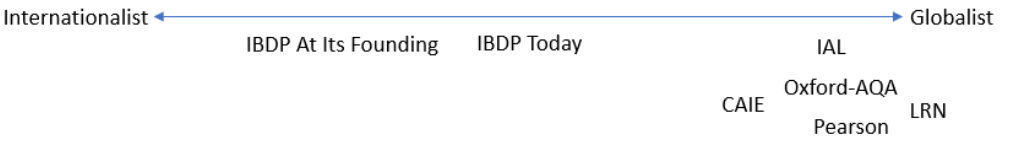

Figure 4: The Location of Different Exam Boards on the Scale between Internationalism and Globalism
Source: Figure created by the author

Limitations

It must be reiterated that this paper focused on the IBDP and IAL, two pre-university programmes of studies. Therefore, there may be a bias towards using such programmes solely as a passport to university. An in-depth study into the implementation of international curriculum for younger students such as CAIE's International General Certificate of Secondary Education, IB's Middle Years Programme or Primary Years Programme, Pearson's iPrimary, or the International Curriculum Association's Middle Years Curriculum or Primary Years Curriculum, for example, may render different conclusions. Research on most of these programmes of study is even more scarce and neglected by academic discussions, which on the other hand opens room for much more research.

In addition, the ever-evolving scene of international education, especially in terms of government regulation may render some of the arguments in this paper slightly outdated. For example, the fast growth of Type-C international schools is already causing some societal discontent, especially with regard to the perpetuation of increased inequality. The latest Chinese government crackdown on for-profit educational institutions is proof of a reaction to this and this has slowed down the growth of international schools in China whether or not this will reverse the trajectory of international education on a more global level is yet to be seen (McMorrow et al, 2021). In addition, at the time of writing, the conservative British government has just announced an overhaul of the British A-Levels system and the implications of how the IAL will be perceived is still unknown.

Conclusion and Implications of Study

It is clear that the IBDP was built upon an internationalist approach towards international education. On the other hand, the IAL is firmly on the globalist side of the spectrum. Unlike the IB, the IAL is not homogeneous and is currently being offered by more than one organisation. However, neoliberal forces have pulled even the IBDP closer towards the globalist side where the IAL is. The intended idealistic global peace and sustainability role of international education, although still somewhat evident in the IBDP, is now simply used as a shield to the changing scene in international education, while, in practice, the increasing attractiveness of international schools and curricula is a reaction to the growing competitive pressure of the global economy (Bunnell, 2022). This study of the IAL and IBDP confirms this, and it is, therefore, no surprise that the fast-growing non-traditional Type C international schools have mainly adopted the IAL and IBDP as their formal curricula.

This also shows that there are no signs that the global laissez-faire and neo-liberal regime is breaking down. In fact, it is the view of the author that one of the manifestations of neoliberalism in education is the expansion of international curriculum such as the IAL and IBDP which is governed not by a national entity, but an international one, such as the IBO, CAIE, or Pearson. More students are using the IBDP and the IAL as the first few steps towards getting a good enough qualification to enter the global labour force, by first getting into an internationally recognised university.

It is, therefore, time, if this has not already been done, for national education policymakers to pay more attention to the developments in such international qualifications as this may be one of the more efficient ways to achieve national development goals in this current neo-liberal era, where nations are competing amongst each other in the ever-expanding global economy. International schools offering an international qualification should be included in the national education and national development policy narrative, or at the very least, taking best practices from international qualifications to be implemented in the national curriculum, as this is where the demand lies. On a school policy level, schools should critically investigate the practicality of implementing the different programmes to ensure that it suits not only their mission but also the logistical and administrative constraints.

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Stereotyping, Prejudice, Collective Self-Esteem And Academic Achievement of Distance Education and Regular Students

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Abstract: *Research has established that stereotyping, prejudice and collective self-esteem predict academic performance. Similarly, in Ghana, students' academic achievement could be influenced by stereotyping, prejudice and collective self-esteem, particularly, in relation to their modes of study. Thus, the study compared distance education and regular students of the University of Cape Coast (UCC) on account of stereotyping, prejudice, collective self-esteem and academic achievement. The study employed the descriptive survey design, and a multi-stage sampling approach to select a sample of 628 comprising 306 and 322 regular and distance education students respectively for the study. Two research instruments that measured stereotyping, prejudice and collective self-esteem of distance and regular students were used to collect data. Data were analysed using multiple linear regression. Results revealed that stereotyping and collective self-esteem predicted the academic achievement of regular students. However, these variables did not predict the academic achievement of distance education students. It was recommended that academic counselling and workshops be organised by the UCC management in order to boost students' confidence and pride in their modes of study.*

Keywords: *Stereotyping, prejudice, collective self-esteem, academic achievement, distance education, regular students*

Introduction

Distance education is the method of offering education or giving instruction to recipients not actually visible in a lecture room as is done in the familiar traditional institutions (Busari, 2017). The Commonwealth of Learning (COL) (2000) describes distance education as a mode of delivering knowledge or skills to people set apart by distance at a certain period in time from their instructors or trainers. The expressions, 'open learning' and 'distance education' are terms that have been used to describe methods that emphasise the need to make knowledge and skills at all levels accessible to learners regardless of their locations or granting learners the same or equivalent chances to access education wherever they find themselves (UNESCO, 2002).

In analysing how the distance education programme operates in Ghana, one needs to consider the underlying structures. Generally, in line with Britain's approach, Commonwealth Countries adopted the Commonwealth model in administering and operating their distance education systems

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(Mintah & Osei, 2014; UNESCO, 2001). Initially, UNESCO proposed that the Ghanaian universities offered part-time studies, teaching and corresponding with students through mass media (Olumide as cited in Mintah & Osei, 2014). In the current Ghanaian setup, there are different ways by which the programmes are run.

