

The Role of Self-Regulated Learning and Collaboration Skills in Improving Students' Perceptions of English Listening

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Abstract: This study aims to determine the extent to which Self-Regulated Learning and Collaboration Skills play a role in improving students' perceptions of listening skills in English. The background of this study is based on the importance of listening skills as a major component in mastering English, as well as the need to understand the contribution of internal and social factors in shaping students' perceptions of the learning process. This study used a quantitative approach with an explanatory research method. Data were obtained through distributing questionnaires to junior high school students. The data analysis technique used is Multivariate Analysis of Variance (MANOVA), which allows testing the simultaneous influence of two independent variables on students' perception as the dependent variable. The results of the analysis show that both Self-Regulated Learning and Collaboration Skills have a significant influence on students' perceptions of listening skills, both individually and interactively. This finding confirms the importance of self-regulation in learning and cooperation in groups as determining factors in shaping positive perceptions of English listening learning. This research is expected to provide a basis for the development of learning strategies that are more responsive to student needs in mastering listening skills.

Keywords: Collaboration Skills, English Listening, English Language Learning MANOVA, Self-Regulated Learning, Students' Perception.

INTRODUCTION

Listening comprehension is widely recognized as one of the foundational skills in second language acquisition, particularly in English as a Foreign Language (EFL) settings. Among the four essential language skills listening, speaking, reading, and writing. Listening is often the first to develop and serves as the basis for acquiring other language abilities. It enables learners to receive linguistic input, comprehend spoken messages, and build the cognitive framework needed for language learning (Graham, Santos, & Vanderplank, 2020). Despite its importance, listening remains one of the most difficult skills to master for students in non-English-speaking countries such as Indonesia. This challenge is often due to the limited exposure to authentic English conversations in daily life and the complexity of processing real-time auditory input. Linguistically, EFL students often struggle with the speed of native speakers, unfamiliar vocabulary, different accents, intonation patterns, and reduced forms of speech. Technically, listening activities may be hindered by poor audio quality, classroom noise, or limited access to appropriate multimedia resources.

Psychologically, many students experience anxiety, low self-confidence, and lack of motivation when engaging with listening materials (Field, 2018).

Among these psychological barriers, students' perceptions of listening are particularly important, as they shape how learners approach listening tasks and influence their willingness to participate in listening-related activities. In the context of this study, students' perceptions of listening are conceptualized through three dimensions: affective, cognitive, and behavioral. The affective dimension refers to students' emotional responses during listening activities, such as enjoyment, anxiety, boredom, or interest. The cognitive dimension relates to how students process and interpret auditory input, including their perceived ability to understand and retain spoken information. The behavioral dimension involves the observable actions students take in response to listening tasks, such as effort, engagement, and persistence. Together, these dimensions offer a comprehensive picture of how students perceive their listening experiences in English learning.

To foster more positive perceptions of listening, it is essential to explore the internal and social factors that contribute to students' learning experiences. One key internal factor is Self-Regulated Learning (SRL), which refers to learners' ability to manage their own learning processes by setting goals, selecting strategies, monitoring progress, and reflecting on outcomes. According to recent research, self-regulated learners are proactive and take ownership of their educational development. They are more likely to maintain motivation, adapt their learning strategies when needed, and overcome obstacles in the learning process. In the context of listening, SRL equips students with tools to persevere through difficult audio tasks and evaluate their comprehension skills critically (Teng, 2020).

Equally important are external or social factors, particularly Collaboration Skills. Collaborative learning encourages interaction among peers, mutual support, and the sharing of diverse perspectives. When applied to listening instruction, collaborative tasks, such as group discussions, pair work, peer feedback, or cooperative problem-solving, enable students to clarify misunderstandings, co-construct meaning, and reduce individual anxiety. Johnson and Johnson (2019) emphasized the importance of positive interdependence and individual accountability in group learning settings, which not only improve academic outcomes but also increase student satisfaction and confidence.

