

Principles for Designing an Online Grammar Game: A Fuzzy Delphi Validation of Present Perfect and Present Perfect Progressive Tasks

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Abstract

The study examines how the Theory of Variation can guide the design of online grammar questions for teaching the Present Perfect and Present Perfect Progressive tenses. It shows how variation patterns can help learners notice the differences between the two forms. To assess the applicability of these principles, the study employed the Fuzzy Delphi Method with five experts. They rated each element, and the results showed strong agreement. The findings support the design of grammar tasks that are clear and grounded in theory, and the same method could be applied to other tense-aspect modules in future studies.

Keywords: Fuzzy Delphi, Grammar Learning, Theory of Variation

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1.0 Introduction

English grammar remains challenging for second language learners due to the complexity of its rules, exceptions, and subtle differences in meaning across tenses. The Present Perfect and Present Perfect Progressive are challenging because they require students to understand both how to refer to time and how the speaker perceives time (Maisari & Prichatin, 2023). Learners frequently confuse these two tenses, often overgeneralising one form or using them interchangeably without recognising their functional distinctions (Maisari & Prichatin, 2023).

In Malaysia, where English is taught as a second language, mastering grammar remains a top priority in the national curriculum (Ministry of Education Malaysia, 2015). Traditional grammar instruction often relies on memorizing rules and repeating the same drills, which may not always help students understand (Ganapathy & Azizan, 2016). Learners might memorize rules but struggle to apply what they know in real-life situations. Current teaching practices still rely heavily on rule memorization and do not effectively help learners distinguish nuanced aspects of tense. There is also limited research linking systematic variation to tense teaching. The calls for innovative teaching methods that emphasise noticing, contrast, and guided practice, so that learners can better learn grammar rules by heart. The Theory of Variation (Marton & Booth, 1997) offers a helpful framework for developing these types of teaching methods. The theory posits that learning occurs when learners identify the essential attributes of a concept through structured variation. Instead of being exposed to grammar rules in isolation, learners are encouraged to compare forms, meanings, and contexts to highlight what is essential and what is not.

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The study extends earlier research on digital grammar games (Tengku Paris & Abdul Kadir, 2018) by focusing on how ToV can specifically guide the creation of tasks for the Present Perfect and Present Perfect Progressive. The four core patterns of variation elements guide task design:

Table 1. The four core patterns of variation guide grammar questions
(Sources: Marton & Booth, 1997)

Pattern	Focus	Example	Learning Outcome
Contrast	Comparing tenses	Have you ever visited Japan? Vs Did you visit Japan last year?	Learners see that 'have visited' indicates life experience, while 'did visit' refers to a completed past action.
Generalisation	Same tense in different situations	I have read the book. Vs I have read three books this month.	Students learn how to use the Present Perfect in different situations and how to apply it to other situations.
Separation	Focus on one feature (e.g., duration)	I have been working for two hours.	Learners recognise ongoing activity marked by the Present Perfect Progressive.
Fusion	Combining different features	I have been reading this book for two hours; have you finished yours yet?	Learners apply tense distinctions in communicative, real-life contexts.

The examples demonstrate how ToV can structure grammar tasks to promote noticing, understanding, and productive use of tense–aspect forms. To make sure that these principles are suitable and practically applicable in digital learning environments, the study employed an approach to collect experts' shared opinions. The purpose of this study is to investigate how the Theory of Variation can be applied to create online grammar exercises that effectively teach the Present Perfect and Present Perfect Progressive tenses. Based on expert consensus, the study also aims to determine whether these design principles are suitable and acceptable for grammar instruction.

2.0 Literature Review

2.1 Teaching Grammar in ESL and EFL Contexts

Grammar has always been one of the most challenging areas in English language teaching. Although communicative methods help people become more fluent and interact with each other, experts argue that knowing grammar remains essential for clear communication (Nassaji, 2021). In ESL and EFL classrooms, teachers must find ways to balance form-focused instruction with meaning-focused communication. Research indicates that when combined with meaningful practice, explicit grammar instruction yields more effective long-term learning outcomes (Alnujaidi & Assalahi, 2023).

