Pedagogical Potentials of a Virtual Linguistic Landscape: Internet Memes as a Supplementary Tool in English Vocabulary Enhancement

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Abstract: Vocabulary is one of the most essential competencies in language learning, yet it remained the hardest to learn when taught using traditional approaches in teaching. In the Philippines, one factor attributed to this is the inadequacy of ICT-integrated learning materials. A growing body of literature has investigated the use of Linguistic Landscape (LL) in language classrooms to improve the vocabulary knowledge of the students. However, there is paucity in literature on linguistic representation in the digital sphere known as Virtual Linguistic Landscape (VLL) and its potential as a supplementary tool in vocabulary learning. This study employed a quantitative approach using a quasi-experimental research design to determine the effectiveness of using VLL in the form of internet memes in aiding the vocabulary learning of the students. The implementation includes the treatment using a VLL-Based Learning Plan with incorporated memes, then the pretest and posttest for the learners. The computed results of the students' pretest and posttest scores reported a 20.06% improvement percentage, which concludes that the vocabulary knowledge of the students in terms of its meaning, spelling, and contextual use has improved following the integration of internet memes.

Key Words: Virtual Linguistic Landscape (VLL); Linguistic Landscape (LL); vocabulary; internet memes

1. INTRODUCTION

The visibility of language in public spaces called Linguistic Landscape (LL) offer an authentic input for language learning (Aladjem & Jou, 2016). LL includes "road signs, advertising billboards, street names, place names, commercial shop signs, and public signs on governmental buildings" (Landry & Bourhis, 1997, as cited in Ferrarotti, 2017). Initial research studies on LL focused on multilingualism and sociolinguistics but through time, emerging literature found that LL can also be used as a resource for language learning and teaching (Cenoz & Gorter, 2021).

Vocabulary is a significant component of language learning. However, it is also the most challenging to learn and teach, due to the adherence to traditional teaching strategies. In the Philippines, there is a reported decline in meeting the vocabulary competency of junior and senior high school students (Santillan and Daenos, 2020). One factor is the teachers' inability to integrate ICT in the classroom (Dela Rosa, 2016). The current Filipino learners are already digital natives who are exposed to technology since birth. Thus, innovative pedagogical approaches are needed. LL is a viable tool to enhance English vocabulary while catering to the needs of digital native learners through its extended framework called Virtual Linguistic Landscape (VLL). VLL is the linguistic representation in the public sphere of electronic communication or cyberspace, such as the internet, electronic portals, websites, computer

multimedia, computer games, and social networking sites (Gomaa, 2020). It includes "images, sounds, drawings, and movement, in line with current theories about multimodality" (Shohamy, 2011, as cited in Aladjem & Jou, 2016). One example of VLL is internet memes which come in the form of an image, GIF, or video (Harshavardhan, Wilson D, & Kumar, 2019).

Existing literature utilize VLL as language resource to make learning transformative. Harshavardhan, Wilson D, and Kumar (2019) concluded that incorporating VLL in language classrooms reduces stress and maintains the learner's attention which improves retention of knowledge. However, despite the growing interest in VLL, little attention has been paid to the inclusion of VLL in the language classroom. Limited studies also explore the use of internet memes as a supplementary tool in language teaching. Thus, this study investigates the potential use of VLL, in the form of internet memes, as a supplementary tool in enhancing the vocabulary of 21st-century learners.

2. METHODOLOGY

2.1 Theoretical Framework

The underpinning theory of this study is Krashen's Input Hypothesis under SLA theory. In this hypothesis, Krashen (1997, as cited in Latifi et al., 2013) emphasizes the role of input to be 'roughly tuned' to their linguistic competence. Hence, the core of this hypothesis is to provide 'comprehensible input'. Litchman and VanPatten (2021) describe 'comprehensible input' as a language-making means to engage students and actively process the language. Hence, internet memes serve as an input for their particularly rich and authentic language-processing means.

2.2 Research Design

This study employed a One-Group Pretest-Posttest Quasi-Experimental research design that involves only a single experimental group without a controlled group for comparison (Creswell, 2014). This study aims to investigate the phenomenon of the potential use of VLL in the form of internet memes for English vocabulary enhancement. Moreover, it entails a quantitative study using numeric descriptions to analyze the phenomena through statistical data analysis (Watson, 2015).

