

Lived Experiences of Science Teachers in Delivering Advanced Placement Curriculum in China: Toward A Framework for Professional Resilience in Cross-Cultural Teaching

Jeafrey B. Murillon ¹, Arlene A. Justo, Ph.D. ²

1 – NANSHA College Preparatory Academy Guangzhou, Guangdong, China

2 – University of Perpetual Help System DALTA

Publication Date: July 7, 2025

DOI: 10.5281/zenodo.16208625

Abstract

The Advanced Placement Program allows high school students to demonstrate college readiness while earning credit toward higher education degrees. However, constraints can prevent students from pursuing additional education, inhibiting student learning, limiting university options, and compromising employment opportunities. This study was designed to capture the lived experiences of Filipino teachers teaching advanced science curriculum in China. The study used a phenomenological qualitative research approach to analyze the lived experiences of eight teachers who were recruited to take part in the study. Participants were interviewed using a self-created questionnaire designed to elicit responses on their lived experiences teaching Chinese students with the Advanced Program Curriculum in science, with a focus on background and motivation, cultural

experiences, teaching methods and adaptations, student engagement and learning styles, and support and resources. Results showed that participants characterized teaching science in the advanced placement program as a combination of technology, cultural awareness, and innovative tactics that increase engagement, adapt to different learning styles, foster collaboration, and support professional development. The study demonstrates that science teachers in AP programs embrace progress, teamwork, cultural adaptability, student achievement, innovative teaching, and professional development to improve science education. The study's findings served as the foundation for developing a framework for professional resilience in cross-cultural teaching, which was thought to benefit both teachers working overseas and their students.

Keywords: *Advanced Placement program, collaboration, cultural awareness, phenomenological, science*

1. Introduction

Background and rationale

In recent years, there has been a surge in demand for international education, particularly in China, where the number of foreign teachers has increased as international schools have expanded. Filipino teachers are among the educators recognized for their passion, adaptability, and expertise in delivering exceptional instruction. The College Board Advanced Placement (AP) Program is widely renowned and available worldwide. The program comprises college-level courses that AP-authorized high schools can offer, as well as related tests administered once a year around the world, including China. One of the most popular university preparation curricula is the Advanced Placement Curriculum (AP Curriculum) in China. (Chen, Y., & Xiao, L. 2022). The Advanced Placement (AP) Curriculum is a collaborative effort among secondary schools, colleges, and universities. It allows enthusiastic high school students to take subjects equivalent to first-year College courses while still in high school. Students who participate in the program not only gain college-level information, abilities, and study habits but also typically earn college credits while still in high school. AP courses are delivered by qualified and excellent high school instructors who follow the course criteria written and published by the College Board. Its meticulously planned syllabi enable students to grow their writing skills, hone their problem-solving talents, and strengthen their time management skills and discipline become the foundation of their college major. (Justin, 2023). Advanced Placement enables high school students to demonstrate college readiness and receive credit toward higher education degrees. However, restrictions can prohibit students from obtaining advanced education, stifling student learning, limiting university possibilities, and jeopardizing career chances. (Chen, Y., & Xiao, L. 2022). However, barriers can prevent learners from accessing this advanced material, restrict student learning, and limit university options and their impact on professional prospects. (Heleno, 2023). The Advanced Program (AP) for high schools in Guangzhou Ulink International School follows both standards of the US curriculum and the Chinese classical curriculum. The program offers eight advanced classes in high school, including AP Biology, AP Chemistry, AP Physics, and AP Environmental Science. Shifting teacher perspectives to an access-focused approach provides a potential method for removing restrictions, leading faculty to alter practice in the AP curriculum at GUIS. The context of the study will outline the unique experiences and opportunities faced by Filipino teachers as they teach the Advanced Placement Program for an International School in China.

Review of Related Literature

This chapter contains important research and literature from journals, master's theses, and doctoral dissertations, as well as sufficient information for the researcher to carry out this research. The researcher organized and collected references from various perspectives and based on the available information. These references are loosely sorted into categories as described herein.

International Schools Teaching Methodologies and Adaptations

According to Wright and Lu (2024), Chinese students who attend international schools do not take the National College Entrance Examination (gaokao) and are therefore ineligible for admission to Chinese institutions. Schools for children of foreign nationals can only accept foreign passport holders, residents of Hong Kong, Macau, and Taiwan, or Chinese citizens with at least one parent holding foreign permanent residency. This category of school includes a few public schools with international departments that operate under the same regulations as schools for children of foreign nationals. For Pardo de Rincón, G. (2024), valuing diversity and realizing the obstacles of cultural inclusion call for continual learning and effective training to promote an inclusive, diverse, and respectful educational learning environment. Teachers

demonstrated greater knowledge and commitment to providing an inclusive learning environment. El-Sabagh, H. A. (2021) also said in her study that adaptive e-learning based on learning styles may help students remain interested. As a result, adaptive e-learning based on learning styles enhanced student engagement dramatically. According to research, each student has a distinct learning style and prefers to engage in a variety of instructional materials and activities.

