

Exploring Environmental Awareness through Journal Writing of Thai EFL Undergraduate Students

Kewalin Pawabunsiriwong

English Language Program, Faculty of Humanities and Social Sciences Khon Kaen University, Thailand E-mail: pkewal@kku.ac.th

Abstract

Journal writing as an informal writing task should be integrated in writing classes so as to provide ample opportunities for student writers to practice various writing tasks and to infuse their personal experience in those journal entries. Apart from being more student-directed, journal writing is a place where students are allowed to reflect upon topics of their own interest or assigned topics from the teachers. However, writing tasks will be more meaningful for students to perform if they are closely associated with students' interest or current situations. This study thus intends to shed light on environmental awareness articulated by Thai EFL undergraduate students in their journal writing. Drawing from 74 writing samples of journal entries by Thai EFL student writers from three independent groups, quantitative methods of content analysis were employed to scrutinize to what extent Thai EFL undergraduate students' journal writing disclose environmental awareness and to examine differences in environmental awareness among the three groups of students. Overall, the results clearly revealed that the most frequent environmental issues expressed in Thai EFL undergraduate students' journal entries were waste pollution (34.6%), saving electricity (15%), and water pollution (13.6%). In addition, other environmental concerns that students were aware of included issues such as forest (13.2%), public transportation (12.3%), air pollution (5.5%) and others (5%), respectively. However, other environmental aspects such as soil pollution and noise pollution were hardly addressed in student journals. Furthermore, there were slight differences in environmental awareness among the three groups of students. Apart from the main focus of environmental awareness expressed in students' journals, this study may yield some important implications for EFL writing instruction such as the value of assigning students to write about meaningful topics of current situations or environmental issues.

Keywords: EFL, environmental awareness, journal writing

Paper Number: ICHUSO-199



1. Introduction

It is axiomatic that we primarily use language for communication, thus we generally write to express ideas and convey meanings, attitudes, and feelings through our written texts (Grabe & Kaplan, 1996; Halliday & Hasan, 1989). However, writing in English as a foreign language (EFL) is not an easy task for EFL student writers. Clearly, writing is the most demanding language skill, encompassing students' natural reflections on their speaking, listening, and reading (Bowen, Madson, Hilferty, 1985; Leki, 1991). In addition, second language (L2) writing is deemed a multifaceted process entailing both a wide range of cognitive actions in second language acquisition (SLA) and the genres, intentions, and principles of the expected L2 discourse (Polio & Williams, 2009). Indeed, writing successfully in English requires a vast array of competence, namely "grammatical competence, discourse competence, sociolinguistic competence, strategic competence" (Canale & Swain cited in Hyland, 2003, p. 32). As a result, when producing a piece of written texts, EFL student writers expect to focus on a variety of linguistic and writing norms. (Polio, 2012).

Undoubtedly, L2 student writers frequently encounter more difficulties than L1 student writers do, for example, manipulating language, having limited vocabulary, and needing more time to compose, as seen in the study by Raimes (as cited in Leki, Cumming, & Silva, 2008). However, Reid (2006) asserts that this does not mean that L2 student writers are less cognitively skilled than others, but that acquisition and usage of a second language and is incredibly challenging for L2 student writers in regards to linguistics, rhetoric, and culture. That is to say, in order to improve L2 writing skills, EFL learners require increased amounts of everything: they need a larger number of written-text examples to learn from, further practice in writing, ample chances to develop writing strategies, more knowledge of genre, further practice to improve in vocabulary and grammar, and more feedback provided for their writing (Weigle, 2013).

Therefore, when designing lessons for writing classes, writing teachers should provide two types of writing tasks: formal and informal tasks. Typically, formal writing tasks comprise personal stories; explanatory or persuasive writing; first-or second-degree research studies; narratives of literacy; or professional writing assignments specific to genre, such as laboratory reports, business plans, legal correspondence, or published reports on real-life situations; whereas informal writing may include personal blogs or journals; free writing in the classroom; or written assignments to be completed at home (Ferris, 2012). Ferris further suggests that teachers should offer ample opportunities for students to experience and practice various writing tasks; this should include written assignments on a variety of topics that allow them to write about topics they are interested in.