Although numerous studies have documented the positive influence of both SRL and Collaboration Skills on language learning, most have examined these variables in isolation or through simple correlational methods. Few have addressed the combined effects of internal and social factors on students' perceptions of specific language skills, particularly listening. Furthermore, much of the previous research has focused on broad measures of academic performance or general language proficiency, rather than the specific perceptual responses students have toward listening activities. As a result, there is a need for a more integrative approach that considers how both SRL and Collaboration Skills jointly shape students' attitudes, thoughts, and behaviors during listening tasks.

To address this gap, the present study investigates the role of Self-Regulated Learning and Collaboration Skills in shaping students' perceptions of English listening. By focusing on the interaction between these two variables, the study aims to provide a more nuanced understanding of how internal and social learning mechanisms influence students' affective, cognitive, and behavioral engagement with listening activities. Recognizing the complexity of learning processes, the study employs a quantitative approach using Multivariate Analysis of Variance (MANOVA), which enables the simultaneous examination of multiple dependent variables and the interaction effects of independent variables.

The research was conducted among junior high school students in Indonesia, an educational context where student-centered and collaborative approaches are increasingly promoted. In such environments, students are expected to take greater responsibility for

their learning while also working effectively with others. This dual demand highlights the relevance of both SRL and Collaboration Skills as critical competencies for academic success and lifelong learning.

Practically, the findings of this research are intended to support educators and curriculum designers in developing more responsive and effective listening instruction. Rather than focusing solely on the delivery of content, teachers can design activities that cultivate self-regulation, such as goal-setting, self-monitoring, and reflective listening logs, as well as collaboration through structured group tasks and peer interaction. Such instructional strategies may enhance students' perceptions of listening by making the experience more enjoyable, purposeful, and socially meaningful.

Theoretically, this study contributes to the growing body of literature on learner psychology and sociocultural aspects of language education. By integrating psychological and social constructs within the same analytical framework, it offers a more comprehensive perspective on the factors that influence how students perceive and engage with listening tasks. This integrated approach aligns with contemporary views of learning as a dynamic, multidimensional process that encompasses individual cognition, emotional engagement, and interpersonal collaboration.

In summary, this study aims to examine how Self-Regulated Learning and Collaboration Skills affect students' perceptions of English listening. Through a quantitative analysis using MANOVA, it seeks to determine both the individual and interactive contributions of these two variables. By doing so, it provides empirical evidence and pedagogical insights that can inform the development of student-centered listening instruction in EFL classrooms. The results are expected to enhance not only students' listening performance but also their overall engagement and confidence in using English as a second language.

METHODS

Research Design

This study uses a quantitative approach with an explanatory type with MANOVA analysis. This design was chosen to provide an overview of the relationship between two independent variables, namely Self-Regulated Learning (SRL) and Collaboration Skills, on students' perceptions of English listening skills. This approach allows researchers to understand the extent to which the two variables play a role, both individually and together, in shaping student perceptions without manipulating these variables.

Population and Sample

The population in this study consists of Junior High School (JHS) students aged 15 to 17 who have participated in English listening lessons. The sample was selected using purposive sampling, meaning that respondents were chosen based on specific criteria relevant to the research objectives. A total of 240 students from SMP Negeri 1 Arjawinangun, Cirebon Regency, were chosen as the sample. This sample size has been adjusted to meet the needs of multivariate statistical analysis to ensure the validity and reliability of the research results.

Research Instruments

The instrument used in this study is a closed-ended questionnaire developed based on the theoretical indicators of each variable. The questionnaire consists of three sections: Self-Regulated Learning, Collaboration Skills, and Perceptions of Listening Skills. Each section measures different aspects, such as planning, monitoring, and self-evaluation for SRL; communication, responsibility, and teamwork for Collaboration Skills; and affective,

cognitive, and behavioral perceptions of listening skills. All items in the questionnaire are designed using a 4-point Likert scale, ranging from 1 (strongly disagree) to 4 (strongly agree). Prior to distribution, validity and reliability tests are conducted to ensure the quality of the instrument. The validity test is performed using item-total correlation, while reliability is tested using Cronbach's Alpha coefficient.