Furthermore, student preferences influence the effectiveness of learning. As a result, the most successful learning environment should tailor its output to meet the needs of its students. High-quality instructional materials and activities tailored to students' learning styles will increase participation and motivation. Finally, learning styles provide a suitable foundation for developing instructional materials based on learning theories. As per Kirby (2024). Chinese universities continue to rise in the world rankings. The establishment of a new scientific and engineering institution in China, where liberal arts form an "indispensable component" of its interdisciplinary, participatory, and small-class-based undergraduate curriculum, has led to an improvement in Chinese universities' global educational rankings. In addition, Wu & Koh (2023) state that the changing dynamics of global-local connections influence how international schools are redefined and shaped. The concept of reining in the international draws analytic attention to the role of state power and social agency in controlling and directing global flows of international schooling, providing concrete evidence to demonstrate the disjunction that occurs when the global/international is interrupted and transformed by local/national conditions. In China, the local has taken on the role of 'content supplier and negotiator' in the global-local confluence of forms embraced by foreign schools.

In their study, Gong et al. (2021) disclose in their study idea that language educators need to revise traditional pedagogical approaches so that new pedagogical activities can be developed to promote study abroad students' communication competence, and counseling services should be provided to support their cultural adaptation and language learning. As for Hammer, M. R. (2023), when educators intervene in their students' learning overseas, they significantly improve their ability to adjust to different cultural values and practices. Intercultural competency development is dependent on interventions that help students become more culturally conscious of themselves and others. In addition, the analysis of Gong et al. (2021) revealed the variety of challenges that the participants faced, including language-based, lifestyle, and academic challenges, as well as sociocultural and psychological ones. In response to these challenges, the participants adopted diverse strategic efforts to achieve cognitive, affective, and skill development in facilitating their communication practices with local Chinese people. These findings suggest that language educators need to revise traditional pedagogical approaches so that new pedagogical activities can be developed to promote study abroad students' communication competence, and counseling services should be provided to support their cultural adaptation and language learning.

Students Engagement and Learning Styles with International Curriculum

According to Simanjuntak et al. (2022), the Cambridge Curriculum can help schools all across the world improve the quality of their learning. According to Wright and Auld (2022), the relevance of 'cosmopolitan nationalism' in revealing the nature of international schooling in China is expanded by using it to designate the identities expressed by students, who confidently project the national into the global with their future expectations. In addition, Cutri et al. (2024) disclose that, to suit Chinese cultural and family expectations, international education has been localized, resulting in the Sino-Australian senior school's unique transnational social arena.

In their study, Yi et al. (2024) concluded that community involvement is critical in supporting TPD activities, with strong parental and local organizational participation greatly improving educational resources. Furthermore, technology advancements, particularly online learning platforms, present exciting opportunities for reducing regional obstacles and increasing access to professional development. Peer

collaboration through Professional Learning Communities (PLCs) has been highlighted as a successful technique for building a supportive network among educators.

The findings of the study of Pamzan et al. (2023) revealed that teachers employ a variety of useful collaboration approaches in their teaching practices to assist students in reinforcing their enthusiasm to study and expand their vocabulary. These approaches include shared learning. Feedback, evaluation, and collaborative writing activities. It increases learning satisfaction and encourages students to use collaborative strategies in their teaching practices to help their students enhance their vocabulary knowledge in the classroom.

However, Wang and Wen (2023) give two important realities. First, both the nativeness and intelligibility principles have been included in English National syllabi and curriculum standards, though the former is implicitly given precedence, which explains why the nativeness principle is so popular in formal English education, particularly in Chinese schools. Second, since the concept of English as a lingua franca has become more widely embraced in syllabi and curriculum standards, the intelligibility principle has gained importance. As a result, it was elaborated that the two principles are not contradictory by nature.

Furthermore, Wright and Mulvey (2022) contend that each international program (Advanced Levels, Advanced Placement, and International Baccalaureate Diploma Program). Each international program offers diverse capital combinations associated with different global circuits of mobility for higher education. The relevance of 'cosmopolitan nationalism' in revealing the nature of international schooling in China is extended by using it to designate the identities stated by students, who confidently project the national into the global with their expectations for the future.

Likewise, Liu et al. (2024) added that Prior English proficiency and ethnicity were found to be significant predictors of academic success, demonstrating that underlying language skills and cultural background were major influences on learning outcomes. In conclusion, this study underlines the need for educators to create inclusive and successful learning environments through the use of flexible and adaptive instructional practices as well as technological integration. Another study conducted by Wang, X., and Zhang, W. (2022). suggest that the optimum blended learning mode will increase foreign language learners' learning motivation and autonomy, allowing them to develop and improve their autonomous learning behavior.

However, Yin, M. (2024) declared that there are significant contrasts between the Chinese and American high school education models. The American schooling model offers a significant benefit in doing comparison research on the educational status of public high schools in China and the United States. There is a better understanding of American education that can be used as a guide for any country's public high school education reform.

Wei et al. (2022), in their study, were able to find out that the multicultural experience of teachers is positively related to their creative teaching and that their CQ mediates the relationship between multicultural experience and creative teaching. Consequently, we contribute to the literature in this area by providing empirical support for the connection between multicultural experiences,

Teachers execute the curriculum, which brings it to life and transforms it into teaching and learning. Zeng S. (2024) during the investigation of curriculum implementation in the International Baccalaureate in the Australian context. Globalization, societies, education curriculum, and educators are intricately linked; teacher implementation involves a wide range of legislation.

