



COLLEGE STUDENTS' PERSPECTIVES ON KNOWLEDGE SHARING PLATFORM AND EMI COURSES

Ching-Ying Lin

Assistant Professor, Department of Applied English, National Pingtung University,
Pingtung City, Taiwan (R.O.C)
E-mail: chingyinglin6@gmail.com

Tzu-Yao Lin

Assistant Professor, Department of Tourism Management, Nanhua University,
Chayi County, Taiwan (R.O.C) / Department of Leisure and Sport Management,
Cheng Shiu University, Kaohsiung City, Taiwan (R.O.C)
E-mail: alex61206@gmail.com

Yu-Chi Chen

Department of Applied English, National Pingtung University, Pingtung City, Taiwan
(R.O.C)

Wei-Hsiung Chang

(Corresponding Author)

Professor, Department of Tourism Management, Nanhua University,
Chayi County, Taiwan (R.O.C)
E-mail: hector629@gmail.com

Abstract

The rapid advancement of network science and digital technologies has transformed educational paradigms, positioning web-based knowledge-sharing platforms as key resources in English as a Foreign Language (EFL) contexts. This study investigates the efficacy of these platforms and explores students' perceptions of English as a Medium of Instruction (EMI) in higher education. Employing a mixed-methods design, the research integrates a comprehensive literature review with quantitative data from 250 undergraduates at National Pingtung University, gathered via structured five-point Likert-scale questionnaires. Statistical analyses conducted through SPSS, including descriptive statistics and Chi-squared tests, reveal that over 70% of participants utilized knowledge-sharing platforms to support English learning. Students largely perceived these tools as superior to traditional approaches in promoting engagement, learner autonomy, and motivation. However, concerns were raised regarding the lack of personalized feedback and adaptation challenges in digital environments. With respect to EMI, nearly half of the respondents reported prior exposure to

English-mediated courses. While recognizing EMI's positive impact on language proficiency across listening, speaking, reading, and writing, participants also noted cognitive overload and difficulties comprehending domain-specific content. Despite these challenges, the overall perception of EMI and digital learning platforms was strongly positive. These findings underscore the importance of embedding knowledge-sharing technologies into formal curricula and implementing adaptive pedagogical strategies to mitigate EMI-related challenges. In alignment with Taiwan's national bilingual education policy, the study emphasizes technology's transformative role in language education and advocates for future research on AI-driven adaptive learning to personalize EFL instruction.

Keywords: English as a Foreign Language (EFL); English as a Medium of Instruction (EMI); knowledge-sharing platforms; bilingual education policy; digital learning; AI-driven adaptive learning

Introduction

The significance of network science and technology has become increasingly pronounced in shaping contemporary modes of communication and learning. Rapid advances in these fields have redefined the parameters of global connectivity, enabling the development of web-based learning communities that promote collaboration, interaction, and knowledge sharing (Smith & Nam, 2007). In higher education, these innovations have accelerated a shift from traditional teacher-centered methodologies to learner-centered, technology-enhanced pedagogies. Information technology now functions as a critical enabler of knowledge dissemination and acquisition, expanding students' access to resources while fostering engagement and deeper learning (Cappel & Hayen, 2004; Filimban, 2008; Kirby, Sharpe, & Barbour, 2007).

Among these advancements, e-learning has matured from an emergent instructional practice into a central pillar of modern education. Initially adopted for corporate training to enhance workforce competencies, e-

learning is now widely embedded in universities to strengthen teaching effectiveness and enrich learning processes (Simmons, 2002; Sahin & Thompson, 2007; Selim, 2007). In the Taiwanese context, these global transformations resonate with the Ministry of Education's 2030 Bilingual Nation policy, which positions digital and networked learning as strategic tools for enhancing English proficiency and intercultural competence. The convergence of technology and bilingual education thus highlights the imperative to design adaptive, inclusive, and sustainable learning ecosystems that prepare students for global academic and professional participation.

The research questions are as follows:

1. Will English learning using knowledge sharing platform improve the learning outcomes for EFL as effective as traditional learning method?
2. What are students' opinions about the academic benefits and challenges of studying through English?