First, in terms of distance, there is the remote and the semi-remote. The remote style of distance learning is operated in the true meaning of the word 'distance', where there is no physical contact between the tutors and learners (Mintah & Osei, 2014). One example is the Presidential Special Initiative (PSI) Distance Learning Programme which was aired on Ghana Television (GTV) for Junior High Schools (JHS) and Senior High Schools (SHS) in the early 2000s (Mintah & Osei, 2014). Presently, in the wake of the COVID-19 pandemic, the Government of Ghana in conjunction with the Ghana Education Service (GES) begun the Visual Learning Programme which is targeted at bringing lessons to students of Basic, Junior High and Senior High schools across the nation via television and radio and online (UNESCO, 2020). Another example is the African Virtual University (AVU), which certain public university colleges and departments in Ghana offer. Specifically, the University of Ghana (UG), University of Cape Coast (UCC) as well as Kwame Nkrumah University of Science and Technology (KNUST), and the Ghana Institute of Management and Public Administration (GIMPA) have established AVU facilities which render distance learning programmes such as computer science and business administration which are run in their undergraduate and graduate programmes (Kumi-Yeboah, Young & Boadu, 2014). Presently, Virtual Learning has become the new norm being organised by all universities both private and public in the country due to the changes that the COVID-19 outbreak caused (Upoalkpajor & Upoalkpajor, 2020). Even some private basic schools have taken to this new venture to enable them to meet the learning needs of their students (UNESCO, 2020).

With semi-remote distance learning, a set of students occasionally assemble with their coordinators or tutors to receive some printed models and guidelines to guide them in their learning during the time that they are away or on their own. At a point in time, they re-converge to write examinations which are used to assess their performance (Mintah & Osei, 2014). However, in Ghana, insufficient funding and equipment, and sometimes inadequate personnel have led to the blended form of learning being the most practised. Depending on the university in question, the programme being studied and the site of the campus vis-a-vis the students' location, the contexts and mode of implementation differ (Kumi-Yeboah, Young & Boadu, 2014). In light of the foregoing, some Ghanaian universities run a centralised or decentralised form of education. In the centralised mode, students meet their facilitators at selected distance learning centres across the country and at an appointed time, travel to the university campus which is a centralised point to meet with their lecturers for live revision and writing of examinations when the regular students are on holidays. Some advantages of this mode are that it enables distance students to experience campus life, and also allows them to use facilities that regular students alone had access to (Tackie Larkai, Ankomah-Asare & Nsowah-Nuamah, 2016). With the decentralised mode, every region chooses centres for students to attend lectures and write their examinations. Thus, students are not obliged to go to the main university campus (Tackie Larkai, Ankomah-Asare and Nsowah-Nuamah, 2016). This is practised by the University of Cape Coast (UCC), University of Education, Winneba (UEW), University of Ghana (UG) and Kwame Nkrumah University of Science and Technology (KNUST) in Ghana. Distance education, thus, alters the learning situation from the familiar convergent university type of study into a rather dispersed and easy-to-attend one (Akrofi, 2010).

The regular conventional university system of education in Ghana, on the other hand, spans 9 or 10 years. The undergraduate or first-degree programme takes four years, the second degree (Master of Philosophy) takes two years and the terminal degree (Doctor of Philosophy) lasts for either three or four years. This mode of education is perceived to be the best in terms of quality and performance compared to the distance mode (Senyametor et al. 2022). This study was, therefore, designed to examine and compare the difference between the academic achievement of distance education and regular students of the University of Cape Coast focusing on the final year undergraduate students. A study of this phenomenon is significant in bringing issues catalysing

misconceptions on the inferiority of DE programmes to the conventional systems into the limelight for focused discussion among stakeholders and formulation of policies by the government and the UCC to address the misconceptions as well as improving educational facilities for DE learners. This would go a long way to enable universities in Ghana to run complete remote (virtual) DE programmes in case of any eventuality such as COVID-19 which struck the world in 2019, and make it more flexible and ubiquitous for learners and prospective learners in the future thereby helping the government to achieve its quality and equity education for all policy.

Theoretical Framework

Self-Concept and Stereotype Threat Theories

Rogers' personality theory focused on self-concept, which he explained as the concept of who one is or as a structure that slowly grows due to interaction among people in society and particular significant others (Rogers, 1951). According to Rogers, people's feelings, values, and perceptions that they form about the world and the meanings they form about them constitute their phenomenological field. Those parts of the phenomenological field that have to do with the individual are what define the 'self'. Thus, the concept of self is an organised set of either positive or negative perceptions that people form subject to the nature of interaction with people around them which could either improve or hinder their job or academic performance. In the context of this study, students' phenomenological field comprises people's perceptions of them as distance education learners or regular school learners. These perceptions that they have and their experiences define their self and build or tear down their organismic trust (belief in themselves that they can achieve the best academically). Thus, the perceptions that people have pertaining to a group inform the group members of who they are – the collective self of the group. Through the process of interacting with their environment, regular education and distance education students acquire others' notions about themselves and their mode of study. Those experiences that enhance their collective selves and build organismic trust are incorporated into their collective self-image while those that debase them are rejected.

This can be true for students on a particular mode of study, be it regular or distance, who are regarded or stereotyped as academically good. If one falls within this status, the individual will want to go to all lengths to uphold that name. On the other hand, those who fall short of this status would be psychologically affected as people around them regard them as not good academically. In that wise, students whose mode of study is highly regarded relatively as the best boost their self-confidence such that they work within their abilities, appreciate themselves, live up to their values and seek to actualise their true potential. In this regard, learners tend to please society by living up to their stereotyped status (Igbo, Onu & Obiyo (2015).

In sum, Rogers' theory in relation to the present study, is that distance education students who perceive that they are negatively stereotyped suffer low self-esteem because they are denied unconditional positive regard, just because others such as some officers of the Ghana Education Service (GES), and a section of the society within which they find themselves stereotype them as those who are not academically good. For instance, Tagoe (2014), revealed that one problem distance education faces in Ghana is the prejudiced idea among some parents and students that offering regular university programmes gives students some prestige over distance education students. In addition, the distance education programme is wrongly perceived as a mode for those who were unable to pass the criteria for selection into regular school (Brown, 2009). This assertion is however diametrically opposed to what pertains at UCC, where students on both modes are admitted based on common admission criteria.

The prejudice may make distance education in Ghana less appealing to some graduates from Senior High Schools (Tagoe, 2014). They would prefer regular programmes to distance programmes. For some of them already on the UCC distance programme, their perceptions and judgments of themselves may be distorted due to the negative perceptions people hold about them and their

mode of study. This may lead to low organismic trust and a pessimistic view of themselves. With such a pessimistic view, they may not be confident of their abilities and potentials and so may not be gingered to put in their best to achieve academic excellence. On the other hand, students studying through the regular mode who possibly attract a better perception of themselves due to their mode of study may find themselves in a more congruent state and perform better.

Stereotype threat theory, on the other hand, highlights the position that a person who is an affiliate of a group that is negatively stereotyped can perform poorly in the area to which the stereotype threat relates, especially if this area is also crucial to the person's identity.

