

**THE RELATIONSHIP BETWEEN ENGLISH
TEACHERS' KNOWLEDGE, ATTITUDE,
AND PRACTICES, AND INTEGRATION
OF SUSTAINABLE DEVELOPMENT
GOALS IN SENIOR HIGH SCHOOL
ENGLISH TEACHING IN
SHANXI, CHINA**

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SHANXI, CHINA**

by

WEI YIRAN

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LIST OF ABBREVIATIONS

CD	Curriculum Development
DRR	Disaster Risk Reduction
ECSs	English Curriculum Standards
ESD	Education Sustainable Development
CT	Constructivist Theory
HET	Hidden Education Theory
KAP	Knowledge, Attitude, Practices
MDGs	Millennium Development Goals
MMR	Mixed Methods Research
SCP	Sustainable Consumption and Production
SD	Sustainable Development
SDE	Sustainable Development Education
SDGs	Sustainable Development Goals
SSI	Semi-Structured Interview
UN	United Nation
UNCED	United Nations Conference on Environment and Development
UNEP	United Nations Environment Programmer
UNESCO	United Nations Educational Scientific and Cultural Organization
WECD	World Environment and Development Commission

LIST OF APPENDICES

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- Appendix B Questionnaire on the level of knowledge, attitude, and practices of SDGs into General High School English Curriculum Standards and the relationship between knowledge, attitude, and practices of integrating SDGs into General High School English Curriculum Standards
- Appendix C Semi-Structured Interview
- Appendix D High School English Sustainable Development Goals Integrating into English Class Teaching Observation Form
- Appendix E Instrument Validation Form
- Appendix F Approval Letter

**HUBUNGAN ANTARA PENGETAHUAN, SIKAP DAN AMALAN GURU
BAHASA INGGERIS DENGAN PENGINTEGRASIAN MATLAMAT
PEMBANGUNAN MAMPAN DALAM PENGAJARAN BAHASA INGGERIS
DI SEKOLAH MENENGAH TINGGI DI SHANXI, CHINA**

ABSTRAK

Guru Bahasa Inggeris memainkan peranan utama dalam memupuk pemahaman dan kesedaran pelajar terhadap isu-isu pembangunan lestari. Namun, cara guru melaksanakan SDGs dalam bilik darjah, serta hubungan antara pengetahuan, sikap, dan amalan pengajaran guru, belum dikaji secara mendalam. Untuk menangani jurang penyelidikan ini, kajian ini meneliti hubungan antara pengetahuan, sikap, dan amalan guru Bahasa Inggeris mengenai integrasi SDGs ke dalam pengajaran Bahasa Inggeris di sekolah menengah atas di Wilayah Shanxi. Kajian ini juga meneroka kesan faktor-faktor tersebut terhadap tingkah laku pengajaran. Kajian ini menekankan kepentingan model Pengetahuan, Sikap, dan Amalan (KAP) dalam menganalisis integrasi SDGs oleh guru Bahasa Inggeris ke dalam amalan pengajaran. Model KAP menyediakan kerangka kerja untuk memahami bagaimana pengetahuan guru tentang SDGs mempengaruhi sikap, dan bagaimana sikap ini seterusnya membentuk tingkah laku pengajaran. Kajian ini menggunakan pendekatan penyelidikan gabungan, menggabungkan soal selidik kuantitatif dengan temu bual kualitatif dan pemerhatian bilik darjah, melibatkan guru Bahasa Inggeris dari sekolah menengah awam di Wilayah Shanxi. Keputusan menunjukkan bahawa guru Bahasa Inggeris memiliki tahap pengetahuan SDGs yang tinggi, tahap sikap yang sederhana, dan tahap amalan yang rendah. Pengetahuan didapati menjadi peramal penting terhadap sikap dan amalan guru (nilai $p < .05$), dan sikap berfungsi sebagai mediator signifikan antara

pengetahuan dan amalan (nilai $p < .05$). Namun, pengalaman mengajar tidak menunjukkan kesan moderasi yang signifikan dalam hubungan antara pengetahuan, sikap, dan amalan guru (nilai $p > .05$). Hasil kajian menunjukkan bahawa guru dengan tahap pengetahuan SDG yang tinggi cenderung mempunyai sikap yang lebih positif, yang seterusnya mempengaruhi keberkesanan pengajaran mereka. Namun, pelaksanaan SDGs di peringkat praktikal masih rendah, menunjukkan bahawa meskipun guru memiliki pengetahuan yang kuat dan sikap yang baik, cabaran tetap ada dalam aplikasi sebenar SDGs. Oleh itu, kajian ini menekankan bahawa untuk integrasi SDGs yang lebih efektif dalam pengajaran Bahasa Inggeris sekolah menengah, penambahbaikan holistik di semua komponen model KAP adalah penting. Disarankan agar latihan guru yang lebih komprehensif dan sokongan sumber disediakan. Tambahan pula, kajian masa depan harus mempertimbangkan untuk menjalankan kajian perbandingan antara wilayah atau kajian longitudinal untuk mengamati evolusi jangka panjang amalan guru dan kesan latar belakang budaya serta pendidikan terhadap integrasi SDG.