Literature Review

The necessity of E-Learning on English learning

E-learning, often conceptualized as online or electronic learning, refers to the acquisition of knowledge through the integration of digital technologies and instructional design (Sander Tamm, 2020). Over the past several decades, the expansion of information and communication technologies has significantly reshaped educational frameworks, driven by rapid developments in networked infrastructures and digital platforms (Kahiigi et al., 2008). Within this evolving landscape, e-learning has emerged as a transformative pedagogical medium, widely recognized for its ability to enhance the accessibility of information, streamline knowledge transfer, and cultivate advanced learning competencies among diverse learner populations.

One of the most salient trends accompanying the proliferation of e-learning is the rise of self-directed learning, whereby students assume greater responsibility for organizing, monitoring, and evaluating their own educational trajectories. This autonomy is complemented by the collaborative affordances of digital platforms, which foster peer-to-peer interaction, collective knowledge construction, and community-based engagement. By effectively bridging technology and pedagogy, e-learning is no longer regarded as a supplementary instructional tool but rather as a critical driver of innovation in higher education. Its capacity to promote independent inquiry, collaboration, and adaptability underscores its pivotal role in shaping contemporary

teaching and learning practices (Riah F. et al., 2020).

Knowledge sharing platform and English learning

Knowledge can be conceptualized as a synthesis of contextualized experiences, individual attributes, disciplinary expertise, intuitive understanding, and specialized perspectives. This multifaceted construct provides the foundation for evaluating, assimilating, and generating new insights. As a dynamic and evolving entity, knowledge emerges through ongoing interactions among individuals and groups, and is preserved and transmitted via multiple channels, including documents, databases, and institutionalized standards. Such fluidity underscores its capacity to exist in diverse forms and contexts, as Drucker (1999) emphasized.

From a constructivist perspective, Geary (1995) argues that knowledge develops through active participation, whereby motivated learners collaboratively construct and refine understanding. Within this paradigm, knowledge sharing becomes a central process, involving the transfer of expertise, insights, and information among individuals, groups, or institutions (Lee, 2001). In organizational contexts, knowledge sharing is recognized as a reciprocal exchange that enhances collective expertise, drives innovation, and improves operational efficiency (Bartol & Srivastava, 2003). By cultivating knowledge-sharing practices, organizations can minimize costs related to training and development, as expertise circulates more effectively across the workforce.

The principles underlying

knowledge sharing hold significant relevance in educational settings, particularly in language learning. As Connelly and Kelloway suggest, the process of acquiring skills such as English proficiency mirrors organizational dynamics of distributed knowledge exchange. Instructors provide foundational input, but students consolidate learning through peer collaboration—engaging in reciprocal practice, feedback, and meaning-making during and beyond class sessions. Peer learning, therefore, becomes integral to knowledge construction, enabling students to build on each other's insights. This collaborative dynamic enriches the educational experience by diversifying instructional modalities and fostering a community of practice that supports sustained academic growth.

Factors that affect English learning using the internet

Ruiperez (2002) underscored the growing prominence of the internet as a central medium for global interaction, highlighting its transformative role in reshaping communication across linguistic and cultural boundaries. Within this digital ecosystem, language functions not only as a primary vehicle for interpersonal exchange but also as a critical instrument for accessing, constructing, and disseminating knowledge. The expansion of the internet has thus positioned linguistic and audio-visual affordances as indispensable resources for both communication and education, redefining traditional paradigms of language learning and instruction.

The internet's linguistic potential lies in its capacity to integrate diverse multimedia modalities—text, audio,

video, and interactive platforms—into pedagogical practice. These features enable learners to engage with authentic language use in immersive, context-rich environments that transcend geographic limitations. For example, learners can interact with native speakers through video conferencing, participate in real-time language exchanges, or access adaptive digital platforms tailored to their proficiency levels. Such affordances foster meaningful communication and practical language application, enhancing learners' linguistic competence and intercultural awareness (Ruiperez, 2002).

