

# PRIMARY SCHOOL TEACHERS' LONG-TERM STRATEGIES FOR TEACHING ENGLISH TO YOUNG LEARNERS: A NARRATIVE INQUIRY

Meidy Kautsar Arriv<sup>1\*</sup>, Asmida Yanti Siregar<sup>2</sup>, & Fadliyah Uzma<sup>3</sup>  
<sup>1,2,3</sup> UIN Syarif Hidayatullah Jakarta

meidykautsar@gmail.com

## ABSTRACT

This study aims to investigate the strategies used by primary school teachers in teaching English to young learners and the strategies that have been effective in teaching English to young learners from the past until now. This study employed a qualitative design using a narrative inquiry approach involving two experienced primary school teachers with more than 20 years of teaching experience to explore their long-term teaching practices. Data were collected through semi-structured interviews and were analyzed thematically. The findings demonstrate that both teachers view building close teacher-student relationships as a central strategy, as it supports students' comfort and readiness to learn. Based on long teaching experience, both teachers consistently used gradual instruction and practical classroom strategies such as Total Physical Response, songs, visual materials, and technology to support learning. Although some earlier strategies were no longer used because they were less effective, the core teaching practices remained stable despite ongoing curriculum changes. Overall, the teachers described their strategies through everyday classroom practices rather than theoretical terms.

Keywords: English Language Teaching, Narrative Inquiry, Primary School Teachers, Teaching Strategies, Young Learners

## INTRODUCTION

English was previously categorized as a local content subject and was therefore not compulsory in Indonesian primary schools. Under the 2013 Curriculum, English is no longer positioned as a mandatory subject at the primary school level but may be taught as a local content subject depending on individual school policy (Maili, 2018). This policy has created a significant disparity in English language teaching between urban and rural areas. Primary schools in major cities typically offer English classes, whereas many primary schools in rural areas have very limited English instructional time or do not offer English classes at all. However, current educational policy appears to be undergoing a shift. The Ministry is planning to revise the existing policy by changing the status of English from a non-compulsory subject to a compulsory one to be taught in all primary schools across Indonesia. According to recent reports, English will become mandatory in primary schools, meaning that all Indonesian primary school students will learn English without exception. According

to the Ministry of Primary and Secondary Education (Kemendikdasmen) (2025), English will become a compulsory subject for primary school students nationwide beginning in the 2027/2028 academic year.

As a result, it is important to examine how English can be taught to young learners most appropriately. Understanding English teaching strategies for young learners should not only focus on what strategies are used, but also on how teachers develop, adjust, and maintain these strategies throughout their teaching careers. Moreover, teacher expertise is more than the number of years teaching. It is how teachers construct a cohesive understanding of their teaching through the cycles of problem solving and reflection in the classroom (Tsui, 2003).

Young learners aged 2 to 13 are in the golden age for learning (Linse & Nunan, 2005; McKay, 2008; Philip et al., 2008). During this time, young learners will find it easier to understand language lessons because they easily absorb language exposure naturally (Wulandari et al., 2020). However, there are several challenges in teaching English to young learners (Cameron, 2001; Harmer, 2007; Scott & Ytreberg, 1990). According to Harmer (2007), children have a limited attention span and easily lose focus if activities last too long or are monotonous. Cameron (2001) also states that young learners are very sensitive to surrounding stimuli, including sounds, objects, and peers, so their concentration is easily distracted. In addition, children do not yet have mature self-control and behavioral regulation, so they often react spontaneously and do not always follow teacher orders consistently (Cameron, 2001).

Therefore, English teaching strategies for young learners are needed to make the learning and teaching process more effective (Scott & Ytreberg, 1990). Various teaching strategies have been widely recommended for young learners to support their language development. Scott and Ytreberg (1990) suggest that interactive and activity-based strategies are essential in engaging young learners, as children learn more effectively through active participation and meaningful interaction. However, the effectiveness of the strategy depends on the teacher, as the teacher is the key to successful learning and teaching (Fitriyah et al., 2023). However, several factors make it difficult to implement the strategy in the context of primary schools, including the large number of students in one class. The average number of students in one class is more than 30, whereas the ideal number of students per class is 30 (Mulyono & Wekke, 2018). In reality, the number of students in primary schools exceeds the ideal limit that has been determined. This causes teachers to have difficulty teaching and disciplining students whose classes exceed the ideal limit.

