

# Application of Interdisciplinary Approaches in Global Civic Education: an International School Case Study

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## Abstract

This paper explores the application of interdisciplinary approaches in global civic education. Through case studies of international schools, it highlights the importance of interdisciplinary teaching in fostering global citizenship awareness. The background section introduces the definition of global civic education and its significance in today's society, emphasizing the critical role of interdisciplinary methods in education. By analyzing specific practices from multiple international schools, the paper reveals how different institutions design and implement interdisciplinary instruction. It also delves into assessment methods for student learning outcomes and the impact of interdisciplinary approaches on enhancing students' global citizenship awareness. Ultimately, the results show that interdisciplinary teaching can effectively promote students' global perspective, critical thinking, and problem-solving skills. Finally, the paper summarizes the main findings and offers recommendations for the future development of global civic education, including strengthening teacher training and supporting intercultural educational collaboration.

**Keywords:** Global Citizenship Education; Interdisciplinary Approach; International Schools; Assessment of Learning Outcomes

## 1. Overview of Global Civic Education

### 1.1. Definition and Significance of Global Civic Education

Global citizenship education aims to cultivate students' global perspective, enabling them to understand and respect people from diverse cultural, economic, and social backgrounds, and actively participate in addressing global issues. This educational philosophy holds significant importance in today's society, as it not only focuses on the development of individual knowledge and skills but also emphasizes a sense of responsibility towards global challenges (Steve, 1985). The core of global citizenship education lies in helping students grasp the complexity and

diversity brought about by globalization while encouraging them to take action for equity, justice, and sustainable development. By integrating this educational approach into school curricula, students can better comprehend international affairs and global issues, laying a solid foundation for becoming responsible global citizens in the future.

## **1.2. The Importance of Interdisciplinary Approaches in Education**

The importance of interdisciplinary approaches in education is becoming increasingly evident, particularly in the field of global citizenship education. The blurring of traditional subject boundaries encourages educators to integrate knowledge from multiple disciplines to help students better understand complex real-world issues (Julie, 2021). For example, in international schools, interdisciplinary teaching is widely used to foster students' global citizenship awareness. These schools provide a comprehensive learning experience by combining knowledge from fields such as history, geography, sociology, and natural sciences. This integration not only enables students to analyze problems from multiple perspectives but also promotes the development of critical thinking.

The core of an interdisciplinary approach lies in breaking down the limitations of a single discipline and encouraging students to explore connections between different fields. For example, combining science with social sciences can provide students with a comprehensive perspective on the impacts of climate change, while integrating literature with history helps them understand the importance of cultural diversity (Misirlis, 2023). Moreover, interdisciplinary methods emphasize practical and participatory learning, which aids students in applying theoretical knowledge to real-world situations. In some international schools, project-based learning (Project-Based Learning) has become an important teaching model, where students enhance their global perspectives and problem-solving skills by addressing real-world issues (Buck, 2012).

Teachers also face challenges when implementing interdisciplinary teaching; they need to have an interdisciplinary knowledge background and flexible teaching strategies. To support this process, many international schools are enhancing teacher training and introducing collaboration mechanisms so that teachers can share resources and experiences (Brown & Canas, 2010). At the same time, interdisciplinary teaching requires redesigning course content to better align with students' interests and needs. Through this approach, students not only gain knowledge but also enhance their understanding of global issues and a sense of responsibility.

## **2. Case Study of International Schools**

### **2.1. Case Selection and Research Background**

The goal of global citizenship education is to cultivate students into individuals with a global perspective, a sense of social responsibility, and critical thinking, and international schools, as key practitioners in this field, provide students with diverse learning experiences through interdisciplinary approaches (Tarrant et al, 2014). When selecting case studies, the research focuses on international schools that have successfully integrated global citizenship education into their curricula. These schools not only emphasize academic achievement but also prioritize the

holistic development of students, helping them understand complex global issues by integrating knowledge from different disciplines. For example, some international schools have designed specialized course modules covering themes such as sustainability, cultural exchange, and social responsibility (Misirlis, 2023). This interdisciplinary teaching approach enables students to apply what they have learned in real-world scenarios, enhancing their problem-solving skills and global awareness.