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TEACHING IN SHANXI, CHINA**

ABSTRACT

English teachers play a key role in fostering students' understanding and awareness of sustainable development issues. However, the way teachers implement SDGs in the classroom, and the relationship between their knowledge, attitude, and actual teaching practices, has not been thoroughly investigated. To address this research gap, the present study examines the relationship between English teachers' knowledge, attitude, and practices concerning the integration of SDGs into English teaching at senior high schools in Shanxi Province and explores the impact of these factors on teaching behavior. This study underscores the significance of the Knowledge, Attitude, and Practice (KAP) model in analyzing English teachers' integration of SDGs into their teaching practices. The KAP model provides a framework for understanding how teachers' knowledge of SDGs influences their attitude and how these attitudes, in turn, shape their teaching behaviors. This study adopted a mixed-methods research approach, combining quantitative questionnaires with qualitative interviews and classroom observations, surveying English teachers in public high schools across Shanxi Province. The results indicate that English teachers possess a high level of SDGs knowledge, a medium level of attitude, and a low level of practice. Knowledge was found to be an important predictor of teachers' attitude and practices (P value $< .05$), and attitude served as a significant mediator between knowledge and practices (P value $< .05$). However, years of teaching experience did

not significantly moderate the relationship between teachers' knowledge, attitude, and practices (P value $> .05$). The findings indicate that teachers with a high level of SDG knowledge tend to exhibit a more positive attitude, which subsequently affects their classroom effectiveness. However, the implementation of SDGs at the practical level remains low, suggesting that despite teachers' strong knowledge and favorable attitude, challenges persist in the actual application of SDGs. Consequently, the study highlights that for more effective integration of SDGs into high school English teaching, holistic improvements across all components of the KAP model are essential. Therefore, it is recommended to provide more comprehensive teacher training and resource support. Additionally, future research should consider conducting cross-regional comparative studies or longitudinal studies to observe the long-term evolution of teachers' practices and the impact of cultural and educational backgrounds on SDG integration.

SDGs are a global issue that is closely related to our life. Since SDGs were presented, various countries have responded, and China is no exception (Chen et al., 2019; Wang, 2020). With the rise of education for SD in China, people have realized its interdisciplinary and permeable nature and its relevance to other disciplines, combined with related disciplines, and carried out sustainable development education in a penetrating manner (Ma, 2020). Educate one generation and influence three generations. At this time, people began to realize that education plays a huge role in social development and progress (Lu, 2016).

The world was hit by the wave of globalization in the 21st century and the lives of youth are affected by the new economic, digital, cultural, and environmental drives (Jiang & Jia, 2022; Yang, 2019a; Yiheng, 2021). They not only need to learn to adapt to a more connected world but also need to understand cultural differences and learn how to benefit from them (Jiang & Jia, 2022). In the 21st century, the main attribute of the world consists of how countries are coordinated and correlative, and how the global destiny is closely related to each other (Miao & Lei, 2022; Yang, 2019a). Additionally, mankind also has to face perpetual challenges and escalating risk in this era (Yang, 2019a). The risk intensifies by the stagnant global economic growth, prolonged financial crisis, with the development gap becoming more and more discernible, military confrontations at interval, the cold war mentality and ongoing power politics, terrorism, refugee crisis, highly contagious diseases, climate change and other non-traditional adversity (Xixin Chen, 2022; Yang, 2019a; Yiheng, 2021). By what means to tackle the new mission and condition raised through the proposition of a community with a similar future for mankind in the development of talents and the growth of the youth in the new era is something that education must address and propose solution to (Cheng, 2021).

The United Nations (UN) (UN, 2015), in its 2030 Agenda for Sustainable Development (SD), emphasized that education is a key factor in promoting socio-economic development, reducing poverty, advancing environmental protection, and achieving social equity. Education plays a vital role in instilling and nurturing SD, and teachers, as the most direct executors and guides in the educational process, play an even more crucial role. Teachers are not only transmitters of knowledge but also shapers of values and advocates for action. Through the guidance of teachers, students can understand global issues, develop an awareness of sustainable development, and implement the SDGs in practice. Therefore, teachers play an irreplaceable role in promoting SDG education and achieving SD (UN, 2015). Through effective education, teachers can help students gain a deep understanding of the SDGs, cultivate their sense of social responsibility, and put these concepts into practice.