Data Collection Procedure

Data collection begins with obtaining official permission from the school. After approval is granted, the researcher explains to the students the objectives, benefits, and procedures of the research. The respondents are asked to sign an informed consent form before completing the questionnaire. The questionnaires are filled out directly in the classroom under supervision to ensure completeness and honesty in responses. After all questionnaires are collected, the data are coded and entered into statistical software for analysis.

Data Analysis Technique

Data analysis is conducted in stages. Initially, descriptive analysis is performed to describe the distribution of mean scores, standard deviations, and response patterns. Reliability testing of the instrument is done using Cronbach's Alpha, and Pearson's correlation test is used to examine the initial relationships between variables. To determine the simultaneous and partial effects of Self-Regulated Learning and Collaboration Skills on students' perceptions, multiple linear regression analysis is used. However, since listening perception consists of several dimensions, the primary analysis is conducted using Multivariate Analysis of Variance (MANOVA). MANOVA is used to analyze the effect of two independent variables on several dependent variables simultaneously and to evaluate the potential interaction between SRL and Collaboration Skills in shaping students' perceptions of listening.

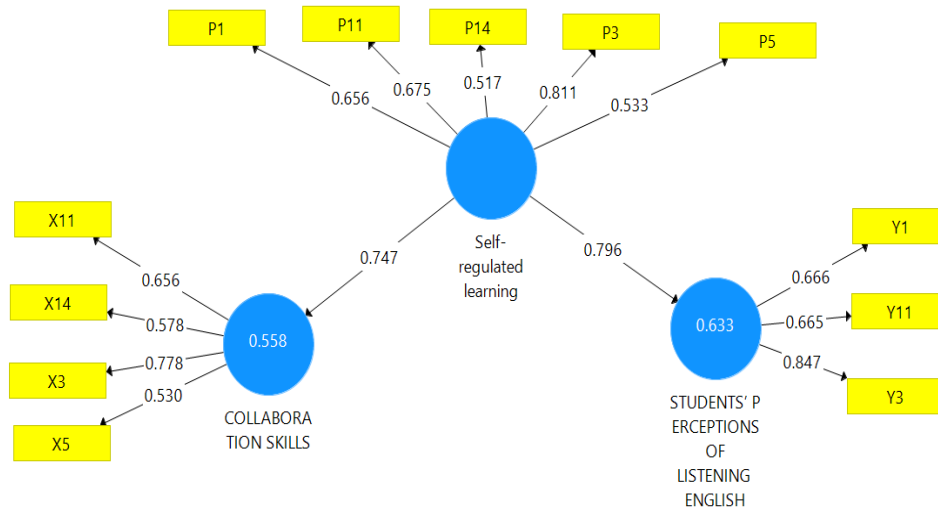
Research Ethics

Ethical considerations in this study are strictly maintained. Student participation is voluntary, with consent from both the school and the students themselves. The identity of the respondents is kept confidential, and all data are used solely for academic purposes. The researcher also ensures that there is no coercion in the research process and gives students the right to withdraw or refrain from answering any questions if they feel uncomfortable. With this rigorous and systematic procedure, the study aims to provide valid, reliable, and useful results both theoretically and practically.

RESULT AND DISCUSSION

SmartPLS and SPSS were used to assess validity and determine if there were statistically significant differences between the groups being compared on a set of dependent variables. We took a sample for junior high school students and we got 240 respondents and here are our data results.

Figure 1. Structural Model of Collaboration Skills, Self-Regulated Learning, and Students' Perceptions



This study aimed to examine the role of *Self-Regulated Learning* (SRL) and *Collaboration Skills* in shaping students' perceptions of listening activities in English language learning. As an initial step, construct validity tests were conducted on each indicator in the research instrument. The validation process employed the *Partial Least Squares Structural Equation Modeling* (PLS-SEM) approach, and the results confirmed that all indicators met the requirements for construct validity. This finding indicates that each item effectively represented its intended construct.

For the *Collaboration Skills* construct, several selected indicators that best reflected students' abilities to work together were retained after validation. These indicators represented key aspects of collaboration, such as the ability to actively listen to peers, contribute meaningfully in group discussions, and complete tasks collaboratively. Likewise, the *Self-Regulated Learning* construct was composed of indicators that depicted students' ability to manage their own learning processes, including setting learning goals, monitoring comprehension, and adjusting strategies when necessary.

