



EFL Teachers' Readiness in Implementing Artificial Intelligence **Tools through Daily Classroom Basis**

Kristian Florensio Wijaya¹, Marshinel Shiwani Nelson¹, Raveenthiran Vivekanantharasa² ¹Cita Hati International School, Samarinda, Indonesia ²The Open University of Sri Lanka, Sri Lanka kristianwijaya500@gmail.com, marshniel06@gmail.com, rvive@au.uc.id

ABSTRACT

With the exponential advancement of sophisticated artificial intelligence tools, second language educators need to embrace this inevitable educational shift by possessing a more comprehensive understanding of how to maximize the full benefits of these powerful, technology-driven learning supports in their regular teaching and learning enterprises. With respect to the above-mentioned notion, the researchers undertook this small-scale library study using a thematic analysis approach. With the support of a thematic analysis approach, the researcher can potentially yield more comprehensible, systematic, and contextualized results as the prior finding were subsumed into identical research themes. Thus, the researchers conducted an exhaustive thematic analysis of 30 previous artificial intelligence tool studies to produce more accurate research outcomes. The thematically-categorized findings unraveled that the constant utilization of artificial intelligence tools can be actualized owing to the provision of adequate professional development trainings, which may more likely result in the attainment of fruitful educational outcomes.

Keywords: Technology; EFL teachers; artificial intelligence tools; library study; thematic analysis

INTRODUCTION

The main purpose of artificial intelligence tools is to put mankind's regular work basis at ease, particularly while dealing with complex working enterprises. [1] assert that with the support of effective artificial intelligence devices, people can preserve their valuable time to accomplish other demanding workloads. Concerning the underlying principle of artificial intelligence tools, it is pivotal for workforces in this modern era to start embracing these technologically-driven platforms through their regular routines. This indispensable standpoint is tightly interwoven with [2] theorizing that the dissemination of various artificial intelligence tools prompt professional workers to begin utilizing them as one of their mainstays in order to achieve their targeted goals. In the second language educational realm, the internalization of artificial intelligence tools empowers EFL learners' target language proficiency growth due to an intensive monitoring of their progressive learning performances. [3] adduce that in the light of artificial intelligence tools, second language learners can elevate their target language knowledge, skills, and achievements to the topmost development. In another strand of argument, artificial intelligence tools are also useful for reinforcing EFL learners' learning motivation. The occurrence of this laudable learning outcome can potentially take place since they discover the mutual connectivity between the specifically-delivered learning materials with their daily life dynamics. The above-explained conception is mutually interlinked with [4] articulating that second language educationalists need to introduce EFL learners to an optimal internalization of artificial intelligence tools, where they are eager to enforce comprehensive exploration on their discipline subject contents.

Artificial intelligence tools are the catalyst for second language educators to promote more convivial classroom learning climates for the classroom members. This valuable learning outcome can be released since EFL learners are exposed to various multimodal aspects fulfilling their diverse multiple intelligence. [5] confirm that while being equipped with heterogeneous artificial intelligence tools, target language learners are more prone to experience a higher degree of learning enjoyment as they can access the designated topical subjects in a wide variety of learning modes: visual, auditory, linguistic, and other multiple intelligence streams. The promotion of these promising teaching-learning enterprises is attributed to the cultivation of student-oriented pedagogical approaches imparted by second language educationalists. These newly-fashioned learning dynamics put heavier emphasis on progressive learning progress enforced via trials and errors. Resultantly, mistakes are deemed as a natural part of promoting learners to more advanced learning levels. The aforesaid viewpoints align with [6] avowing that with an enlightenment of supportive artificial intelligence tools, second language learning instructors are more liable to address more holistic classroom activities in which EFL learners are committed to honing their target language competencies to the greatest development.

One of the outstanding features of artificial intelligence tools is that they can provide more adaptive learning support for EFL learners possessing heterogeneous knowledge, skills, experiences, and needs. With the provision of more versatile learning features, EFL learners will no longer feel apprehensive while taking part in a wide variety of challenging learning process. The realization of this robust learning optimism is ascribed to the extensive freedom granted to target language learners while attempting to accomplish a certain number of challenging tasks. [7] aver that proper artificial intelligence tools can pave a rewarding pathway for EFL learners wishing to foster their target language competencies to the topmost growth through that they acquire a richer array of valuable insights during their proactive attempts in finishing the particularly-given assignments. In a similar vein, [8] underscore on the essential role of artificial intelligence tools to be further implemented in these ever-changing educational dynamics by that second language learners can attain various novel insights during their active participation in challenging classroom learning activities.

