

EFL University Students' Reading Strategy Use across Personality Types in Understanding English Online Texts

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ABSTRACT

Reading strategies are the crucial factors in determining the success of reading comprehension, moreover in an online environment. However, previous research moderating participants' personalities in determining the reading strategy use is still inconclusive. This study aimed to explore the reading strategies used by EFL university students across personality types in understanding English online texts, and to examine the relationship between personality types and reading strategies. A quantitative study was administered to answer the research questions using a survey of online reading strategies (SORS). The research participants included 248 second-year university students in one of the universities in Indonesia. They were asked to attend the personality test to know whether they were extroverts or introverts. The findings revealed that extroverted students tended to use socio-affective strategies. Meanwhile, introverted students preferred to use global strategies. Interestingly, both types of students were noticed to employ support reading strategies occasionally. The significant but weak relationship between personality types and strategy use was merely found in global and socio-affective strategies. The results suggest that teachers in online reading classes should train their students to use various reading strategies so that the students with extroverted or introverted personalities can maximize their online reading comprehension.

Keywords: English online texts, online reading, personality types, reading comprehension, reading strategies.

INTRODUCTION

Much research has depicted that someone's personality can affect the level of success in language learning, especially in reading comprehension (Agler et al., 2019; Kokkinos et al., 2015). Extroversion as

one aspect of the personality classifications gained many tendencies in exploring the correlation between personality type and language learning. For instance, Oxford and Nyikos (1989) discovered that effective language learners select strategies depending on their personality types (either extroverted or introverted). Komarraju et al. (2011) labelled that individual with extroversion personalities are indicated as talkative, social, and assertive. Meanwhile, an introverted person can be described as quiet, private, and reserved (Weber, 2015). Those characteristics of extroverts and introverts can make a difference in the implementation of reading strategy.

Research on personality and reading strategies is very complicated and challenging, resulting in inconsistent, unsatisfactory, and contentious study findings. Oxford and Nyikos (1989) discovered that individuals' personalities explain their preferred learning strategies to achieve effective learning results. However, the description of what strategies suit their extroverted or introverted personalities remains indeterminate. Much research did not classify the detailed information regarding the preferred reading strategies used by extroverts and introverts (Kokkinos et al., 2015; Liyanage & Bartlett, 2013; Nordin et al., 2020; Safdarian et al., 2014). Those studies only focused on the overall strategies without providing precise results of their studies. Nevertheless, the classification of reading strategies is necessary to scrutinize; thus, English teachers can reflect on and consider their students' preferences of reading strategies (Zhang, 2008) as reading strategies might influence the success of students' reading performance (Anggraini et al., 2022; Bergey et al., 2019).

Besides that, research on the relationships between personality types or traits and language learning strategies has not been comprehensively or practically researched compared to other variables of individual differences since personality is interconnected with other variables inevitable in learners' demographic backgrounds. Agler et al. (2019) found a negative relationship between extroversion personalities and reading strategies. It can be inferred that the more extroverted the readers are, the fewer the reading strategies they will employ in understanding English texts. In contrast to Agler et al.'s (2019) findings, Ehrman (2008) previously unearthed that the relationship between personality types and strategies was positive and significant. She argued that extroverts are more inclined to be passionately and enthusiastically engaged with the practices associated with language learning; hence they are more likely to succeed.

In light of the discussion above, understanding the classification of reading strategies based on readers' personalities and the relationship between variables (i.e., personalities and reading strategies) is necessary to re-evaluate. Therefore, the authors of the present study formulated the research questions as follows:

1. What reading strategies are most frequently used by extroverted and introverted students in understanding English online text?
2. Is there any significant relationship between personality types and reading strategies?

METHOD

Participants

Participants included in the present study were 248 English Language Teaching students attending reading classes at one of the universities in Indonesia. There were 176 female (70.97%) and 72 male (29.03%) students. They were in the second year of their studies. Before conducting the research, the authors asked the participants to participate in the research voluntarily. They needed to sign a consent form whether their personal data, i.e., personality test results, could be taken into the study. After returning the form, they followed some research steps, such as reading an English online text and filling out a survey of reading strategies.