For the *Students' Perceptions of Listening* construct, the retained indicators revealed that positive perceptions toward listening activities stem from enjoyable experiences, confidence in understanding spoken material, and the belief that listening plays an essential role in mastering English. Following the validation process, scores for each construct were calculated based on the total of validated indicators for each respondent. These scores were then used in the next stage of analysis using *Multivariate Analysis of Variance* (MANOVA). The use of MANOVA allowed for a more comprehensive analysis, as it evaluated the simultaneous effects of multiple independent variables on one or more dependent variables. In this study, MANOVA was used to assess the direct impact of SRL and *Collaboration Skills* on students' perceptions of listening, as well as to identify any interaction effects between these two variables.

The descriptive analysis revealed a tendency indicating that students with high levels of self-regulated learning and collaboration skills tend to have more positive perceptions toward listening activities. These students appeared more active, motivated, and confident when engaging with listening materials in English language learning. In contrast, students with lower levels of SRL and collaboration exhibited less favorable perceptions, which may be due to limited self-management and insufficient productive interaction during group learning.

These findings reinforce the importance of developing two key aspects of learning, autonomous learning and collaborative engagement. Both dimensions not only influence overall academic performance but also significantly shape students' attitudes and perceptions toward specific components of learning, such as listening activities, which are often perceived as challenging in the context of English as a Foreign Language (EFL) learning. With strong construct validity confirmed and initial analysis highlighting significant patterns, the MANOVA approach provides a solid foundation for further investigation into how the interaction between SRL and collaboration can enhance the quality of students' listening experiences. These findings may serve as a basis for developing more effective, student-centered listening instruction strategies, especially within the context of English language education at the tertiary level.

Table 1. Descriptive Statistics

Students' perception of	Self-Regulated Learning	Mean	Std. Deviation	N
English listening	9	5.00	1.732	3
	18	11.11	.928	9
	20	11.33	1.155	3
	Total	8.78	1.663	240
Collaboration Skills	10	8.36	1.216	14
	18	13.89	1.167	9
	20	15.67	.577	3
	Total	11.55	2.032	240

Self-Regulated Learning (SRL) and Listening Perception

Self-Regulated Learning (SRL) refers to the extent to which students can independently manage and direct their learning processes. Students with lower levels of self-regulation tend to display less positive perceptions toward listening activities. They often face challenges in understanding or enjoying the English listening process, possibly due to a lack of planned learning strategies, difficulty in setting goals, or insufficient evaluation of their own learning progress. Conversely, students with strong SRL abilities tend to exhibit more positive perceptions of listening. They are generally more comfortable, confident, and view listening activities as an integral part of language learning. Their ability to manage time, monitor comprehension, and refine their strategies allows them to approach listening tasks more effectively. Overall, this pattern indicates that the more organized and self-directed a student is in their learning, the more favorable their perception of listening activities becomes.

Collaboration Skills and Listening Perception

Collaboration skills refer to how effectively students can work with peers in group learning settings, including sharing ideas, listening to others' perspectives, and jointly completing tasks. Students with lower collaboration skills tend to show more neutral or less enthusiastic perceptions of listening. This may be due to limited meaningful interaction with peers during listening tasks, which can make the learning experience feel less engaging or stimulating. In contrast, students with strong collaboration skills exhibit significantly more positive perceptions. They are often more motivated and engaged during listening activities due to the social support they receive from peers.

Constructive group interactions help them better understand material, feel less isolated when facing difficulties, and even develop a greater sense of enthusiasm toward listening. Compared to SRL, collaboration skills appear to contribute more substantially and

consistently to positive student perceptions. This suggests that social aspects of learning, such as teamwork and peer communication, play a vital role in shaping enjoyable and meaningful learning experiences, particularly in the context of developing foreign language listening skills.