Beyond interactional opportunities, the internet functions as a vast repository of language learning resources, offering digital dictionaries, grammar tutorials, interactive exercises, and mobile applications. This abundance of content supports self-directed learning by empowering students to pursue knowledge independently, at their own pace. The availability of multimodal resources also aligns with constructivist pedagogical principles, as learners actively engage with materials that scaffold language acquisition while cultivating autonomy and critical thinking. In this sense, the internet not only supplements formal instruction but also facilitates lifelong, individualized learning trajectories.

The pedagogical implications of the internet's integration into language education are profound. Educators can design innovative strategies that harness digital tools, such as virtual simulations, gamified tasks, and collaborative online projects. These approaches not only enhance learner motivation

but also allow for adaptive and personalized pathways that address diverse learning needs. Furthermore, by facilitating cross-cultural communication, the internet provides learners with authentic exposure to linguistic variations and cultural practices. This globalized engagement is essential for developing intercultural competence, a key objective in contemporary language education.

In conclusion, the internet has emerged as a transformative force in language learning, characterized by its capacity to expand access, promote interaction, and support innovative pedagogy. Its continued integration into educational frameworks signals a paradigmatic shift toward more inclusive, dynamic, and effective models of language instruction that prepare learners for participation in an interconnected world (Ruiperez, 2002).

Factors that affect knowledge sharing: Learning motivation

In educational contexts, learners experience greater satisfaction and sustained engagement when their intrinsic motivation underpins the pursuit of new knowledge and skills (Vallerand & Bissonnette, 1992). Intrinsic motivation, defined as the drive to engage in learning for the inherent enjoyment or personal fulfillment it provides, is critical for cultivating a positive disposition toward learning. This form of motivation fosters curiosity, persistence, and resilience, while also encouraging the creation of collaborative environments in which learners are more willing to exchange ideas, share resources, and work toward common goals (Hsu et al., 2007; Tseng & Kuo, 2007). Im-

portantly, intrinsic motivation facilitates a culture of openness and reciprocity that is essential for collective knowledge construction and long-term academic growth.

Nevertheless, motivation in education rarely operates in isolation. Osterloh and Frey (2000) contend that extrinsic incentives also play a pivotal role in shaping learners' behaviors related to knowledge sharing and collaboration. Extrinsic motivation encompasses actions undertaken to obtain external rewards or to avoid negative consequences. These rewards may take the form of recognition, grades, financial compensation, or other forms of acknowledgment. Empirical research suggests that when learners perceive such rewards as attainable, they often exhibit higher levels of enthusiasm, persistence, and participation (Chen & Jang, 2010).

Within collaborative learning environments, extrinsic motivators can effectively complement intrinsic drivers by providing structured opportunities for engagement. For instance, knowledge-sharing activities that include certificates, public recognition, or tangible rewards may attract and sustain participation among students who are otherwise less intrinsically motivated. Such incentives not only enhance willingness to contribute but also amplify peer-to-peer interactions, thereby enriching the collective learning experience.

In sum, intrinsic and extrinsic motivations operate synergistically in fostering knowledge-sharing practices. While intrinsic motivation cultivates authentic enthusiasm and sustained engagement, extrinsic incentives serve as

strategic catalysts that broaden participation and reinforce collaborative learning. Their integration creates a balanced motivational framework that strengthens both individual learning trajectories and group-level educational outcomes.

Factors that affect knowledge sharing: Peer interaction

The effectiveness of collaborative learning is intrinsically linked to the continuous processes of knowledge generation, modification, and assimilation, processes that enable learners to co-construct meaning and develop deeper insights (Su, 2010). Through iterative interaction, group members exchange diverse perspectives, negotiate meaning, and collaboratively problem-solve, thereby fostering cognitive growth and enhancing overall engagement in the learning process (Dewiyanti et al., 2007). When such environments are characterized by mutual trust, reciprocity, and a shared orientation toward resolving challenges, knowledge exchange becomes more sustainable, establishing conditions conducive to collective learning (Su et al., 2010).