So far, the researcher has realized that the primary place that students can practice their English writing skills is in the classroom. It is necessary for writing teachers to provide ample opportunities for EFL student writers to practice their writing skills. In doing so, apart from formal written assignments, students in my writing class are required to perform informal tasks, i.e. writing weekly journals. In fact, students have to write at least 200 word journal entries weekly in order to develop their writing fluency; these journals are scored in terms of completeness and punctuality. Generally, students can choose topics of their own interest, but sometimes the writing teacher also assigns topics that are relevant to current situations in order to make writing tasks more meaningful as well as promote students to become better global citizens by raising awareness on the world around them, especially about environmental issues. This is in line with Setyowati and Widiati (2014)'s assertion that it is essential to raise students' environmental awareness due to an increasing number of environment challenges.



1.1 Literature Review

1.1.1 Journal Writing

As previously mentioned, journal writing is discernible as an alternative informal writing task that writing teachers should design in their writing lessons in conjunction with formal writing assignments. The incorporation of journal writing into writing classes benefits student writers in numerous ways. First, since journal writing can be completed at home, students can spend as much time as they want writing journals. In the same vein, Nadell, Langan, and Comodromos (2009) strongly believe that gaining fluency in writing is a long process. Composing journals definitely provides ample opportunities for students to experience and practice writing skills. In addition, journal writing can promote a real sense of belonging for student writers. Students have freedom to choose topics they are interested in. As a result, this allows them to explore their own writing abilities without concerns about spelling, grammar, sentence structure, or organization (Nadell, Langan, & Comodromos, 2009). Finally, keeping journals can be invaluable writing tools for students in the future. With careful examination of their own thoughts, student have to invest themselves and their time to reflect either upon topics of their own interest or upon assigned topics. When students have accumulated their journal entries during a semester, they may find their reflections and insights to be a springboard for new writing in the future (Kirby & Crovitz, 2013). Therefore, Kirby and Crovitz (2013) support this point that journal writing is another invaluable writing tool that can help students increase their writing and general language ability.

In Tuan's study (2010), the researcher examined whether journal writing can improve students' writing skill in terms of fluency and accuracy as well as nurture students' writing motivation. Eighty-five second-year university students from two classes at the Faculty of English Linguistics and Literature in in Ho Chi Minh City voluntarily participated in this study. They were classified as the experimental group and the control group. Students in the experimental group were required to write journal entries outside the classroom apart from doing in-class writing activities and take-home written assignments. Students in the control group were only asked to complete the in-class writing activities and take-home written assignments. Results from Tuan (2010) clearly disclosed that journal writing can boost student writers' scores and generate motivation.

In another study, Liao and Wong (2010) scrutinized the efficacy of English dialogue journal writing (DJW) on students' writing fluency, reflections, anxiety, and intrinsic motivation, as well as the students' responses to journal writing. Subsequently, drawing from 984 students' journal entries and open-ended questions in conjunction with the interviews of 10th-grade students in Taiwan, results from their study revealed that dialogue journal writing could improve motivation and self-awareness as writers as well as fluency and general writing skills in terms of content, vocabulary, and structure in addition to reducing students' writing apprehension. With evidence drawn from previous studies, it is clearly shown that writing journal is beneficial for EFL students. Nadell et al. (2009) assert that writing fluently does not occur overnight; as a result, it is recommended to keep writing journal regularly. Moreover, they state that journal entries can be considered as a meaningful writing source and can promote self-awareness (Nadell et. al., 2009). Indeed, writing teachers should incorporate journal writing into their lessons because it allows students to compose meaningful writing as well as practice writing skills without concern for spelling, grammar, sentence structure, or organization.

1.1.2 Environment Awareness

Nowadays we are all aware that there are increasing environmental problems. These major environmental problems include climate change, destruction of natural habitats and

Paper Number: ICHUSO-199 1159



biodiversity, agricultural issues, and overuse of water resources, deserving prime concern from all humanity (Bozdogan, Sahinler, & Korkmaz, 2016; as cited in Yazici & Babalik, 2016). Essentially, environmental awareness helps individuals improve beneficial attitudes to the environment (Tosun, 2013). In addition, environmental awareness is one of significant attributes in establishing development that will last without hurting the environment (Yazici & Babalik, 2016).