According to Stroessner and Good (2021) whenever people view themselves as affiliates of a stereotyped group, threats of the stereotype are activated which turns to weakens their performance because they become anxious that they may conform to the negative stereotypes about their group particularly when the prevailing circumstances magnify their vulnerability.

Distance education, though accepted and hailed by the majority of Ghanaians, has some stereotypes associated with it. As mentioned earlier some members of the general public have the notion that it is meant for the working class, it is stressful, low in quality and does not offer the same opportunity for constant physical interaction with colleagues and lecturers, access library and internet services as regular students do, therefore, students may not perform as regular students who have all these opportunities and facilities. This stereotype may give rise to stereotype threat in distance students when they have to write the same standard of examination as regular students, teach during off-campus teaching practice in the community schools, or compete for job opportunities with their colleagues from the regular mode. This may also affect individuals' collective self-esteem. Conversely, regular students may get stereotyped as inexperienced as compared to distance education students who may already be workers either as untrained teachers or college graduates seeking to upgrade themselves. This may pose a stereotype threat to regular students especially in teaching practice and may cause some anxiety which can suppress confidence and performance.

Empirical Review

Relationship between Prejudice and Academic Achievement

Many studies have revealed conflicting findings on the relationship between prejudice and academic achievement. Some studies revealed a negative correlation between prejudice and academic achievement; others, a positive correlation while others found no relationship at all. Benner et al. (2014), for instance, revealed a negative relationship between widespread perceptions of prejudice in the school and students' GPAs. However, there was no link between students' perception of prejudice and their academic achievement. Of all the factors considered in Benner et al.'s (2014) study, prejudice perceived within the school had the most pronounced effect on students' academic grades and achievement. Thus, the GPAs of students in schools where they perceived more prejudice among their mates turned out to be lower than those who did not perceive any form of prejudice. Institution-wide prejudiced behaviours exhibited against vulnerable groups can be more detrimental to their academic achievement than where few individual students perceive prejudice. Goldsmith (2004) reported that Black American students complained of prejudice and discrimination where student academic grouping is done and racial discrimination is obvious in the process. Contrary to the findings of Benner et al. (2014), Thomas (2011) found that racial prejudice of Black South Africans in tertiary institutions living in a multicultural setting, despite having heard of the negative perceptions that the outgroup holds against them, stayed unperturbed, and their collective self-esteem and academic achievement remained unaffected.

Caldwell-Günes and Silver (2015), similarly revealed that among a sample of 68,825 students sampled from three different ethnic backgrounds namely Black Americans, Caucasians and Hispanics found that student minorities excelled academically, despite racial and social prejudice within the school environment. Results from their investigation revealed that prejudice among peers predicted

students' academic achievement among Black American males and females and White females. However, prejudice did not predict the academic achievement of White males and Spanish males and females. There was also a strong positive correlation between perceptions of peer prejudice and academic achievement for Black American students. This implied that, the more prejudiced students perceived, the better their academic achievement. Caldwell-Günes and Silver (2015) explained this phenomenon by suggesting that sometimes negative experiences help individuals build positive coping skills to counter the crisis. The study also found that White students who were the dominant group reported the highest levels of prejudice indicating that probably the variables that were indicators of prejudice were not the same for Black Americans.

Relationship between Collective Self-Esteem and Academic Achievement

Empirically, research has established a positive correlation between collective self-esteem and high academic achievement (Bettencourt, Charlton, Eubanks, Kernahan,& Fuller , 1999; Thomas, 2011). In the context of adjustment, Bettencourt, et al. (1999) found that students who adjusted well in school developed high collective self-esteem which was reflected in their high academic achievement by the end of the first year. Similarly, Thomas (2011) delved into the association among racial identity, collective self-esteem and academic self-efficacy involving students in a tertiary organization and found that students who were of Black origin including Africans, Zulus, Swaziis, Sothos, Tswanas and Tsongas reported a statistically significant positive correlation between their total collective self-esteem score and their academic self-efficacy which indicated that as collective self-esteem increased, academic self-efficacy which is a good pointer to academic achievement also increased (Seaton, Marsh & Craven, 2010).

In a related study, Knisfsend et al (2020) reported that students who showed unconditional positive regard and were treated fairly developed a very strong sense of collective self-esteem which significantly predicted their academic outcomes better than their distance counterparts. Knifsend et al further revealed collective self-esteem of the students was defined by the positive attitudes of society about their mode of study and their feelings of belonging to the conventional system devoid of discrimination and negative stereotypes. Thomas and Wagner (2016) likewise, compared racial identity and collective self-esteem in relation to academic self-efficacy of White majority and Black minority students in a higher academic institution, recording a statistically significant positive relationship between the collective self-esteem of the Black minority status group and their academic self-efficacy and achievement. This, according to Seaton, Marsh and Craven (2010), academic self-efficacy is a positive indicator of academic achievement implying that as collective self-esteem increases students' academic achievement also increases. This supports Luhtahnen and Crocker's (1992) theory of the development of collective self-esteem that high levels of collective self-esteem are linked to high levels of academic achievement just in the same manner that high personal self-esteem correlates with high levels of academic achievement because both collective self-esteem and personal self-esteem develop from the academic self-concept which is an indicator of academic achievement. It also supports the findings of Cohen and Garcia (2008) and Miller-Cotto & Byrnes (2016) that collective self-esteem has a direct impact on the academic achievement of students. The findings imply that distance and regular students' collective support for one another in addition to positive feelings about their mode of study are capable of boosting their academic achievements.

Statement of the Problem

Statistics from students' records at the University of Cape Coast (UCC) show that the majority of students at the university are made up of distance students. Student enrolment for the 2020/2021 academic year stands at 75,970 with a total of 20,042 regular students and 55,928 distance students (University of Cape Coast, 2022). This shows a relatively higher intake in distance learners as against regular learners. This is because most people desire to pursue higher education without leaving their

jobs and therefore would opt for distance programmes. However, there seems to be a perception among most students in tertiary institutions in Ghana and some members of the general public that students who offer distance education programmes instead of the regular programmes in the universities are low achievers academically in relation to their colleagues who pursue regular programmes. The reason is that they are not exposed to the knowledge that their counterparts who offer the regular programmes are exposed to due to the short duration of contact periods/ hours (Rivera & Rice, 2002). This assertion, however, does not seem to hold for the distance programmes run by UCC since they practice the semi-remote distance form of learning where they meet periodically with their tutors for instruction (Mintah & Osei, 2014). Another reason for the perceived low academic achievement is that they do not have ample time to learn because their time is shared among family life, work and studies (Anhwere, 2013).