The structure of interaction within a group plays a decisive role in shaping the quality and efficiency of communication as well as the outcomes of collaborative endeavors. Chen (2001) and Chen and Huang (2008) identify three prototypical models of communication: wheel, chain, and staggered. The wheel model positions the leader as the central hub, communicating directly with all members while limiting peer-to-peer interaction. The chain model reflects a hierarchical pattern of dissemination, where information primarily

flows from the leader to subordinates. In contrast, the staggered model facilitates multidirectional engagement, enabling both leader-member and member-to-member communication.

Each structure entails distinct advantages and limitations. The wheel and staggered models are most efficient for rapid information transmission, while the wheel and chain models achieve higher levels of accuracy in message delivery. However, member satisfaction varies markedly. The staggered model consistently produces the highest satisfaction due to its inclusivity and collaborative ethos, whereas the wheel model, constrained by limited interaction, yields the lowest levels of satisfaction (Lee, Lee, & Lin, 1996).

Complementary research further distinguishes group collaboration into three leadership and interaction styles: business unit, immediate superior, and work group (Yang, 2007). These styles affect not only the efficiency of information transmission but also members' psychological sense of belonging and satisfaction, particularly within online and digital learning environments. Such cognitive and affective dimensions are critical to knowledge sharing, as they significantly influence members' willingness to contribute and sustain collaboration (Chen & Huang, 2008).

In sum, interactional structures and leadership styles are pivotal in determining the success of collaborative learning, particularly in online contexts. By shaping participation, satisfaction, and co-construction of knowledge, these models directly impact the effectiveness of digital

knowledge-sharing practices.

Methodology

Research Structure

This study employed an integrated methodological approach, combining a systematic literature review with survey research to enable both comprehensive analysis and critical discussion. Building upon the theoretical foundations outlined in preceding sections, a research framework was constructed to guide inquiry. The study pursued two principal objectives: (1) to examine the effectiveness of knowledge-sharing platforms as pedagogical tools for English language learning in comparison with conventional instructional approaches, and (2) to explore students' perceptions and attitudes toward English as a Medium of Instruction (EMI). Together, these aims provide insights into the pedagogical and linguistic implications of digitalization in language education.

Research Design

This study was organized into four key components: (1) participant selection and demographic characteristics, (2) instruments employed for data collection, (3) an overview of the research methodology, and (4) the analytic procedures applied for data interpretation. Together, these components establish methodological coherence and rigor.

Participants

The research sample consisted of 250 undergraduate students from National Pingtung University, aged 18 to

22. This cohort was purposefully selected to examine the perspectives of young adults in tertiary education, with specific attention to their engagement with knowledge-sharing platforms for English language learning and their attitudes toward English as a Medium of Instruction (EMI).

Instruments

This study aimed to evaluate the effectiveness of knowledge-sharing platforms in improving English learning outcomes and to examine students' perceptions of English-mediated learning. A structured questionnaire served as the primary data collection instrument, designed to yield comprehensive insights. It comprised three sections: (1) demographic and background information, (2) patterns of engagement with knowledge-sharing platforms, including frequency, purposes, and perceived benefits, and (3) students' experiences and attitudes toward English learning, particularly within English as a Medium of Instruction (EMI).

Questionnaire

The questionnaire was designed to investigate students' attitudes toward the use of knowledge-sharing platforms in English language acquisition and to evaluate their perceptions of learning through English. Responses were captured using a five-point Likert scale, which allowed participants to indicate the extent of agreement or frequency across specific statements. The scale was structured as follows: (1) strongly disagree, (2) disagree, (3) neutral, (4) agree, and (5) strongly agree. This standardized format provided a systematic means of quantifying subjective opinions and experiences,

thereby supporting rigorous statistical analysis of the data. Moreover, the multi-faceted design of the instrument facilitated a comprehensive exploration

of the research questions, while the integration of both quantitative and qualitative dimensions enhanced the overall validity, reliability, and interpretive depth of the study's findings.

Table1. The outline of procedures

Procedure	Outline
Contact	The researcher presented a comprehensive overview of the objectives of the research to each English as a Foreign Language (EFL) instructor and acquired explicit consent from each instructor.
Instrument	Once the participant count was verified, the researcher visited the courses in person and distributed the questionnaire to the participant.
Data collecting	The researcher collected the completed questionnaire.