Instruments

Personality Test. A Big-Five Inventory (BFI) Personality Test was employed to discover students' extroversion personalities. The authors instructed the students to access a website, namely <https://openpsychometrics.org/tests/IPIP-BFFM/>. The test consisted of 50 statements that indicated the students' tendencies in their personal lives, for example, whether they like to socialize. If the students complete the test, the result will automatically appear and show their indications. The score ranged from 0 to 100. The interpretation of the results can be seen from the score. If the score showed 0 to 50, it indicated that the students were introverted, and if the score showed 51 to 100, it indicated that the students were extroverted. After doing the test, the participants were divided into two types of extroversion personalities, i.e., extroverts (N=121) and introverts (N=127).

Reading strategy survey. Students' reading strategies were assessed using a survey of reading strategies (SORS). SORS was initiated by Mokhtari and Sheorey (2002). However, since the current study consisted of four types of reading strategies: global strategies, problem-solving strategies, support strategies, and socio-affective strategies, the authors used an adapted survey of reading strategies proposed by Anggraini et al. (2022). The survey comprised thirty-eight items rated on a 5-point Likert scale that evaluates reading strategies used in online reading comprehension. The Cronbach alpha (α) of the survey is 0.948. This value interpreted that the survey has high reliability to use for the research.

Procedure.

After accessing appropriate informed consent from the university administration and participants elucidating anonymity, confidentiality, and the consensual rights of the participants, the authors asked the students to join a BFI personality test as the first stage of the research. The average time to spend on completing the test was around 20 minutes. The students need to read an English online text entitled "The Rise of Fake News" in the next meeting. The text was retrieved from <https://learnenglishteens.britishcouncil.org/skills/reading/advanced-c1-reading/rise-fake-news>. Thirty minutes were given to the students to read the text. The website also provided a quiz to check readers' comprehension of the text they read. They can access the quiz, yet the score was not included in the present study. The authors would merely like to know the strategies employed by the students during the comprehension. After completing the reading comprehension process, the SORS was administered to check their reading strategies in comprehending the English online text. The results of SORS were then considered for further analysis to answer the research questions.

Data Analysis

There were two research questions in the current research. The first research question was to know the most frequently-used reading strategies utilized by students across their extroversion personalities. To answer this research question, the authors performed descriptive statistics to describe the mean of reading strategies. Then, the second research question was answered by using inferential statistics. As the second research question was to find whether there was any significant relationship between personality and reading strategies, Pearson-correlation was accomplished to depict the relationship. All the statistical analyses were conducted using the SPSS version 26.

FINDINGS

The most frequently-used reading strategies across personality types

After analyzing the data, the authors discovered the most frequently-used reading strategies of extroverts and introverts. Table 1 portrays the use of reading strategies employed by the participants.

Table 1
Descriptive statistics of reading strategies across extroversion personalities

| | Extroverts | | | Introverts | | |
|----------------------------|------------|------|------|------------|------|------|
| | N | M | SD | N | M | SD |
| Global Strategies | 121 | 3.46 | 0.38 | 127 | 3.58 | 0.37 |
| Problem-solving Strategies | 121 | 3.46 | 0.33 | 127 | 3.49 | 0.33 |
| Support Strategies | 121 | 3.37 | 0.38 | 127 | 3.28 | 0.38 |
| Socio-affective Strategies | 121 | 3.53 | 0.34 | 127 | 3.37 | 0.31 |

Descriptive statistics were accomplished to know the students' reading strategies to know the means (M) and the standard deviations (SD). Based on Table 1, it can be concluded that extroverts most frequently used socio-affective strategies to understand the English online text (M= 3.53, SD= 0.34). Meanwhile, the least-frequently used strategies applied by them were support strategies (M= 3.37, SD= 0.38). Global and problem-solving strategies became the second and third favoured strategies of students with extroverted personalities.