The perception held by some students and the general public is that distance education students are low academic achievers creates some form of prestige around regular school as against distance education thus warding off fresh graduates from senior high schools leaving distance education for workers and those unable to meet entry requirement for regular school (Tagoe, 2014). A preliminary interaction with some of the students pursuing distance education programmes revealed that some of them would have opted for the regular programmes if that option were easily accessible through study leave with pay. Unfortunately, many teachers who make up the amount of distance education learners offering education courses do not have this option since the Ghana Education Service (GES) grants study leave with pay facility to a very limited number of practising teachers.

Secondly, even if the Ghana Education Service made the offer of study leave available many would be unable to access it due to some unfavourable job and family circumstances. Some GES officers often make stereotypical comments about teachers studying in distance education mode as those with low quality and competence (Senyametor, et al., 2022). This was coupled with an incident that occurred in April 2019, in which a directive was given to District Directors of Education in Ghana to repost all graduate teachers from distance education from senior high schools to basic schools but was later withdrawn due to public outcry (Amarteifoi, 2019) Ferdinand (2019) revealed that distance education was surrounded with some stereotypes and prejudice and students were aware of it. The problem, therefore, pertains to the fact that some distance education students have registered low efficacy and achievement thus, the distance education programme is surrounded by some form of stereotypes and prejudice to the extent that graduates from that distance mode are perceived to underperform on the field of work and do not match up to their counterparts from the conventional mode (Senyametor, et al., 2020).

The researchers, therefore, intended to find out if these stereotypes and prejudice held against distance education students and regular students have any relationship with their academic achievement, and if collective self-esteem of distance education and regular students has a relation with their academic achievement as evidenced in the literature (Owens & Massey 2011; Massey, & Probasco, 2010; Thomas, 2011; Bettencourt et al., 1999).

Hypothesis

Stereotyping, prejudice and collective self-esteem will predict the academic achievement of regular and distance students of the University of Cape Coast.

Methodology

Research Design, Population and Sampling

This study employed the correlational design and the accessible population comprised all level 400 (final year) students offering education in three regions of Ghana chosen from stratified zones (The nation was stratified into three zones, namely Southern Zone (Central, Greater Accra, Western and

Volta regions), Middle Zone (Eastern, Ashanti and Brong-Ahafo regions) and the Northern Zone (Northern, Upper East and Upper West regions). The present study covered all these three zones with one region selected from each zone using the lottery method. Emphasis was laid on study centres where degree programmes in education are offered designated by the College of Distance Education (CoDE), and all level 400 students offering education on a regular mode in the College of Education Studies of the University of Cape Coast. Level 400 students were considered appropriate for the study because we were interested in their Cumulative Grade Point Aggregates (CGPA) available at the time of conducting the study. Level 400 students offering education programmes at CoDE in the regions chosen for the study were 1, 917 and level 400 regular students offering education in the College of Education Studies of the University of Cape Coast were 1,405. Thus, the total accessible population of the study was 3,322.

Based on the Krejcie and Morgan (as cited in KENPRO, 2012) sampling criteria, sample sizes for the population of 1,405 regular level 400 students was 306, and that of 1,917 level 400 distance learners was 322 were selected for the study using a multistage sampling technique. The total sample size of the study, therefore, was 628. The University of Cape Coast offers similar undergraduate education programmes both on the regular and distance modes so then it was possible to compare students offering similar programmes on different modes.

Purposive sampling was used to select education centres in the selected regions and the final year degree (level 400) students offering education in the distance mode. Subsequently, proportionate stratified and simple random sampling was used to select male and female participants from the selected study centres offering degree programmes within the regions chosen from the zones designated by CoDE.

For the regular mode, the Faculty of Educational Studies, Faculty of Humanities and Social Sciences Education, Faculty of Science and Technology Education and Faculty of Educational Foundations were purposively chosen from the College of Education Studies. A stratified and simple random sampling method was used to select respondents in each department.

Data Collection Instruments

Two sets of questionnaires, Stereotyping Assessment Questionnaires (SAQ) for both Distance Education Students and Regular Education Students (see Appendix A for sample), were adapted for the study. The two sets of questionnaires were designed in a similar way but with a few changes in the wording to suit the two categories of students. The first part (Section A) measured collective self-esteem and was an adapted version of Luhtanen and Crocker's (1992) 16-item Collective Self-esteem Scale.

The collective Self-esteem Scale consisted of four subscales, namely; membership esteem, private collective self-esteem (personal judgments of how good one's social group was), public collective self-esteem (a person's judgment about how he or she thought others assessed his or her social groups), and importance to identity (evaluation of how significant a person's membership in a social group was to the person's self-concept).

The third and fourth parts, (Sections B and C), which measured stereotyping and prejudice respectively were adapted versions of the seven-point Stigma Consciousness Questionnaire (Pinel, 1999). This measured how individuals differed in their perception and reaction to stereotyping and prejudice. The minimum to maximum range scores were 0 - 60. The higher the stigma consciousness score, the higher the level of prejudice or stereotyping and the lower the score, the lower the degree of prejudice or stereotyping experienced. Academic achievement was measured by students' CGPA. The scale was adopted for the study due to its ability to offer the most efficacious and varied levels of agreement, quality, and disagreement to the respondents for better insights into the issues under investigation to ensure an accurate measure of their perceptions and feelings (Cornell, 2023). Despite the usefulness of the Likert scale, It is worth acknowledging the fact that there are some criticisms

about its averaging as done in this study as it could not account for the relevance of grasping and understanding the variability among respondents' views and opinions (Jamieson, 2004).

Validity and Reliability of Data Collection Instruments

The face and content validity of the survey questionnaires on stereotyping, prejudice, collective self-esteem and academic achievement of distance and regular students were evaluated by two senior academic colleagues in measurement and evaluation who are well-acquainted with instrument development in accordance with the objectives of the study, evaluated their quality in terms measuring the constructs they were intended for and necessary corrections pointed out were effected. The adapted instruments were pilot-tested on 35 regular students and 40 distance students at the Department of Education in the University of Education, Winneba to establish their reliability and practicability in the Ghanaian context. The overall Cronbach's Alpha reliability value for all the 36 items on the distance students' questionnaire stood at .793 with Alpha estimates of .777, .761 and .841 for the Collective Self-esteem Scale (CSES), Stereotype Scale (STS) and Prejudice Scale (PREJ) sub-scales respectively. That of the regular students' questionnaire was .826 with reliability estimates of .835, .828 and .817 for the Collective Self-esteem Scale (CSES), Stereotype Scale (STS), and Prejudice Scale (PREJ) sub-scales respectively.