Pham (2023) indicated that the teachers were happy about the new curriculum, stating that it had many qualities and was introduced at the correct moment. The teachers claimed that they comprehended the new curriculum's ideas and attempted to implement them. They identified numerous initial favorable

effects of the curriculum on pupils and themselves. However, the teachers faced a number of challenges. Furthermore, the teachers encountered significant difficulty in developing the long-term syllabus and objectives for individual courses as a result of fundamental discrepancies between the prior and new curricula.

Yi et al. (2024) on their study concluded that community involvement is critical in supporting TPD activities, with strong parental and local organizational participation greatly improving educational resources. Furthermore, technology advancements, particularly online learning platforms, present exciting opportunities for reducing regional obstacles and increasing access to professional development. Peer collaboration through Professional Learning Communities (PLCs) has been highlighted as a successful technique for building a supportive network among educators.

In the study of Han et al. (2024), the findings revealed that teaching staff development is critical to the "Double High Plan's" success, as it ensures vocational education quality and drives transformation. The "three dimensions and five integrations" approach of LZPU efficiently addresses issues in teaching team building. This model is a significant resource for China and other locations, adding to existing research on vocational teacher preparation. In the future, plans can be developed in combination with the internationalization of vocational education.

Barksdale et al.'s (2021) investigation states that effective and locally appropriate technology integration is dependent on developing relationships with teachers and the school community; technology integration must be focused on the local needs of students and teachers based on their resources and curricular demands; and, while limited (mobile) technology integration can support better learning, student-centered inquiry-based pedagogy must guide technology use in class. Furthermore, the study contends that identifying and appreciating local cultural and educational contexts is critical to successful PD in technology integration.

Also, Holmqvist, M. & Lelinge, B. (2021) findings emphasized that, in contrast, several studies have found that different elements should be considered when evaluating the effect of teachers' professional growth. Like Holmqvist, M. and Lelinge, B. (2021). According to the findings, teachers who were most optimistic about inclusion had the highest risk of burnout. Finally, the impact of the CPDs on student knowledge development in inclusive education was modest.

Barksdale et al.'s (2021) investigation states that effective and locally appropriate technology integration is dependent on developing relationships with teachers and the school community; technology integration must be focused on the local needs of students and teachers based on their resources and curricular demands; and, while limited (mobile) technology integration can support better learning, student-centered inquiry-based pedagogy must guide technology use in class. Furthermore, the study contends that identifying and appreciating local cultural and educational contexts is critical to successful PD in technology integration.

Support Resources

Lenning et al. (2023) state that learning communities have been shown to significantly increase student outcomes. According to Kisiang'ani et al. (2024). Higher levels of availability of institutional resources, such as financing, facilities, instructional materials, or support services, are linked to higher student academic attainment. In other words, when institutional resources increase, students' academic performance improves.

In addition, Zhang, W. (2022). The rapid development of technology has had a significant impact on teaching, particularly in foreign language classrooms, and the increasing use of creative technology to assist instructors' education and learning demonstrates technology's growing dominance in academic

environments. In addition, teacher professional development has a substantial impact on improving teaching quality, particularly the quality of educational activities in the classroom.

China students' learning styles and as an Aspiring Global Leader in Science Education

According to Bao et al. (2023), China has emerged as the world's most rapidly growing economy, with huge forward momentum in STEM advancements and education, which has had a big impact on the global economy. When compared to the 2015 PISA findings, there has been a considerable increase in STEM aspirations among students. In the study of Yan et al. (2024) they describe the global comparison of STEM education in a specific school in China. Innovation-centered approach instills a liberal spirit in general education by encouraging students to become self-directed thinkers with inquisitive minds and the intellectual tools to think independently. Schools in China create students who can make their own decisions based on comprehensive information, well-reasoned concepts, and values by focusing on waking their self-awareness, interests, passions, and future visions.

Yan et al. (2024) conducted a global comparison of STEM education in a specific school in China. The innovation-centered approach instills a liberal spirit in general education by encouraging students to become self-directed thinkers with curious minds and the intellectual tools necessary to think independently. Schools in China prepare students to make their judgments based on complete information, well-reasoned concepts, and values by focusing on developing their self-awareness, interests, passions, and future visions.

In addition, Marginson, S. (2022). As stated, China is presently the world's number two science country, the largest producer of papers, and the leader in some STEM physical sciences fields. China has integrated global activities with local/national science building in a positive sum manner based on a nationally nested science system. According to Wang et al. (2024), resilient students excel academically despite chronic social adversity. Resilient children outperformed their less resilient peers. Academic resilience in science is associated with confidence in science, home resources, a desire to learn science, valuing science, instructional clarity, instructional time, content exposure to biology topics, a sense of school belonging, a school emphasis on academic success, and content exposure to physical science.