Tenses are complicated because they do not always translate directly from one language to another. For example, learners from Asian language backgrounds often struggle with English tense-aspect combinations, as their first languages may not use verb inflections to indicate time (Newbery-Payton & Mochizuki, 2020). The inflexions make teachers need to use targeted strategies when teaching tenses.

2.2 Challenges in Learning the Present Perfect and Present Perfect Progressive

The Present Perfect is a tense that many students have trouble with. It links things that have happened in the past to things that are important now (for example, "I have eaten lunch"). Students often struggle to determine when to use it instead of the simple past, especially when both forms are possible (Jubran & Khrais, 2023). The Present Perfect Progressive shows how long an action has been happening (for example, "I have been cooking for two hours"). Research shows that learners often confuse this tense with the simple past or past progressive (Perez-Guerra & Smirnova, 2024). Many students steer clear of the form entirely because it seems "unnecessary" in communication, even though it makes meaning clearer (Römer, 2020).

A recent study confirms these difficulties. For instance, Abdalhay (2024) found that Iranian EFL learners often overgeneralised the present perfect, using it in contexts that required the simple past.

2.3 The Theory of Variation in language learning

Variation Theory (Marton & Tsui, 2004) suggests that students learn best when they can identify the key features of a concept. The theory identifies four main patterns: contrast, generalization, separation, and fusion. Teachers can use these patterns to create activities that help learners see similarities and differences in language structures. Although Variation Theory has been widely applied in mathematics and science education, its use in language teaching is growing. A few studies show positive results. For example, Tong (2011) applied variation patterns to past tense and present perfect teaching and found that learners improved retention when tenses were presented in contrasting contexts. Similarly, Rozina Abdul Ghani (2017) demonstrated that using contrast and fusion helped students in Malaysia better understand the differences among grammar tenses.

Despite these studies, there remains limited research on applying Variation Theory specifically to teaching the Present Perfect versus the Present Perfect Progressive. Most studies on tense-aspect teaching focus on form-focused instruction or communicative practice without explicitly linking to a theoretical framework.

3.0 Methodology

The study adopts the four core ToV patterns (Marton & Tsui, 2004) as guiding principles for designing grammar tasks. These patterns help learners differentiate forms, notice key features, and apply knowledge in communicative contexts. To validate the proposed principles, the research employed the approach. This method is well-suited for collecting expert judgments and identifying consensus on complex educational constructs.

3.1 Sampling procedure

The analysis employs purposeful sampling. Since the researcher's objective is to reach agreement among experts on a predetermined topic, this methodology is suitable. According to Hasson, Keeney, and McKenna (2000), purposeful sampling is the most acceptable strategy for the Fuzzy Delphi Method. A team of five experts conducted the study. The experts who have agreed to participate are listed in Table 2. Select experts based on their skills and areas of expertise. Between five and ten experts are needed if all the experts involved in this analysis are identical. Between five and ten experts are needed if all the experts involved in this analysis are identical. The minimum number of Delphi experts varies from ten to fifteen, depending on the degree of consistency (Adler & Ziglio, 1996).

Table 2. List of experts
(Sources: author)

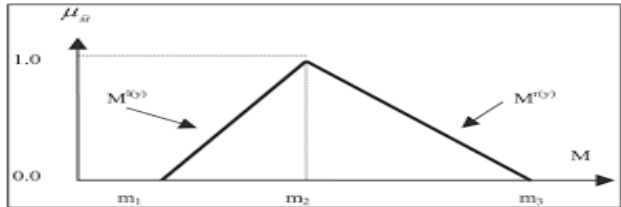
Expert	Field of expertise	Institution
1 Professor	English Language	Public university
2 Lecturers with a PhD		Private university
1 Senior Lecturer with a PhD		Teacher Training Centre
1 Senior Lecturer		Private university