In real classroom contexts, English teaching strategies for young learners are not used as separate or fixed techniques. Instead, they are influenced by teachers' experiences, beliefs, and their continuous adjustments to classroom situations and teaching demands (Borg, 2003). In their daily practice, teachers need to make ongoing decisions by considering students' characteristics, class size, school expectations, and the learning resources available to them (Cameron, 2001; Harmer, 2007). Because of this, teaching strategies are often adapted, combined, or gradually changed over time rather than applied exactly as prescribed by the methods. These changes reflect teachers' professional judgment and the experience they gain from teaching in real classrooms (Tsui, 2003). This shows that understanding English teaching strategies for young learners should not only focus on what strategies are

used, but also on how teachers develop, adjust, and maintain these strategies throughout their teaching careers (Borg, 2003).

In response to the need for effective English teaching strategies for young learners, several empirical studies have examined how teachers implement vocabulary instruction in early English classrooms. A study conducted by Sariakin and Faizah (2023) stated that kindergarten English teachers prepare lesson plans that include each package program, syllabus, and teaching materials. Apart from that, the teacher also provides teaching materials and pleasant class conditions. In the process of teaching and learning vocabulary, the teacher arranges for students to write down the vocabulary they acquire either in a notebook or on the wall and stick it on the wall. Teachers usually also ask students to write down and mention the vocabulary they share. This is a strategy used by English teachers to teach language to kindergarten students.

Moreover, various studies those are still in line with vocabulary teaching strategies to young learners have been employed by Deni & Fahriany (2020) and Wulandari et al. (2020). It was reported that teachers generally use appropriate strategies for young learners, such as games, songs, pictures, real objects, and visual media to facilitate vocabulary learning in the classroom. These studies emphasize that vocabulary instruction for young learners should be engaging and aligned with children's cognitive and affective characteristics. Similarly, Nguyen and Nguyen (2020) found that teachers perceived songs as an effective strategy for enhancing young learners' vocabulary retention and motivation, highlighting the importance of enjoyable learning environments in early English instruction.

Previous studies have also discussed the challenges faced by teachers and the strategies they use when teaching English to young learners. Oktavia et al. (2022) found that English teachers often need to adapt their teaching strategies in response to various classroom limitations, such as students' differing abilities and classroom conditions. In addition, Imran et al. (2024) used a phenomenological approach to examine teachers' perceptions of effective English teaching practices at the primary level, offering insights into how teachers experience and interpret their teaching practices. However, these studies mainly describe teachers' experiences at a particular stage of their teaching practice and do not explore how teaching strategies are developed and refined over a long period of professional experience. Therefore, this research has two research questions, including:

1. What teaching strategies are used by the teachers in teaching English to young learners?
2. What English teaching strategies are considered effective from the past to the present?

## METHODS

This research employed a narrative inquiry approach, a qualitative research that explores individuals' personal stories and experience. The study of narrative is study where the researchers describe such lives, collect and tell stories of them, and write a narrative of experience (Clandinin & Connelly, 2004). Using the narrative inquiry method, this study aims to investigate primary school teachers' experience in teaching English and how they shape their perspective for their teaching strategies.

To increase the depth and credibility of the findings, two teachers were selected instead of only one participant. Two teachers with long-term experience were chosen to provide a comprehensive understanding of the development of teaching strategies for young learners over time. These teachers have more than 20 years of experience in teaching at the primary school level. Based on their long-term experience, they can be categorized as experienced teachers. According to Tsui, teaching experience is not the same as expertise. Expertise is not static, but a developmental process, involving exploration and reflective practice (Tsui, 2003). However, experienced teachers must have rich stories and teaching strategy development journeys that may impact other teachers. Therefore, this research aims to highlight these two teachers' development journeys according to their long experience for their strategies of teaching English for young learners in primary schools.

The first participant (Teacher 1) is a primary school teacher who has been teaching for 21 years in Serang City. She started her career in 2004 in a public primary school in Serang. She is still teaching in the same school until now. She teaches all subjects in that primary school, including math, Indonesian, and English. The second participant (Teacher 2) is also a primary school teacher who teaches in the same school as the first participant. She started teaching in 2000 right after graduating from senior high school and had 25 years of teaching experience at the time this research was conducted (2025). In terms of educational background, Teacher 1 holds a master's degree, while Teacher 2 holds a bachelor's degree. As experienced teachers, both participants shared extensive insights into teaching strategies for young learners, particularly in English instruction.