Ethical Issues and Data Collection

This study took into consideration some ethical issues. These involved the right to privacy, voluntary participation, anonymity and confidentiality. To legitimise these, ethical clearance from the Institutional Review Board of the University of Cape Coast (CES-ERB/ucc.edu/v4/20-39) was obtained. The purpose of the study was disclosed to the respondents, and before they responded to the questionnaire, they filled out consent forms and were assured of anonymity and confidentiality. Their names were, therefore, not required on the instruments and could withdraw from the study at any time without giving any reasons.

Course tutors, centre and regional coordinators helped in administering the questionnaires. At the end of the data collection process, 310 completed questionnaires were retrieved from students in the distance mode and 285 from students in the regular mode which resulted in 96% and 93% response rates for distance and regular students respectively.

Data Processing and Analysis

Data for the overarching hypothesis was analysed using linear multiple regression analysis. The hypothesis was split into two parts for the purpose of clarity and analysed separately. the first part tested how stereotyping, prejudice and collective self-esteem predicted the academic achievement of regular students, and the other, how these same predictor variables predicted the academic achievement of distance education students.

First Part of the Overarching Hypothesis: Stereotyping, Prejudice and Collective Self-Esteem will Predict the Academic Achievement of Regular Education Students.

This hypothesis sought to examine whether stereotyping, prejudice and collective self-esteem predicted the academic achievement of regular and distance students of the University of Cape Coast.

In order to achieve the hypothesis, linear multiple regression was used. In this case, there are three predictor variables (stereotyping, prejudice and collective self-esteem) and an outcome variable (academic achievement). Composite scores were calculated with the aid of SPSS which transformed the data gathered on the predictor variables into continuous variables since they were originally measured categorically (measured on a 4-point scale; 1- Strongly Disagree (SD), 2- Disagree (D), 3 -

Agree (A), 4- Strongly Agree (SA). Though the conversion of the scale was done despite some criticisms against the conversion of original scales, it was done to meet the assumptions underlying regression analyses requiring the use of unilinear scales that accommodate continuous variables. Assumptions such as the dependent variable should be continuous and there should be more than one predictor variable, were fulfilled. The outcome variable was continuous since respondents' CGPAs ranged from 1.0 to 4.0. Other assumptions such as the relationship between each of the predictor and outcome variables were also met. Collective self-esteem had a very weak and positive correlation with CGPA ($r = 0.07$, $p = .041$), stereotyping also had a weak and negative correlation with CGPA ($r = -0.150$, $p= 0.008$) and prejudice was negatively correlated with CGPA ($r = -0.074$, $p = 0.001$).

To check for normality, it was observed that the residual errors were approximately normally distributed as determined by the normal Q-Q plot. To check for multicollinearity the variance inflation factor (VIF) was used. It was uncovered that the VIF values were less than 10 for all the predictors (collective self-esteem had a VIF value of 1.113, stereotyping had a value of 1.381 whereas prejudice recorded a VIF value of 1.567). The homoscedasticity assumption was fulfilled since there was no clear pattern of the regression standard predicted value. A summary of the linear multiple regression to test for the hypothesis at a 5% significance level is presented in Tables 1 and 2 respective

Table 1: Multiple Regression Analysis on Stereotyping, Prejudice and Collective Self-Esteem and Academic Achievement of Regular Students

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	2.945	.183		16.065	.000		
	Collective self-esteem	.016	.007	.137	2.368	.019	.898	1.012
	Stereotyping	-.016	.005	-.200	-3.465	.001	.724	1.381

Model	R	R Square	Adjusted R Square	Sig.
1	.240[a]	.058	.051	.000

a. Predictors: (Constant), collective self-esteem, stereotyping
b. Dependent Variable: CGPA
Source: Field survey (2022)

From Table 1, collective self-esteem (Beta = 0.137, $p < 0.05$) and stereotyping (Beta = -0.200, $p < 0.05$) are significantly the best predictors of students' CGPA (achievement). However, whereas collective self-esteem is positively related to CGPA, stereotyping is negatively related to CGPA. Collective self-esteem is thus a positive significant predictor of CGPA. This suggests that high levels of collective self-esteem are likely to lead to high levels of CGPA attainment. On the other hand, the negative, weak but significant predictive ability of stereotyping on CGPA suggests that higher levels of stereotyping are likely to lead to low levels of CGPA attainment and vice versa. Prejudice is not a significant predictor of CGPA based on the results of the study.

Results from Table 1 show that stereotyping, prejudice and collective self-esteem predicted the academic achievement of regular education students of the University of Cape Coast ($R = 0.240a$, $p<0.05$). This means that the hypothesis that "Stereotyping, prejudice and collective self-esteem will predict academic achievement of regular students of the University of Cape Coast" is accepted. From the results, the predictor variables: stereotyping, prejudice and collective self-esteem only account for 5.8% of the variation in students' academic achievement. This suggests that

approximately 94.2% of other variables that have not been considered in this study could account for the variations in students' academic achievement as compared to their stereotyping, prejudice and collective self-esteem

Second Part of the Overarching Hypothesis

This hypothesis tested that; stereotyping, prejudice and collective self-esteem will not predict the academic achievement of distance education students of the University of Cape Coast. Collective self-esteem had a very weak and positive correlation with CGPA (r = 0.07, p = .041), stereotyping also had a weak and negative correlation with CGPA (r = -0.150, p= 0.008) and prejudice was negatively correlated with CGPA (r = -0.074, p = 0.001).

The results are presented in Table 2.

Table 2: Multiple Regression Analysis on Stereotyping, Prejudice and Collective Self-Esteem and Academic Achievement of Distance Education Students

Model	R	R Square	Adjusted R Square	Sig.
1	.156[a]	.024	.015	.055

a. Predictors: (Constant), prejudice, collective self-esteem, stereotyping
b. Dependent Variable: CGPA
Source: Field survey (2022)

Based on the result shown in Table 2, stereotyping, prejudice and collective self-esteem are not significant predictors of academic achievement of distance education students of the University of Cape Coast (R = 0.156, p > 0.05). This means that the hypothesis that "Stereotyping, prejudice and collective self-esteem will not predict academic achievement of distance education students" is retained. From the results, the predictor variables: stereotyping, prejudice and collective self-esteem only account for 2.4% in the variation of distance education students' academic achievement. Since stereotyping, prejudice and collective self-esteem were not significant predictors of distance education students' academic achievement, further analysis to determine the relative contribution of the predictor variables was not done.