3.2 Expert selection rules

Experts are those who have gained credentials, training, experience, professional recognition, and peer acknowledgment through dedication and effort (Perera, et al. 2012). According to Mullen (2003), an expert is an individual who possesses specialized knowledge in a specific field or area of expertise. In Fuzzy Delphi research, selecting the appropriate experts is essential because a poor choice can affect the study's validity, reliability, and trustworthiness (Mustapha & Darussalam, 2017). The researcher selected participants for this study who had at least seven years of relevant experience, as experts should be knowledgeable about the subject.

3.3 Fuzzy Delphi Steps

Table 3. Fuzzy Delphi steps
(Sources: Revalidation of Islamophobia Scale: The Fuzzy Delphi Method Approach)

Step	Formulation
1. Expert selection	The report features the opinions of 5 specialists. For this reason, we convened an expert panel to weigh in on the importance of the assessment parameters in relation to the factors to be evaluated using linguistic variables—such as definitions of issues that could arise — within the context of the work.
2. Determining linguistic scale	All the linguistic variables are converted into the number of fuzzy triangles in this procedure (triangular fuzzy numbers). As part of this change, we are also incorporating fuzzy numbers into the process of translating linguistic variables (Hsieh, Lu, and Tzeng, 2004). To express the values m_1, m_2, and m_3 as a triangular fuzzy number, it is written as follows: (m_1, m_2, m_3). If m_1 is set to 1, it represents the smallest possible number, m_2 is a rational number, and m_3 is the most significant possible number. For the purpose of translating linguistic variables into fuzzy numbers, a Fuzzy Scale is generated with the help of a Triangular Fuzzy Number.
 Figure 1: Triangular fuzzy number	
3. The Determination of Linguistic Variables and Average Responses	After consulting the expert, the researcher converts all numerical responses into Fuzzy scales. This step is considered a valid way to represent each response (Benitez, Martin, & Roman, 2007).
4. The determination of the threshold value "d."	The threshold value is important because it helps determine the level of agreement among experts (Thomaidis, Nikitakos, & Dounias, 2006). The formula for calculating distances for fuzzy integers of the form $m = (m_1, m_2, m_3)$ and $n = (n_1, n_2, n_3)$ is as follows: $d(\bar{m}, \bar{n}) = \sqrt{\frac{1}{3} [(m_1 - n_1)^2 + (m_2 - n_2)^2 + (m_3 - n_3)^2]}$
5. Identify the alpha cut aggregate level of fuzzy assessment	A fuzzy number is assigned to each item if there is agreement among experts (Mustapha & Darussalam, 2017). The method for determining and evaluating fuzzy values is as follows: $A_{max} = 4m_1 + 2m_2 + m_3$
6. Defuzzification process	For this procedure, we use the formula $A_{max} = (1/4)(a_1 + 2a_2 + a_3)$. Whether the researcher opts for the Average Fuzzy Numbers or the average response, the resulting score will be a

	whole number between zero and one (Ridhuan & Abdul Kadir, 2014). As such, three different formulas can be used to describe the procedure: i) $A = 1/3 * (m1 + m2 + m3)$, (ii) $A = 1/4 * (m1 + 2m2 + m3)$, and (iii) $A = 1/6 * (m1 + 4m2 + m3)$. Median value for '0' and '1' is the a-cut value, and the a-cut value is 0.5 because $a-cut = (0 + 1) / 2 = 0.5$. The item will be discarded if the resulting A value is less than the a-cut value = 0.5, which denotes a lack of expert consensus. Bojdanova (2006) suggests an alpha cut value of greater than 0.5. Tang and Wu (2010), who argued that the cut value should be greater than 0.5, lend credence to this view.
7. Ranking process	Elements are prioritised through their defuzzification values, with the highest value showing the element experts considered most influential (Fortemps & Roubens, 1996)

3.4 Instrumentation

The researcher utilized the existing body of literature on the subject to design the study instrument. Researchers can develop questionnaire items based on the literature, pilot studies, and experience (Skulmowski, et al. 2007). Researchers used focus groups, expert interviews, and research literature to create questions for the Fuzzy Delphi technique (Mustapha & Darussalam, 2017). Furthermore, Okoli and Pawlowski (2004) contend that before developing study items and content, a review of pertinent literature should be conducted.