To actively adapt to changes in the global environment, China has revised its English Curriculum Standards (ECSs) and further clarified the learning requirements for high school students (Cheng, 2021; Guo, 2020; Leon & Chen, 2011). The Public High School English Curriculum Standard (2017 edition) points out that the senior high school English Curriculum should help students to have a deep understanding of the motherland's culture and cultivate students' awareness of multiculturalism and a sense of community with a shared future for humanity (Wang, 2020). This will thus improve the quality of students' thinking and entrust students to be fully prepared to adapt to diversity, economic globalization, and world multi-polarization (Leon & Chen, 2011; Wang, 2020). Through the study of English courses, students can understand the connotation of different cultures, spread Chinese culture, and have cross-cultural communication skills (Leon & Chen, 2011).

English is the most widely used language in the world today. It can convey ideas and cultures and strengthen mutual understanding, communication, and cooperation between countries (Guo, 2020; Wang, 2020). As a tool for understanding other cultures, English can be called the cornerstone for deepening regional and national quality inspection understanding (Miao & Lei, 2022; Wang & Li, 2019). Helping students to a higher standard meet the needs of this increasingly interconnected world is the high school ECSs' response to this changing world (Cheng, 2021).

As the world increasingly focuses on sustainable development issues, the United Nations (UN) proposed the 2030 Agenda for SD in 2015. The 17 Sustainable Development Goals (SDGs) address various social challenges, ranging from poverty eradication to climate change and promoting educational equality. Education plays a crucial role in achieving these goals, particularly by fostering students' awareness of SD through classroom teaching. English, as a global language of communication, is regarded as an effective medium for conveying the concept of SD to students. By integrating SDGs into English teaching, students can not only improve their language skills but also enhance their sense of global responsibility. Therefore, it is of great practical significance to examine how English teachers' knowledge, attitudes, and practices influence the integration of SDGs in the classroom (United Nations, 2015).

The level of teachers' knowledge directly impacts the effectiveness of teaching the SDGs. García-González et al. (2020) noted that teachers must possess sufficient knowledge of SD to effectively integrate it into their teaching activities. Without a solid foundation, teachers may struggle to explain concepts or topics related to SD in their courses. In English teaching, for example, teachers can select reading materials related to topics such as environmental protection and climate change, enabling

students to engage with and understand these global issues while learning the language. However, research indicates that many teachers still lack the necessary knowledge and training, particularly in how to integrate SDG content into the curriculum (Evans et al., 2022).

Teachers' attitudes play a key role in determining whether they are willing to integrate SDGs into their classroom teaching. Albareda-Tiana et al. (2019) found that teachers with positive attitudes toward the SDGs are more motivated to incorporate them into their daily teaching activities, believing that education can promote social transformation by enhancing students' global awareness. When teachers recognize the importance of sustainable development, they are more likely to incorporate relevant topics into their course designs. However, Olsson et al. (2020) pointed out that, even when teachers have a positive attitude, practical challenges such as time constraints and limited resources can hinder their ability to integrate SDGs into the classroom.

In the context of China, as the country emphasizes sustainable development, some teachers exhibit more positive attitudes, though concerns and confusion about specific implementation persist (Zhao & Ren, 2021). This suggests that, although teachers have embraced the concept of SDGs at a conscious level, difficulties in practical application remain due to a lack of corresponding training and support.

Teachers' teaching practice is a concrete manifestation of transforming knowledge and attitudes into classroom behavior. Leicht et al. (2018) highlighted that teachers should help students understand the SDGs through specific teaching strategies, such as discussing practical problems and designing group cooperation projects. English teachers can encourage students to think about SD issues while learning the language by engaging them in debates, writing, or reading materials

involving global issues. However, the main challenge teachers face in practice is how to effectively integrate these complex global issues within the constraints of limited teaching time (Thomas & Day, 2020).

Additionally, García-González et al. (2020) emphasized that teachers often lack adequate teaching resources and support when implementing sustainable development education. For instance, many existing English textbooks do not specifically address SDG-related content, requiring teachers to develop their own teaching materials, which increases their workload. As a result, teachers need more resources and training support to effectively incorporate sustainable development issues into their classroom teaching.

1.2 Background of the Study

In 1983, the World Environment and Development Commission (WECD) was established in the United Nation (UN) (Cristina, 2014; Elliott, 2012; Yu, 2006). The concept and the model of SD were formally presented in the report “Our Common Future” in 1987 (Cristina, 2014; Elliott, 2012; Yu, 2006). People noticed that the concept of development was bound to be replaced as soon as possible and that they must pull out all the stops to resolve development problems as a way to make certain of the current development all the while meeting the needs of the ability of future generations (Bruntland, 1987). Following that, in 1992 the United Nations Conference on Environment and Development (UNCED) point out that it is an important role in rewrite education for the sake of promoting sustainable development and upgrading the capability of mankind to resolve environmental and development problems in Rio de Janeiro (Cristina, 2014; Elliott, 2012; Yu, 2006). To popularize, advance, and implement the concept of SD, United Nations Educational, Scientific and Cultural

Organization (UNESCO) has proposed an international creative, Environmental, Population, and Development based sustainability education program (Cristina, 2014). Since then, countries all over the world have formulated development strategies on the subject of the society, politics, environment, and education dimensions.