Data were collected through semi-structured interviews to get the broad stories of development strategies used by the teachers throughout their decades of teaching experience. Multiple interviews were conducted to check the participants' consistent responses. The school where they teach was also visited to validate their backgrounds as teachers. The interpretation is revolving in relations between long-term experience and English teaching strategies for young learners.

The interview data were analyzed using Braun and Clarke's (2014) procedures. The first step is listening and reading the interview recording and transcript several times to become familiar with the data and to understand the overall content of the teachers' responses. After that, coding was conducted to identify ideas and relevant statements related to teaching young learners and teaching strategies. The next step is the codes were grouped into themes by looking for similarities across the interviews, and the result is reported in the findings section.

## RESULTS

In the interviews, both teachers believe that building closeness between teachers and students is central in teaching young learners, as it strongly influences children's psychological comfort and readiness to learn. For example, Teacher 1 stated, "The main principle emphasized is the closeness between a teacher and their students, which influences a child's psychology." Similarly, Teacher 2 emphasized the importance of understanding learners' diverse developmental backgrounds, explaining that "children are at different developmental levels, including differences in age, environment, and individual

characteristics. As teachers, we should have a caring and nurturing attitude toward our students.” To build closeness with her students, Teacher 2 stated that she always greets them warmly. She explained that every time she enters the classroom, she greets the students, ask about their well-being, and talks about the day, for example by saying “good morning,” “how are you,” and “what day is today”. According to her, these simple actions help create a close and friendly atmosphere between the teacher and the students. Both teachers highlighted that fostering this closeness is the most emphasized principle and has been their primary strategy in teaching at the primary school level.

Both teachers also described several strategies that remained central to their classroom practice. They maintained the practice of introducing English gradually. Teacher 1 explained that “children are first introduced to letters and how the letters are read.” She further implied that this gradual approach continues across grade levels. In lower grades, English learning focuses on letter recognition and basic pronunciation, while in higher grades she begins to introduce grammar and more complex sentence structures, rather than limiting instruction to spelling. Teacher 2 expressed a similar belief, although more implicitly. She emphasized that children’s abilities differ according to age and development, noting that “children are at different developmental levels, and therefore require teaching that grows with them.”

The interviews show that TPR (Total Physical Response) is used in a clear and practical way in the classroom. Teacher 2 explicitly described asking students to respond to instructions with physical movement when learning vocabulary, such as saying “hair” and asking students to touch their hair. In addition, Teacher 1 explained that she uses visual demonstrations through a projector, then her students watch examples on the screen and follow the actions shown. They connect language with movement and visual input.

Over more than two decades of teaching, they also explained that songs have been continuously implemented from the beginning of their careers to the present. Teacher 1 stated that songs have consistently been part of her teaching, explaining that “songs have never been abandoned from the past until now because children like them and can memorize English more quickly.” For Teacher 1, songs function as an affective and cognitive tool that supports enjoyment and memory. Similarly, Teacher 2 emphasized the motivational role of songs, noting that “songs are used so that children feel happy and motivated.”

In contrast to strategies that remained, both participants also reflected on approaches that they no longer use. Teacher 1 described that in her earlier teaching years (she started her career in 2004), instruction focused mainly on listening and repetition, stating that “in the past, learning English was limited to listening and repetition, but this approach is no longer implemented in class.” She explained that this method did not sufficiently support children’s understanding or engagement. Teacher 2 similarly explained that “strategies that do not give a positive effect on students are no longer used.”

During the interviews, both teachers described changes in the use of teaching media over time. Teacher 1 contrasted her earlier and current practices by stating that “in the past, pictures were given and attached to the board, but now children can see them directly through a projector.” She added that “children can see things directly, so the learning feels more real.” Teacher 2 also explained her use of technology in teaching English, stating that

“technology is enjoyable and provides motivation, therefore it can be beneficial for learning.” In the interviews, both teachers mentioned using technological tools such as projectors, videos, and visual materials in their classrooms, focusing on how these tools are used during teaching and how students experience them. Both participants also believe that technology plays an important role in supporting English learning for young learners.