Therefore, researchers compiled the most significant elements to obtain expert consensus on the essential concepts, structures, functions, and learner difficulties that should be included in the Present Perfect Tense module, drawing on published works. Using a 7-point scale, a list of expert questions is then compiled. The 7-point scale was adopted because the greater the number of scales utilised, the more precise and flawless the results (Chen, Hsu & Chang, 2011). To facilitate responses from professionals, the researcher replaced the fuzzy value in Table 4 with a 1–7 scale value, as shown:

Table 4. Fuzzy scale
(Sources: Revalidation of Islamophobia Scale: The Fuzzy Delphi Method Approach)

Item	Fuzzy number
Strongly disagree	(0.0, 0.0, 0.1)
Disagree	(0.0, 0.1, 0.3)
Somewhat Disagree	(0.1, 0.3, 0.5)
Neutral	(0.3, 0.5, 0.7)
Somewhat agree	(0.5, 0.7, 0.9)
Agree	(0.7, 0.9, 1.0)
Strongly agree	(0.9, 1.0, 1.0)

3.5 The List of principles for question development in language learning

Based on a literature review, researchers have identified key elements for developing practical grammar questions. The researchers will then use the Fuzzy Delphi method to determine the validity and consensus of the experts regarding the applicability of the elements to the development of online game questions. The principles for developing the questions were adopted from Marton & Booth (1997).

Table 4: The principles for question development in language learning
(Sources: Marton & Booth (1997).

Elements to be included for the development of online second language learning activities	Significant elements to be included for the development of grammar questions of Perfect Tenses
	Contrastive examples help learners distinguish the Present Perfect from the Simple Past.
	Learners require contrasting sentences to notice the difference between the Present Perfect and the Present Perfect Progressive.
	Separating time expressions helps learners identify the correct tense and aspect form.
	Highlighting duration separately improves learners' understanding of the Present Perfect Progressive.
	Students need multiple varied contexts to generalise the function of the Present Perfect.
	Using repeated exposure across different situations supports generalisation of tense-aspect rules.
	Tasks that require learners to use both tenses together promote more profound understanding.
	Digital grammar games can support Variation Theory by presenting structured variation.
	Technology provides immediate feedback that strengthens learners' ability to discern tense differences.

4.0 Findings

Table 5. Fuzzy Delphi Analysis Result 1, Defuzzification Report
(Sources: FudeloAPP)

Defuzzification Report									
Results	Item1	Item2	Item3	Item4	Item5	Item6	Item7	Item8	Item9
Expert1	0.03464	0.01155	0.02309	0.06928	0	0.02309	0	0.04619	0.04619
Expert2	0.03464	0.04619	0.02309	0.01155	0	0.02309	0	0.06928	0.06928
Expert3	0.02309	0.01155	0.09238	0.10392	0	0.03464	0	0.06928	0.06928
Expert4	0.02309	0.01155	0.02309	0.01155	0	0.03464	0	0.04619	0.04619

Expert5	0.02309	0.01155	0.02309	0.01155	0	0.02309	0	0.04619	0.04619
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This section will present expert agreement on significant principles related to grammar questions involving the Present Perfect tenses. Five experts in the relevant fields were presented with fuzzy Delphi questions, and data were collected based on their responses. The following are the findings of the study:

The findings indicate that the threshold value (d) is less than or equal to 0.2, the percentage of expert agreement is greater than or equal to 75%, and the defuzzification value (alpha cut) is greater than or equal to 0.5. Overall, the results indicate that the experts achieved a high level of consensus on the items. It means that most experts shared similar views about which principles are essential for developing the grammar questions.