According to Tosun (2013), environmental awareness encompasses beliefs and principles about the environment as well as the way that people act upon those principles and beliefs. Alternatively, environmental awareness is construed as knowing information about both issues and possible solutions of environmental problems (Bozdogan et al., 2016). Therefore, in this study, environmental awareness refers to any comments or concerns towards the environment issues articulated by student writers through their journal entries.

Regarding the research on environmental awareness, Tosun (2013) conducted a survey study of 445 students at Uludag University Vocational School of Social Sciences examining the environmental awareness levels of college students. The research objective aimed at determining students' points of view on the environment, "their perception of nature, their environmentalist attitudes and their opinions in respect of environmental protection" (Tosun, 2013, p. 58). The findings illustrated that these university students had a degree of environmental knowledge; however, unfortunately, it seemed that they did not feel responsible to protect the environment. In addition, results showed that their cognitive knowledge did not lead to attitudes that would lead to helping the environment (Tosun, 2013).

Another study was carried out by Bozdogan, Sahinler, and Korkmaz (2016) to investigate students' beliefs about environmental problems, both at the local and national levels. In addition, the study investigated the influence of gender and education levels. A 5-point Likert scale questionnaire was administered to 1310 university students of the Hatay Mustafa Kemal University students (Bozdogan et al., 2016). The results revealed that the level of awareness of university students was higher than that of attitude. In addition, university students viewed erosion as the least significant problem and water pollution as the most significant issue (Bozdogan, et al., 2016). In terms of gender, however, female students perceived waste, while male students viewed water pollution and waste as the greatest problem, and 'erosion' was considered the smallest problem.

1.2 Objectives of This Study

The ultimate goal of this current study is to shed light on environmental awareness articulated by Thai EFL undergraduate students in their journal writing. Thus, in order to enhance understanding with regard to environmental awareness in an EFL writing class, the objectives of this study are to scrutinize to what extent Thai EFL undergraduate students' journal writing disclose environmental awareness and to examine differences in environmental awareness among three groups of students.

1.3 Research Question

Because the exploration of the environmental awareness of Thai EFL university students in journal entries is at the heart of the current study, the research questions guiding this study are: (1) To what extent does Thai EFL undergraduate students' journal writing show environmental awareness? and (2) Are there any differences in environmental awareness among three groups of Thai EFL undergraduate students in this current study?



As mentioned earlier, environmental awareness is highlighted in this present study. The researcher will use the term *environmental awareness*, which refers to any comments or concerns towards the environment issues articulated by student writers in their journal entries. However, the level of environmental awareness is not focused upon and examined in this paper.

2. Method

In this current study, quantitative methods of content analysis were performed so as to explore environmental awareness of Thai EFL student writers expressed through their written journal entries. According to Bordens and Abbott (2014), the employment of content analysis has the advantage of analyzing written samples for the frequency or occurrence of specifics or events. Doing content analysis, therefore, helped the researcher to systematically assign the occurrences of environmental-related issues and accurately analyze the data.

2.1 The Data Source

Because the exploration of the environmental awareness of Thai EFL university students in journal entries is at the heart of the current study, the research data were drawn from journal entries composed by Thai EFL student writers enrolling in a paragraph writing course of a large university located in the Northeast of Thailand. These 74 writing samples of journal entries were comprised of 28 journal entries from Group 1, and 25 from Group 2, and 21 from Group 3. These writing samples were authentic since they were primary data of naturally-occurring language texts and were found in a real educational context at the EFL university level in 2018.

2.2 Data Collection

In order to answer the two research questions related to the examination of environmental awareness expressed by Thai EFL undergraduate students in their journal writing, the researcher collected data derived from 74 journal entries which responded to the question of how they helped save the earth. This topic sprang from real situations in daily life. These 74 writing samples of journal entries were drawn from three groups of students in a paragraph writing class in the first semester of the academic year 2018.