In reverse, the embodiment of all these advantageous values cannot possibly take place when second language educationalists do not inculcate robust readiness in embracing the optimal internalization of artificial intelligence tools in their classroom surroundings. [9] affirm that it is of foremost importance to broaden second language educators' technological mastery on artificial intelligence tools through which they can promote more high-quality classroom learning enterprises to the entire learning community members. Frankly speaking, the prolific development of EFL teachers' insightful mindsets on the optimal use of artificial intelligence tools is still in its infancy. Most EFL educators still infuse a scant understanding of how to maximize the fullest artificial intelligence benefits in their regular learning basis. [10] state that it is becoming progressively important for educational stakeholders to involve EFL educationalists into an intensive series of artificial intelligence tool trainings by which they will entrench a higher degree of immediacy in facing various unprecedented classroom challenges. Another formidable impediment obstructing second language learning instructors' readiness in incorporating AI-based learning models in their classroom settings is the potent willingness to activate more innovative, creative, interactive, and contextualized pedagogical approaches. The fruitful implications of artificial intelligence tools can be embodied when second language educators are more committed to capitalizing on novel and relevant teaching strategies. It can be phrased that way because Al-oriented learning materials are designed to be in harmony with EFL learners' particular learning interests, proficiency, and needs. [11] acknowledges that it is crucial for second language teachers to be more insightful toward the availability of modern

teaching-learning approaches amidst AI-centered classroom activities through which they can help EFL learners to develop their target language skills to the utmost growth.

Despite the well-documented AI-based learning studies in enhancing EFL learners' motivation, autonomy, and language proficiency, scarce attention has been devoted to teachers' readiness and capacity to integrate AI tools effectively. Most EFL educators still lack comprehensive knowledge and confidence in applying AI-based pedagogies, which creates a huge gap between technological affordances and classroom realities. This irrefutable truth is exacerbated with the limited studies delving more exhaustively on EFL teachers' readiness in implementing artificial intelligence tools on their daily classroom basis. The former studies concerning the importance of applying appropriate artificial intelligence tools merely focused on teachers' and learners' perceptions. By having no empirical evidence from the profoundlyreviewed literature investigations, second language educational stakeholders encounter arduous moments in devising the most optimal Al-based learning programs as they have not yet possessed a thoughtful understanding of in which conditions artificial intelligence tools can operate best to promote holistic academic outcomes to all learning community members. The previously-published studies solely explored the meritorious learning rewards obtained by EFL learners amid effective artificial intelligence tools implementation. With this superficial viewpoint, second language educators endure tough moments in juxtaposing their specificallydesigned discipline content knowledge with the innovative features forming in artificial intelligence tools, resulting in an unwanted discrepancy between the pre-determined learning expectations with learners' prospective learning expectancies.

Anchoring on the above-elucidated shortcomings, the researchers initiated this small-scale library study in the hope that second language educational stakeholders and teachers can start establishing solid, mutual, and collaborative networking in rejuvenating their existing curriculum enactments as they gain an exhaustive understanding of in which conditions and circumstances EFL learning instructors will be ready in incorporating compatible, innovative, and meaningful artificial intelligence tools through their regular learning routines. To that end, the researchers actualized their utmost attempt to impart harmonious responses to this single research inquiry: To what extent are EFL teachers ready in implementing artificial intelligence tools through their daily classroom basis?

METHODOLOGY

The researchers conducted this small-scale qualitative investigation with the support of a library analysis approach. A Library analysis approach enabled the researchers to generate more credible and robust research results, as conscientious and iterative data analysis is continuously enforced. [12] argue that in the light of a library analysis method, the researchers are more prone to yield more reliable and sound research outcomes by which they are committed to undertaking profound and critical data analysis process. To corroborate the optimal incorporation of a library analysis method, the researchers harnessed a thematic analysis approach. A thematic analysis approach plays an essential role of addressing more understandable, compatible, and applicable findings to the designated research stakeholders due to the equilibrium data dispersion. [13] postulate that a thematic analysis approach is beneficial for helping researchers to impart more apprehensible, suitable, and contextualized results in which the analyzed findings are clustered into identical themes. Eventually speaking, the researcher also ensured the significant diminution of unintended bias among the generated findings with the employment of an open-coding approach. An open-coding approach is a propelling force for the researcher to significantly minimize various kinds of incongruities amidst the particularly-examined data since the findings are juxtaposed to be in agreement with the major discipline subject forming in the main body of this existing study. [14] prompt modern researchers to make use of an open-coding method in their respective data analysis stages, through which they are capable of producing more accurate findings worthwhile to be further applied in the designated subject-specific fields.