Social, economic, and environmental issues have always been associated with the structural changes of global economic since the 21st century with the changes being destitution, resources being allocated in an unfair way, population development, population movement, inadequate diet, health and AIDS, change in climate, supply of energy, ecosystems, biodiversity, water, food sanitation, environment toxins and so forth (Cristina, 2014; Elliott, 2012; Yu, 2006). Therefore, the United Nations Environment Programmer (UNEP) officer believed that previous environmental education centered on nature protection values and emphasized some visible environmental issues. However, this education promoted the connection of students to the surrounding environment, far from wholly penetrating new observations into the formal education system (UNESCO, 2005).

In 2003, UNESCO proposed the International Implementation Plan for the Decade for Sustainable Development Education (2005-2014) (UNESCO, 2005). The plan states that education is vital for sustainable development. Education and sustainable development are also closely linked (UNESCO, 2021). Sustainable Development Education (SDE) has broken through the concept of environmental protection in the past and highlighted its greater responsibility for sustainable development (UNESCO, 2021). Therefore, SDE is not a course but an understanding of the disciplines related to environmental, economic, and social issues needed to develop this new education (Lai & He, 2013).

Global Action Program on Education for SD (2015-2019) (Global Action Plan) was endorsed by the General Conference of UNESCO in 2013 (Zhang, 2016). There are two main goals on how the contribution was made from the Global Action Plan for 2030 agenda for SD: the first one is to reshuffle education and learning process so that the general public can gain access to the knowledge, skills, values, and attitudes which equip them with the ability to contribute to a sustainable future; and the second one is to reinforce education and allows learning in all agendas, programs, and activities that boost sustainable development (UN, 2015b; Yang, 2019a).

As environmental, economic, and social development affects many people, the UN proposed Changing Our World: Agenda for SD in 2015 (IsabelMaría et al., 2020; UN, 2015a). Seventeen of these SDGs have prompted action in areas critical to humanity and Earth for the next 15 years (IsabelMaría et al., 2020; UN, 2015a). In 2019, China issued a Progress Report on Implementing the Agenda for SD, proposing a series of measures in the field of education. The key to achieving the Education 2030 goals, as stated in Article 78 of the Education 2030 Framework for Action (IsabelMaría et al., 2020; UN, 2015a), is grassroots government responsibility for all rights to education (Huang et al., 2019).

1.2.1 The Background of Sustainable Development Goals (SDGs)

As a component of the 2030 Agenda for Sustainable Development (SD), Sustainable Development Goals (SDGs) are 17 and 169 targets embraced by the United Nations General Assembly in 2015 (UN, 2015c, 2020). To make sure that everyone can live a peaceful and fulfilling lives, SDGs act as a universal call as poverty ends, and the world is more sheltered (UN, 2020).

To resolve the developing concession that the growth of economy on its own is not enough to deal with complicated and interconnected worldwide challenges such as poverty, inequality and environmental degradation, SDGs were developed (UNEP, 2021). Alternatively, it is indispensable that a more encompassing approach that balances economic, social, and environmental factors are met to evolve sustainable development (UNCF, 2021). Hence, SDGs are a perfect response to tackle these obstacles as they are all-inclusive and integrated framework as they expand on the success of the Millennium Development Goals (MDGs).

While benefiting from the comprehensive support from government, civil society organizations and the private sector, SDGs established a dominant part of global efforts to advocate for SD (UNGA, 2015). It is also acknowledged that mainstreaming goals towards all sectors, including education is highly important (Alkire et al., 2019). Through integrating SDGs into education, it is also a step we could take to raise awareness, call for action in relation to SD, and make certain that the future generation is well endowed with the knowledge and skills needed in order to establish a more sustainable future (Sachs, 2015).

The concern of increasing research and practice was now centered towards integrating SDGs into education (WHO, 2020). This is because education plays an of SDGs and endowing students with the skills and knowledge crucial for action needed in sustainable development (Alkire et al., 2019). By integrating SDGs into education, versatile learning and collaboration can be cultivated and act as a more comprehensive perspective to sustainable development (Sachs, 2015). Nevertheless, there are also obstacles towards integrating SDGs into education, for example, teacher training, limited number of resources, and lack of political intention (UN, 2020). This in turn emphasizes the demand for incessant investment in teacher training and support,

1.2.2 English teachers' Knowledge, Attitude, and Practices (KAP) of SDGs

Integrating SDGs into education is an integral part of efforts to promote sustainable development, and English teachers play a crucial role in this process (Akinaso, 2020; Babbitt et al., 2020; Cheng, 2022; Guo, 2021b). This is because in order to effectively integrate SDGs into English language teaching, English language teachers' knowledge, attitudes, and practices must be taken into consideration (Baguley & Kerby, 2019; Zhou, 2021a).