The background section explores the core concepts of global citizenship education and its significant importance in today's society. As globalization accelerates, educators increasingly recognize the importance of fostering students' global civic awareness. In this context, interdisciplinary approaches have emerged as an effective tool to achieve this goal. By integrating knowledge from multiple disciplines, teachers can guide students to analyze and solve real-world problems from various perspectives. Moreover, this method helps break down barriers between traditional subjects, promoting the integrated application of knowledge. For example, a study on educational travel in Australia and New Zealand shows that after participating in international short-term programs, students exhibit significantly enhanced global citizenship awareness and stronger environmental responsibility and cultural sensitivity (Tarrant et al, 2014). This further underscores the importance of interdisciplinary teaching in global citizenship education.

In the implementation process, case studies of international schools demonstrate how carefully designed curricula and activities can achieve this goal. For example, some schools adopt project-based learning (PBL), where students conduct in-depth research on specific topics such as climate change, poverty issues, or cultural exchange (Böckler et al, 2012). This approach not only increases student engagement but also helps them connect with the real world. At the same time, teachers' roles shift from traditional knowledge transmitters to facilitators and supporters of learning, a transformation that is crucial for the success of interdisciplinary teaching.

## **2.2. Interdisciplinary Practice in Different International Schools**

In global civic education, the application of interdisciplinary approaches is gradually becoming one of the core strategies in international schools. By integrating knowledge and perspectives from multiple disciplines, students can gain a more comprehensive understanding of global issues and develop critical thinking and problem-solving skills (Tarrant et al, 2014). For example, studies have found that American students participating in educational travel programs in Australia and New Zealand show significant improvements in environmental policy support, consumer behavior, and global citizenship (Tarrant et al, 2014). This indicates that interdisciplinary practices combining sustainability with field learning can effectively enhance students' global civic awareness.

In addition, another study shows that through role-playing activities in astronomical observations, students can deeply appreciate the concept of global citizenship while exploring constellations and their historical and mythological backgrounds (Brown & Neale, 2010). This activity not only helps students understand astronomical knowledge but also enables them to recognize different interpretations of the same phenomenon across cultures, thereby enhancing their cultural sensitivity and inclusiveness. Similarly, archaeo-astronomy, as an interdisciplinary

field bridging science and society, plays a significant role in cultivating students' global citizenship awareness (Brown & Canas, 2010). By analyzing megalithic sites from different countries, students can understand the diversity of cultures and the processes of social change, thus fostering respect and understanding for multiculturalism.

Case studies of international schools further demonstrate the effectiveness of interdisciplinary approaches. Taking schools in some European countries as examples, these institutions use archaeological astronomy to explore how ancient societies perceived the sky and connect it with modern society (Brown & Canas, 2010). This method not only enhances students' understanding of scientific principles but also helps them recognize the impact of social and historical contexts on the formation of modern values. Similarly, in business education, research has shown that international business schools design comprehensive curricula to help students develop a global perspective and a sense of social responsibility while learning professional knowledge (Misirlis, 2023).

It is worth noting that the successful implementation of interdisciplinary teaching requires teachers to possess broad subject knowledge and flexible teaching skills. Therefore, enhancing teacher training and supporting cross-cultural educational cooperation are crucial pathways to achieving this goal. Moreover, methods for evaluating student learning outcomes need to be adjusted according to the characteristics of interdisciplinarity to ensure they accurately reflect students' comprehensive progress in knowledge, skills, and attitudes (Tarrant et al, 2014). The final results show that an interdisciplinary approach can effectively promote students' global perspective, critical thinking, and problem-solving abilities, laying a solid foundation for them to become true global citizens.