The researchers had two major intentions before embarking on this moderate library study. Firstly, the researcher expected that the impending findings can be the major driving forces for professional educationalists to inculcate a higher level of immediacy in internalizing various artificial intelligence tools through their regular classroom learning environments. Having this rejuvenated mindset, second language educators will have broader opportunities not just to elevate their learners' utmost learning potential but also unlock the probability of promoting more conducive and friendlier learning environments for the significant betterment of their future. Lastly, the researchers hoped to fill the specific lacuna departed from the previous artificial intelligence scientific works. By becoming more conscious of EFL teachers' readiness in implementing artificial intelligence tools via their daily teaching-learning activities, second language educational stakeholders can heed more profound attention at revisiting and recreating their former AI-based educational programs in such a renewed fashion, empowering the whole learners' target language learning trajectories.

For the study's selection, the researchers selected 30 prior artificial intelligence studies taken from reputable international and national journal article platforms. These 30 previous artificial intelligence scientific works ranged from 2022 to 2025. Speaking specifically, all these particularly-chosen investigations focused on discussing EFL teachers' readiness in incorporating artificial intelligence tools through their habitual classroom learning vicinities. With regard to these three main objectives, the researchers can potentially address more deeply-rooted and salutary findings for the continual advancement of artificial intelligence tools in these modern EFL teaching-learning enterprises. It can be stated that way because all the thematically-categorized findings are deciphered owing to evidence-based and research-informed-decisions.

It is worth signifying that the researchers descriptively construed the pertinent findings forming in this library investigation. Concerning the activation of a descriptive data elaboration, the researchers refrained from overlapping this authentic research report with his subjective perspectives, notions, and arguments to maintain the originality, believability, and authenticity of each explained finding. The researcher opted to make use of this data analysis approach to avoid any kinds of confounding and fallacious interpretations among the targeted research stakeholders. Irrespective of the employment of this data delineation strategy, the researchers concatenated these descriptively-oriented results with the supportive accompaniment of relevant artificial intelligence theories and findings. By embodying this initiated action, the researchers provided a strong foundation for the designated research stakeholders to obtain a comprehensive understanding of the topical subject discussed in this investigation. This probability may more likely happen due to the conclusive inferences deduced based on comprehensive research outcomes produced by the previous researchers.

FINDINGS AND DISCUSSIONS

This ensuing line is purported to portray two major research themes generated through an in-depth thematic analysis procedure, as alluded to in the previous sections. The researchers attempted to address critical, comprehensive, and relatable descriptions toward the following two thematically-categorized findings: (1) Institutional and professional readiness for AI integration in EFL teaching, and (2) pedagogical and learner-centered impacts of AI in EFL classrooms.

Theme 1: Institutional and Professional Readiness for Al Integration in EFL Teaching

Theme 1	Authors	_
Institutional and	[15];[16]; [17]; [18]; [19]; [20];[21]; [22];[23]; [24]; [25]; [26];	_
professional readiness	[27]; [28].	
for AI integration in EFL		
teaching		

It is interesting to highlight that the majority of EFL educationalists insistently require institutional and professional readiness before commencing their second language learning enterprises with an appropriate incorporation of artificial intelligence tools. An institutional readiness manifested in the forms of intensive workshops, trainings, and seminars delving more profoundly about the utilities of particular artificial intelligence tools [29]. By doing so, EFL educators are more liable to entrench a higher level of self-confidence upon activating various kinds of AI-based learning applications in their regular classroom dynamics, as they have inculcated ample knowledge of these technologically-driven learning tools. This rewarding benefit is parallel with the finding of [17], who revealed that most Vietnamese second language teachers have transformed into more innovative, critical, and insightful learning planners after being immersed into a series of Al-oriented learning trainings. Concerning professional readiness, second language educationalists frankly admitted that it is pivotal for educational institutions to equip them with well-structured, comprehensive, and contextualized Al-based learning guidelines through which they will have wider opportunities to design high-quality and meaningful teaching-learning enterprises in the presence of heterogeneous learners. [16] has likewise noted that educational stakeholders should be more ready in addressing obvious, accurate, and reliable artificial intelligence learning standards through which second language educators are more adept at promoting more qualified and enjoyable classroom activities to all learning community members.

Furthermore, second language teachers should not be confined to their frequentlyutilized artificial intelligence tools. Simply speaking, second language educators need to enrich their perspectives, knowledge, skills, and experiences with an extensive exploration of varied beneficial artificial intelligence tools[30]. By doing so, they can enforce more adaptable and flexible teaching strategies adjustment best fitting their learners' specific learning needs, competencies, and preferences. The aforesaid contention is congruent with [18] disclosing that Turkish second language educationalists are capable of designing more compatible topical lessons and relevant learning dynamics amidst their heightened understanding of various useful artificial intelligence applications. As a result of these robust institutional and professional readiness, EFL teachers are more skilled at imparting more effective instructional supports assisting their learners to reach their fullest target language knowledge, competencies, and achievements. The attainment of this rewarding learning outcome is attributed to their accurate mappings toward learners' particular learning difficulties and progressions. [21] suggested that global educational institutions enrich their EFL educators' discipline knowledge and professional development with the supportive accompaniment of artificial intelligence tools, of which they can exert more potent control and conscientious monitoring toward the continuation of learners' learning progress. To fully actualize all these meritorious learning outcomes, second language teachers prompt their educational institutions to involve them in a wide variety of professional learning community practices[31]. This initiated action is worthwhile to be done in that target language educationalists can gradually broaden their knowledge, skills, and experiences concerning the expedient ways of utilizing artificial intelligence tools in their daily learning basis. [20] unfolded that an overwhelming majority of Slovakian university EFL teachers were supportive towards the continuous implementation of professional learning community practices as inseparable parts of their pedagogical content knowledge growth, in that they cultivate a robust understanding of the extent they can maximize the greatest potential of artificial intelligence tools through their habitual classroom dynamics.