The next important question addressed to the teachers concerned their perspectives on the continuous curriculum changes. This question is important because only teachers with decades of teaching experience have directly experienced the transitions across different curriculums. When they were interviewed about how their teaching strategies were affected by these ongoing curriculum changes, Teacher 1 explained that curriculum changes did not significantly alter the core of her teaching. She stated, “It is only a change in name, the curriculum changes, but the basic foundations are still the same,” showing that she continues to rely on the same basic principles in teaching English to young learners. In contrast to Teacher 1’s response, Teacher 2 emphasized that curriculum changes require continuous adjustment from teachers. She stated, “It has definitely changed because of the demands of technology. Teachers must move forward and change because there are performance demands.”

Despite their extensive experience, both teachers shared feelings of anxiety and burden in teaching English to young learners. Teacher 1 expressed concerns related to subject expertise, stating that “English should ideally be taught by a specialist English teacher,” indicating that English is not her main field of specialization. Teacher 2 described contextual challenges, explaining that “the challenges include limited books and an environment where English is not yet required.” She added that “on a daily basis, students are still not fluent in English,” which increases the effort required to teach the subject.

When asked about their teaching strategies, both teachers described their practices through concrete classroom activities rather than theoretical terms. Teacher 1 explained her instructional approach by focusing on what she does in practice, without referring to any formal teaching methodology. Similarly, Teacher 2 described her daily routines when teaching English to her students, emphasizing practical actions carried out in the classrooms. As a result, during the interviews, no teaching strategies were articulated in theoretical terms. Instead, the strategies were presented in a practical manner based on classroom implementation.

## DISCUSSION

The findings show that building emotional closeness between teachers and young learners is a key strategy used in teaching English to young learners. Both teachers emphasized greeting students warmly, asking about their condition, and creating a friendly atmosphere in the classroom. This finding is consistent with the literature on young learner characteristics. Brown (2007) explained that young learners are emotionally sensitive and respond positively to supportive and caring teachers. Pinter (2006) also stated that children learn languages more effectively when they feel secure and emotionally comfortable in the classroom. Emotional closeness is not only a classroom habit but a deliberate teaching strategy that supports young learners’ motivation and readiness to use English.

The teachers introduced English gradually according to students' age and developmental level. English learning starts with letters and pronunciation and later moves to grammar and sentence construction. This practice strongly reflects the theoretical views discussed in the literature review. Cameron (2001) emphasized that young learners have limited metalinguistic awareness and therefore need simple and concrete language input before dealing with more complex structures. Scott and Ytreberg (1990) also argued that teaching should grow with children's cognitive and emotional development. Gradual instruction is an effective strategy because it matches young learners' natural learning processes and prevents cognitive overload.

The use of Total Physical Response is clearly evident in the findings. Teachers ask students to respond to English instructions through physical movement and visual demonstration. This strategy reflects Asher's (2012) principle that linking language with physical action supports comprehension and reduces learning stress. Cameron (2001) and Scott and Ytreberg (1990) explained that young learners need movement and hands-on activities to maintain attention. Empirical support from Afrianti and Rustipa (2024) showed that TPR improves understanding, motivation, and classroom engagement. The continued use of TPR indicates its suitability for young learners' active learning styles.

Songs are also consistently used as a teaching strategy. Teachers believe that songs help students feel happy, motivated, and able to remember English more easily. This practice aligns with Scott and Ytreberg (1990), who stated that songs and rhymes help children learn pronunciation, rhythm, and vocabulary naturally. Brown (2007) further explained that enjoyable activities lower anxiety and encourage language use. Empirical evidence from Saldiraner and Cinkara (2021) supported the effectiveness of songs in improving vocabulary learning. Songs remain effective because they combine repetition, enjoyment, and meaningful language exposure.

Teachers also encourage natural and simple communication in the classroom, such as greetings and short exchanges in English. This practice reflects Krashen's (1985) view that language is acquired more effectively in low-anxiety environments through meaningful exposure. It also corresponded with communicative language teaching principles proposed by Hymes (1972) and Littlewood (1981), which emphasized using language for real communication. Daily classroom interaction allows students to experience English as a communicative tool rather than as isolated forms.