Table 1 additionally depicts the reading strategies utilized by introverted students. Unlike the extroverted students, students with introverted personalities tended to use global strategies as their preferred strategies in comprehending the text (M= 3.58, SD= 0.37). The second top strategies were problem-solving strategies (M= 3.49, SD= 0.33), followed by socio-affective strategies (M= 3.37, SD= 0.31). Like the results of reading strategies applied by extrovert students, introverts put support strategies as the least-frequently used strategies for reading English online text. It can be inferred that both types of personality rarely practiced support strategies in online reading sessions.

The relationship between personality types and reading strategy use.

Two variables (i.e., personality types and reading strategy use) were explored to find the degree of relationship between them. The first variable, personality types, became the independent variable in the research. On the other hand, the use of reading strategies was the second variable classified as the dependent variable. The relationship between both variables as illustrated in the following (see Table 2).

Table 2
The *Pearson* Correlation Analysis

| | | Global Strategies | Problem-solving Strategies | Support Strategies | Socio-affective Strategies |
|-------------------|----------------------------|-------------------|----------------------------|--------------------|----------------------------|
| Personality Types | <i>Pearson Correlation</i> | .168** | .049 | -.117 | -.235** |
| | <i>Sig. (2-tailed)</i> | .008 | .439 | .065 | .000 |
| | <i>N</i> | 248 | 248 | 248 | 248 |

** . Correlation is significant at the 0.01 level (2-tailed).

The findings of the relationship display that there was a significant relationship between personality types and global strategies ($Pvalue=0.008$). However, the *Pearson* correlation indicated a positive but low degree of relationship between both variables. The relationship between problem-solving and support strategies did not confirm any significant relationship (i.e., $P-values$ were less than 0.05). Therefore, the authors cannot express any further information regarding the degree of relationship between them.

Furthermore, socio-affective strategies demonstrated a significant relationship between personality types and the reading strategy category ($Pvalue=0.000$). The relationship degree was negative and weak. It can be interpreted that the extrovert students used the socio-affective strategies more frequent than the introvert students. Nevertheless, the degree of relationship between global and socio-affective strategies was remarkable to discuss. Based on Table 2, it can be considered that the *Pearson* correlation degree of socio-affective strategies was higher than global strategies. Thus, the robust relationship between personality types and reading strategy use was denoted by socio-affective strategies.

DISCUSSION

The current study primarily deals with the reading strategies used by EFL university students across their personality types in understanding English online text. Reading strategies were explored using a questionnaire (SORS), and the personality types were examined by employing a BFI personality test. Based on the findings of descriptive statistics in seeking the most-favoured reading strategies, it was uncovered that extroverts employed socio-affective strategies. The results are in line with Obralic and Mulalic (2017). They investigated general learning strategies used by 70 Bosnian university students, and it was found that the students were categorized as high preferer in applying social learning strategies. Moreover, the outcome of the current study confirmed the detailed information regarding students' personality types. As the nature of

extroverts is interested in socializing (Arpaci et al., 2018; Marshall et al., 2015), it was no doubt that the students with extroverted personalities in the present study utilized this reading strategy category more frequently than other strategies in comprehending the text. Li and Chignell (2010) upheld that the extroverts' ability to express themselves in positive emotional words while reading online text also became the reason why they can employ the socio-affective strategy proficiently.

Nevertheless, another discovery in the present study revealed that introverts did not accomplish socio-affective strategies as frequently as extroverts. They selected to use global reading strategies as their preferences for understanding the text. The outcome was different from the research findings of Agler et al. (2019) and Öz (2016). They disclosed that the more extroverts the students were, the more metacognitive awareness they had. Metacognitive awareness deals with the reading strategies, such as planning, controlling, and evaluating readers' understanding (Sheorey & Mokhtari, 2001). Those strategies were included in global and problem-solving strategies. However, the authors divulged the opposite conclusion about extroverted students in the present study. Extroverted students were unearthed as having less metacognitive awareness of reading strategies in the online reading session. Liyanage and Bartlett (2013) contended that the various findings of reading strategies used by readers across personality types occurred due to the chameleon effect. Extroverts and introverts are enhanced or disguised for specific strategies determined by their personality, including high and low neuroticism they possess. Therefore, personality influences motivational inspiration or barriers to learning strategies, enabling or hindering their utilization (Mumford & Gustafson, 1988).