Theme 2: Pedagogical and Learner-Centered Impacts of AI in EFL Classrooms

_	Theme 2	Authors
_	Pedagogical and learner-	[32]; [33]; [34]; [35]; [36]; [37]; [38]; [39]; [40]; [41]; [42]; [43];
	centered impacts of AI in	[44]; [45];[46]; [47].
	FFL classrooms	

In agreement with the thematically-categorized findings forming in theme 2, the vast majority of second language educationalists infuse positive perceptions toward the ceaseless incorporation of artificial intelligence tools in their regular classroom vicinities. Meaning to say, most second language educators participating in these prior studies are willing to make the best utilization of various artificial intelligence tools as supportive digital learning tools in their classrooms. This may be due to its feasibility, applicability, and relevancy experienced among EFL learners in these ever-changing learning contexts[48]. Concerning the feasible aspect, artificial intelligence tools are influential for helping second language educationalists to bring about less anxious and stress-free classroom learning enterprises for EFL learners, which may result in the significant elevation of more responsive and proactive learning participations. [32] advised second language educationalists in Hong Kong to commence their habitual teachinglearning activities with the activation of proper artificial intelligence tools, by which they will transform into more strategic learning instructors who are capable of promoting more positive learning enterprises to all classroom community members. Artificial intelligence tools are the major driving forces for second language educators to determine the most expedient learning pathways working best for fulfilling their learners' specific learning objectives and needs. The dissemination of this rewarding learning outcome may potentially happen since second language teachers are habituated to conducting critical self-reflections after completing a series of prior teaching-learning activities. [36] uncovered that with the presence of meaningful artificial intelligence tools. Chinese second language learning instructors were skillful at preparing the most suitable topical lessons and favorable learning activities as they had been acclimatized to conduct critical self-reflections after enforcing the previously-conducted classroom enterprises.

Another plausible impetus igniting second language teachers' volition in making use of artificial intelligence tools in their daily classroom basis is the provision of positive, constructive, comprehensive, and relatable feedback. Artificial intelligence tools stand as powerful solutions for second language educators aspiring to address mutual and supportive learning inputs confirming learners' specific target language skills progression. As a result of this rewarding feedback provision, second language learners are more motivated to achieve their target language competencies to the utmost growth since they are profoundly aware of particular learning areas requiring intensive improvements. [38] advocated that Indonesian second language learning instructors embark on their regular classroom enterprises with a well-entrenched understanding of variegated artificial intelligence tools, where they will be better supported at addressing more rewarding feedback provisions for the betterment of their learners' prospective learning progress. With the presence of compatible artificial intelligence tools, second language educators are capable of extending mutual and cooperative support for EFL learners encountering strenuous learning challenges. Resultantly, second language teachers can preserve their valuable teaching periods to impart more efficient differentiated

pedagogical instructions fitting most appropriately with their learners' present learning situations. [39] recommended that worldwide second language educationalists to familiarize themselves with the varied interactive features of their frequently-utilized artificial intelligence tools so that they could effectively design a vast array of language learning assessments, helping to locate their learners' specific learning strengths and weaknesses. Ultimately speaking, second language educators are keen on harnessing a wide variety of beneficial artificial intelligence tools in their classroom circumstances. This robust motivation is impacted by an outstanding escalation of learners' lifelong learning character. Owing to the availability of richer information and interactive learning features forming in artificial intelligence tools, EFL learners are more committed to infusing a higher degree of inquisitiveness, leading them to enforce self-reliant knowledge exploration outside their regular classroom routines. This last strand of findings concurs with [45], pinpointing the essential role of immersing second language learners into a wide variety of Al-based learning activities, by which they are more encouraged to undertake more exhaustive exploration towards the specifically-discussed learning topics.