Some strategies used in the past are no longer considered effective. Teachers no longer rely on listening and repetition without meaningful context. This change can be understood through Richards and Rodgers (2001), who described audiolingual practices as focusing mainly on habit formation. Cameron (2001) explained that young learners need contextualized and meaningful activities to support understanding. Strategies that do not engage learners cognitively or emotionally are therefore replaced with more interactive approaches.

The findings also indicate changes in the use of teaching media. In the past, teachers used printed pictures and board work, while in the present they use projectors, videos, and visual media. This change supports Scott and Ytreberg's (1990) emphasis on multisensory learning and Cameron's (2001) view that visual support helps children understand meaning.

Technology is effective when it strengthens existing strategies such as demonstration, movement, and visual input.

Despite curriculum changes, the core teaching strategies remain stable. Teachers continue to use TPR, songs, gradual instruction, and emotional support regardless of curriculum labels. This stability reflects the idea proposed by Pinter (2006) and Cameron (2001) that young learners' characteristics remain consistent over time. Teaching strategies that align with these characteristics continue to be effective even as educational policies change.

In general, the findings show that primary school teachers with decades of experience consider the key to teaching young learners not to be the comprehensive use of pedagogical methods, but rather the ability to build closeness with their students. It serves as a reminder for primary school teachers that fostering a close teacher-student relationship is fundamental in teaching. Effective English teaching strategies for young learners are those that match their cognitive, emotional, and physical characteristics. Emotional closeness, gradual instruction, TPR, songs, and natural communication are consistently used because they support meaningful learning and student engagement. These strategies have remained effective from the past to the present because they are grounded in how young learners learn and respond in the classroom.

## CONCLUSION

This study explored the teaching strategies used by teachers in teaching English to young learners and identified strategies that have remained effective from the past to the present. Based on the findings, English teaching for young learners is strongly influenced by learners' cognitive, emotional, and physical characteristics, as well as the closeness between teachers and students, rather than by changing curricula. The findings showed that teachers consistently use strategies that create a supportive and comfortable learning environment. Emotional closeness between teachers and students helps young learners feel secure and ready to participate in classroom activities. This emotional foundation supports the use of other strategies and encourages students to engage actively in learning English.

The study also concludes that gradual introduction of English is an effective approach for young learners. Beginning with basic elements such as letters and pronunciation and progressing to more complex language forms allows students to learn in line with their developmental stages. This approach prevents cognitive overload and helps learners build confidence as their language ability develops. In addition, strategies that involve physical movement and enjoyment, such as Total Physical Response and the use of songs, are shown to be effective and sustainable over time. These strategies help maintain students' attention, increase motivation, and support comprehension and memory. Their continued use from the past to the present indicates that methods based on active and multisensory learning remain relevant for young learners.

The findings further indicate that strategies lacking meaningful context, such as mechanical repetition, are no longer considered effective. Teachers have shifted toward more interactive and meaningful practices that encourage natural language use. The use of

technology, such as visual media and projectors, supports these strategies when it is used to enhance understanding rather than replace teacher-student interaction.

Overall, this study concludes that effective English teaching strategies for young learners are those that align with learners' developmental needs and learning characteristics. Emotional support, gradual instruction, active involvement, and meaningful communication remain effective regardless of curriculum changes. These findings suggest that teachers should prioritize learner-centered and developmentally appropriate strategies when teaching English to young learners.