Tabel 2. Multivariate Tests

Effect		Value	F	Hypothesis df	Error df	Sig.	Noncent Parameter	Observed Power
P1 (SRL)	Pilai's Trace	.835	13.544	24.000	454.000	.000	325.067	1.000
	Willsk Lambda	.224	20.997	24.000	452.000	.000	503.937	1.000

The results of the multivariate analysis of variance (MANOVA) showed that the combined effect of self-regulated learning and collaboration skills on students' perception of English listening was statistically significant. This result indicates that self-regulated learning and collaboration skills significantly contribute to the variance in students' listening perceptions and related outcomes. The observed power further indicates a very high probability that the test correctly rejects the null hypothesis.

Tabel 3. Levene's Test of Equality of Error Variance

		Levene Statistics		df1	df2	Sig.
Students' perception of English listening		Based on Mean	1.910	11	227	.039
Collaboration Skills		Based on Mean	3.807	11	227	.000

The Levene's Test of Equality of Error Variances was conducted to assess whether the assumption of equal error variances across groups was met. The results indicated a significant difference in variances for both students' perception of English listening and collaboration skills. These findings suggest that the assumption of homogeneity of error variances was violated for both dependent variables.

Tabel 4. Test of Between Subjects Effects

Source	Dependen Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Noncent Parameter	Observed Power
P1 (SRL)	Students' perception of English listening	424.813	12	35.401	34.063	.000	408.750	1.000
	Collaboration Skills	636.158	12	53.013	53.013	.000	411.258	1.000

The results of the Tests of Between-Subjects Effects showed that the independent variables significantly influenced both dependent variables. For students' perceptions of English listening, the effect of P1 was significant, indicating that 64.3% of the variance could be explained by the model. Similarly, for collaboration ability, P1 had a significant effect. These findings suggest that the predictor variables play an important role in explaining students' listening perceptions and collaboration ability.

CONCLUSION

Based on the analysis and discussion, it can be concluded that Self-Regulated Learning (SRL) and collaboration skills play a highly significant role in shaping students' perceptions of listening activities in English language learning. Through the MANOVA approach, this study found that both variables, whether individually or interactively, contribute strongly to differences in student perceptions, with a high level of statistical significance ($p < 0.001$) and substantial model strength (R^2 approximately 64%). Students with well-developed self-regulation tend to have more positive perceptions of listening, as they are able to plan, monitor, and evaluate their learning process independently. Meanwhile, collaboration skills provide valuable social support that enriches the learning experience, boosts motivation, and helps students better understand material through peer interaction and teamwork.

Theoretically, these findings support recent perspectives on the importance of self-regulated learning (Teng, 2020; Jin et al., 2023) as well as the benefits of cooperative learning through collaboration (Cherbonnier et al., 2024). Teng (2020) emphasized that self-regulated learners are more likely to succeed in second language tasks due to their autonomy and strategic thinking. Cherbonnier et al. (2024), through a systematic literature review, found that collaboration skills significantly enhance academic engagement and interpersonal understanding, particularly in digital and group-based learning environments.

This study also contributes to the academic literature by simultaneously examining both factors and analyzing their interactive effects on students' perceptions in the context of listening instruction. Practically, the results offer clear implications for educators, especially in designing learning activities that are more responsive to students' needs. Teachers are encouraged to incorporate strategies that foster reflection and independent learning, while also creating collaborative spaces that support peer discussion and group work in listening tasks. Training in self-regulation and collaborative communication may also serve as effective supplementary strategies to enhance students' readiness for listening activities. Ultimately, the integration of SRL and collaboration skills into language education is not only beneficial for improving listening perceptions, but also supports students' overall learning autonomy and social development in English as a Foreign Language (EFL) contexts.