Discussion of Findings

From the results, collective self-esteem was shown to be a positive and significant predictor of academic achievement for regular education students. This finding corroborates most of the empirical data on the fact that positive levels of collective self-esteem may lead to increased academic achievement (Cohen & Garcia, 2008; Miller-Cotto & Byrnes, 2016). The present finding supports Rogers' (1961) theory of the development of the self-concept that people who believe in themselves and therefore possess organismic trust leading to high self-esteem are likely to be high achievers. Likewise, people who believe in their group and what they can do are likely to possess high collective self-esteem which can lead to high general achievement levels among members. The present finding is also in consonance with that of Miller-Cotto and Byrnes, 2016), who found that collective self-esteem has a positive correlation with academic achievement. Furthermore, stereotyping was also shown to predict academic achievement, but this time, negatively, which is in line with existing literature. This finding confirms the stereotype threat theory by Steele and Aronson (1995) that negative stereotypes about one's social group could stir up anxiety in an individual which could inhibit the person's performance on standardised tests.

Results from this study, however, indicated that prejudice does not predict the academic achievement of regular students and was therefore not included in the final model. Though a surprising outcome, this confirms the finding of Benner et al., (2014), who found that there was no statistically significant relationship between students' perception of prejudice and academic performance. However, it contradicts other empirical reports such as Lehman (2012) and Mckown (2005, where prejudice has been reported to have a negative relationship with academic achievement. It suffices, therefore, to conclude that the kind of relationship that exists between prejudice and academic performance is situation or institution-specific.

The second aspect of the overarching hypothesis was to examine the predictive abilities of stereotyping, prejudice and collective self-esteem on the academic achievement of distance education students. Results indicated that stereotyping, prejudice and collective self-esteem were not significant predictors of distance education students' academic achievement. In fact, 97.6% of factors that were not covered in this study could account for variations in students' academic achievement, which may include student support systems such as the provision of library facilities, guidance and counselling services and student information services.

This result could also suggest that in Ghana, though distance students may have heard of these stereotypes and prejudice with respect to their mode of study, other issues such as pursuing higher education to be better paid or promoted in their jobs were of more importance to them than the stereotypes associated with their mode of study. For instance, most distance learners are already employed and that may be a source of pride and privilege for them since most regular students would have to go looking for jobs after completion.

Furthermore, one can argue that the issue of closeness and mingling with regular students on the same campus, which is a necessary condition for comparison and competition is absent. This could be the reason for the absence of the negative impact of prejudice and stereotyping on them. This is in line with Thomas and Wagner (2016), and Downie et al. (2006), who revealed that the basis for comparison and its concomitant effects such as stereotyping and prejudice are contextual and based on proximity.

This result confirms that of Benner et al. (2014), who found that there was a relationship between students' perceptions of peer prejudice and their grade point average. They concluded that students' subjective perceptions of peer prejudice were not related to their GPAs. It also buttresses the revelation of Caldwell-Günes and Silver (2015), Salvo, Shelton and Welch (2019), and Thomas (2011) who noted that, for some stereotyped and prejudiced groups of students who find themselves in multicultural settings, in spite of having heard the negative perceptions that the out-group holds against them, stayed unaffected.

Policy Implications of the Study

The policy framework put in place by the Government of Ghana on tertiary education with respect to distance education (DE) focuses on increasing access to higher education. Ghanaian Public Universities responded to the national policy by running DE programmes since 1996. The University of Education, Winneba (UEW) became the first tertiary institution in Ghana to start DE programmes followed by the University of Cape Coast (UCC) and the University of Ghana (UG) in 2001 (Osei, Dontwi & Mensah, 2013). Enrolment in DE in the country has seen a significant boost. However, there is a lack of policy for DE dual-mode institutions on how to achieve quality and parity in performance and achievement on regular and distance modes devoid of stereotypes of study modes, prejudice and so on. Therefore, in the context of the findings of this study where despite no predictor/relation affecting the GPA of DE in terms of collective self-esteem, prejudice and stereotype it is still imperative to make sure that there are policy directives and reorientations by the government and the dual-mode institutions including UCC on the provision of quality learning facilities for DE learners comparable to that of the conventional mode to ensure equity or parity in terms of academic achievement. The findings of this study could offer a policy foundation on which

operative counselling services could be structured for students and introduce courses on prejudice and stereotyping into the core curriculum to sensitise students about their detrimental effects on academic achievement and how to manage them.

Ghana's goal of ensuring access to education at the second cycle and tertiary levels is geared toward adequately addressing the specific needs of its citizens to improve academic outcomes of students and enhance the standard of their lives (Government of Ghana, 2002). It is also to provide an alternative approach to the conventional models in higher education and ensure prudent and efficient use of material and human resources (Government of Ghana, 2002).

In tandem with the foregoing, the trend in Ghana's DE shows that the Cape Coast University and the University of Education, Winneba produce over 70% of all DE public university enrolment in Ghana. Distance enrolment has seen a 39.4% increase (Alberta et al, 2016). Postgraduate school admission was 5% of total distance enrolment. Kwame Nkrumah University of Science and Technology admits 85% of all second-degree distance learners. The total enrolment in DE in Ghana is more than double that of regular student admission in public universities with over 8000 yearly upsurges in admission. Hence regulation for this sector in terms of its quality and performance comparable to the traditional modes by policy is imperative (Alberta et al, 2016).

The trajectory of DE in Ghana indicates a massive expansion. The trend of technology is likely to render this sector of learning very robust and competitive. The question therefore arising is the policy framework within which DE would operate in Ghana. Currently, there are no national standards, conventions or policies for DE in Ghana. This lacunar in policing of the sector will be a threat to the sector in the future of how the major stakeholders view its quality and performance thereby creating more challenges than positives. This explains why a section of Ghanaians presently have negative stereotypic views of DE in general and does not make DE appealing to Senior High School graduates (Tagoe, 2014). This highlights Nyerere, et. al (as cited in Alberta, Ankomah-Asare, Nicholas & Nsowah, 2016) when they revealed that:

> The absence of clearly defined national distance education policies in most African countries poses another challenge. Policies are needed to provide a framework for the development of distance education. With the exception of South Africa, few African countries have clearly defined national policies to guide the development of distance education in their respective countries. The absence of such policies is a clear obstacle to the development of distance education (p, 3).