2.3 Data Analysis

As mentioned in the previous section, quantitative methods of content analysis were undertaken in this present study. In order to explore environmental awareness of Thai EFL student writers expressed through their written journal entries, I initially adapted some of the ideas in coding environmental awareness from the work of Tosun (2013) which classified environmental problems in Turkey into nine aspects: (1) air pollution, (2) waste pollution, (3) water pollution, (4) forests, (5) soil pollution, (6) noise pollution, (7) unplanned urbanization, (8) erosion, and (9) others. After that, I carried out the pilot study by employing approximately five writing samples of Thai EFL students' journal in order to try out the coding categories. However, it discovered that the issues on unplanned urbanization and erosion were rarely mentioned by Thai student writers. As a result, I decided to moved them out from the major categories. Hence, the coding categories adapted from Tosun's (2013) work encompassed (1) air pollution, (2) waste pollution, (3) water pollution, (4) forests, (5) soil pollution, (6) noise pollution, and (7) others. In addition to those seven selected categories, I also added two more coding categories which emerged from the pilot

Paper Number: ICHUSO-199



study to analyze the research data, i.e. (8) saving electricity and (9) public transportation. Thus, overall, there were nine coding categories employed in this study: (1) air pollution, (2) waste pollution, (3) water pollution, (4) forests, (5) soil pollution, (6) noise pollution, (7) others, (8) saving electricity and (9) public transportation.

3. Results

This section reveals results yielded from the content analysis of 74 writing samples of journal entries in response to two main research questions guided in this study.

3.1 Research Question 1

To what extent does That EFL undergraduate students' journal writing show environmental awareness?

In response to Research Question 1, a total of 74 writing samples of students' journal entries were analyzed by employing the adapted Tosun's (2013) coding scheme for environmental awareness in conjunction with two coding categories emerging from the pilot study. Thus, there were nine coding categories employed in this study: (1) air pollution, (2) waste pollution, (3) water pollution, (4) forests, (5) soil pollution, (6) noise pollution, (7) others, (8) saving electricity and (9) public transportation. The analysis of overall students' environmental awareness is presented in Figure 1. Overall, this figure illustrates that the most frequent environmental issues expressed in Thai EFL undergraduate students' journal entries were *waste pollution* (34.6%), *saving electricity* (15%), and *water pollution* (13.6%). Furthermore, other environmental concerns that students were also aware of included issues in *forest* (13.2%), *public transportation* (12.3%), *air pollution* (5.5%) and *others* (5%), respectively. However, other aspects of environmental awareness on *soil pollution* (0.5%) and *noise pollution* (0.5%) were hardly addressed in Thai EFL undergraduates' journals in this study.

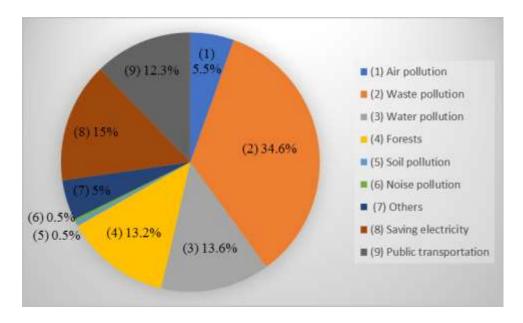


Figure 1 Overall Percentage of Issues in Environmental Awareness Expressed in EFL Undergraduate Students' Journals

Paper Number: ICHUSO-199



3.2 Research Question 2

Are there any differences in environmental awareness among three groups of Thai EFL undergraduate students?

To answer Research Question 2, the researchers performed content analysis by scrutinizing what issues on environmental awareness Thai EFL undergraduate students articulated through their journal writing and which ones were frequently addressed in each group. Consequently, writing samples comprised of 28 journal entries from Group 1, 25 from Group 2, and 21 from Group 3 were analyzed and compared in this study. The data in Table 1 revealed that all of the three Thai EFL student groups were most aware of *waste pollution*. To put in another way, out of 100 percent of environmental awareness, 28.40% of student writers in Group 1, 41.56% of those in Group 2, and 33.87% of those in Group 3 were highly aware of waste pollution.