CONCLUSIONS AND RECOMMENDATIONS

The findings of this study demonstrate the critical importance of cultivating second language educationalists' readiness, resilience, and proficiency before internalizing artificial intelligence tools through their regular classroom learning enterprises. The thematically-categorized findings highlighted on the dual dimensions of EFL educators' immediacy, which are institutional and professional readiness. Educational institutions serve as essential catalysts for promoting prolific professional learning community dynamics where EFL teachers begin to cultivate a higher degree of motivation and confidence upon activating the specifically-chosen artificial intelligence tools in their classroom vicinities. Hence, it is important to constantly immerse second language educationalists into a series of Al-based learning trainings, seminars, and workshops to enable them to promote qualified, meaningful, and transformative learning enterprises where all classroom community members are committed to consistently showcasing their best learning performances.

Equally important, this study highlights the pedagogical and learner-centered benefits of Aloriented learning integration. When strategically applied, AI can potentially establish robust learning
motivation. The occurrence of this valuable learning outcome does not happen by accident since
second language learners constantly undergo more comfortable and supportive classroom learning
dynamics in which they are habituated to instill a higher level of responsive, active, and cooperative
learning behaviors. The meaningful employment of artificial intelligence tools can also pave an
enlightening pathway for EFL educators to tailor their particularly-made learning materials and
activities to be harmonious with learners' current learning conditions. Moreover, an efficient
internalization of artificial intelligence tools serves as a critical empowerment for advancing EFL
learners' target language proficiency to the greatest extent. This coveted learning event may more
likely take place due to the dissemination of timely, constructive, and positive feedback, assisting
second language learners to establish a higher degree of learning ownership. With this studentcentered learning practice, learners will have broader opportunities to possess a keen sense of
conducting profound explorations toward their discipline content knowledge, impacting their
intellectual empowerment in the long run.

Given these complex pictures, the above-reviewed findings affirm an important role of fostering EFL teachers' readiness before commissioning them to implement a vast array of sophisticated artificial intelligence tools in their respective classroom settings. By inculcating robust preparedness in Al-centered learning dynamics, second language educationalists do not only provide mutual learning assistances for EFL learners to acquire the designated knowledge, skills, and

experiences in corresponding ways but also reshape their personal identities to be labelled as professional, qualified, and competent learning instructors. This underlying principle resonates with a crucial role played by second language educationalists in this ever-changing era; transforming into insightful agents of changes by promoting impactful breakthrough in their regular classroom learning environments.

In the end, the researchers proposed some recommendations for policymakers, educational institutions, practitioners, and future researchers concerning the applicability of proper artificial intelligence tools in these modern EFL teaching-learning dynamics. First, educational institutions have to devise more contextualized AI professional development trainings closely interlinked with EFL teachers' diverse cultural, social, and professional backgrounds. This suggested advice is necessary to be carried out to ensure the enforcement of more meaningful, empowering, and relevant Al-based training programs among heterogeneous educators. Due to the exponential development of artificial intelligence tools, educational institutions should ensure the continuity of AI professional development training. This action matters most for substantiating second language educationalists' internal motivation in making use of suitable artificial intelligence tools through their daily classroom learning dynamics, of which they have already equipped themselves with insightful knowledge towards these technologically-driven learning platforms. Furthermore, educational institutions need to involve second language teachers in various professional learning community enterprises. By continuously partaking in varied professional learning community dynamics, EFL educators can entrench a higher degree of trust and collegiality, contributing for the reinforcement of their current artificial intelligence knowledge, skills, and experiences.

For second language learning instructors, they must conduct more self-initiated actions to establish their specific teaching-learning dynamics with the meaningful integration of proper artificial intelligence tools. As a result of this action, EFL teachers ought to orchestrate a richer array of learning activities, topics, subjects, and pedagogical instructions best fitting their learners' particular learning conditions. With an embodiment of this agentic action, second language educationalists are more prone to disseminate more gratifying target language learning achievements in the presence of divergent EFL learners. This probability can take place as EFL learners practice their current second language acquisition enterprises based on ongoing learning progress having been procured. In the same line of argument, second language teachers are prompted to conduct exhaustive critical self-reflections after accomplishing their former Al-based learning activities. By profoundly reflect on their previously-enforced learning dynamics, second language educators will be better assisted at stipulating better-quality teaching plans. The entrenchment of this laudable educational outcome happened since second language educationalists successfully unearthed particular learning strengths and weaknesses residing among their learning community members.

Prospective researchers play an essential role in advancing the meritorious research outcomes derived from this moderate library investigation. Future researchers need to conduct more longitudinal explorations delving more exhaustively into the impacts of Al-based learning dynamics on EFL learners' communicative competence, fluency, and autonomy. This action should be taken as second language educational parties can establish more mutual, solid, and collaborative teamwork in devising the most compatible Al-centered learning programs for their respective educators and learners.