### **3. Teaching Methods and Assessment**

#### **3.1. Design and Implementation of Interdisciplinary Teaching**

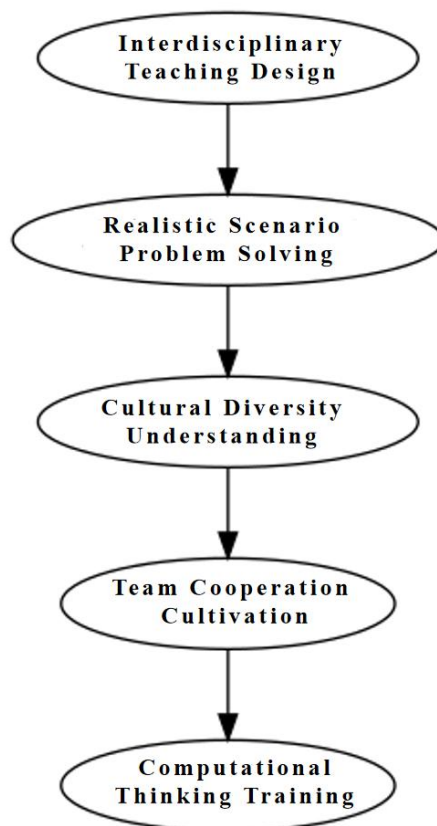
The design and implementation of interdisciplinary teaching is one of the core components of global citizenship education. In international schools, the interdisciplinary approach is widely applied in curriculum design and classroom practice to help students build a global perspective and enhance their critical thinking skills (Hajro et al, 2022). For example, at an international school in Malaysia, through synchronous online instruction, different subject knowledge points are organically integrated, enabling students to apply multidisciplinary knowledge to solve problems in real-world scenarios (Jan, 2020). However, this teaching method also faces many challenges, such as requiring continuous parental supervision and guidance, and the lack of face-to-face interaction limiting students' social skill development.

In the specific implementation process, interdisciplinary teaching typically revolves around several key pillars. Taking higher education in the UK as an example, interdisciplinary connections extend beyond academic research to encompass a wide range of educational activities (Thelwall et al, 2003). These activities include entrepreneurial learning experiences, campus maker space construction, and community engagement, all aimed at providing students with diverse learning environments that stimulate their creativity and practical skills (Alexander, 2020).

In particular, in maker space projects, students can complete real-world projects by operating 3D printers, sewing machines, and other equipment, thereby deepening their understanding of theoretical knowledge and fostering teamwork.

In addition, interdisciplinary teaching emphasizes cultural diversity and social responsibility in a global context. In some astronomy education programs, teachers use constellation myths as an entry point to guide students in exploring different cultural perspectives on the universe and their historical roots (Brown & Neale, 2010). This approach not only promotes the dissemination of scientific knowledge but also helps students learn to understand issues from multiple angles, enhancing their cultural sensitivity. Similarly, in European archaeo-astronomy courses, through the study of ancient sites, students can learn how different civilizations observed the stars and integrate this into their social lives (Brown & Canas, 2010). This interdisciplinary learning process helps cultivate values of respect for multiculturalism, fostering a more comprehensive global citizenship.

It is worth noting that successfully implementing interdisciplinary teaching also requires addressing practical issues such as time management, resource allocation, and the establishment of evaluation criteria. For example, when introducing computational thinking training in high school, while using low-level programming languages (like C++) can significantly enhance students' computational skills, the high entry barrier may affect some students' enthusiasm for participation (González et al, 2018). Therefore, educators need to adjust their teaching strategies based on student characteristics to ensure all students benefit.



**Figure 1. Design and Implementation of Interdisciplinary Teaching**

### **3.2. Assessment Methods of Students Learning Outcomes**

In the process of applying interdisciplinary methods to global civic education, evaluating student learning outcomes is a critical component. Assessment not only measures students' mastery of knowledge but also reflects the effectiveness of teaching and their ability to apply what they have learned in real-world situations (Tarrant et al, 2014). Research has found that combining various assessment methods can provide a more comprehensive understanding of student performance. For example, some international schools use project-based assessment models, where students showcase their learning through activities such as participating in mock United Nations conferences, writing research reports, or designing sustainable development plans. This form of assessment not only examines students' knowledge levels but also focuses on their problem-solving skills and the development of critical thinking (Feng & Kirkley, 2020).

In addition, some studies have pointed out that using virtual reality (VR) technology can provide students with an immersive learning experience, thereby better assessing their ability to cope in the real world (Xu & Zhang, 2023). By observing task completion under virtual environments, teachers can see how students apply interdisciplinary knowledge to solve complex problems, further enhancing the depth and breadth of assessment. At the same time, research has also explored the application of large language models (LLMs) in student behavior simulation. These models can analyze the performance of virtual students to reveal the impact of different learning paths on students' understanding levels (Xu & Zhang, 2023). This method helps identify weak points in teaching and provides data support for personalized education.