REFERENCES

- Abdullah, L., Rosele, M. I., & Ahmad, W. M. W. (2020). The Concept of Legal Entity from the Islamic Law Perspectives. *Pertanika Journal of Social Sciences and Humanities*, 28(4). <https://doi.org/10.47836/pjssh.28.4.39>
- Abrar-ul-Hassan, S., Douglas, D., & Turner, J. (2021). Revisiting second language portfolio assessment in a new age. *System*, 103, 102652. <https://doi.org/10.1016/j.system.2021.102652>
- Aguilar, S. J., Karabenick, S. A., Teasley, S. D., & Baek, C. (2021). Associations between learning analytics dashboard exposure and motivation and self-regulated learning. *Computers & Education*, 162, 104085. <https://doi.org/10.1016/j.compedu.2020.104085>
- Almahasees, Z., Mohsen, K., & Amin, M. O. (2021). Faculty's and Students' Perceptions of Online Learning During COVID-19. *Frontiers in Education*, 6. <https://doi.org/10.3389/feduc.2021.638470>
- Andel, S. A., de Vreede, T., Spector, P. E., Padmanabhan, B., Singh, V. K., & de Vreede, G.-J. (2020). Do social features help in video-centric online learning platforms? A social presence perspective. *Computers in Human Behavior*, 113, 106505. <https://doi.org/10.1016/j.chb.2020.106505>

- Banegas, D. L., Poole, P. M., & Corrales, K. A. (2020). Content and language integrated learning in Latin America 2008-2018: Ten years of research and practice. *Studies in Second Language Learning and Teaching*, 10(2), 283–305. <https://doi.org/10.14746/ssllt.2020.10.2.4>
- Blau, I., Shamir-Inbal, T., & Avdiel, O. (2020). How does the pedagogical design of a technology-enhanced collaborative academic course promote digital literacies, self-regulation, and perceived learning of students? *The Internet and Higher Education*, 45, 100722. <https://doi.org/10.1016/j.iheduc.2019.100722>
- Boleng, L. M. (2023). Self Regulated Learning: Its Role and Influence in Improving Student Achievement and Interest in Learning. *Al-Fikrah: Jurnal Manajemen Pendidikan*, 11(2), 323. <https://doi.org/10.31958/jaf.v11i2.12079>
- Brenner, C. A. (2022). Self-regulated learning, self-determination theory and teacher candidates' development of competency-based teaching practices. *Smart Learning Environments*, 9(1), 3. <https://doi.org/10.1186/s40561-021-00184-5>
- Chan, C. K. Y., & Hu, W. (2023). Students' voices on generative AI: perceptions, benefits, and challenges in higher education. *International Journal of Educational Technology in Higher Education*, 20(1), 43. <https://doi.org/10.1186/s41239-023-00411-8>
- Cherbonnier, A., Hémon, B., Michinov, N., Jamet, E., & Michinov, E. (2024). Collaborative Skills Training Using Digital Tools: A Systematic Literature Review. *International Journal of Human–Computer Interaction*, 1–19. <https://doi.org/10.1080/10447318.2024.2348227>
- Chon, Y. V., Shin, D., & Kim, G. E. (2021). Comparing L2 learners' writing against parallel machine-translated texts: Raters' assessment, linguistic complexity and errors. *System*, 96, 102408. <https://doi.org/10.1016/j.system.2020.102408>
- Chumdari, C., Atmojo, I. R. W., Matsuri, M., Adi, F. P., Ardiansyah, R., & Saputri, D. Y. (2025). Analisis tingkat self regulated learning peserta didik di Sekolah Dasar Indonesia Bangkok. *Jurnal Pendidikan Dasar*, 12(2), 142. <https://doi.org/10.20961/jpd.v12i2.94880>
- Cranfield, D. J., Tick, A., Venter, I. M., Blignaut, R. J., & Renaud, K. (2021). Higher Education Students' Perceptions of Online Learning during COVID-19—A Comparative Study. *Education Sciences*, 11(8), 403. <https://doi.org/10.3390/educsci11080403>
- Demetroulis, E. A., Papadogiannis, I., Wallace, M., Pouloupoulos, V., Theodoropoulos, A., Vasilopoulos, N., Antoniou, A., & Dasakli, F. (2024). Collaboration Skills and Puzzles: Development of a Performance-Based Assessment—Results from 12 Primary Schools in Greece. *Education Sciences*, 14(10), 1056. <https://doi.org/10.3390/educsci14101056>
- Dvorianchikova, S., Bondarchuk, J., Syniavska, O., & Kugai, K. (2022). Development of Intercultural Communicative Competence in the Process of Teaching English to Future Interpreters. *Arab World English Journal*, 13(2), 50–60. <https://doi.org/10.24093/awej/vol13no2.4>
- El-Rumi, U. (2022). The development of students' self-regulated learning through online learning design. *Jurnal Kependidikan Penelitian Inovasi Pembelajaran*, 6(1), 53–67. <https://doi.org/10.21831/jk.v6i1.44980>
- Endres, T., Weyreter, S., Renkl, A., & Eitel, A. (2020). When and why does emotional design foster learning? Evidence for situational interest as a mediator of increased persistence. *Journal of Computer Assisted Learning*, 36(4), 514–525. <https://doi.org/10.1111/jcal.12418>