Table 1:The Comparison of Environmental Awareness Expressed through Journal Writing of Thai EFL Undergraduate Students in Each Group

Environmental	Group 1 (%)	Group 2 (%)	Group 3 (%)
Awareness			
(1) Air pollution	2.47	6.49	8.06
(2) Waste pollution	28.40	41.56	33.87
(3) Water pollution	17.28	11.69	11.29
(4) Forests	16.05	9.09	14.52
(5) Soil pollution	1.23	0.00	0.00
(6) Noise pollution	0.00	0.00	1.61
(7) Others	4.94	5.19	4.84
(8) Saving electricity	14.81	15.58	14.52
(9) Public transportation	14.81	10.39	11.29

Apart from the most awareness of waste pollution, these three groups of undergraduate students apparently expressed their environmental concerns in different ways. For example, environmental awareness of students from Group 1 embodied water pollution (17.28%), forests (16.05%), saving electricity (14.81%), and public transportation (14.81%). However, environmental concerns of students from Group 2 included saving electricity (15.58%), water pollution (11.69%), public transportation (10.39%), and forests (9.09%). Similarly, journal entries of students from Group 3 reported an awareness of saving electricity (14.52%), forests (14.52%), water pollution (11.29%), and public transportation (11.29%). Surprisingly, all of three groups paid scant attention to the issues of soil pollution and noise pollution, as illustrated in Figure 2 below.

Paper Number: ICHUSO-199 1163



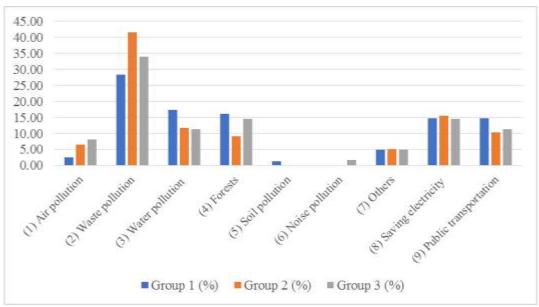


Figure 2 The Comparison of Environmental Awareness Expressed by Three Groups of Student Journal Writing

4. Discussion and Conclusion

The content analysis of 74 journal entries of Thai EFL undergraduate students revealed that waste pollution is the most frequent environmental issue that student writers in this current study were aware of. This accounted for 34.6%. In my opinion, this may result from the influence of news and media that students have been exposed to. Probably, the students in this study have recently been embedded with a great deal of news that might focus on the fight against plastic waste, e.g. MCOT (2014), Pisuthipan (2018), and Styllis (2018). For instance, the Thai government has made waste management a national priority in order to decrease foam and plastics usage according to Pisuthipan (2018). Likewise, the university where these student writers are studying also launched a project to raise awareness of energy conservation and to encourage plastic bag reduction at convenience stores, namely "KKU Say No to Plastic Bags" (Supanavong, 2018). Indeed, people in Thailand have currently attempted to endorse a ban on plastic bags. As a result, the student writers in this study are likely to be most aware of waste pollution. Based on their instances in journal entries, student writers frequently mentioned plastic bag reduction, a plastic straw ban, waste management, the 3R strategy (Reduce, Reuse and Recycle), the use of cloth bags instead of plastic bags, and taking reusable drink containers when going outside.

Moreover, the undergraduate students in this study were also relatively aware of environmental issues in saving electricity (15%), and water pollution (13.6%). In the content analysis, the data disclosed that many student writers stated the reduction of energy consumption such as turning off the lights when unnecessary or reducing the use of electricity. In my point of view, students had high awareness on saving electricity because campaigns about turning off the lights are prevalent at all local, national, and international levels. For example, Thailand has participated in the Earth Hour campaign which encourages people around the world to turn off the lights for one hour since 2008 (Kongsai, 2017). Indeed, this really reduces electricity consumption and also cultivates awareness on energy consumption among many people to some extent. Regarding water pollution, it is possible that students in this study often hear news coverage of



1165

drought situations in the Northeast region of Thailand where many of them live and study every year. Thus, this can raise particular awareness on water consumption. In students' journals, they addressed the lowering of water consumption, e.g. turning off the faucet while brushing their teeth. This current study yielded some similar environmental concerns in the work of Bozdogan et al. (2016). Their study also discovered that university students viewed water pollution as one of the most serious problems, while perceived erosion as a smaller one.

In fact, students in this study also expressed their high concerns about forest (13.2%) and public transportation (12.3%). That is because more and more people and both governmental and non-governmental sectors worldwide today are concerned primarily with green behavior and thinking (Nkwetisama, 2011). According to excerpts from their journals, some students wrote about saving trees and planting more trees. Interestingly, a student writer revealed that she wanted to grow some trees on the balcony to make the atmosphere become more cool and pleasant for her. With regard to public transportation, it seems that a lot of people in major provinces of Thailand regularly experience traffic jams during the rush hour, especially those in Bangkok. According to Fernquest (2017), the INRIX Global Traffic Scorecard ranked Bangkok as the 12th most traffic-congested city in the world. Consequently, traffic jams may make students become increasingly aware of the use of public transportation. For instance, some students choose to use KKU shuttle buses that the university provides instead of using their private vehicles.