2.3 Data Collection Procedure

The data gathering transpired upon securing approval from the research locale, an accredited Senior High School in Manila, Philippines. The respondents belong to one section under Science, Technology, Engineering, and Math (STEM), and are taking Reading and Writing subjects. The study used a convenience sampling method to select the participants.

The data-gathering procedure is divided into three phases: 1) pre-implementation, 2) implementation, and 3) post-implementation. The pre-implementation involved the selection of internet memes based on the established criteria, the validation of vocabulary exam and VLL Based Learning Plan (VLL- LP), a pilot study of the instruments, and administering of pretest. The implementation phase involved the implementation of VLLB-LP intervention for two weeks, in-class and in flipped class. Lastly, the post-implementation involved the administering of post-test.

2.4 Data Analysis

This study adopted the statistical treatment provided by Cece (2017) as this applies the same methodology. Moreover, it utilizes a paired sample t-test to determine the effectiveness of using internet memes in enhancing vocabulary to address the research questions and hypotheses.

3. RESULTS AND DISCUSSION

In line with the research aim and questions, Table 1 illustrates the vocabulary test scores of students before and after the intervention. Table 2 to Table 5 explain the significant difference between the two test scores to determine the potential use of VLL in the form of internet memes as a supplementary tool in enhancing vocabulary.

Table 1. Students' Scores for Pretest and Posttest

Student	Pre-test	Post-test
1	6	18
2	8	12
3	14	22
4	14	19

5	15	19
6	16	25
7	16	26
8	16	20
9	17	17
10	18	23
11	18	26
12	19	19
13	19	22
14	19	24
15	19	21
16	20	22
17	20	19
18	23	28
19	23	23
20	23	26
21	23	27
22	24	29
23	24	25
24	24	27
25	25	28
26	26	27
27	27	26

Table 1 shows the 27 participants and their corresponding scores from their pretest-posttest.

Table 2. Test-Retest Reliability

Test	N	Reliability
Pre-test	27	0.852
Post-test	27	

Table 2 shows that the pretest-posttest instrument attained good internal consistency of items and was deemed reliable with 0.852.

Table 3. Students Mean Score for Pretest and Posttest

Test	Mean Score
Pre-test	19.11
Post-test	22.96

Table 3 presents the mean score of students' pretest-posttest, wherein the post-test (22.96) is higher than the pre-test (19.11), which indicates a clear significant difference between the two scores.

Table 4. Improvement Percentage of Students Vocabulary

Test	Total of Scores	Improvement Percentage
Pre-test	516	20.16%
Post-test	620	

Table 4 shows the improvement percentage of students having 20.16% improvement in their vocabulary after the intervention.

Table 5. Paired Sample T-Test for Research Hypothesis

Test	Mean	Standard Deviation	Sig.	Verbal Interpretation	Decision Rule
Pre-test	19.1111	5.10907	.000*	Significant	Reject H0
Post-test	22.9630	4.11827			

Note: Significant at < .01

Table 5 indicates that there is a significant difference between pretest-posttest. Therefore, it rejects the null hypothesis, which proves that using VLL in the form of internet memes as a tool for vocabulary enhancement is effective.

The reported results support the study of Harshavardhan, Wilson D, & Kumar (2019) which concluded that internet memes assist retention of knowledge. Similarly, the findings back up the underpinning theory of Krashen's Input Hypothesis where a comprehensible input in the form of internet memes enables learners to actively process the target language.

4. CONCLUSIONS

The findings of the study have confirmed that incorporating internet memes as a supplementary tool in language classrooms can improve the vocabulary knowledge of high school students. The posttest results of the students' vocabulary exam are higher compared to their pretest results. This proves that

there is a significant difference between the students' vocabulary knowledge before the implementation of the treatment and their vocabulary knowledge after the intervention has been conducted. The integration of selected internet memes in the learning plan and instruction maximized student engagement and elicited retention and recall of vocabulary knowledge.

5. ACKNOWLEDGMENTS

6. REFERENCES (use APA style for citations)

Aldjem, R., & Jou, B. (2016). The Linguistic Landscape as a Learning Space for Contextual Language Learning. *Journal of Learning Spaces 5(2), pp. 66-70.*

Algryani, A. (2021). On the Translation of Linguistic Landscape: strategies and quality assessment. *Khazar.org.* https://doi.org/2223-2621

Algryani, A., & Syahrin, S. (2021). Utilizing Learners' Linguistic Landscape as a Pedagogical Resource in the Translation Classroom: A case study in the Sultanate of Oman. *SSRN Electronic Journal.* https://doi.org/10.2139/ssrn.3826846

Alnuhayt, S. (2018). Investigating the Use of the Flipped Classroom Method in an EFL Vocabulary Course. Journal of Language Teaching and Research. DOI: http://dx.doi.org/10.17507/jltr.0902.03

Androutsopoulos, J. (2014). Computer-mediated communication and linguistic landscapes. Research methods in sociolinguistics: A practical guide, *74*, 90.