- Fidalgo, P., Thormann, J., Kulyk, O., & Lencastre, J. A. (2020). Students' perceptions on distance education: A multinational study. *International Journal of Educational Technology in Higher Education*, 17(1), 18. <https://doi.org/10.1186/s41239-020-00194-2>
- Hall, J. K., & Looney, S. D. (2021). The Role of Self-Talk in Downgrading a Teacher's Certainty About Grammar Matters. *TESOL Quarterly*, 55(1), 185–218. <https://doi.org/10.1002/tesq.583>
- Hutt, S., Baker, R. S., Ashenafi, M. M., Andres-Bray, J. M., & Brooks, C. (2022). Controlled outputs, full data: A privacy-protecting infrastructure for <scp>MOOC</scp> data. *British Journal of Educational Technology*, 53(4), 756–775. <https://doi.org/10.1111/bjet.13231>
- Jaekel, N., Schurig, M., van Ackern, I., & Ritter, M. (2022). The impact of early foreign language learning on language proficiency development from middle to high school. *System*, 106, 102763. <https://doi.org/10.1016/j.system.2022.102763>
- Jin, S.-H., Im, K., Yoo, M., Roll, I., & Seo, K. (2023). Supporting students' self-regulated learning in online learning using artificial intelligence applications. *International Journal of Educational Technology in Higher Education*, 20(1), 37. <https://doi.org/10.1186/s41239-023-00406-5>
- Liu, Y., Liu, R.-D., Star, J., Wang, J., Zhen, R., & Tong, H. (2020). The effect of perceptual fluency on overcoming the interference of the More A–More B intuitive rule among primary school students. *Journal of Educational Psychology*, 112(5), 907–921. <https://doi.org/10.1037/edu0000403>
- Pamungkas, H., & prakoso, A. (2020). Self-Regulated Learning Bagi Mahasiswa: Pentingkah? *Jurnal Pendidikan Ekonomi*, 13(1), 69–75. <https://doi.org/10.17977/um014v13i12020p069>
- Russell, J. M., Baik, C., Ryan, A. T., & Molloy, E. (2022). Fostering self-regulated learning in higher education: Making self-regulation visible. *Active Learning in Higher Education*, 23(2), 97–113. <https://doi.org/10.1177/1469787420982378>
- Sharma, K., Nguyen, A., & Hong, Y. (2024). Self-regulation and shared regulation in collaborative learning in adaptive digital learning environments: A systematic review of empirical studies. *British Journal of Educational Technology*, 55(4), 1398–1436. <https://doi.org/10.1111/bjet.13459>
- Shieh, J., Reynolds, B. L., & Ha, X. Van. (2023). Using a design-based approach to develop a checklist for evaluating preservice teacher learning materials. *TESOL Journal*, 14(3). <https://doi.org/10.1002/tesj.717>
- Solikhah, R., Jaenullah, J., Setiawan, D., & Kushendar, K. (2022). Pengaruh Self Regulated Learning terhadap Hasil Belajar Siswa. *Ghaidan: Jurnal Bimbingan Konseling Islam Dan Kemasyarakatan*, 6(2), 75–81. <https://doi.org/10.19109/ghaidan.v6i2.17152>
- Sun, P. P. (2022). Strategic Self-Regulation for Speaking English as a Foreign Language: Scale Development and Validation. *TESOL Quarterly*, 56(4), 1369–1383. <https://doi.org/10.1002/tesq.3132>
- Xu, Z., Zhao, Y., Zhang, B., Liew, J., & Kogut, A. (2023). A meta-analysis of the efficacy of self-regulated learning interventions on academic achievement in online and blended environments in K-12 and higher education. *Behaviour & Information Technology*, 42(16), 2911–2931. <https://doi.org/10.1080/0144929X.2022.2151935>