Filipino Teacher's Motivation to Work Abroad

According to Toya (2023), teaching abroad experience for teachers is frequently seen as beneficial. Wang et al. (2024) indicate that the "International Teacher" degree highlights the relevance of teacher participation in international integration programs. It also highlights the role of the European Universities Initiative, the Erasmus+ program, and the new strategic framework in promoting teacher professional development in an international context, outlining recommendations, requirements, and strategies for supporting teacher development at the institutional, national, regional, and global levels.

Whereas, Tantay et al. (2024), teachers from the Philippines choose to work abroad because economic incentives, supportive teaching settings, and possibilities for growth and development influence their decisions to migrate. However, participants report difficulties such as cultural barriers, classroom management difficulty, and homesickness. To address retention difficulties, members push for increased pay, classroom support, and mental health measures in the Philippine education system.

In addition, Cahilog et al. (2023). The study "Exploring the motivations and challenges of teachers leaving DepEd for overseas opportunities" states that "practical considerations influence Filipino teachers to migrate. Kristen and C. F. both expressed the same idea. (2024) emphasizes Filipino teachers' ability to adapt and remain resilient in the face of adversity. Their experiences with professional development, student supervision, and empowering local teachers demonstrate their dynamic; Filipino instructors accept a humble life while incorporating culture and traditions. Compensation packages, student attitudes, and the

institution's image and objective were all strategic considerations for educators when deciding to teach abroad. Finally, the importance of a supportive network among educators, as well as their commitment to maintaining an active learning environment through a variety of educational programs and leisure activities, influenced their decision to work abroad.

On the findings of the study of Calihog et al. (2023), they declared that educators' motives and obstacles for international employment include competitive salary, efficient operations, ongoing professional development, integration of global education, and an appealing learning environment. De Oca & Malaga (2025), on the other hand, state that the primary motivators were better living conditions and increased income. They also noted challenges with personal sacrifice, student behavior, and cultural adjustment. Teachers who were relocating faced numerous problems that required fortitude despite having access to superior resources. As structural constraints in the Philippines drive highly educated instructors offshore, the study reveals a global education quandary. To protect the Philippine educational system and the well-being of its instructors abroad, institutional support and policy coordination must be strengthened to guarantee that teacher migration stays a choice rather than a necessity.

In addition, Real and Flordeliz (2023) shared experiences of Filipino teachers' revelations while working abroad. The responders shared heartwarming and overwhelming insights about their acculturation in the United States and Southeast Asian countries. The only bad notion was homesickness, but it was easily overcome because of the presence of social media, which allowed for communication with family members. Teaching overseas was a watershed moment for them since their personal and professional "inputs" were surpassed by "outputs" in the form of financial incentives, privileges, and other work-life balance efforts offered by schools abroad. According to Jung, C., and Choe, H. (2024), Filipino teachers abroad put their pupils' well-being first, motivating them to study English and providing emotional support. Yeh, A. (2024) claims that, despite their qualifications, Filipino instructors' relentless desire for recognition on par with native teachers highlights their struggle against established biases, demonstrating the convergence of racism and identity negotiation in Taiwan's EFL/EMI scene. Navigating their (non-)native identities in this context demonstrates their agency in shaping their narrative and actions as they question representation and seek validation in an ever-changing environment.

The analysis of Gong et al. (2021) revealed the variety of challenges that the participants faced, including language-based, lifestyle, and academic challenges, as well as sociocultural and psychological ones. In response to these challenges, the participants adopted diverse strategic efforts to achieve cognitive, affective, and skill development in facilitating their communication practices with local Chinese people. These findings suggest that language educators need to revise traditional pedagogical approaches so that new pedagogical activities can be developed to promote study abroad students' communication competence, and counseling services should be provided to support their cultural adaptation and language learning.

Synthesis

Several elements influence Filipino teacher's motivation to teach abroad. Many teachers are motivated by the prospect of higher pay overseas compared to what they receive locally. Teaching overseas may provide prospects for career advancement. Teaching practices at foreign schools are frequently distinguished by their diversified and inclusive approaches that accommodate a wide range of student backgrounds and learning styles. Educators in these situations frequently have to alter their teaching practices to fit the demands of a heterogeneous student population. International curricula, such as the Advanced Placement (AP) program in China, are designed to provide rigorous academic experiences that prepare students for university-level coursework and promote critical thinking, creativity, and effective communication. The Advanced Placement curriculum offers a great framework for providing a high-quality education in international schools. Its tough curriculum, emphasis on critical thinking, and capacity to award college credits make it a popular choice for both instructors and students. China's aspiration to

become a global leader in science education is evident in its significant investments, regulatory reforms, and programs targeted at increasing educational quality and encouraging innovation. However, this endeavor offers difficulties, especially for foreign teachers working in the Chinese educational system. Hence, the current study will focus on the foreign teachers' lived experiences as they dive into teaching science in an international school in China.

Central Question

This phenomenological research aims to capture Filipino teachers' lived experiences teaching the Advanced Program at Guangzhou Ulink International School.

Corollary Questions:

This investigation was guided by the following corollary questions:

1. How do the participants describe their most significant experiences teaching the Advanced Program science curriculum in China?
2. What meanings may be formulated based on the most significant experiences of science teachers?
3. What themes emerged from the formulated meanings?
4. Based on the results of the study, what framework for professional resilience in cross-cultural teaching may be proposed?