Androutsopoulos, J. (2015). Networked multilingualism: Some language practices on Facebook and their implications. *International Journal of Bilingualism*, *19*(2), 185-205. https://doi.org/10.1177%2F136700691348 9198

Anwar, C. (2017). Flipped Classroom in Teaching Vocabulary to EFL Learners. The 2nd TEYLIN International Conference Proceedings. Retrieved from: https://eprints.umk.ac.id/7007/14/The-2nd-TEYLIN-ilovepdf-compressed-118-124.pdf

Aziz, A. & Robin, S. (2022). The Use of Digital Tools to Improve Vocabulary Acquisition. *International Journal of Academic Research in Business and Social Sciences, pp. 2473 – 2492. DOI:* 10.6007/IJARBSS/v12-i1/12198

Bernardo, A., & Jazul, M. (2017). A Look into Manila Chinatown's Linguistic Landscape: The Role of Language and Language Ideologies. *Philippine Journal of Linguistics, pp. 75-78.*

Blackwood, R., Mensel, L., & Vandenbroucke, M. (2016). Linguistic Landscapes. *Oxford Handbook of Language and Society.*

Biro, E. (2018). More Than a Facebook Share: Exploring Virtual Linguistic Landscape. Acta Universitatis Sapientiae, Philologica, 10(2), pp. 181 – 192. Retrieved from: https://sciendo.com/pdf/10.2478/ausp-2018-0022

Börzsei, L. K. (2013). Makes a meme instead. *The Selected Works of Linda Börzsei*, 1-28.

Capacete M., Gumangan, M., Gustillo, L., & Urbano, C. (2021). Reading and Writing Needs of Senior High School Students: The case of Filipino Students in the Philippines. *Modern Journal of Studies in English Language Teaching and Literature.* Retrieved from: https://www.researchgate.net/publication/36 1931076_ Reading_and_Writing_Needs_of_Senior_Hig h_School_Students_The_Case_of_F ilipino_Students_in_the_Philippines/link/62e a16677782323cf1966198/download

Cece, A. I. L. (2017). The Use of Direct Method to Improve Speaking Skill at the Second Grade of SMP PGRI 1 Talamate. *Undergraduate thesis, Muhammadiyah University of Makassar*.

Cenoz, J., & Gorter, D. (2021). *Pedagogical translanguaging*. Cambridge University Press.

Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (4th ed.). SAGE Publications, Inc.

Dayagbil, F., Pogoy, A., Suson, E., and Derasin, C. (2018). Flipped Classroom: Maximizing Face Time in Teaching and Learning. *CNU Journal of Higher Education,* 30-41.

Davison, P. (2012). The language of internet memes. M. Mandiberg (Ed.), *The social media reader*, 120-134.

Dingli, A., & Seychell, D. (2015). The New Digital Natives. *SpringerLink*. https://doi.org/10.1007-978-3-662-46590-5

Dumanig, F., & David, M. (2019). Linguistic Landscape as a Pedagogical Tool in Teaching and Learning English in Oman. *Modern Journal of Studies in English Language Teaching and Literature.*

Dela Rosa, J. (2016). Experiences, perceptions and attitudes on ICT integration: A case study among novice and experienced language teachers in the Philippines. *International Journal of Education and Development using Information and Communication Technology,* 12(03), 37-57. DOI: Retrieved from: https://files.eric.ed.gov/fulltext/EJ1124823.pdf

De Vera, J., De Borja, J., & Orleans, A. (2020). Addressing Instructional Gaps in K to 12 Science Teaching through Learning Action Cell (LAC). *International Journal of Research Publications*. DOI: 10046122020961

Etikan, I. (2016). Comparison on Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Journal.* DOI:10.11648/j.ajtas.20160501.11

Ferrarotti, L. (2017). The Linguistic Landscape and Its Potential for English Language Teaching. Journal for Euro LinguistiX, pp. 63-68.