Table 6. Fuzzy Delphi Analysis Result 2
(Sources: FudeloAPP)

Statistics	Item1	Item2	Item3	Item4	Item5	Item6	Item7	Item8	Item9
Value of the item	0.02771	0.01848	0.03695	0.04157	0	0.02771	0	0.05543	0.05543
Value of the construct									0.02925
Item < 0.2	5	5	5	5	5	5	5	5	5
% of item < 0.2	100%	100%	100%	100%	100%	100%	100%	100%	100%
Average of % consensus									100
Defuzzification	0.94	0.92	0.86	0.88	1	0.94	1	0.82	0.82
Ranking	2	3	5	4	1	2	1	6	6
Status	Accept	Accept	Accept	Accept	Accept	Accept	Accept	Accept	Accept

The findings demonstrate expert consensus on the importance of strategies in designing Present Perfect questions. All experts accepted the items proposed by the researcher after fulfilling the triangular fuzzy numbers conditions, namely the threshold value (d) not exceeding or equal to 0.2, and the percentage of expert agreement exceeding or equal to 75% and also the items in the element of justice for students also fulfilled the defuzzification process, namely the fuzzy score value exceeding or equal to 0.5.

Table 7: The list of principles based on expert consensus
(Sources: Marton & Booth (1997).

	Early item rank	Current Rank	Significant elements to be included for the development of grammar questions of Perfect Tenses
Elements to be included for the development of online second language learning activities	PRG 1	2	Contrastive examples help learners distinguish between the Present Perfect and the Simple Past.
	PRG 2	3	Learners require contrasting sentences to notice the difference between the Present Perfect and the Present Perfect Progressive.
	PRG 3	5	Separating time expressions helps learners identify the correct tense and aspect form.
	PRG 4	4	Highlighting duration separately improves learners' understanding of the Present Perfect Progressive.
	PRG 5	1	Students need multiple varied contexts to generalise the function of the Present Perfect.
	PRG 6	2	Using repeated exposure across different situations supports generalisation of tense-aspect rules.
	PRG 7	1	Tasks that require learners to use both tenses together promote more profound understanding.
	PRG 8	6	Digital grammar games can support Variation Theory by presenting structured variation.
	PRG 9	6	Technology provides immediate feedback that strengthens learners' ability to discern tense differences.

5.0 Discussion

The results show that the experts generally agreed on the key principles needed to design Present Perfect and Present Perfect Progressive tasks using the Theory of Variation. All the statements met the Fuzzy Delphi criteria, which means the experts found the principles helpful, practical, and suitable for making these aspects easier for learners to grasp.

This consensus indicates that the Present Perfect is challenging for many ESL learners due to its abstract temporal meanings and the absence of direct equivalents in many first languages (Jubran & Khrais, 2023). The principles based on the Theory of Variation (ToV) help address these difficulties by highlighting important features and providing systematic contrasts that learners often miss. This aligns with earlier research, which shows that variation patterns, such as contrast and generalization, help learners understand grammar more clearly (Marton & Tsui, 2004).

Several reasons may explain why experts agreed so strongly. The principles reflect evidence-based grammar-teaching methods that focus on noticing, mapping form to meaning, and comparing grammatical structures based on second language acquisition research (Ellis, 2020; Römer, 2020). Experts may also have recognized that ToV naturally supports these processes by allowing learners to see tense-aspect differences across multiple examples. Additionally, the Fuzzy Delphi Method allowed a careful evaluation of each principle. Previous studies have demonstrated that FDM reduces ambiguity in expert judgment and yields more stable consensus than traditional Delphi methods (Hsieh et al., 2004; Chen et al., 2011), thereby enhancing the credibility of the results.