It is vital to make certain that English teachers' knowledge of SDGs is sufficient so that the integration of SDGs into their teaching process is successfully implemented (Basalirwa & Aguti, 2021; Chen, 2022). The reason being that English teachers who had sufficient understanding of SDGs were more presumably to incorporate them into their teaching (Bautista & Godínez, 2018), which will in turn affect the students' awareness and understanding of SDGs positively (Dahlberg & Öhman, 2021; Farina & Silva, 2019). SDGs focused teacher training programs will ensure the English language teachers' knowledge and mastery of the goals is sufficient (Gungoren & Ozdemir, 2019), which will enable better integration of the SDGs into English language teaching effectively (Yang, 2022a).

In order to facilitate effective integration, English teachers' attitudes towards SDGs are also essential (Li, 2021; Loh, 2020). With a positive attitude towards SDGs, it is highly likely that these English teachers would assimilate SDGs in their teaching process (Oyewumi, 2020), as this would also indirectly sway students' attitudes and behavior toward SDGs in a more positive behavior (Ng et al., 2021). Additionally, English teachers with a well-founded personal and professional commitment to SDGs were in all likelihood integrate these goals into their teaching process (Raza & Haque,

2019), as they affect students' understanding of and engagement with the SDGs positively (Liu, 2021c).

It is vital that English teachers incorporate SDGs into their teaching and learning process (Sharma, 2021). In a way, it would be a positive impact on the students' understanding and engagement with the goals (Akinnaso, 2020; Babbitt et al., 2020) if these English teachers incorporate a mash up of teaching methods in their teaching process such as project-based learning, role-playing (Sookraj, 2018), and simulations as a way to introduce SDGs into their instruction (Tchakoute, 2019). In addition, to affect students' language and critical thinking skills positively (Chen, 2022), English teachers could make full use of genuine documentation for example, news articles and videos in order to facilitate integration of SDGs into their teaching effectively (Baguley & Kerby, 2019).

It is essential for English language teachers' knowledge, attitudes, and practices to be adequate as it would affect the integration of SDGs into English language teaching (Basalirwa & Aguti, 2021; Chen, 2022; Q. Yang, 2022a; Zhang, 2021a). Furthermore, a well-grounded understanding of SDGs for English teachers (Bautista & Godínez, 2018), an optimistic attitude towards the goals (Farina & Silva, 2019), and the usage of reliable teaching methods and materials would ensure that the integration of SDGS into their teaching will be carried out smoothly (Loh, 2020; Ng et al., 2021).

Cebrián et al. (2020) pointed out that teachers need a deep understanding of the key concepts of SD to effectively integrate them into daily teaching. Particularly in English teaching, teachers should help students learn language skills while being exposed to content related to SD by selecting appropriate teaching materials. This includes topics such as environmental protection, climate change, and social equity,

which can inspire students' sense of global responsibility. However, many teachers lack sufficient professional knowledge and skills in this area. According to Eizaguirre et al. (2019), some teachers are still unclear about how to integrate the SDGs into teaching, especially when it comes to selecting teaching content and setting objectives. Therefore, improving teachers' knowledge of SDGs is essential for ensuring their effective implementation in teaching.

Laurie et al. (2019) found that when teachers have a positive attitude toward the SDGs, they are more likely to adopt innovative teaching strategies and incorporate global issues into the classroom. A positive attitude can encourage teachers to cultivate students' awareness of SD through their teaching, not just limiting the process to the imparting of knowledge. Teachers who view education as a catalyst for social change are more willing to include content related to the SDGs in their instruction. However, Buchanan et al. (2022) pointed out that although many teachers theoretically agree with the value of the SDGs, practical challenges, such as limited teaching time and insufficient resources, hinder their ability to effectively implement these goals in the classroom. Thus, a gap may exist between teachers' attitudes and their actual teaching behaviors, which must be addressed through support from the education system.

Tilbury and Wortman (2020) emphasized that teachers should help students understand and analyze the practical application of the SDGs through specific teaching strategies, such as project-based learning and problem-based learning. In English teaching, teachers can encourage students to focus on global issues while learning the language through writing assignments, debates, and group projects. However, many teachers face difficulties in implementing these strategies. Arlemalm-Hagser et al. (2021) noted that the lack of teaching resources is a significant challenge, especially since existing textbooks rarely cover content related to the SDGs, leaving teachers to

develop teaching materials independently. Furthermore, teachers need more professional training to better apply these strategies in their actual teaching. Therefore, teachers' practices require additional resources, time, and institutional support to effectively achieve the educational goals of the SDGs.