Floralde, R. I., & Valdez, P. M. (2017). Linguistic landscapes as resources in ELT: The case of a rural community in the Philippines. Journal of Asia TEFL, 14 (4), 793-801. https://doi.org/10.18823/asiatefl.2017.14.4.15.793

Gomaa, Y. A. (2021). Language Policy in The Virtual Linguistic Landscape: The Case of The Kingdom of Bahrain E-Government National Portal. *Cadernos de Linguagem e Sociedade [Language and Society Notebooks], 21*(2), 20-37.

González-Fernández, B., & Schmitt, N. (2017). Vocabulary acquisition. In *The Routledge handbook of instructed second language acquisition* (pp. 280-298). Routledge.

Groff, J. (2013). Technology-rich innovative learning environments. *OCED CERI Innovative Learning Environment project*, 1-30. Retrieved from: https://www.oecd.org/education/ceri/Technology-Rich%20Innovative%20Learning%20Environments%20by%20Jennifer%20Groff.pdf

Guan, C., Jiao, L., Li, J., Ma, W., and Zhang, H. (2016). The Adjustment and Effects of Vocabulary Teaching Strategies in Flipped Classroom. Creative Education, 7, 1966-1973. http://dx.doi.org/10.4236/ce.2016.714199

Hanh, N. (2021). The Effectiveness of Learning Vocabulary Through Games in Comparison with that in Traditional Technique. *International Journal of Education Research.* Retrieved from:

http://gphjournal.org/index.php/er/article/view/419

Harshavardhan, V., Wilson D, D., & Kumar, M. (2019). Humour Discourse in Internet Memes: An Aid in ESL Classrooms. *Asia Pacific Media Educator.* DOI: 10.1177/1326365X19842023

Hiippala, T., Hausmann, A., Tenkanen, H., & Toivonen, T. (2019). Exploring the linguistic landscape of geotagged social media content in urban environments. *Digital Scholarship in the Humanities*, *34*(2), 290-309. https://doi.org/10.1093/llc/fqy049

Kayali, N. K., & Altuntas, A. (2021). Using Memes in the Language Classroom. *Shanlax International Journal of Education*, *9*(3), 155–160. https://eric.ed.gov/?id=EJ1300464

Lai, W., & Wei, L. (2019). A critical evaluation of Krashen's monitor model. *Theory and Practice in Language Studies*, *9*(11), 1459-1464.

Latifi, M., Ketabi, S., & Mohammadi, E. (2013). The comprehension hypothesis today: An interview with Stephen Krashen. *Electronic Journal of Foreign Language Teaching*, 10(2).

Lichtman, K., & VanPatten, B. (2021). Was Krashen right? Forty years later. *Foreign Language Annals*, *54*(2), 283-305.

Luo, J., and Zeng, W. (2019). The Influence of Linguistic Landscape on the Image of Shenzhen. Open Journal of Social Sciences 7(3). Doi: 10.4236/jss.2019.73008

Miltner, K. M. (2018). Internet memes. *The SAGE handbook of social media*, *55*, 412-428.

Ruel, E., Wagner, W., & Gillespie, B. (2016). The practice of survey research. SAGE Publications, Inc, https://dx.doi.org/10.4135/9781483391700

Santillan, J. P., & Daenos, R. G. (2020). Vocabulary Knowledge and Learning Strategies of Senior High School Students. *Universal Journal of Educational Research*, *8*(6), 2474-2482.

Silvallana, D., Anzari, P., Shiddiq, I., Pratiwi, S., Fatani, M. (2021). Teachers Technological Capability as Digital Immigrants in Learning from Home Activities. *International Journal of Emerging Technologies in Learning,* 16(07), 146-159. DOI: https://doi.org/10.3991/ijet.v16i07.21229

Tai, T. Y., Chen, H. H. J., & Todd, G. (2020). The impact of a virtual reality app on adolescent EFL learners' vocabulary learning. *Computer Assisted Language Learning*, 1-26. https://doi.org/10.1080/09588221.2020.1752735

Vinokurova, V. (2021). Memes: Learning, Bonding, and Emotional Support in Times of COVID-19. *Russian Language Journal*, *71*(2), 14.

Watson, R. (2015). Quantitative research. *Nursing Standard (2014+)*, *29*(31), 44.

Zhang, H. (2015). Information technology and digitalization of information media. *Proceedings of International Conference on Intelligent Systems Research and Mechatronics Engineering*, 1378- 1381.