The high level of agreement also suggests that the principles are practical in real teaching. Experts valued how ToV organizes learner attention intentionally, rather than leaving variation to chance. This supports prior findings that systematic variation enhances the quality of language input and facilitates instructors in scaffolding complex grammar (Tong, 2011; Rozina Abdul Ghani, 2017). The high defuzzification ratings indicate that experts saw the approaches as both theoretically sound and easy to teach. Overall, the principles provide teachers with a clear framework for planning grammar activities that encourage deeper understanding rather than mechanical practice. Future studies could investigate how each principle affects learner noticing and long-term acquisition, or explore how ToV can be effectively integrated into digital learning environments.

6.0 Conclusion & Recommendations

This paper demonstrates how the Theory of Variation and the Fuzzy Delphi Method can be used together to design principled, expert-validated grammar tasks for teaching the Present Perfect and Present Perfect Progressive tenses. The framework encourages structured noticing, deeper understanding, and meaningful use of tense–aspect forms. Future research should extend this approach to other grammatical structures and conduct classroom-based evaluations of ToV-aligned digital learning activities.

This paper aims to apply Variation Theory to the teaching of the Present Perfect and the Present Perfect Progressive. Through a review of literature and the design of sample questions, the study has shown that the four variation patterns, contrast, generalization, separation, and fusion, can guide teachers in developing suitable grammar questions. The main contributions are to provide a structured framework for tense teaching, offer practical examples and tables that teachers can adapt, and highlight the potential use of Variation Theory in grammar teaching. This area has yet to be touched by research.

By concentrating on significant changes, students may more clearly discern the distinctions across tense forms, formulate generalizations across many contexts, and proficiently incorporate information into their communication. This approach supports not only grammatical accuracy but also communicative fluency. A limitation in the study is that the focus is limited to two tense forms; further studies should explore how variation patterns can be applied across a broader range of grammatical features. Future studies should conduct classroom experiments to measure the impact of variation-based teaching on learner performance compared to traditional methods, and investigate the use of variation patterns in teaching other tense-aspect forms (e.g., past perfect, future progressive).

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Paper Contribution to the Related Field of Study

This paper is related to the field of Communications / social media environment.

References

- Abdalhay, H. (2024). Examining Iranian EFL students' correct use of tense: Connecting the past to the present. *Pedagogy: Journal of English Language Teaching*, 12(2), 178–194.
- Abdul Ghani, R., Tengku Paris, T. N., Ahamad Shah, M. I., Yussof, L., & Abas, H. (2017). Mobile assisted language learning (MALL) in developing second language learners' understanding of grammar tenses and aspects. *Journal of Academia*, 5(1), 187–208
- Adler, M., & Ziglio, E. (1996). *Gazing into the oracle: The Delphi method and its application to social policy and public health*. Jessica Kingsley Publishers.
- Alnujaidi, A., & Assalahi, H. (2023). Language teachers' beliefs about teaching the Present Perfect tense. *Journal of Education and Learning*, 12(2), 88–99. <https://doi.org/10.5539/jel.v12n2p88>
- Chen, P.-T., Hsu, A.-P., & Chang, C.-H. (2011). The influence of rating scale length on decision-making: A fuzzy approach. *Expert Systems with Applications*, 38(6), 7487–7492.
- Chen, R. (2022). Chinese learners' acquisition of the present perfect progressive: A corpus-based study. *International Journal of Applied Linguistics*, 32(4), 112–130.
- Gabriele, A., & Martohardjono, G. (2022). Second language acquisition of aspect: Difficulties with progressive forms. *Studies in Second Language Acquisition*, 44(2), 345–366.
- Ganapathy, M., Shuib, M., & Azizan, S. N. (2016). Malaysian ESL learners' challenges in grammar learning: A needs analysis. *Pertanika Journal of Social Sciences & Humanities*, 24(1), 151–164.
- Hasson, F., Keeney, S., & McKenna, H. (2000). Research guidelines for the Delphi survey technique. *Journal of Advanced Nursing*, 32(4), 1008–1015.
- Hsieh, H.-N., Lu, M.-T., & Tzeng, G.-H. (2004). Fuzzy MCDM approach for evaluating freight transportation services. *Transportation Planning and Technology*, 27(5), 373–396.
- Jubran, S., & Khrais, S. (2023). The dilemma of utilising the Present Perfect tense in English writing by Arab English learners. *Journal of Language Teaching and Research*, 14(5), 1430–1437. <https://doi.org/10.17507/jltr.1405.32>