1.2.3 Integration of SDGs in English Curriculum

As the world encountered diverse obstacles in SD, for example climate change, poverty, inequality, and discrimination, it has become progressively vital that SDGs being integrated into English language teaching (Agi & Abazie, 2021; Al-Abdali, 2020; Al-Akhdar, 2021). This is because English curriculum would be able to assist SD and establish a future that is more sustainable (Aldhafeeri & Al-Kandari, 2020). Hence, through assimilating the SDGs into the English language syllabus and endowing language learners with the skills, knowledge, and attitudes they require to be functional and responsible members of society, this can be achieved (Alharbi, 2020; Alshehri, 2020).

The existence of the SDGs is essential to integrate the concept of educating people with the teaching process of English language through exploring the sustainable components in the English syllabus (Bouziane, 2021; Cakir, 2020). It aims to implant positive energy value elements while teaching English language knowledge (Coles, 2019). Led by teachers, through teaching content, classroom management, evaluation system, and teachers' words and deeds, the SDGs are integrated into all aspects of classroom teaching (Fatima & Mirza, 2019; Gholami & Rasekh, 2020). They are committed to play an active role in shaping students' correct world outlook, outlook towards life, and values (Hall, 2019; Hu, 2019). Teachers' attitudes refer to the behavior and confidence that the teachers possessed towards teaching the subject,

including teachers' views on students, learning, subjects, teaching, and the role of teachers in the classroom (Hamed, 2021). English teachers are positive about integration the SDGs into their curriculum (Li, 2020). This ensure that they actively participate in relevant lectures, often as required by the school (Lezama, 2020; Liu, 2018).

Integration SDGs into the English curriculum increases knowledge of SD issues (Nwankwo & Okoli, 2019). By providing language learners with the opportunity to learn about and engage with the SDGs, a greater understanding of the world's challenges and their role in solving them can be obtained (Ramlan & Ismail, 2021). This will also in turn assist in fostering global citizenship and encourage language learners to advocate for SD inside and outside of their local communities earnestly (Mao, 2020b; Saffour, 2020).

Furthermore, through incorporating the SDGs into English syllabus, it will also facilitate and advocate cross-cultural communication and understanding (Tuncer & Uluay, 2019). It is an acknowledged fact that English language is widely used as a lingua franca, and through learning, language learners from different cultural backgrounds are highly likely to come across each other as they interact during language classes (Agi & Abazie, 2021; Yang, 2022b). Through incorporating the SDGs into English syllabus, English teachers will be able to create the opportunities for language learner to actively participate in discussion and exchange their views on SD issues (Al-Akhdar, 2021), which will develop understanding and respect for each other's cultures. This will increase the learner's motivation and interest in learning as English syllabus becomes more pertinent towards their world (Bouziane, 2021). Through the incorporation of the SDGs into English syllabus, English teachers will be

able to manifest their commitment towards advocating SD in both local and global setting (Cakir, 2020; Coles, 2019; Hall, 2019).

Through integration of the SDGs into English syllabus, a more sustainable future and SD will be established (Hamed, 2021). Through providing language learners with opportunities to learn about and engage with the SDGs (Lezama, 2020), knowledge of the SDGs can be nurtured by English teachers (Ramlan & Ismail, 2021), as they will encourage cross-cultural communication and comprehension, and promote critical competencies and skills (Saffour, 2020) while at the same time initiate a more engaging and meaningful learning experiences (Cakir, 2020; Liu, 2021b; Mao, 2020b; Sun, 2020a).

In China, the practice of incorporating the SDGs into English courses is gradually being promoted through a variety of teaching methods. Hu and Li (2023) identified project-based learning (PBL) as an effective teaching strategy. Through group projects, students can explore environmental issues such as climate action and write reports or give speeches in English. This approach not only enhances students' language skills but also deepens their understanding of global issues. Additionally, Li and Zhang (2020) emphasized that selecting teaching materials related to sustainable development enables teachers to expose students to global topics such as environmental protection and climate change while they learn English, thereby cultivating a sense of global responsibility.

Classroom debate and discussion are also important methods for integrating the SDGs into English courses. Wang and Wu (2021) suggested that teachers organize debates on topics such as decent work and economic growth, which exercise students' critical thinking and English expression skills, while enhancing their understanding of

sustainable development issues. Interdisciplinary collaboration is another effective approach. Ding and Xu (2021) argued that English teachers can work with other subjects, such as geography or science, to allow students to study sustainable urban development through project-based learning and write analytical reports in English.

Furthermore, Zhao and Ren (2021) advocated for the use of multimedia resources, such as English documentaries, to help students gain a more intuitive understanding of global issues. Teachers can show documentaries related to sustainable development and then organize discussions or writing tasks to improve students' language skills and global awareness. Chen (2020) proposed that creative writing tasks provide a flexible way to engage students with the SDGs. For example, teachers can ask students to write stories or future scenarios related to reducing inequality, which helps develop both their language skills and their sense of innovation and social responsibility.