Another interesting verdict revealed in the present study is the means of support strategies indicating the lower use. Both extroverts and introverts did not show as high strategy users in applying support strategies. Regardless of personality types, the result lends encouragement to previous studies in terms of the use of support strategies (Anggraini & Cahyono, 2020; Dabarera et al., 2014). Support strategies comprise the employment of practical strategies, such as using a dictionary and annotating the important parts (Mokhtari & Reichard, 2002). It is supposed that the concept of online reading contributed to the use of this strategy category (Anggraini et al., 2022). The students might not understand how to enact the strategies in online reading. For example, online texts do not provide readers with the convenience of copying the words or giving a marker to the texts. The phenomenon can recommend to the website developer to improve the page, mainly containing English online texts to have those features. As a result, readers can utilize support reading strategies to comprehend the texts better.

Furthermore, the current findings supported and added meaningful marks to the analyses of the relationship between personality and reading

strategies (Liyanage & Bartlett; 2013; Safdarian et al., 2014; Turkyilmaz, 2015). Previous studies merely encountered the correlation between personality types and overall reading strategies. Yet, the current study answered the inconclusive findings and depicted the direct relationship between personality types and each category of reading strategies. The present study uncovered that there was a significant relationship between personality types and reading strategies in global and socio-affective strategies. The results were in contrast with Anggraini et al. (2022) in researching the interaction of reading proficiency and personality types on online reading strategies. It was explored in their study that there was a significant relationship between the personality types and support and socio-affective strategies. The different conclusions might be due to the total number of reading sessions. On the one hand, they conducted three meetings for online reading sessions in their study. On the other hand, the current study completed one meeting to analyze the students' online reading strategies.

CONCLUSION

Readers must be able to employ various reading strategies effectively to understand the English online texts better. The present study's objectives were to discover the reading strategies used by extroverts and introverts and to depict the relationship between personality types and reading strategy use. The findings disclosed that extroverts preferred to use socio-affective strategies as their natural ability is to socialize. Meanwhile, introverted readers most frequently utilized global reading strategies to comprehend the English online text. Therefore, English teachers need to understand the favored strategies of their students across personality types. They can also improve their students' knowledge by teaching diverse online reading strategy use categories.

The recommendations for future research are also discussed in this study. The authors acknowledge that future studies can involve different personality types, namely neuroticism since it can affect the use of reading strategies. As the present study only conducted one online reading session, more online reading sessions are also required for future studies to describe the patterns of reading strategies in detail. This motivation can concede the limitation of the study. Consequently, future studies can perform more online reading sessions in their research to obtain a deeper understanding of online reading strategy use.

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REFERENCES

- Agler, L.-M. L., Noguchi, K., & Alfsen, L. K. (2019). Personality traits as predictors of reading comprehension and metacomprehension accuracy. *Current Psychology*. <https://doi.org/10.1007/s12144-019-00439-y>
- Anggraini, M. P., & Cahyono, B. Y. (2020). Scrutinizing EFL learners' online reading strategy use across proficiency levels. *XLinguae*, 13(4), 190–200. <https://doi.org/10.18355/XL.2020.13.04.14>
- Anggraini, M. P., Cahyono, B. Y., Anugerahwati, M., & Ivone, F. M. (2022). The interaction effects of reading proficiency and personality types on EFL university students' online reading strategy use. *Education and Information Technologies*. <https://doi.org/10.1007/s10639-022-10979-9>
- Arpaci, I., Baloğlu, M., & Kesici, Ş. (2018). The relationship among individual differences in individualism-collectivism, extraversion, and self-presentation. *Personality and Individual Differences*, 121, 89–92. <https://doi.org/10.1016/j.paid.2017.09.034>
- Bergey, B. W., Parrila, R. K., Laroche, A., & Deacon, S. H. (2019). Effects of peer-led training on academic self-efficacy, study strategies, and academic performance for first-year university students with and without reading difficulties. *Contemporary Educational Psychology*, 56, 25–39. <https://doi.org/10.1016/j.cedpsych.2018.11.001>
- Dabarera, C., Renandya, W. A., & Zhang, L. J. (2014). The impact of metacognitive scaffolding and monitoring on reading comprehension. *System*, 42, 462–473. <https://doi.org/10.1016/j.system.2013.12.020>
- Ehrman, M. E., 2008. Personality and good language users. In C. Griffiths (Ed.), *Lessons from good language learners* (pp. 61-62). Cambridge University Press.
- Kokkinos, C. M., Kargiotidis, A., & Markos, A. (2015). The relationship between learning and study strategies and big five personality traits among junior university student teachers. *Learning and Individual Differences*, 43, 39–47. <https://doi.org/10.1016/j.lindif.2015.08.031>
- Komaraju, M., Karau, S. J., Schmeck, R. R., & Avdic, A. (2011). The Big Five personality traits, learning styles, and academic achievement. *Personality and Individual Differences*, 51(4), 472–477. <https://doi.org/10.1016/j.paid.2011.04.019>
- Li, J., & Chignell, M. (2010). Birds of a feather: How personality influences blog writing and reading. *International Journal of Human-Computer Studies*, 68(9), 589–602. <https://doi.org/10.1016/j.ijhcs.2010.04.001>
- Liyanage, I., & Bartlett, B. (2013). Personality types and languages learning strategies: Chameleons changing colours. *System*, 41(3), 598–608. <https://doi.org/10.1016/j.system.2013.07.011>