Contact

The researcher engaged with various English as a Foreign Language (EFL) classes at National Pingtung University by conducting individual meetings with each course instructor. During these meetings, the researcher provided a detailed overview of the study's objectives, ensuring that instructors fully understood the purpose and significance of the research. Upon obtaining their consent, the researcher received authorization to implement the study within their respective classes.

Instruments

Following instructors' approval, the researcher visited each class to provide students with a comprehensive explanation of the study's objectives and procedures. Questionnaires were then distributed and administered to all participants. To enhance the clarity and accuracy of responses, instructors were authorized to assist by addressing

questions or clarifying ambiguities. This collaborative procedure ensured reliable data collection, minimized potential misinterpretations, and reinforced participants' understanding of the research purpose within an ethically guided framework.

Data Collection

At the conclusion of the courses, the researcher revisited each class to collect the completed questionnaires directly. During this process, appreciation was formally extended to both instructors and students for their cooperation and engagement. This concluding step underscored the study's ethical commitment to acknowledging participants' contributions and fostering mutual respect within the research context.

Data Analysis

To address the research questions, the collected data were systematically analyzed using the Statistical Package

for the Social Sciences (SPSS). Descriptive statistical techniques, including frequency distributions and mean calculations, were employed to summarize participant responses and identify overarching patterns. In addition, cross-tabulation analyses were conducted to examine variations across demographic variables, such as gender, thereby revealing significant differences in perceptions and attitudes between male and female participants. This rigorous analytic strategy enhanced both the reliability and validity of the study, ensuring that the findings provided comprehensive and credible insights into the research objectives.

Results

Table 2. The Subjects in The Study

	Male	Female	Total
number	120	130	250

Table 2 demonstrated the involvement of 250 students, aged 18 to 22, who were enrolled in English as a Foreign Language (EFL) courses at National Pingtung University and took part in this research investigation.

The Results Pertaining to The Research Inquiries

Two research questions were addressed in this research: “Will English learning using knowledge sharing platform improve the learning outcomes for EFL as effective as traditional learning method?” and “What are students’ opinions about the academic benefits and challenges of studying through English?” The first study investigated whether the effectiveness of using a knowledge-sharing platform

The goal of this research was to explore the effectiveness of utilizing knowledge sharing platform to learn English understand English as Foreign Language (EFL) students’ opinions of studying through English. This study consisted of two research question. The first inquiry examined the whether the effectiveness of using knowledge sharing platforms for English learning is comparable to traditional learning methods. The second inquiry investigated students’ perspectives on the benefits and challenges of learning in English. The responses to these two research questions was analyzed through the SPSS system.

for English language learning is comparable to that of traditional learning methods. The second study explored students’ perceptions regarding the benefits and challenges associated with learning English.

Table 3 illustrated the participants’ background about using knowledge sharing platforms in English learning. Among the 250 participants, over 73% have used knowledge sharing platforms to learn English. Among male participants, over 75% have used knowledge sharing platforms to learn English. Among female participants, over 70% have used knowledge sharing platforms to learn English.

Table 3. The Participants' Background about using knowledge sharing platforms to learn English

Item	Male		Female		Total	
	N*	%**	N*	%**	N*	%**
Have used knowledge sharing platforms	91	75.83%	93	71.54	184	73.60%
Have not used knowledge sharing platforms	29	24.17%	37	28.46%	66	26.40%
Chi-squared test	$\chi^2=770.06^*$ n=250 df=1					

Research question one:

Will English learning using knowledge sharing platform improve the learning outcomes for EFL as effective as traditional learning method?

Table 4 presented the numerical data, proportions and Chi-squared test of all participants across questions 1 to 8. All questions pertained to positive

impacts on using knowledge sharing platforms. According to Table 4, the majority of participants held attitudes of strongly agree, agree, or neutral towards questions 1, 4, 5, 7, and 8, with only a small number of individuals expressing disagreement or strong disagreement with the statements. However, for questions 2, 3, and 6, there were more people who disagreed or strongly disagreed with the statements.