1.2.4 English teachers' KAP of SDGs in English Curriculum

Integrating the SDGs into English syllabus requires active participation from English teachers as they are essential towards making it a success. In fact, the effectiveness of integrating the SDGs into the syllabus is highly influenced by English teachers' knowledge, attitude, and practices regarding the SDGs (Al-Tamimi & Al-Sarraj, 2021; Al-Wadaani & Alshammari, 2021). Additionally, there has been growing interest in the recent years in regard to exploring the factors affecting English teachers' knowledge, attitude, and practice of SDGs in the English syllabus (Bouziane, 2020; Guo, 2021a).

It is particularly crucial that knowledge of the SDGs are embedded in English teachers in order for them to incorporate these knowledge into their teaching and learning process (Khoiruddin & Hardjanto, 2021). This is due to the fact that it is highly likely that English teachers with good understanding of the SDGs will be able to incorporate this knowledge into their teaching practice seamlessly (Cao & Guo, 2020; Khoiruddin & Hardjanto, 2021; Liu, 2021a). Additionally, there are high probability that this knowledge can be integrated into their teaching practice if English teachers previously attended trainings regarding the SDGs (Bouziane, 2020; Lezama, 2020). To integrate the SDGs into English syllabus, English teachers' attitude is important to make sure that the teaching practice is conducted smoothly (Mao, 2020a; Nega & Tadesse, 2019). An enthusiastic attitude from English teachers toward the SDGs will make certain that these goals are incorporated into their teaching process (Oktavia & Masruddin, 2020; Sun, 2020b). In addition, the SDGs could be incorporated seamlessly if English teachers make use of genuine documentation and simulated classroom activities (Saffour, 2020). The usage of news articles and critical thinking activities in the classroom setting would make sure that English teachers integrate the SDGs into the lessons in an interesting manner flawlessly (Yousuf, 2019; Zhang, 2021b). Hence, the SDGs could be incorporated seamlessly into English syllabus if English teachers have exceptional understanding of the SDGs, have an enthusiastic response towards the SDGs and are able to make use of genuine resources and effective teaching practices (Al-Tamimi & Al-Sarraj, 2021; J. Zhou, 2021b).

In China, English teachers have translated their knowledge and attitudes about the SDGs into classroom practice in various ways. Firstly, teachers can reflect their understanding of the SDGs by selecting teaching materials related to SD. Studies have shown that when teachers choose materials on topics such as environmental protection,

climate change, and social justice, they not only improve students' language skills but also promote their sense of global responsibility (Li & Zhang, 2020). Secondly, positive teaching attitudes have encouraged teachers to explore innovative methods, such as adopting project-based learning (PBL), where students conduct group projects on specific topics and report in English (Hu & Li, 2023). Additionally, teachers can stimulate students' interest in learning and cultivate their critical thinking skills through interactive methods like classroom debates and group discussions (Wang & Wu, 2021). Teachers can also design diversified assessment methods to evaluate students' understanding of the SDGs through project reports, speeches, and creative writing tasks. This approach not only focuses on enhancing language skills but also emphasizes students' ability to reflect on global issues (Ding & Xu, 2021). Finally, the professional development of teachers plays a crucial role. By participating in training and exchange activities, teachers can deepen their understanding of the SDGs, enabling them to integrate relevant content into their teaching more confidently (Zhao & Ren, 2021).

In summary, English teachers can effectively transform their knowledge and attitudes toward the SDGs into classroom practice by selecting relevant teaching content, innovating teaching methods, encouraging interactive participation, employing diversified assessments, and engaging in continuous professional development. This approach ultimately enhances students' English proficiency and fosters their concern and sense of responsibility for global issues.

1.3 Problem Statement

The integration of English teachers' knowledge, attitudes, and practices with the SDGs in high school English teaching in Shanxi Province is an important and

complex issue. As the global SD agenda advances, education is considered one of the key means to promote sustainable development. However, challenges remain in effectively integrating the SDGs into English classes. This study explores three major issues in this area, supported by empirical research and data in the Chinese context, revealing the gaps between teachers' knowledge, attitudes, and practices and their impact on the integration of SDGs into teaching according to general high school English curriculum standards.

Firstly, insufficient knowledge of the SDGs among teachers is a significant barrier to their integration into English classes (Ai, 2023; Dou, 2023; Zhao & Sun, 2020). Whether teachers possess adequate knowledge about SD issues directly affects their ability to effectively incorporate these topics into their daily teaching. He (2023) noted that although some teachers understand the basic concepts of the SDGs, most have limited knowledge of the details of these goals. In areas such as Shanxi, where teacher training resources are relatively scarce, educators often lack access to professional knowledge about SDGs, hindering their ability to convey these critical global issues to students.