Equally important, impendent researchers are advocated to undertake more comparative investigations concerning second language teachers' immediacy in utilizing AI tools through divergent cultural and institutional contexts. By doing so, the designated research stakeholders will gain insightful perspectives concerning the most supportive conditions of which certain artificial intelligence tools can operate in their best ways. Finally, it is of prime importance for future researchers to conduct more in-depth investigations on the impacts of internalizing artificial intelligence tools on second language educationalists' professional identities growth. By unravelling the mutual interplay between

these two different variables, EFL educators will be supportively assisted to set up their forthcoming teaching-learning enterprises in an orderly fashion. The occurrence of this rewarding educational outcome is impacted by the sign of heightened professional development growth obtained through continuous AI-based learning training sessions.

Therefore, it is fair to deduce that aligning EFL teachers' readiness, professional development, and topical knowledge with the efficient artificial intelligence tools utilization will provide more valuable educational trajectories for learning community members aspiring to thrive significantly in their performances, knowledge, skills, experiences, and achievements.

REFERENCES

- [1] Ouyang F, Zheng L, Jiao P. Artificial intelligence in online higher education: A systematic review of empirical research from 2011 to 2020. vol. 27. Springer US; 2022. https://doi.org/10.1007/s10639-022-10925-9.
- [2] Huang F, Wang Y, Zhang H. Modelling Generative Al Acceptance, Perceived Teachers' Enthusiasm and Self-Efficacy to English as a Foreign Language Learners' Well-Being in the Digital Era. Eur J Educ 2024;59. https://doi.org/10.1111/ejed.12770.
- [3] Chounta IA, Bardone E, Raudsep A, Pedaste M. Exploring Teachers' Perceptions of Artificial Intelligence as a Tool to Support their Practice in Estonian K-12 Education. Int J Artif Intell Educ 2022;32:725–55. https://doi.org/10.1007/s40593-021-00243-5.
- [4] Ebadi S, Amini A. Examining the roles of social presence and human-likeness on Iranian EFL learners' motivation using artificial intelligence technology: a case of CSIEC chatbot. Interactive Learning Environments 2024;32:655–73. https://doi.org/10.1080/10494820.2022.2096638.
- [5] Lim WM, Gunasekara A, Pallant JL, Pallant JI, Pechenkina E. Generative AI and the future of education: Ragnarök or reformation? A paradoxical perspective from management educators. International Journal of Management Education 2023;21. https://doi.org/10.1016/j.ijme.2023.100790.
- [6] Chen L, Chen P, Lin Z. Artificial Intelligence in Education: A Review. IEEE Access 2020;8:75264–78. https://doi.org/10.1109/ACCESS.2020.2988510.
- [7] Li Y, Chan J, Peko G, Sundaram D. An explanation framework and method for Al-based text emotion analysis and visualisation. Decis Support Syst 2024;178. https://doi.org/10.1016/j.dss.2023.114121.
- [8] Zhao T, Wang S, Ouyang C, Chen M, Liu C, Zhang J, et al. Artificial intelligence for geoscience: Progress, challenges, and perspectives. Innovation 2024;5:100691. https://doi.org/10.1016/j.xinn.2024.100691.
- [9] Liang ES, Bai S. Generative AI and the future of connectivist learning in higher education. J Asian Public Policy 2025;18:329–51. https://doi.org/10.1080/17516234.2024.2386085.
- [10] Author C, Selim Soner Sütçü A, Soner Sütçü S, Sütçü E. English Teachers' Attitudes and Opinions Towards Artificial Intelligence. SÜTÇÜ & SÜTÇÜ International Journal of Research in Teacher Education 2023;14:183–93. https://doi.org/10.29329/ijrte.2023.598.12.
- [11] Geng C. Research on the effectiveness of interactive e-learning mode based on artificial intelligence in English learning. Entertain Comput 2024;51:100735. https://doi.org/10.1016/j.entcom.2024.100735.
- [12] Klassen AC, Creswell J, Plano Clark VL, Smith KC, Meissner HI. Best practices in mixed methods for quality of life research. Quality of Life Research 2012;21:377–80. https://doi.org/10.1007/s11136-012-0122-x.
- [13] Braun V, Clarke V. Conceptual and Design Thinking for Thematic Analysisfile:///Users/ksiamisang/Desktop/mark.pdf. Qualitative Psychology 2022;9:3–26.