Table 4. The Chi-squared test of All Participants' Responses on Their Opinions About using knowledge sharing platforms in English learning

Item	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		Chi-squared test (χ^2) n=250, df=4
	N	%	N	%	N	%	N	%	N	%	-
Q 1 new ideas	62	24.8	130	52.0	46	18.4	12	4.8	0	0.0	$\chi^2=845.32^*$
Q 2 to complete tasks	56	22.4	129	51.6	47	18.8	16	6.4	2	0.8	$\chi^2=642.36^{**}$
Q 3 to increase my interest	49	19.6	113	45.2	64	25.6	16	6.4	8	3.2	$\chi^2=638.96^{**}$
Q 4 greatly benefited me	60	24.0	130	52.0	54	21.6	6	2.4	0	0.0	$\chi^2=803.69^*$
Q 5 to find	61	24.4	10	43.6	68	27.2	12	4.8	0	0.0	$\chi^2=776.37$

solutions	9										*
Q 6 to extend my learning	47	18.8	13 4	53.6	50	20.0	19	7.6	0	0.0	$\chi^2=686.63$ **
Q7 facilitates my learning	58	23.2	13 8	55.2	51	20.4	3	1.2	0	0.0	$\chi^2=788.14$ *
Q 8 to absorb different perspectives	57	22.8	12 4	49.6	65	26.0	4	1.6	0	0.0	$\chi^2=829.39$ *

Table 5 showed the rank of EFL students' responses on the benefits that using knowledge sharing platforms in English learning brought them. Based

on the results, people thought that using knowledge sharing platforms to learn English were more efficient and more effective than traditional learning methods.

Table 5. The Rank of EFL Students' Opinions About the Statements of Questions 1 To 8

Rank	Item	Statement	Mean	Cronbach's α
1	Q 7	Using knowledge sharing platforms facilitates my English learning.	4.00	0.82
2	Q 4	Using knowledge sharing platforms has greatly benefited me in learning English.	3.98	0.86
3	Q 1	Using knowledge sharing platforms to learn English makes it easier for me to generate new ideas.	3.97	0.80
4	Q 8	Using knowledge sharing platforms to learn English allows me to absorb different perspectives more easily.	3.94	0.76
5	Q 2	Using knowledge sharing platforms enables me to complete tasks more efficiently and effectively.	3.88	0.83
5	Q 5	Using knowledge sharing platforms to learn English helps me to find solutions more efficiently.	3.88	0.84
7	Q 6	Using knowledge sharing platforms makes it easier for me to extend my learning in English.	3.84	0.78
8	Q 3	Using knowledge sharing platform increases my interest in learning English.	3.72	0.89

Research question two:

What are students' perspectives on the benefits and challenges of studying through English?

Table 6 demonstrated the number and proportions of the participants' experience of taking EMI courses. Among the participants, people who have not taken EMI courses were more than people who have taken EMI courses.

Table 7 presented the Chi-squared test of all participants across question 9 to 14. Question 9 to 12 pertained to positive influences on studying through English. According to table 7, most participants held attitudes of strongly agree, agree, and neutral towards question 9, 10, 11, and 12. It means most people agreed that studying through English brought benefits to them. However, question 13 and 14 pertained to challenges of studying through English. The majority of the participants held attitudes of strongly agree, agree, and neutral towards question 13 and 14 which means most people thought that studying through English brought challenges to them.

Table 8 presented the rank of EFL students' responses on the positive influences and negative influences on studying through English. According to the table, the ranks of the positive impacts were higher than the negative impacts. As a result, learning through English brought more benefits than challenges to the students.

Conclusion

Summary of Research Outcomes

The findings of this investigation yielded two significant results. First, more than 70% of participants reported utilizing knowledge-sharing platforms for English learning. The majority perceived these platforms as not only enhancing the efficiency of language acquisition but also stimulating interest in exploring related subject areas. Moreover, the integration of such platforms was found to increase students' motivation and sustained engagement, thereby reinforcing the value of technology-supported learning environments in higher education. Second, results derived from Chi-squared analyses indicated that nearly half of the participants had prior experience with English as a Medium of Instruction (EMI). Most respondents acknowledged that EMI facilitated improvement across the four core language skills—listening, speaking, reading, and writing. Nonetheless, they also reported substantial challenges, including heightened cognitive demands, difficulties in classroom communication, and obstacles in comprehending domain-specific academic texts. These findings highlight the dual benefits and challenges inherent in EMI contexts.