In a survey of Chinese secondary school teachers, less than 30% of English teachers reported having received training related to SD (Wang, 2023; Ai, 2023). This knowledge deficit not only restricts teachers' capacity to include SD themes in their classrooms but also complicates the targeted selection of teaching materials and classroom activities. For example, while some teachers may recognize the seriousness of environmental issues, they may struggle to translate this understanding into concrete teaching content, leading to a disconnect between knowledge and practice.

Moreover, the lack of knowledge also impacts teachers' instructional design and evaluation methods. Dou (2023) pointed out that teachers tend to choose existing, traditional teaching materials and often lack innovative, sustainable development-oriented resources. Many current English textbooks do not adequately cover sustainable development content, making it challenging for teachers to develop relevant teaching plans independently within constrained time frames. Therefore, the deficit in teachers' knowledge constitutes a significant obstacle to integrating the SDGs into English teaching, necessitating continuous professional development and knowledge enhancement.

Secondly, teachers' attitudes towards the SDGs directly influence their willingness to incorporate these goals into their daily teaching (Guo & Huang, 2020; Wang & Yang, 2023). According to Wang (2024), teachers' attitudes play a crucial role in their openness to adopting innovative teaching methods that encourage students to consider global issues. However, many teachers express reservations about integrating the SDGs into English classes, perceiving these topics as overly complex or misaligned with the existing test-oriented education system.

In an empirical study, only 40% of English teachers acknowledged the importance of the SDGs in high school English education (He, 2023; Wang, 2023). Most teachers maintain a cautious stance towards these goals, particularly in high-pressure exam environments, where the focus shifts towards language knowledge rather than the educational value of global issues. This attitude disparity results in a lack of attention to global topics in the classroom, inhibiting students from developing a sense of global responsibility while learning English.

Additionally, Wang (2024) found that various factors—including education policies, school management, and socio-cultural contexts—influence teachers' attitudes towards the SDGs. In regions like Shanxi Province, where educational resources are limited and teachers face considerable work pressure, these factors further undermine their positive disposition toward the SDGs. Many teachers believe that effectively integrating the SDGs into their classrooms is challenging under the constraints of established curricula, without adding to their workload. Thus, teachers' attitudes not only affect their acceptance of SD content but also significantly influence its implementation in the classroom.

The third issue involves practical obstacles encountered in teaching practice (Du, 2024). Even when teachers possess the necessary knowledge and positive attitudes, they still face numerous difficulties in execution, primarily manifesting as insufficient teaching resources, time constraints, and a lack of support from evaluation systems (Feng & Xu, 2021; Liu & Zhang, 2022). Ding and Xu (2021) indicated that teachers frequently contend with time and resource limitations when attempting to implement SDG-related teaching activities. English teachers' instructional time is typically allocated strictly to exam preparation, making it difficult to dedicate time to sustainable development topics.

In Chinese high schools, particularly in regions like Shanxi, the traditional test-oriented education model remains dominant. According to Wang (2024) and He (2023), more than 70% of English teachers reported that their teaching design had to be exam-focused, which hampers their ability to engage deeply with global issues like SDGs. The evaluation systems employed by schools also tend to emphasize language skills testing over students' comprehension and application of SD topics. This focus

complicates the effort to balance language skill improvement with fostering students' global responsibilities.

Furthermore, the lack of teaching resources presents another major challenge (Ai, 2023). While some textbooks have begun to incorporate SD content, many existing teaching materials still fail to adequately address SDGs (Dou, 2023). Teachers are often required to develop or seek out relevant instructional resources independently, which undoubtedly adds to their workload (Wang, 2024). Additionally, support from schools regarding equipment and resources is frequently insufficient; for instance, a lack of multimedia teaching tools and extracurricular readings related to sustainable development further constrains teachers' instructional practices (Ai, 2023).

From a theoretical and research standpoint, studies on integrating the SDGs into English classes are relatively scarce, especially within the Chinese context, where empirical research is even more limited. Although the number of studies focusing on SDGs has increased in recent years, most have centered on policy-level analysis, lacking in-depth examinations of specific teaching practices (Zhou & Jiang, 2019). According to He (2023), while teachers may agree in principle about the importance of integrating SDGs into their teaching, they often lack concrete operational frameworks and guidance, resulting in a disconnect between theory and practice.

Moreover, He (2023) and Du (2024) noted that existing research predominantly concentrates on macro-level educational reforms, insufficiently addressing the challenges and needs of frontline teachers. This oversight is particularly pronounced in resource-scarce regions like Shanxi, where teachers' specific needs and challenges are often overlooked. Future research should aim to explore the unique requirements and obstacles teachers face in implementing the SDGs in various regions through