2. Materials and Methods

Research Design

The study used a phenomenological qualitative research approach to analyze the lived experiences, perceptions, and meanings of science teachers teaching advanced courses in science for advanced placement programs at chosen Chinese schools in China. It allowed the researcher to delve extensively into the subjective opinions of science teachers on their experiences teaching advanced science courses.

Participants:

Co-participants in the study were purposefully selected from the school where the researcher is presently teaching. This aimed to reduce travel time and logistical challenges associated with data collection. Eight (8) science teachers were deliberately chosen to be questioned using the appropriate researcher-created questionnaire.

Instrument

The researcher designed a set of questionnaires for the co-participants. This comprises open-ended questions designed to elicit responses from teachers about their experiences teaching Chinese students enrolled in the Advanced Placement Curriculum. The questionnaire was designed to consume no more than an hour of their time. Before data collection began, the questionnaires were validated by two 2 professors from the University of Perpetual Help System-Dalta's Graduate School and one 1 expert from ULink International School in China.

Procedure:

Teachers who met the study's conditions were formally invited to join, with a letter stating the study's purpose, an informed consent form, and a validated questionnaire for their consideration. As the co-participants decided to participate in the study, they were assured of the anonymity and confidentiality of their responses, and they were told that they could withdraw at any moment.

Co-participants were interviewed in person by some, by online communication platforms such as Zoom and Google Meet, depending on their availability, convenience, and degree of comfort. Meanwhile, they were given the option of declining to answer questions they were uncomfortable with. With consent, one-on-one interviews were done using audio recording on the researcher's mobile phone to accurately record and transcribe the co-participants' responses. They were notified that the recorded audio was destroyed after transcription and member checking, and that number codes science teacher participants 1,2,3,4,5,6,7, and 8 were applied to the transcribed responses to remove any connection to them, ensuring the anonymity and confidentiality of co-participants' identities.

Following data collection, co-participants were given a number for their transcribed responses. The overall chronology of their entire experience teaching science in the advanced placement curriculum was taken into account to make sense of the time frame of events in their accounts. Controversial or irrelevant statements made by co-participants were eliminated, and the researcher carefully filled in any incomplete thoughts or small gaps in their narrative with context clues.

The completed vignettes and transcriptions were returned to the co-participants to validate their responses. After receiving feedback from co-participants and editing the transcriptions (if necessary), the recorded audio files from the interviews were erased to protect the respondents' identities.

Data Analysis/Thematic Reflections

Thematic analysis is a qualitative research method that identifies and presents patterns and themes in data. It requires thorough reading and interpretation of the material to extract meaning and grasp various subjects and interpretations. Thematic analysis involves:

Data Familiarization. This step required the researcher to read the transcript several times to get a feel of the depth and breadth of the information gathered, as well as the diversity and number of topics that emerged from the transcription. This repetition also diminished the influence of the researcher's prior knowledge and experience. Throughout the procedure, the researcher will immerse themselves in the full dataset to gather initial points of interest, highlighting relevant information, and will cross-reference it to the study objectives.

Search for significant meanings. Using the significant statement as a building block, the purpose of this step was to identify broader meanings within the dataset that reflect specific meanings about the study topics. These meanings will identify patterns and relationships inside and throughout the entire dataset. This technique will provide an initial theme that will aid in visualizing the themes' varying degrees of relevance to the research topics.

Defining and naming themes. Upon ensuring that the themes do not overlap and are not unduly diverse and complicated, they were appropriately defined and labeled to convey the essence of what each subject will be about. Each topic was able to tell its own story while simultaneously contributing to the

overall narrative of the data about the research questions. Formulating a thematic map. Provides readers with an in-depth understanding of identifying and visualizing patterns in qualitative data.

Write up a report. The researcher was able to justify the importance and validity of the thematic analysis in a concise, cohesive, and logical manner. Aside from showing the co-participants' actual experiences, excerpts from the transcription and external references were used to capture and strengthen the researcher's arguments regarding the research goals. The thematic analysis helped determine the depth and breadth of participants' experiences teaching advanced placement subjects in the Advanced Placement Curriculum. This qualitative method allowed the researcher to systematically identify and analyze patterns and themes in the data, with a focus on key themes such as the perceived benefits and challenges of being a teacher in an international school, particularly teaching advanced placement subjects to students enrolled in the program, the impact on teaching practices, and overall attitudes toward teaching abroad. This planned yet flexible strategy not only ensures the study's transparency and rigor but also makes it easier to offer actionable findings that can be utilized to suggest adjustments to enhance resiliency among teachers working abroad.

3. Results

Concerning background and motivation, Participants chose to teach in China's advanced science programs for a variety of reasons, primarily driven by opportunities for career advancement, financial stability, and new academic experiences. China's emphasis on STEM education attracted many to the chance to teach international curricula like IB and AP, and exposure to diverse student populations and teaching methods. Practical considerations such as higher salaries, better benefits, and proximity to the Philippines also influenced their decision. With backgrounds in international education across Southeast and Central Asia, they brought extensive experience with curricula like IB, AP, and Cambridge, which helped them adapt to China's competitive and demanding system. Overall, teaching in China provided these educators with a unique blend of professional challenge and cultural enrichment.