In addition to specific evaluation tools, the assessment of interdisciplinary education also needs to consider multi-dimensional criteria. Research has shown that the Design and Validation of the Interdisciplinary Perception Scale (IEPS) can effectively measure students' attitudes and cognitive changes towards interdisciplinary education (Luecht et al, 1990). This tool helps educators better understand students' acceptance of global citizenship education and its application in real life. At the same time, the study emphasizes the importance of mixed assessment, which combines qualitative and quantitative methods to more comprehensively reflect students' learning outcomes (Islam et al, 2017). Case studies show that successful interdisciplinary education often relies on meticulous assessment design, ensuring that the evaluation process not only reflects individual student progress but also demonstrates overall improvement within the group.

## **4. Results And Discussion**

### **4.1. Analysis of Case Study Results**

Case study results analysis show that the application of interdisciplinary methods in global civic education has significantly enhanced students' global perspective, critical thinking, and problem-solving skills. Taking an international school as an example, the school integrated content from sociology, history, and geography to design a course called "Global Challenges" (Steve, 1985). This course not only helps students understand complex issues in a global context



but also cultivates their teamwork and communication skills through activities like simulated United Nations conferences. Additionally, another international school combined science with ethics to explore the impact of climate change on developing countries and guided students to propose specific solutions (Misirlis, 2023). These practices demonstrate that interdisciplinary teaching can effectively stimulate students' interest in learning while promoting a deeper understanding of global issues.

In evaluating student learning outcomes, case studies show that interdisciplinary approaches offer multiple assessment methods. For example, some schools adopt project-based learning (PBL), where students work in groups to complete research reports or action plans on global citizenship themes (Feng & Kirkley, 2020). This method not only assesses students' knowledge acquisition but also focuses on their ability to apply knowledge in real-world situations. Additionally, other schools use self-reflection journals and peer evaluations to help students recognize their growth in cross-cultural understanding and global responsibility (Park et al, 2023). This diversified evaluation system helps comprehensively measure student progress and provides a basis for teachers to adjust their teaching strategies.

It is worth noting that the implementation paths vary across different schools, but all emphasize the importance of teachers' roles. Some successful cases show that teachers need to have interdisciplinary knowledge and flexible teaching skills to effectively support students' learning processes (Misirlis, 2023). Moreover, support from school management is also a key factor in ensuring the smooth implementation of interdisciplinary projects. Through comprehensive analysis of multiple cases, it can be concluded that the interdisciplinary approach has significant advantages in global civic education, yet it also requires educators to continuously update their capabilities and actively explore teaching models suitable for local cultures.

#### **4.2. The Impact of Interdisciplinary Approaches on Global Citizenship Education**

The application of interdisciplinary approaches in global civic education is gaining increasing attention, particularly in the educational practices of international schools. By integrating knowledge and perspectives from multiple disciplines, students can gain a more comprehensive understanding of global issues and develop critical thinking and problem-solving skills (Tarrant et al, 2014). For example, in educational travel programs in Australia and New Zealand, students not only learn about sustainability but also enhance their global citizenship through hands-on participation. Research has found that compared to traditional teaching methods, interdisciplinary approaches significantly improve students' global citizenship awareness, especially in environmental policy support and consumer behavior (Park et al, 2023).

In addition, an interdisciplinary approach can help students better understand and solve complex social issues. For example, in the field of software engineering, interdisciplinary research faces many challenges but also provides students with a broader perspective and deeper understanding (Hyrynsalmi et al, 2025). Similarly, in social science research, interdisciplinary methods are used to evaluate neighborhood effects, which not only reveal the complex mechanisms behind social phenomena but also provide scientific evidence for policy-making

(Dietz, 2002). These studies show that interdisciplinary approaches play a crucial role in enhancing students' global citizenship awareness.

Interdisciplinary approaches in international schools are supported by concrete examples. For instance, Nottingham Trent University's astronomical observation activities combine global citizenship with astronomical knowledge, allowing students to experience constellation stories and history from different cultural backgrounds through role-playing and other methods (Brown & Neale, 2010). Meanwhile, the archaeological astronomy education program in Europe demonstrates ancient societies' understanding of the sky and their cultural diversity by analyzing sites such as Stonehenge (Brown & Canas, 2010). These practical activities not only enrich students' learning experiences but also enhance their understanding and recognition of global citizenship.