Educational Implication

The implementation of this research was aligned with the Ministry of Education's current directives on bilingual education for tertiary-level students in Taiwan. These directives require universities and colleges to establish bilingual learning environments by adopting English as the primary medium of instruction across academic disciplines, with the overarching aim of strengthening students' English proficiency. In addition, the National Development Council has identified the

Table 6. The Participants' Background About Emi Courses

Item	Male		Female		Total	
	N*	%**	N*	%**	N*	%**
Have taken EMI courses	54	45.00%	58	44.62%	112	44.80%
Have not taken EMI courses	66	55.00%	72	55.38%	138	55.20%
Chi-squared test	$\chi^2=770.06^*$ n=250 df=1					

Table 7. The Chi-squared test of All Participants' Responses on The Benefits and Challenges of Studying Through English

Item	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		Chi-squared test (χ^2) n=250, df=4
	N	%	N	%	N	%	N	%	N	%	-
Q9 speaking ability	57	22.8	107	42.8	77	30.8	9	3.6	0	0.0	$\chi^2=728.12^*$
Q10 listening ability	58	23.2	115	46.0	71	28.4	6	2.4	0	0.0	$\chi^2=742.36^*$
Q11 reading ability	57	22.8	119	47.6	68	27.2	6	2.4	0	0.0	$\chi^2=638.96^{**}$
Q12 writing ability	49	19.6	109	43.6	82	32.8	8	3.2	2	0.8	$\chi^2=803.69^*$
Q13 reading articles related to professional fields	44	17.6	115	46.0	65	26.0	19	7.6	7	2.8	$\chi^2=776.37^*$
Q14 classroom communication	42	16.8	113	45.2	68	27.2	17	6.8	10	4.0	$\chi^2=615.63^{**}$

advancement of e-learning as a central objective of the bilingual education initiative, including the development of a government-supported digital platform to facilitate English learning. Within this framework, the integration of knowledge-sharing platforms becomes particularly significant. By embedding such platforms into the curriculum, instructors can enhance students' awareness of their pedagogical value, broaden learners' academic horizons

through technology, and support the cultivation of digital literacy and bilingual competence simultaneously.

Limitations

While the findings of this study offer meaningful pedagogical implications, certain methodological limitations must be acknowledged. The research relied exclusively on survey

Table 8. The Rank of EFL Students' Opinions About the Statements of Questions 9 To 14

Rank	Item	Statement	Mean	Cronbach's α
1	Q11	Learning through English boosts my reading ability.	3.91	0.86
2	Q10	Learning through English advances my listening ability.	3.90	0.89
3	Q9	Learning through English improves my speaking ability.	3.85	0.92
4	Q12	Learning through English enhances my writing ability.	3.78	0.81
5	Q13	Learning through English makes reading articles related to professional fields more challenging.	3.68	0.82
6	Q14	Learning through English makes classroom communication more difficult.	3.64	0.83

instruments, drawing data from questionnaires completed by EFL undergraduates at National Pingtung University. Although this approach captured students' self-reported perspectives, responses were constrained by the structure and wording of the survey items, which may have limited the depth of insight into participants' underlying beliefs and experiences. To address this limitation, future studies could incorporate qualitative methods such as semi-structured interviews or focus groups to obtain richer, more nuanced accounts of learners' perspectives. Moreover, the study sample was restricted to non-native English-speaking students aged 18 to 22 within a single institutional context. Both age and institutional background may have shaped participants' responses, thereby limiting generalizability. Expanding the scope of future research to include learners from diverse regions, institutions, and age groups would provide a more comprehensive understanding of the phenomena under investigation.