- Kaynak, E., & Macaulay, J. (1984). The Delphi method in marketing research. *Marketing Intelligence & Planning*, 2(1), 3–13.
- Maisari, L., & Prichatin. (2023). Challenges encountered by ninth-grade students in learning the present perfect tense. *Lexeme: Journal of Linguistics and Applied Linguistics*, 5(1)
- Marton, F., & Booth, S. (1997). *Learning and awareness*. Lawrence Erlbaum.
- Marton, F., & Tsui, A. B. M. (Eds.). (2004). *Classroom discourse and the space of learning*. Lawrence Erlbaum.
- Ministry of Education Malaysia. (2015). *English language curriculum framework*. Ministry of Education Malaysia.
- Mullen, P. M. (2003). Delphi: Myths and reality. *Journal of Health Organization and Management*, 17(1), 37–52.
- Mustapha, R., & Darusalam, G. (2017). Fuzzy Delphi in educational research: *Theory and applications*. *Malaysian Journal of Research*, 3(2), 45–60.
- Nassaji, H. (2021). The role of grammar instruction in second language learning. *Language Teaching Research*, 25(3), 389–402.
- Newbery-Payton, L., & Mochizuki, K. (2020). L1 influence on use of tense/aspect by Chinese and Japanese learners of English. *Learner Corpus Studies in Asia and the World*, 4, 67–93.
- Nikolopoulos, K. (2004). Expert knowledge and forecasting. *International Journal of Forecasting*, 20(1), 15–21.
- Okoli, C., & Pawlowski, S. D. (2004). The Delphi method as a research tool: An example, design considerations and applications. *Information & Management*, 42(1), 15–29.
- Perera, B., Drew, D., & Johnson, L. (2012). Expert selection and Delphi processes in construction management. *Construction Management and Economics*, 30(3), 197–210.
- Perez-Guerra, J., & Smirnova, E. (2024). L1 influence on the use of the English Present Perfect... *Journal of Language and Education*, 10(1), 101–114. <https://doi.org/10.17323/jle.2024.16720>
- Ridhuan, F., Mohd, A., & Abdul Kadir, R. (2014). Applying fuzzy Delphi in educational research. *International Journal of Social Science Research*, 6(2), 25–35.
- Römer, U. (2020). Tense and aspect in learner corpora: Understanding progressive forms. *Corpus Linguistics and Linguistic Theory*, 16(2), 325–352.
- Skulmowski, A., Hartmann, M., & Krahn, J. (2007). Developing educational instruments through expert consensus. *Educational Research Review*, 2(4), 208–223.
- Tang, Y.-C., & Wu, C.-T. (2010). Determining fuzzy alpha cut levels in consensus studies. *Expert Systems with Applications*, 37(12), 8209–8215.
- Tengku Paris, T.N.S. & Abdul Kadir, M. (2018). Digital grammar games for ESL learners: A classroom study. *Malaysian Journal of ELT Research*, 14(2), 55–72.
- Thomaidis, N. S., Nikitakos, N., & Dounias, G. D. (2006). The evaluation of information technology projects: A fuzzy multicriteria decision-making approach. *International Journal of Information Technology and Decision Making*. <https://doi.org/10.1142/S0219622006001897>.
- Tong, S. Y. A. (2011). Learning English tenses through the theory of variation. *The Journal of Asia TEFL*, 8(2), 145–167.