- [14] Nowell LS, Norris JM, White DE, Moules NJ. Thematic Analysis: Striving to Meet the Trustworthiness Criteria. Int J Qual Methods 2017;16:1–13. https://doi.org/10.1177/1609406917733847.
- [15] Ghiasvand F, Kogani M, Alipoor A. "I'M NOT READY for THIS METAMORPHOSIS": An ECOLOGICAL APPROACH to IRANIAN and ITALIAN EFL TEACHERS' READINESS for ARTIFICIAL INTELLIGENCE-MEDIATED INSTRUCTION. Teaching English with Technology 2024;24:18–40. https://doi.org/10.56297/VACA6841//BFFO7057/ISKI2001.
- [16] Ngọc Khánh Ly NKL. "ARE YOU ON BOARD?": UNIVERSITY EFL INSTRUCTORS' READINESS FOR INTEGRATING AI-POWERED TOOLS IN TEACHING. VNU Journal of Foreign Studies 2025;41:74–91. https://doi.org/10.63023/2525-2445/jfs.ulis.5524.
- [17] Thi T, Thu L. ARTIFICIAL INTELLIGENCE IN EFL TEACHING: TEACHERS 'READINESS AND ADOPTION INTENTIONS IN THU DAU MOT CITY, BINH DUONG PROVINCE 2025:641–53. https://doi.org/10.37550/tdmu.EJS/2025.02.663.
- [18] Ozdemir N, Mede E, Mede O&. Exploring In-service EFL Teachers' Readiness for the Generative AI Age. International Journal of Research in Teacher Education (IJRTE) 2024;15:60–77. https://doi.org/10.29329/ijrte.
- [19] Park M, Son JB. Pre-service EFL teachers' readiness in computer-assisted language learning and teaching. Asia Pacific Journal of Education 2022;42:320–34. https://doi.org/10.1080/02188791.2020.1815649.
- [20] Pokrivcakova S. Pre-service teachers' attitudes towards artificial intelligence and its integration into EFL teaching and learning. Journal of Language and Cultural Education 2023;11:100–14. https://doi.org/10.2478/jolace-2023-0031.
- [21] Yasmin Farooq. Exploring Teachers' Psychological Readiness for Effective AI Integration in the Classroom. The Critical Review of Social Sciences Studies 2025;3:351–64. https://doi.org/10.59075/fbwe9b83.
- [22] Wayan N, Priantini A, Alit DA, Dewi R, Agung A, Maharani P, et al. Lecturers' Readiness And Intentions For Al Integration in Indonesian and Indian Ell Classroom. ENGLISH REVIEW: Journal of English Education 2024;12:1251–60.
- [23] A. A. Almashrgy, H. F. Alburki. TEACHERS' PERCEPTIONS ON THE IMPACT OF ARTIFICIAL INTELLIGENCE ON ENGLISH LANGUAGE LEARNING IN LIBYAN EFL CLASSROOMS. Malaysian Journal of Industrial Technology 2024;8:28–44. https://doi.org/10.70672/157qsn23.
- [24] Metwally AA, Bin-Hady WRA. Probing the necessity and advantages of AI integration training for EFL educators in Saudi Arabia. Cogent Education 2025;12. https://doi.org/10.1080/2331186X.2025.2472462.
- [25] Babanoğlu MP, Karataş TÖ, Dündar E. Envisioning the Future of Al-Assisted EFL Teaching and Learning: Conceptual Representations of Prospective Teachers. Sage Open 2025;15:1–22. https://doi.org/10.1177/21582440251341590.
- [26] Walga Adaba H, Leykun Woldegiorgis S. Teachers' Awareness and Integration of Artificial Intelligence Technology in Ethiopian Higher Education: The case of English as a Foreign Language (EFL) Classes at Ambo University. Journal of Equity in Sciences and Sustainable Development 2025;8:1–12. https://doi.org/10.20372/mwu.jessd.2025.1565.
- [27] Jamshed M, Almashy A, Albedah F, Warda WU. Assessing the Efficacy of Artificial Intelligence-Enabled EFL Learning and Teaching in Saudi Arabia: Perceptions, Perspectives, and Prospects. Journal of Language Teaching and Research 2024;15:1931–40. https://doi.org/10.17507/jltr.1506.18.
- [28] Afreilyanti E, Kuswandono P. IDEAS Journal of Language Teaching and Learning, Linguistics and Literature Exploring Indonesian EFL Teachers' Agency and Self-Efficacy in Using Artificial Intelligence Tools 2024;12:1433–54. https://doi.org/10.2456/ideas.