Suggestions for the Future Studies

The closed-ended statements employed in the questionnaire may have constrained participants' ability to fully articulate their perspectives on the use of knowledge-sharing platforms in English learning and on learning through English. To achieve a more comprehensive understanding, future research would benefit from integrating open-ended items and qualitative approaches, such as interviews, to capture greater depth and nuance. Additionally, the perspectives of non-native English-speaking students are likely shaped by variations in age and sociocultural background. Incorporating age and regional categories as analytical variables could yield more precise findings and strengthen the foundation for subsequent investigations.

References

- Abraham, R. & Vann, R. (1987). Strategies of two language learners: a case study. Wenden and Rubin (Eds.).
- Bartol, K.M., & Srivastava, A. (2003). Encouraging Knowledge Sharing: The role of organizational reward systems. *Journal of leadership & organizational studies*, 9(1), 64-77.
- Chen, C.-T., & Huang, W.-C. (2008). A macro-level collaborative learning and knowledge-sharing web-based model for technical and vocational education systems. *Journal of National Formosa University*, 27(2), 49-62.
- Chen, K. C., & Jang, S. J. (2010). Motivation in online learning: Testing a model of self-determination theory. *Computers in Human Behavior*, 26(4), 741-752.
- Connelly, C. E., Kelloway, K., (2003). Predictors of Employees perception of knowledge sharing cultures. *Leadership and organizational development journal*, 24(5/6), 294-301.
- Dewiyanti, S., Brand-Gruwel, S., Jochems, W., & Broers, N. J. (2007). Students' experience with collaborative learning in asynchronous computer-supported collaborative learning environment. *Computers in Human Behavior*, 23(1), 496-514.
- Drucker P. F. (1999). Knowledge-worker productivity: The biggest challenge. *California management review*, 41, 2, 79-95.
- Geary, D. C. (1995). Reflection of evolution and culture in children's cognition: implication of mathematical development and instruction. *American Psychologist*, 50, 24-37.
- Hsu, M. H., Ju, T. L., Yen, C. H., & Chen, C. M. (2007). Knowledge sharing behavior in virtual communities: The relationship between trust, self-efficacy, and outcome expectations. *International Journal of Human-Computer Studies*, 65(2), 153-169.
- Ivanova, E. V., Vinogradova, I. A., & Zadadaev, S. A. (2019). The study of school educational environment in the context of ensuring equal access to quality education. *The Education and science journal*, 21(7), 69-89.
- Lee, J. (2001). The Impact of Knowledge Sharing, Organizational Capability and Partnership Quality on IS outsourcing Success. *Information and management*, 38(5), 323-335.
- Li, M.-H., Li, M.-H., & Lin, T.-H. (1996). *Organizational behavior*. Yang-Chih Book Co., Ltd.
- National Development Council, Ministry of Education, Directorate-General of Personnel Administration, Ministry of Examination, & Civil Service Protection and Training Commission. (2021). *2030 bilingual policy: Comprehensive promotion plan*. <https://reurl.cc/lyxdrE>

- Osterloh, M., & Frey, B. (2000). Motivation, knowledge transfer, and organization forms. *Organization Science*, 11(5), 538-550.
- Petrides, A.L., Nodine, R.T. (2003), Knowledge management in education: defining the landscape. USA: The institution for the study of knowledge management in education Press.
- Riah, f., Alain D., Joseph A. (2020), The Impact and Effectiveness of E-Learning on Teaching and Learning. *International journal of computing sciences research*, Vol. 5, No. 1, p.383-397.
- Sethumadhavan., R. (2007, September 29). Importance of knowledge sharing for organizations. 美和
- Su, A. Y. S., Yang, S. J. H., Hwang, W. Y., & Zhang. J. (2010). A Web 2.0-based collaborative annotation system for enhancing knowledge sharing in collaborative learning environments. *Computers & Education*, 55(2), 752-766.
- Vallerand, R. J., & Bissonnette, R. (1992). Intrinsic, extrinsic, and motivational styles as predictors of behavior: A prospective study. *Journal of personality*, 60, 599-620.
- Yang, J. T. (2007). Knowledge sharing: Investigating appropriate leadership roles and collaborative culture. *Tourism Management*, 28(2), 530-543.