- Marshall, T. C., Lefringhausen, K., & Ferenczi, N. (2015). The Big Five, self-esteem, and narcissism as predictors of the topics people write about in Facebook status updates. *Personality and Individual Differences*, 85, 35–40. <https://doi.org/10.1016/j.paid.2015.04.039>
- Mokhtari, K., & Reichard, C. (2004). Investigating the strategic reading processes of first and second language readers in two different cultural contexts. *System*, 32(3), 379–394. <https://doi.org/10.1016/j.system.2004.04.005>
- Mokhtari, K., & Sheorey, R. (2002). Measuring ESL students' awareness of reading strategies. *Journal of Development Education* 25(3), 2–10.
- Mumford, M. D., & Gustafson, S. B. (1988). Creativity syndrome: Integration, application, and innovation. *Psychological Bulletin*, 103(1), 27–43. <https://doi.org/10.1037/0033-2909.103.1.27>
- Nordin, L., Razak, N. Z. A., Wahid, A. & Syukri, A. (2020). The relationship between personality traits and language learning strategies among the students of engineering technology. *Journal of Critical Reviews*, 7(8), 47-51.
- Obralic, N. & Mulalic, A. (2017). Correlation between personality traits and language learning strategies among IUS students Almasa Mulalic. *Journal of Applied Linguistics and Language Research* 4(5): 76-84.
- Oxford, R., & Nyikos, M. (1989). Variables affecting choice of language learning strategies by university students. *The Modern Language Journal*, 73(3), 291–300. <https://doi.org/10.1111/j.1540-4781.1989.tb06367.x>
- Öz, H. (2016). The importance of personality traits in students' perceptions of metacognitive awareness. *Procedia: Social and Behavioral Sciences*, 232, 655-667.
- Safdarian, Z., Ghyasi, M., & Farsani, M. A. (2014). How reading strategy use and personality types are related? *The Reading Matrix*, 14(1), 121-135.
- Sheorey, R., & Mokhtari, K. (2001). Differences in the metacognitive awareness of reading strategies among native and non-native readers. *System*, 29(4), 431–449. [https://doi.org/10.1016/S0346-251X\(01\)00039-2](https://doi.org/10.1016/S0346-251X(01)00039-2)
- Türkyılmaz, M. (2015). The relationship between reading attitude, metacognitive awareness of reading strategies, personality and self-regulation: *A Study of Modeling. Education*, 136, 11–18.
- Weber, M. R. (2015). The relationship between personality and student learning. *Journal of Hospitality & Tourism Education*, 27(4), 135–146. <https://doi.org/10.1080/10963758.2015.1089511>
- Zhang, Y., 2008. The role of personality in second language acquisition. *Asian Social Science*. 4(5), 58-59.