On Cultural Experiences, participants noted that China's education system emphasizes rote memorization and high-stakes testing, which differs from more student-centered approaches in countries like the Philippines and the U.S. This focus results in highly grade-conscious students who are less inclined to participate actively or think critically. They also observed that Chinese students tend to be quiet and reserved due to cultural norms of respect for authority. Additionally, the intense academic pressure, including extracurricular activities and strong parental involvement, creates a unique and challenging teaching environment.

In terms of Teaching Methodologies and Adaptations, Science teacher participants adapted their teaching methods in China by adopting more formal communication styles, using visual aids and technology like videos and Chinese platforms to engage students, and shifting from discussion-based to more structured, lecture-focused approaches. They emphasized clear instructions, aligned their methods with exam requirements, and adjusted their strategies to fit cultural norms such as respect for authority and the importance of exam preparation. Overall, despite diverse backgrounds, these science teachers modify their practices to balance their teaching styles with local cultural expectations.

When it comes to student engagement and learning styles, the participants highlighted that Chinese students predominantly rely on memorization and rote learning, especially for foundational knowledge and exam preparations, reflecting deep-rooted cultural practices. While some students are increasingly engaging in inquiry-based and hands-on activities like experiments and group discussions, many still focus on passive

learning methods such as listening and note-taking. Teachers noted the challenge of shifting students from passive to active learning but emphasized the importance of adopting diverse, interactive, and multimodal teaching strategies to meet varied learning styles and foster deeper engagement and critical thinking in their science class.

For the support and resources, science teacher participants in China find professional development, colleague support, and school leadership essential for effective teaching. Resources such as technology, including smart boards, laptops, online databases, and AI tools, are vital alongside blended and inquiry-based learning methods that promote student engagement both inside and outside the classroom. Additionally, adapting to local culture and accessing language support like Mandarin classes helps teachers adjust and improve their teaching experiences as they teach science in the Advanced Placement program.

4 Discussion

The Meanings formulated based on the most significant experiences of science teachers unveil the nature of the environment science teachers were in practicing their profession as science teachers in the advanced placement program. In light of the motivation to teach in an advanced placement program, "Opportunity to encourage growth, collaboration, and global influence while improving intercultural skills to address varied cultural and educational demands" was considered the first extracted theme. Secondly, "Cultural Dynamics and Adaptability in International Education." Followed by "Improving Chinese Students' Academic Success in Science Class with Language Support, Cultural Adaptability in Science Education, and Collaborative Learning Strategies" as well as "Optimizing Student Engagement and Learning Effectiveness in Science through Innovative Teaching Strategies and Language Support in the Advanced Placement Program." were the other theme formulated and finally, "Fostering Collaborative Professional Growth and Resource Integration to Enhance Teaching Effectiveness in Science Classes in the Advanced Placement Program (AP)."

Themes emerged from the formulated meanings:

- Opportunity to foster growth, collaboration, and global impact, enhancing multicultural expertise to meet diverse cultural and educational needs.
- Cultural Dynamics and Adaptability in International Education.
- Boosting Chinese Students' Performance in School with Language Support, Cultural Adaptability, and Collaborative Learning Strategies.
- Using Culturally Responsive and Innovative Pedagogies to Promote Inclusive Engagement and Improve Learning Results in Science Class.
- Promoting Cooperative Professional Growth and Resource Integration to Improve Teaching Effectiveness in Science under the Advanced Placement Program.

Comparison to Existing Studies

Overall, the themes allow teachers to collectively capitalize on the value of cultural knowledge in education, advocating for policies that recognize and respect students' various backgrounds to improve learning outcomes and build a more inclusive educational environment. According to Pardo (2024), valuing diversity and realizing the obstacles of cultural inclusion call for continual learning and effective training to promote an inclusive, diverse, and respectful educational learning environment. In addition, Pamzan et al. (2023) conducted research that supports the theme developed. According to this study, teachers use collaborative strategies to increase student enthusiasm and vocabulary. Barksdale et al.'s (2021)

investigation supported the defined theme which states that effective and locally appropriate technology integration is dependent on developing relationships with teachers and the school community; technology integration must be focused on the local needs of students and teachers based on their resources and curricular demands; and, while limited (mobile) technology integration can support better learning, student-centered inquiry-based pedagogy must guide technology use in class.

Implications for practice and policy

The themes implied that quality education, research, and human capital development were promoted, attracting Filipino teachers to teach in China. Additionally, the role of technology and infrastructure in improving educational outcomes indicates that China is capitalizing on its rapid infrastructural development (such as schools, universities, and digital connectivity), fostering better educational environments and opportunities not only for students but also for teachers, which is one of the factors that brings in Filipino teachers to teach in China. Financial benefits are another motivator for Filipino teachers to go abroad, particularly to China. China's advantageous location may facilitate international trade. Cultural Dynamics and Adaptability in International Education emphasizes the considerable cultural disparities that Filipino teachers observed. The teachers considered their students' cultural settings while adapting their teaching approaches, ensuring they could resonate with a wide range of learner backgrounds and experiences. Teachers collectively capitalize on the value of cultural knowledge in education, advocating for policies that recognize and respect students' various backgrounds to improve learning outcomes and build a more inclusive educational environment. The theme describes a teaching strategy that is adapted to students' different cultural backgrounds and employs novel strategies. The goal is to encourage inclusive engagement and interaction among students so that everyone feels appreciated and understood. Finally, the team-based strategy encourages constant professional development and peer support.