In addition, other environmental concerns that students were aware of included issues in air pollution (5.5%), others (5%), soil pollution (0.5%) and noise pollution (0.5%), respectively. Some students believed that we should stop releasing greenhouse gases into the air and that the government should enforce the law to reduce greenhouse gas emissions in factories. The category of others included comments on using less chemicals, creating environmental awareness among people, and providing proper environmental information or even environmental education to people in society. However, Thai EFL undergraduates hardly addressed soil pollution and noise pollution in their journals. This may be partly because their lives are not affected by these issues. The examples discussed earlier show that undergraduate students are likely to become aware of environmental issues that may cause problems for them and are most relevant to them. Furthermore, their environmental awareness is seemingly influenced by campaigns or news they have been exposed to. Therefore, there should be more campaigns and news coverage so as to promote environmental awareness and environmental protection among people in society.

4.1 Conclusion

Journal writing can be discernible as an alternative informal writing task which writing teachers may wish to incorporate in their writing classes. Regarding to its numerous advantages for EFL student writers, it is deemed a valuable place where students can compose meaningful written pieces; without worry. Certainly, journal writing can benefit students' learning process and enhance —writing skills. However, how can a language lecturer; effectively incorporate environmental issues into written assignments of an EFL writing class? This question somewhat challenged me and made me ponder about it for many months until I started to undertake this study. Although this study might not a quintessential example model of incorporating environmental issues into writing tasks, it can be an option for EFL writing teachers to establish environmental awareness or show responsibility toward environmental protection. Initially, my primary intention in this study was to examine the environmental awareness expressed by Thai EFL undergraduate students through their journal writing. Based on the content analysis of students' journals, findings clearly indicated that Thai EFL undergraduate students in this study were most aware of environmental issues in waste pollution, saving electricity, and water pollution, respectively. Besides, they were also concerned about other issues such as forest, public transportation, air



pollution and others. However, students slightly expressed their concerns over soil pollution and noise pollution. To conclude, undergraduates' environmental awareness in this study may result from their individual perceptions and their exposure to campaigns and news around them.

4.2 Limitations and Suggestions for Further Research

This study is my first attempt to explore the environmental awareness expressed by Thai EFL university students through their journal entries; as a result, there are still some limitations on conducting such research. First, due to the small number of writing samples analyzed in this current study, the results cannot be generalized. Thus, in order to achieve generalization, more writing samples should be collected. In addition, data should be collected from multiple sources of data – data triangulation – which may improve reliability and confidence in study conclusions. For example, future research may include interviewing students and conducting a questionnaire in order to yield more insightful understanding of environmental awareness of undergraduate students. However, this study may help writing teachers be stimulated to think about the potential written assignments and activities that are more associated with students' interests and current events such as environmental issues.

5. References

5. References

live&authtype=ip,uid

- Bordens, K. S., & Abbott, B. B. (2011). *Research design and methods*: A process approach (9th ed.). New York: McGraw-Hill.
- Bowen, J. D., Madson, H., Hilferty, A. (1985). *TESOL Techniques and procedures*. London:Newbury House
- Bozdogan, E., Sahinler, S., & Korkmaz, E. (2016). Environmental awareness and attitudes in university students. An example from Hatay (Turkey). *Oxidation Communications*, 39(1–II), 661–672. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=117539611&site=eds-
- Fernquest, J. (2017, February 20). Bangkok traffic jams among world's worst. *Bangkok Post*. Retrieved October 4, 2018, from
- https://www.bangkokpost.com/learning/advanced/1201724/bangkok-traffic-jams-among-worlds-worst
- Ferris, D. R. (2012). Writing instruction. In A. Burns & J. C. Richards (Eds.), *The Cambridge guide to pedagogy and practice in second language teaching* (pp. 226-235). New York: Cambridge University Press.
- Grabe, W., & Kaplan, R. B. (1996). *Theory and practice of writing*: An applied linguistic perspective. London: Addison Wesley Longman Limited.
- Halliday, M.A.K., & Hasan, R. (1989). Language, context, and text: Aspects of language in a social-semiotic perspective. Oxford: Oxford University Press.
- Hyland, K. (2003). Second language writing. Cambridge: Cambridge University Press.Kirby, D. L., & Crovitz, D. (2013). *Inside out: Strategies for teaching writing* (4th ed.). Portsmouth, NH: Heinemann.
- Kongsai, T. (2017, March 16). Thais asked to honour Earth Hour and switch off. *The Nation*. Retrieved October 3, 2018, from http://www.nationmultimedia.com/news/national/30309304
- Leki, I. (1991). Teaching second language writing: Where we seem to be. *English Teaching Forum*, 2(April), 8-11.