- [29] Riwayatiningsih R, Prastikawati EF, Muchson M, Haqiqi FN, Setyowati S, Kartiko DA. Empowering Higher-Order Thinking Skills in Writing through Gamification and Multimodal Learning within PBL. Forum for Linguistic Studies 2025;7. https://doi.org/10.30564/fls.v7i2.8119.
- [30] Adeoye MA PE. The Importance of Auditory Learning in EFL Teaching: A Theoretical Perspective. Indonesian Journal of Educational Research and Review 2025;8:326–400.
- [31] Silitonga LM, Wiyaka, Suciati S, Prastikawati EF. The Impact of Integrating AI Chatbots and Microlearning into Flipped Classrooms: Enhancing Students' Motivation and Higher-Order Thinking Skills, 2024, p. 184–93. https://doi.org/10.1007/978-3-031-65884-6_19.
- [32] Chan KKW, Tang WKW. Evaluating English Teachers' Artificial Intelligence Readiness and Training Needs with a TPACK-Based Model. World Journal of English Language 2025;15:129–45. https://doi.org/10.5430/wjel.v15n1p129.
- [33] Méndez-Alarcón CM. Assessing the Impact of Al Integration Course on Students' Al Competencies and Readiness in Preservice EFL Teacher Education. Pakistan Journal of Life and Social Sciences (PJLSS) 2024;22. https://doi.org/10.57239/PJLSS-2024-22.2.001137.
- [34] Liu N. Exploring the factors influencing the adoption of artificial intelligence technology by university teachers: the mediating role of confidence and AI readiness. BMC Psychol 2025;13. https://doi.org/10.1186/s40359-025-02620-4.
- [35] Kundu A, Bej T. Transforming EFL Teaching with AI: A Systematic Review of Empirical Studies. 2025. https://doi.org/10.1007/s40593-025-00470-0.
- [36] Wang X, Li L, Tan SC, Yang L, Lei J. Preparing for Al-enhanced education: Conceptualizing and empirically examining teachers' Al readiness. Comput Human Behav 2023;146. https://doi.org/10.1016/j.chb.2023.107798.
- [37] Koraishi O. Teaching English in the Age of AI: Embracing ChatGPT to Optimize EFL Materials and Assessment. Language Education & Technology Journal 2023;3:55–72.
- [38] Nyudak IBG, Santosa MH, Marsakawati NPE, Susrini P. Generative AI in ELT: Readiness and concerns of Badung EFL Teachers. IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature 2025;13:1605–21. https://doi.org/10.24256/ideas. v13i1.7014.
- [39] Harakchiyska T, Vassilev T. Pre-Service Teachers' Perceptions of Al and Its Implementation in the Foreign (English) Language Classroom. Strategies for Policy in Science and Education-Strategii Na Obrazovatelnata i Nauchnata Politika 2024;32:218–32. https://doi.org/10.53656/str2024-5s-22-pre.
- [40] Toar D, Sumakul YG, Hamied A, Sukyadi D. LEARN Journal: Language Education and Acquisition Research Network Artificial Intelligence in EFL Classrooms: Friend or Foe? LEARN Journal: Language Education and Acquisition Research Network 2022;15:232–56.
- [41] Sadigzade Z. Mind the Gap: A Comparative Study of Faculty and Student Readiness for Al-Integrated ELT in Azerbaijani Higher Education. Global Spectrum of Research and Humanities 2025;2:144–69. https://doi.org/10.69760/gsrh.0250203012.
- [42] Bautista A, Estrada C, Jaravata AM, Mangaser LM, Narag F, Soquila R, et al. Preservice Teachers' Readiness Towards Integrating Al-Based Tools in Education: A TPACK Approach. Educational Process: International Journal 2024;13:40–68. https://doi.org/10.22521/edupij.2024.133.3.
- [43] Ye L, Hanim Ismail H, Abdul Aziz A. Bridging the Al Gap: A Needs Analysis of Chinese Pre-Service EFL Teachers in Developing Intelligent-Technological Pedagogical Content Knowledge. Arab World English Journal 2025:59–80. https://doi.org/10.24093/awej/ai.4.

- [44] Alnasib BNM. Factors Affecting Faculty Members' Readiness to Integrate Artificial Intelligence into Their Teaching Practices: A Study from the Saudi Higher Education Context. International Journal of Learning, Teaching and Educational Research 2023;22:465–91. https://doi.org/10.26803/ijlter.22.8.24.
- [45] Özkan EK, Erdemir N, Coşkun D. A Systematic Review of EFL Teachers' Perspectives on Artificial Intelligence Technologies. Ihlara Eğitim Araştırmaları Dergisi 2024;9:150–68. https://doi.org/10.47479/ihead.1535035.
- [46] Derinalp P, Halife M. Pre-Service English as a Foreign Language Teachers' Attitudes toward Artificial Intelligence. Kuramsal Eğitimbilim 2025;18:609–29. https://doi.org/10.30831/akukeg.1644354.
- [47] Khattak ZI, Ghorbanpoor M, Mathew BP. Perceptions of EFL teachers on integrating ai tools for foundation-level English language instruction. International Journal of Education and Practice 2025;13:653–68. https://doi.org/10.18488/61.v13i2.4122.
- [48] Adeoye MA, Prastikawati EF, Riwayatiningsih R. Beyond Traditional Testing: Exploring the Efficacy of Adaptive Assessments in Shaping Future Learners. Journal of Nonformal Education 2025;11:153–69. https://doi.org/10.15294/jone.v11i1.19934.