## REFERENCES

- Afrianti, U. U., & Rustipa, K. (2024). Teaching English Vocabulary Using Total Physical Response (TPR) Method. *Jurnal Pendidikan Bahasa Inggris Undiksha*, 11(2), 213–219. <https://doi.org/10.23887/jpbi.v11i2.61065>
- Asher, J. J. (2012). *Learning another language through actions*. Sky Oaks Productions, Inc.
- Borg, S. (2003). Teacher cognition in language teaching: A review of research on what language teachers think, know, believe, and do. *Language Teaching*, 36(2), 81–109. <https://doi.org/10.1017/S0261444803001903>
- Braun, V., & Clarke, V. (2014). What can “thematic analysis” offer health and well-being researchers? *International Journal of Qualitative Studies on Health and Well-Being*, 9(1), 26152. <https://doi.org/10.3402/qhw.v9.26152>
- Brown, H. D. (2007). *Teaching by principles: An interactive approach to language pedagogy* (3rd ed.). Pearson Longman.
- Cameron, L. (2001). *Teaching languages to young learners*. Cambridge University Press.
- Clandinin, D. J., & Connelly, F. M. (2004). *Narrative inquiry: Experience and story in qualitative research*. John Wiley & Sons.
- Deni, R., & Fahriany, F. (2020). Teachers' perspective on strategy for teaching English vocabulary to young learners. *Vision: Journal for Language and Foreign Language Learning*, 9(1), 48–61. <https://doi.org/10.21580/vjv9i14862>
- Fitriyah, L., Nurkamto, J., & Marmanto, S. (2023). Teachers' roles in successful English teaching and learning. *Journal of Language Teaching and Research*, 14(2), 345–352.
- Harmer, J. (2007). *The practice of English language teaching*. Pearson Longman.
- Harmer, Jeremy. (2001). *The practice of English language teaching*. Longman.
- Hymes, D. (1972). On communicative competence. In *Sociolinguistics*. Penguin.
- Imran, M., Almusharraf, N., Sayed Abdellatif, M., & Ghaffar, A. (2024). Teachers' perspectives on effective English language teaching practices at the elementary level: A phenomenological study. *Heliyon*, 10(8), e29175. <https://doi.org/10.1016/j.heliyon.2024.e29175>

- Kementerian Pendidikan Dasar dan Menengah. (2025, October 17). *Perkuat kompetensi global, bahasa Inggris akan wajib pada sekolah dasar mulai TA 2027/2028*. Kemendikdasmen. <https://kemendikdasmen.go.id/siaran-pers/13897-perkuat-kompetensi-global-bahasa-inggris-akan-wajib-pada-sekolah-dasar-mulai-ta-20272028>
- Krashen, S. D. (1985). *Principles and practice in second language acquisition*. Pergamon.
- Linse, C. T., & Nunan, D. (2005). *Practical English language teaching: Young learners*. McGraw-Hill.
- Littlewood, W. (1981). *Communicative language teaching: An introduction*. Cambridge University Press.
- Maili, S. N. (2018). Bahasa Inggris pada Sekolah Dasar: Mengapa Perlu dan Mengapa Dipersoalkan. *JUDIKA (Jurnal Pendidikan Unsika)*, 6(1), 23–28. <https://doi.org/10.35706/judika.v6i1.1203>
- McKay, P. (2008). *Assessing young language learners*. Cambridge University Press.
- Mulyono, & Wekke, I. S. (2018). *Strategi pembelajaran*. Gawe Buku.
- Nguyen, T., & Nguyen, H. (2020). Teachers' perceptions about using songs in vocabulary instruction to young language learners. *Universal Journal of Educational Research*, 8(6).
- Oktavia, D., Mukminin, A., Fridiyanto, Hadiyanto, Marzulina, L., Harto, K., Erlina, D., & Holandyah, M. (2022). Challenges and strategies used by English teachers in teaching English language skills to young learners. *Theory and Practice in Language Studies*, 12(2), 382–387. <https://doi.org/10.17507/tpls.1202.22>
- Philip, J., Oliver, R., & Mackey, A. (2008). *Second language acquisition and the young learner*. John Benjamins Publishing Company.
- Pinter, A. (2006). *Teaching young language learners*. Oxford University Press.
- Richards, J. C., & Rodgers, T. S. (2001). *Approaches and methods in language teaching*. Cambridge University Press.
- Saldiraner, T., & Cinkara, E. (2021). The effect of songs on vocabulary learning of young learners. *Teaching English with Technology*, 21(2), 25–44.
- Sariakin, S., & Faizah, C. (2023). Strategi Pelaksanaan Pembelajaran Kosakata Bahasa Inggris pada Peserta Didik Usia Dini di TK Alifba Lampaseh Kota Banda Aceh. *NUSRA: Jurnal Penelitian Dan Ilmu Pendidikan*, 4(2), 314–326. <https://doi.org/10.55681/nusra.v4i2.935>
- Scott, W., & Ytreberg, L. (1990). *Teaching English to children*. Longman.
- Tsui, A. B. M. (2003). *Understanding expertise in teaching*. Cambridge University Press.

Wulandari, N. L. P. T., Ratminingsih, N. M., & Ramendra, D. P. (2020). Strategies implemented in teaching English for young learners in primary school. *Journal of Education Research and Evaluation*, 4(3), 227. <https://doi.org/10.23887/jere.v4i3.26228>