Study limitations

The study focused on eight Filipino teachers who discussed their experiences teaching advanced science curriculum at a designated international school in Guanzhuo, China. These teachers were now teaching advanced science curricula to Chinese students with VISAs in the United States of America. The study was conducted in the third quarter of the academic year 2024-2025. Teacher participants were interviewed using a self-created questionnaire designed to elicit responses on their lived experiences teaching Chinese students with the Advanced Program Curriculum in science, with a focus on background and motivation, cultural experiences, teaching methodologies and adaptations, student engagement and learning styles, and support and resources. The study excludes other foreign teachers in the field.

5. Conclusion

Summarize Outcomes

Based on the insights gathered from interviews and engagements with the participants, the study reveals the following major findings: Participants described teaching science in the advanced placement program as leveraging technology, cultural awareness, and innovative strategies to enhance engagement, adapt to diverse learning styles, promote collaboration, and support professional development. Formulated meaning indicates that science teachers in AP programs value growth, collaboration, cultural adaptability, student success, innovative teaching, and professional development to enhance science education. Teachers

want to improve AP science teaching in China by encouraging growth, cultural adaptability, collaboration, inclusive involvement, and professional development.

Recommendations for future research or implementation

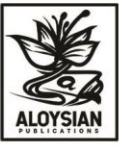
Further study is recommended on the exploration of a language barrier between Filipino teachers working abroad and their foreign students. As this is one of the challenges that was found, that needs further verification.

References

- Al-Ajeely, S. A., Alkhawaldeh, M. A., & Khasawneh, M. A. S. (2023). Developing Curricula Standards in General Education in the Light of International Standards. *Migration Letters*, 20(S3), 1090-1104.
- Bao, L., Xie, L., Ma, S., Chen, C., Zhang, X., He, M., ... & Bao, J. Y. (2023). The STEM Aspirations of China's Future Workforce. *Journal of Science Education and Technology*, 32(4), 567-582.
- Barksdale, S., Upadhyay, B., & Vernon, M. (2021). Teacher Professional Development: Mobile and Limited Technology-Enhanced Pedagogy. *International Journal of Technology in Education and Science*, 5(4), 486-511.
- Cahilog, D. T., Sarong, J. S., & Arcilla Jr, F. E. (2023). Exploring the motivations and challenges of teachers leaving DepEd for overseas opportunities. Available at SSRN 4889451.
- Chen, Y., & Xiao, L. (2022). Perspectives of Chinese Undergraduates in the US towards Advanced Placement High School Curriculum in China. Cutri, J., Bunnell, T., & Poole, A. (2024). International education in transition: perceptions of expatriate leadership at a Chinese school delivering an Australian curriculum. *Compare: A Journal of Comparative and International Education*, 1-18.
- De Oca, J. B., & Malaga, R. S. (2025). The diaspora of Filipino teachers leaving their home country for work in the United States. *Edelweiss Applied Science and Technology*, 9(5), 172-186
- El-Sabagh, H. A. (2021). Adaptive e-learning environment based on learning styles and its impact on development students' engagement. *International Journal of Educational Technology in Higher Education*, 18(1), 53.
- Gong, Y., Gao, X., Li, M., & Lai, C. (2021). Cultural adaptation challenges and strategies during study abroad: New Zealand students in China. *Language, Culture and Curriculum*, 34(4), 417-437.
- Hammer, M. R. (2023). The Intercultural Development Inventory: A new frontier in assessment and development of intercultural competence. In *Student learning abroad* (pp. 115-136). Routledge.
- Han, X., Martínez, Y. M., & Santos, S. D. (2024). Professional development of teaching staff in higher vocational colleges under the background of the "double high plan" in western china. In *iceri2024 proceedings* (pp. 9359-9365). IATED