- Yu, B. (2023). Self-regulated learning: A key factor in the effectiveness of online learning for second language learners. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1051349>
- Zhao, S., & Cao, C. (2023). Exploring Relationship Among Self-Regulated Learning, Self-Efficacy and Engagement in Blended Collaborative Context. *Sage Open*, 13(1). <https://doi.org/10.1177/21582440231157240a>
- Zafimandimby, M. N. H., Liu, Y., Jiang, L., & Ma, Y. (2023). Numerical analysis of novel concrete filled K joints with different brace sections. *Heliyon*, 9(4), e14847. <https://doi.org/10.1016/j.heliyon.2023.e14847>
- Karlen, Y., Hertel, S., Grob, U., Jud, J., & Hirt, C. N. (2024). Teachers matter: linking teachers and students' self-regulated learning. *Research Papers in Education*, 1–28. <https://doi.org/10.1080/02671522.2024.2394059>
- Ng, D. T. K., Tan, C. W., & Leung, J. K. L. (2024). Empowering student self-regulated learning and science education through <scp>ChatGPT</scp> : A pioneering pilot study. *British Journal of Educational Technology*, 55(4), 1328–1353. <https://doi.org/10.1111/bjet.13454>
- Le, H., Janssen, J., & Wubbels, T. (2018). Collaborative learning practices: teacher and student perceived obstacles to effective student collaboration. *Cambridge Journal of Education*, 48(1), 103–122. <https://doi.org/10.1080/0305764X.2016.1259389>
- Havik, T., & Westergård, E. (2020). Do Teachers Matter? Students' Perceptions of Classroom Interactions and Student Engagement. *Scandinavian Journal of Educational Research*, 64(4), 488–507. <https://doi.org/10.1080/00313831.2019.1577754>
- Digital literacy, attitudes toward e-learning, and task value roles in college students' distance learning self-regulation. (2024). *Psychological Research on Urban Society*, 7(1). <https://doi.org/10.7454/proust.v7i1.1156>
- Boleng, L. M. (2023). Self Regulated Learning: Its Role and Influence in Improving Student Achievement and Interest in Learning. *Al-Fikrah: Jurnal Manajemen Pendidikan*, 11(2), 323. <https://doi.org/10.31958/jaf.v11i2.12079>
- Perry-Hazan, L. (2021). Students' Perceptions of Their Rights in School: A Systematic Review of the International Literature. *Review of Educational Research*, 91(6), 919–957. <https://doi.org/10.3102/00346543211031642>
- Ravšelj, D., Keržič, D., Tomaževič, N., Umek, L., Brezovar, N., A. Iahad, N., Abdulla, A. A., Akopyan, A., Aldana Segura, M. W., AlHumaid, J., Allam, M. F., Alló, M., Andoh, R. P. K., Andronic, O., Arthur, Y. D., Aydın, F., Badran, A., Balbontín-Alvarado, R., Ben Saad, H., ... Aristovnik, A. (2025). Higher education students' perceptions of ChatGPT: A global study of early reactions. *PLOS ONE*, 20(2), e0315011. <https://doi.org/10.1371/journal.pone.0315011>
- Rathé, S., Torbeyns, J., De Smedt, B., & Verschaffel, L. (2022). Longitudinal associations between spontaneous number focusing tendencies, numerical abilities, and mathematics achievement in 4- to 7-year-olds. *Journal of Educational Psychology*, 114(1), 37–55. <https://doi.org/10.1037/edu0000665>
- Wang, D., Andres, J., Weisz, J. D., Oduor, E., & Dugan, C. (2021). AutoDS: Towards Human-Centered Automation of Data Science. *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*, 1–12. <https://doi.org/10.1145/3411764.3445526>