For students at international business schools, an interdisciplinary approach also demonstrates its importance. By integrating knowledge from multiple disciplines, students can gain a deeper understanding of business and social issues in the context of globalization (Misirlis, 2023). This process not only broadens their global perspective but also enhances their adaptability in multicultural environments. Research also indicates that teacher training and support for intercultural educational collaboration are key factors in achieving effective interdisciplinary teaching (Jan, 2020). Therefore, strengthening teachers' professional development and international cooperation is crucial for promoting global citizenship education.

## **5. Research Summary and Recommendations**

### **5.1. Research Summary and Main Findings**

By analyzing the specific practices of interdisciplinary approaches in international schools, this study reveals the multidimensional impact and effectiveness of global citizenship education. The research finds that interdisciplinary teaching not only effectively broadens students' global perspectives but also significantly enhances their critical thinking and problem-solving skills. For example, in some cases at international schools, students directly experience communication and collaboration challenges across different cultural backgrounds through activities such as Model United Nations or transnational project collaborations. This deepens their understanding of global affairs and fosters greater empathy and a sense of responsibility.

In addition, research indicates that an interdisciplinary approach requires a close integration with real-world contexts during the design and implementation process to ensure the relevance and practicality of teaching content. For example, some schools combine subjects such as science, history, and sociology, allowing students to explore complex issues like climate change, cultural exchange, and economic development. This helps students form comprehensive and profound cognitive frameworks. Such integrated learning not only enhances students' interest in learning but also promotes the transfer and application of knowledge.

The evaluation results show that students from schools adopting an interdisciplinary approach tend to perform better in international assessments compared to those under traditional teaching models. Particularly, these students demonstrate greater creativity and flexibility when discussing global issues and designing solutions. At the same time, teachers' roles have shifted from mere



knowledge transmitters to facilitators and supporters of the learning process, which is crucial for improving educational quality.

Based on the above research findings, this paper proposes that the future direction of global civic education should focus on enhancing teacher training and promoting cooperation and exchange in intercultural education. By sharing best practices and lessons learned, we can further optimize the design and implementation of interdisciplinary teaching, laying a solid foundation for nurturing a new generation of talents with global competitiveness.

## **5.2. Recommendations for Future Global Citizenship Education**

To promote the development of global citizenship education, future efforts need to be multifaceted, with strengthening teacher training and supporting intercultural educational cooperation being key components. First, as the core force in education, teachers must possess interdisciplinary knowledge and teaching skills. This requires schools and educational institutions to provide continuous professional development opportunities for teachers, helping them master interdisciplinary teaching techniques and integrate global citizenship awareness into their daily instruction. For example, teachers at international schools can enhance their professional competence by participating in workshops, seminars, and online learning platforms, thereby better designing and implementing interdisciplinary curricula.

Secondly, intercultural educational cooperation is also an important avenue for promoting global citizenship education. By establishing international partnerships, schools can share educational resources and experiences, fostering communication and understanding between different cultures and educational systems. For example, some international schools have launched cross-border projects, providing students with the opportunity to collaborate with peers from other countries on tasks or solve real-world problems. These practices not only broaden students' global perspectives but also cultivate their critical thinking and problem-solving skills. Furthermore, leveraging modern information technologies such as video conferencing and virtual classrooms can make this collaboration more convenient and efficient.

At the same time, future global citizenship education should focus on innovating assessment methods to ensure that students' learning outcomes can be comprehensively and accurately measured. Traditional testing and grading methods may not fully reflect students' progress in global citizenship awareness, so it is necessary to develop more diverse evaluation tools. For example, comprehensive assessments can be conducted by observing students' performance in real-world scenarios, analyzing their project work, and collecting feedback from peers and teachers. This approach not only provides a more authentic reflection of students' abilities but also encourages them to actively participate in global citizenship education.

Finally, policymakers and education administrators must also increase their support for global citizenship education. This includes formulating relevant policies and standards, providing schools with necessary funding and technical support, and encouraging all sectors of society to participate in the practice of global citizenship education. Only then can we ensure that global citizenship education is promoted on a larger scale and achieves tangible results.

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