Governmental operative policy framework regulating DE in Ghana specifically on technological infrastructure, quality human resources in DE management, and common enrollment requirements driven by the Ministry of Education and enforced by the National Council for Tertiary Education would go a long way to engender confidence in the general public and all stakeholders including the GES which is the largest employer of DE products (teachers). This would go a long way to abate the stereotypic views of some stakeholders and the general public about the Ghanaian DE system.

Limitations of the Study

This study, despite its useful revelations, has a number of limitations. The first one has to do with the reliance on self-reports (questionnaires). Social desirability could not be ruled out in the responses given. The students might not have given their honest opinions and attitudes since the survey may have probed into their privacy and their emotions making them report desirable information about their mode of study rather than what actually pertains. Lastly, the use of the Cumulative Grade Point Average (GPA) to assess students' academic achievement was a limitation since students on the regular and distance modes of the university wrote exams of equivalent difficulty levels and did not write a common or same examination and were not taught by the same instructors. Thus, the use of their CGPA might not be a perfect means of assessing their academic achievements.

Conclusion and Recommendations

Collective self-esteem is an important determiner of academic achievement of students pursuing degree programmes in education by regular mode at UCC. Stereotyping has detrimental effects on the academic achievement of students pursuing degree programmes in education by regular mode at UCC. Conversely, collective self-esteem, stereotyping and prejudice did not predict the academic achievement of distance learners.

We, therefore, conclude that though distance students may have heard of these stereotypes and prejudice with respect to their mode of study, other issues including pursuing higher education to achieve job upgrades, are of more importance to them than the stereotypes associated with their mode of study. Based on the findings and conclusions of this study, the following recommendations are presented:

1. Since collective self-esteem predicts the academic achievement of regular students, their collective pride and support for one another as regular students should be encouraged by UCC management and counsellors to boost their collective self-esteem and academic achievement.
2. Stereotyping, prejudice and collective self-esteem are not predictors of academic achievement of distance education students of UCC. They should, therefore, be encouraged to continue not to allow stereotypes concerning their mode of study to define their choice of higher education and prospects for academic growth. This would help them develop closer connections with members of the out-group (regular students) and other members of society to correct and erase any stereotypical beliefs that they have about them.
3. The UCC management should put in place regular seminars to address among others the quality alternative mode of its distance education which is comparable to the regular system and its attendant advantages to enable all major stakeholders (students, prospective students and GES) to appreciate thereby engendering confidence in them about it, and to abate the stereotypic ideas some of them hold about DE.

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APPENDIX A

Stereotyping Assessment Questionnaire for Education Students (Distance Mode)

SECTION A
BACKGROUND CHARACTERISTICS OF RESPONDENTS

Please tick (√) or provide responses to the questions which follow:

1. Please indicate your gender by ticking in the relevant box

   a. Male [ ] b. Female [ ]

2. Please indicate your mode of study by ticking in the relevant box

   a. Regular student [ ] b. Distance student [ ]

3. Please indicate your employment status by ticking in the relevant box

   a. Employed [ ] b. Unemployed [ ]

4. Please indicate your marital status

   a. Single [ ] b. Married [ ]

5. Please indicate your age
   Age: .....

6. Please indicate your CGPA as at level 300
   CGPA: ..... For triangulation purposes and by your consent this information would also be collected from the Students Record and Management Unit of UCC.

SECTION B
COLLECTIVE SELF-ESTEEM SCALE

Collective self-esteem refers to how people view themselves based on their membership to a social group or category to which they belong. Please indicate your level of agreement to the following statements that focus on Collective Self-esteem. Circle the number and the letters of the 4-point scale (1- *strongly disagree*, 4- *strongly agree*) that best describes how that statement applies to the way you see yourself as being a member of distance education students. Please make sure you do not omit any item.

1- Strongly Disagree (SD), 2- Disagree (D), 3- Agree (A), 4- Strongly Agree (SA)

No.	Collective Self-Esteem Scale	SD	D	A	SA
1	I feel that I am worthy to be a distance education student.	1	2	3	4
2	I often regret that I am a distance education student.	1	2	3	4
3	Overall, being a distance education student is considered good by other people.	1	2	3	4
4	Overall, being a distance education student has very little to do with how I feel about myself.	1	2	3	4
5	I feel I don't contribute much to the distance education students' group that I belong to.	1	2	3	4
6	In general, I'm glad to be a distance education student.	1	2	3	4
7	Most people consider distance education students to be rather ineffective at the workplace than regular education students.	1	2	3	4
8	Being a distance education student is an important reflection of who I am.	1	2	3	4
9	I participate in all the various distance education students' group activities on campus and even outside campus.	1	2	3	4
10	I often feel that being a distance education student is not anything to boast about.	1	2	3	4
11	In general, other people respect distance education students.	1	2	3	4
12	Being a distance education student is not important to my sense of what kind of a person I am.	1	2	3	4
13	I often feel that I'm not very useful to the distance education students' group. I do not participate nor offer anything to the group's activities.	1	2	3	4
14	I feel good about being a distance education student.	1	2	3	4
15	In general, other people think that being a distance education student is not anything to be so proud of.	1	2	3	4
16	In general, being a distance education student is an important part of my self-image.	1	2	3	4

SECTION C
STEREOTYPING SCALE

Stereotypes are knowledge, beliefs, traits, attributes and expectations a person or group of people have about another particular social groups which can have an effect on the target's personality. On a scale of 1-4, indicate the extent to which you agree or disagree with these statements as a distance education student. Tick (√) where applicable.

1- Strongly Disagree (SD), 2- Disagree (D), 3- Agree (A), 4- Strongly Agree (SA)

No	Statement	SD	D	A	SA
1	What people say about distance education students can negatively affect my opportunity of getting a good job as compared to regular students.	1	2	3	4
2	I am never worried when people see me as a regular education student.	1	2	3	4
3	When interacting with regular education students, I sometimes feel that they perceive me differently because I am a distance education student.	1	2	3	4
4	Most regular education students judge distance education students based on their mode of study.	1	2	3	4
5	My being a distance education student does not influence the way regular students behave towards me.	1	2	3	4
6	I almost never think of the fact that I am a distance education student whenever I interact with regular education students. They make me feel like I am one of them.	1	2	3	4
7	My being a distance education student does not influence how other people in society including officers in the education sector behave towards me.	1	2	3	4
8	Most people have a lot of negative thoughts about distance education students and they sometimes say so.	1	2	3	4
9	I often realise that regular students are proud and they look down on distance students.	1	2	3	4
10	Most people have a problem viewing distance education students as being equal to regular education students.	1	2	3	4

SECTION D
PREJUDICE SCALE

Prejudice is the preconceived judgment or opinion a person or group of people in society make about another person or another group of people based on some social beliefs, and it is sometimes accompanied by unreasonable discrimination. On a scale of 1-4, indicate the extent to which you agree or disagree with these statements as a distance education student. Tick (√) where applicable.