- Leki, I., Cumming, A., & Silva, T. (2008). A synthesis of research on second language writing in English. New York: Routledge.
- Liao, M., & Wong, C. (2010) Effects of dialogue journals on L2 students' writing fluency, reflections, anxiety, and motivation. *Reflections on English Language Teaching*, 9(2), 139–170.
- MCOT (2014, February 1). Thailand launches anti-plastic bag campaign. Retrieved October 4, 2018, from http://www.pattayamail.com/thailandnews/thailand-launches-anti-plastic-bag-campaign-34576
- Nadell, J., Langan, J., & Comodromos, E. A. (2009). *The Longman writer: Rhetoric, reader, research guide, and handbook* (7th ed.). New York: Pearson Education.
- Nkwetisama, C. M. (2011). EFL/ESL and environmental education: Towards an eco-applied linguistic awareness in Cameroon. *World Journal of Education*, 1(1), 110-118.
- Pisuthipan, A. (2018, July 2). The time to combat plastic is now. Bangkok Post. Retrieved October 3, 2018, from https://www.bangkokpost.com/news/environment/1495978/the-time-to-combat-plastic-is-now
- Polio, C. (2012). The acquisition of second language writing. In S. M. Gass & A. Mackey (Eds.), *The Routledge handbook of second language acquisition* (pp. 319-334). Abington, OX: Routledge.
- Polio, C., & Williams, J. (2009). Teaching and testing writing. In M. Long & C. Doughty (Eds.), *The Handbook of language teaching* (pp. 486-517). Singapore: Wiley-Blackwell.
- Reid, J. (2006). "Eye" learners and "ear" learners: Identifying the language needs of international student and U.S. resident writers. In P. K. Matsuda, M. Cox, J. Jordan, & C. Ortmeier-Hooper (Authors), *Second language writing in the composition classroom: A critical sourcebook* (pp. 76-88). Boston, MA: Bedford/St. Martin's.
- Setyowati, L., & Widiati, U. (2014). Integrating environmental education into a genre-based EFL writing class. *English Teaching Forum*, 4, 20-27.
- Styllis, G. (2018, June 5). Thailand falling behind in global battle with plastic ... Retrieved October 3, 2018, from https://asia.nikkei.com/Economy/Thailand-falling-behind-inglobal-battle-with-plastic-waste
- Supanavong, U. (2018, August 27). KKU tough on reduction of plastics bags in convenience stores. Retrieved October 4, 2018, from https://www.kku.ac.th/news/v.php?q=0016092&l=en
- Tosun, E. K. (2013). Research on environmental awareness levels of university students: Example of Uludag University. *PARADOKS Economics, Sociology and Politicy Journal*, 9(2), 54–72. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=95057198&site=eds-live&authtype=ip,uid
- Tuan, L. T. (2010). Enhancing EFL learners' writing skill via journal writing. *English Language Teaching*, 3(3), 81-88.
- Yazici, N., & Babalik, A. (2016). Determination of environmental awareness of university students: the case of Suleyman Demirel University (SDU). *Environmental Earth Sciences*, 75(3), 1–8. https://doi.org/10.1007/s12665-015-5032-0
- Weigle, S. C. (2013). English as a second language writing and automated essay evaluation. In M. D. Shermis, J. Burstein, & S. Apel (Eds.), *Handbook of automated essay evaluation: Current applications and new directions* (pp. 36-54). New York, NY: Routledge.