- Heleno, C. (2023). Removing Barriers and Increasing Access to Advanced Placement. Dissertation in Practice at Western University, 376. Retrieved from <https://ir.lib.uwo.ca/oip/376>
- Heleno, C. (2023). Removing Barriers and Increasing Access to Advanced Placement. The Organizational Improvement Plan at Western University, 376. Retrieved from <https://ir.lib.uwo.ca/oip/376>
- Holmqvist, M., & Lelinge, B. (2021). Teachers' collaborative professional development for inclusive education. *European Journal of Special Needs Education*, 36(5), 819-833.
- Justin (2023). AP Classes ranked by Difficulty. CollegeVine-University of Michigan <https://blog.collegevine.com/ap-classes-ranked-by-difficulty>
- Jung, C., & Choe, H. (2024). Professional Identity of Filipino English Teachers Teaching International Students in a Global City in the Philippines. *English Teaching*, 79(2), 3-31.
- Kristen, C. F. (2024). Teacher emotions, identity, and speakerhood status in narratives of Filipino JET Assistant Language Teachers (ALT). *Diversitas Journal*, 9(1_Special).
- Kirby, W. C. (2024). Introduction: International Innovation & American Challenges. *Daedalus*, 153(2), 7-20.
- Kisiang'ani, E. A., Wamocha, L., & Buhere, P. (2024). Effect of Institutional Resources on Student Academic Achievement in Kakamega County, Kenya. *African Journal of Empirical*
- Lenning, O. T., Hill, D. M., Saunders, K. P., Stokes, A., & Solan, A. (2023). Powerful learning communities: A guide to developing student, faculty, and professional learning communities to improve student success and organizational effectiveness. Routledge.
- Liu, D., Jin, M., & Kim, Y. H. (2024). Study on the Learning Experiences and Academic Performance of Chinese EFL Students: The Need for Flexible and Adaptive Educational Strategies. *한국산학기술학회 논문지*, 25(8), 369-378.
- Marginson, S. (2022). 'All things are in flux': China in global science. *Higher Education*, 83(4), 881-910.
- Masanya, M. J. (2024). Curriculum design and delivery in the changing times of South African higher education system: challenges and prospects.
- Pamzan, M., Javaid, Z. K., & Ali, A. A. (2023). Perception of students about collaborative strategies employed by teachers for enhancing English vocabulary and learning motivation. *Pakistan JL Analysis & Wisdom*, 2, 146.
- Pardo de Rincón, G. (2024). Culturally Responsive Teaching: High School Teachers Reflecting on Multicultural and Global Education.
- Pham, K. T., Ha, X. V., Tran, N. H., & Nguyen, Y. T. X. (2023). Curriculum reform in Vietnam:

- primary teachers' views, experiences, and challenges. *Education* 3-13, 51(3), 440-451.
- Simanjuntak, M. B., Suseno, M., Setiadi, S., Lustyantje, N., & Barus, I. R. G. R. G. (2022). Integration of curricula (curriculum 2013 and cambridge curriculum for junior high school level in three subjects) in pandemic situation. *Ideas: Jurnal Pendidikan, Sosial, dan Budaya*, 8(1), 77-86.
- Tantay, C. C., Monticillo, M. J., & Derasin, L. M. C. (2024). Navigating the Experience of DepEd Teachers' Decision to Work Abroad: A Phenomenological Study.
- Toya, M. (2023, March). Role of Study Abroad in the Path to Teaching English in English Among Japanese Teachers. In SEACE Official Conference Proceedings. The International Academic Forum (IAFOR).
- Villaver, M. (2024). Adaptive Cross-cultural Pedagogy Theory: Cross-cultural Teaching Experiences of J1 Filipino Teachers. *Futurity Education*, 4(4), 35-57.
- Wang, X., & Zhang, W. (2022). Improvement of students' autonomous learning behavior by optimizing foreign language blended learning mode. *Sage Open*, 12(1), 21582440211071108.
- Wang, F., King, R. B., Fu, L., Chai, C. S., & Leung, S. O. (2024). Overcoming adversity: Exploring the key predictors of academic resilience in science. *International Journal of Science Education*, 46(4), 313-337.
- Wang, X., Palshkova, I., Yakymenko, P., Zabiak, I., & Terenko, O. (2024). The internationalization of teaching: keys to professional development abroad. *Amazonia Investiga*, 13(80), 143-159.
- Wei, J. H., Lacaste, A. V., Rodliyah, I. N., Nguyen, H. T., & Chuang, H. H. (2022). Teachers' multicultural experience, creative teaching, and cultural intelligence: A study of four Asia-Pacific countries. *Thinking Skills and Creativity*, 46, 101144.
- Wright, E., Lin, C., & Lu, J. (2024). The turning tide of the International Baccalaureate in China: When global dreams meet national priorities. *Globalisation, Societies and Education*, 22(4), 651-664.
- Wright, E., & Mulvey, B. (2022). The promised capitals of international high school programmes and the global field of higher education: The case of Shenzhen, China. *Journal of Research in International Education*, 21(2), 87-104.
- Wright, E., Ma, Y., & Auld, E. (2022). Experiments in being global: The cosmopolitan nationalism of international schooling in China. *Globalisation, Societies and Education*, 20(2), 236-249.
- Wu, W., & Koh, A. (2023). Reining in the international: How state and society localised international schooling in China. *British Journal of Educational Studies*, 71(2), 149-168.
- Yi, Z., Asyik, N. F., & Al-Hosaini, F. F. (2024). Teacher Professional Development in Rural China: Opportunities and Barriers. *Global Social Science and Humanities Journal*, 1(3), 1 18.



Zhang, W. (2022). The role of technology-based education and teacher professional development

in English as a foreign language classes. *Frontiers in Psychology*, 13, 910315.

Zeng, A.S. (2024). Walking the talk? Exploring curriculum implementation in the International Baccalaureate in the Australian context. *Globalisation, Societies and Education*, 1-15.