1- Strongly Disagree (SD), 2- Disagree (D), 3- Agree (A), 4- Strongly Agree (SA)

No	Statement	SD	D	A	SA
1	The way people treat distance education students makes me realise that regular students stand a chance of getting better jobs.	1	2	3	4
2	I am never worried when people see me as a distance education student	1	2	3	4
3	When interacting with regular education students, I sometimes feel that they show an attitude of dislike for me because I am a distance education student.	1	2	3	4
4	Most people in society discriminate against distance education students based on their mode of study.	1	2	3	4
5	My being a distance education student does not influence the way regular students relate with me.	1	2	3	4
6	I do not feel bad as a distance education student whenever I interact with regular education students. They treat me like I am one of them.	1	2	3	4
7	My being a distance education student does not influence how other people in society such as employers relate with me.	1	2	3	4
8	Most people have a lot of preconceived negative opinions about distance education students and sometimes they show it.	1	2	3	4
9	I often observe that regular education students do not respect distance education students.	1	2	3	4
10	Most people have a problem treating distance education students as being equal to regular education students.	1	2	3	4

BOOK REVIEW

Education in Cambodia - From Year Zero Towards International Standards. By Vincent McNamara and Martin Hayden (Eds) (2022), 314 pages. ISBN: 978-981-16-8212-4. Singapore: Springer Nature.

This critically significant work about Cambodia has a principal focus on education and it adequately fulfils the purpose of the Springer Book Series "Education in the Asia-Pacific Region: Issues, Concerns and Prospects" notably being the 64th in that series published since 2002. *Education in Cambodia* includes a comprehensive overview and valuable insights into the provision and development of schooling, formal education, and training in Cambodia since Pol Pot's Year Zero (1975). The book also usefully examines the macro context often dealing with the organisational framework, policy making, and implementation of issues considered.

To attempt a comprehensive analysis of education in Cambodia in its various forms is a major challenge as the Editors state: "Cambodia is one of South East Asia's economically poorest, most youthful, least urbanised, and most culturally homogeneous countries." The book aims to provide an overview of education in Cambodia against a background where minimal scholarly material is available to international readers and researchers. Thus, *Education in Cambodia* is the first book of its kind published. Whatever variability might inevitably be found in a multi-authored work, this book establishes a solid basis for future scholars researching sector-level or specific issues in Cambodian education and training.

The volume is presented in three parts outlined by the Editors: "The first part concerns sector-level issues. The second addresses cross-sectoral and policy-related matters. Finally, the third part focuses on stakeholder inclusion issues." There are 16 chapters referenced to extant research supporting each author's analysis. The list of Initialisms and Acronyms has 94 items, vitally important given the complexities of the Cambodian government and associated entities. The Index of four pages is short and might have been more extensive, but sufficient. A welcome input for a volume of 16 separate chapters is the rich profile of the contributors. This helps situate a contributor's professional and academic background, perspective, and any possible bias discerned. A useful inclusion in this publication would have been a collation of all references from separate chapters. Such an integrated list would benefit both Cambodian and international researchers.

Intertwined with the progressive development of education in Cambodia towards international standards is the distinctive and culturally significant issue of the Khmer language. The Editors note inadequate research about the Khmer script in relation to early learning and how the script's complexity may inhibit development of basic literacy with implications for subsequent of education and training. The Khmer language has Indic and not Sinitic origins being written since the 7th century using a script originating in South India. By comparison, other nations have modified orthography to apparent educational advantage. For example: Korea, in 1443 devised an alphabet, then opposed by Confucian scholars, allowing all people to become literate and currently has one of the highest educational levels in Asia; and Vietnam, under the influence of French missionary priests, adopted the Roman alphabet dating from 1619.

The script issue is not trivial. *Education in Cambodia* records that the PISA-D survey results for Cambodia show that students from less advantaged socio-economic backgrounds performed more poorly on reading, science, and mathematics proficiency tests. The inherent disadvantage created by the challenge of Khmer script competency and the opportunity to access quality education interrelates with the issue of equity. This is identified in several chapters and by the Editors who in assessing PISA-D and Ministry of Education Youth and Sports data conclude: "Students from the

least advantaged home backgrounds were also shown to have little likelihood of ever achieving a baseline reading and mathematics proficiency level."

An overview of education in Cambodia written by the Editors identifies key concerns and themes. Part I: Issues at the Sector Level provides in five chapters of 83 pages the anatomy of education and training in the national system. Each chapter presents a succinct outline and analysis of key issues in different sectors of education and training, namely: Early Childhood, Primary, Secondary, Technical and Vocational, and Higher Education. Part II, focussing on Cross-Sector and Policy Issues, further examines critical aspects of the physiology of education policy, operations, and implementation. Crucial contributions, among the eight chapters of 175 pages, include assessment of the teaching profession, leadership and management in the education system, budget and financing, and three chapters dealing with progress and challenges in higher education. In Part III, Stakeholder Inclusion Issues, two chapters of 34 pages, survey the vitally significant matters of female participation in higher education and multilingual education for ethnic minorities.

Education in Cambodia and its treatment of education and related issues is likely to interest not only specifically scholars of matters Cambodian but also researchers of nations in transition and any society that may have experienced, in part, a trauma such as that of the Khmer Rouge Regime. Excluding the Editors, it is notable that of the 26 contributors, 16 are Cambodian nationals. This is a magnificent tribute to the Editors and one significant expression of social and educational progress in Cambodia. In the late 1990s, a book on higher education in Cambodia found it was not possible to include any national contributors because, at that time, published critical assessments may have become career or possibly life-threatening.

Education in Cambodia with its clearly presented tables, graphs and charts has been meticulously edited; and the layout and sub-section headings facilitate easy reading and subject searching. In the Preface, the Series Editors state that: "All volumes in this series aim to meet the interests and priorities of a diverse audience including researchers, policy makers, and practitioners; tertiary students; teachers at all levels within education systems; and members of the public who are interested in better understanding cutting-edge developments in education and schooling in Asia-Pacific." *Education in Cambodia - From Year Zero Towards International Standards* is commended to this readership as a unique compilation. It also represents a challenge for further research and publication, especially by Cambodian nationals.

David Sloper
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