

Writing Students' Perceptions of Digital Writing Portfolio in their Classrooms

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Abstract

This study investigated the advanced writing students' perceptions of digital writing portfolios (DWP). The participants were 130 English as a foreign language (EFL) learners enrolled in six advanced writing courses. The study utilized an experimental design. Four intact writing classes were randomly assigned to one DWP group. An adapted survey was used to serve the purpose of the study. Data were collected and analyzed. The study findings showed that most participants had positive perceptions of using DWP. However, some indicated hindrances that might not facilitate creating and implementing the DWP projects. The results also indicated that the organization, exemplary posted samples, choice of content, and sampled peer reviews further improved students' positive perceptions of DWP. Recommendations based on best learning and teaching practices were given. It is crucial to conduct further research examining DWP's effect on improving students' writing achievement.

Keywords— Digital writing portfolio(DWP), English as a foreign language (EFL) learners, Information Communication Technology(ICT), perceptions

Introduction

Technology and collaboration play a significant role in enhancing academic achievement[1]-[6]. Technology helps learners explore intercultural interaction[7]-[9]. Reform, including curriculum, results in changes based on adopting methods[10]-[14], including conversations and discussions that boost learning[15]-[18]. The Arab region has been recently in turmoil which has increased underprivileged learners[19]-[32]. Using technological applications such as Facebook-based e-portfolio in ESL writing classrooms,

students can improve their writing achievement [33].

The present study context is an American university located in Lebanon, a country undergoing a tremendous economic crisis and hosting more than one million Syrian refugees[34]-[42]. Lebanon has experienced political turbulence and economic challenges[43]-[47]. In addition, Lebanon's economic and political situations have yielded in many Lebanese leaving the country[48]-[53]. The researcher of this study intended to assign students authentic topics related to their themes of interest that have been diverse. As such,

students received articles while conducting their research papers[54]-[78] and [98]-[145].

There has recently been a shifting paradigm from product-based writing to process-based Instruction [79]-[84]. The product-based writing entails writing students to focus on ideas and content and outline to organize their thoughts [85]-[86]. Thus, students utilizing the product model would be restricted within the method and the content they drafted. Students focus on their plans before writing the entire essay to keep their writing clear and not messy [85]. However, a process-oriented approach involves writing students in the writing process, which consists of stages starting with the prewriting, planning, drafting or writing, revising, including additions and deletions, and editing, including proofreading and ending with the final writing draft [87]-[90]. Students' writing undergoes several revisions starting with prewriting activities, planning, writing the first draft, and corrections before reaching the final writing draft. A process-oriented approach demands a process-based assessment that could provide effective writing instruction focused on revisions, self-reviews, and writing Instruction [129]. Conversely, some research has argued that the time allotment which characterizes the process writing approach impedes students' writing achievement. As process writing is a time-overwhelming task, instructors might hesitate to ask students to prepare their digital writing portfolio and spend a long time finishing their writing tasks.

Digital portfolios facilitate students' writing tasks and provide them with convenient space to work on their writing tasks either in collaboration with others /or individually inside and outside the classroom [3]; [116]; [95]-[98].

A writing portfolio is a form of writing assessment[84] and can also be defined as the selective collection of students' writing drafts

that conveys students' writing achievement[94]. Writing portfolios transform students into active participants in writing learning and writing assessment processes[129]. A digital writing portfolio could incorporate audio, videos, and hyperlinks to improve students' learning experience[89]. Writing students' reflections on their writing could result in collaborative writing tasks that could facilitate students' zone of proximal development (ZPD)[151]. As a result, a digital writing portfolio course might improve the EFL students' writing skills more effectively as language learning projects and other related material are periodically uploaded and used. The digital writing portfolio can track students' writing activities and achievements[94]. The current study explores the writing students' perceptions of the digital writing portfolio.

Literature review

- **2.1 Social constructivist theory as DWP Theatrical Framework**

The Social constructivist theory that could serve as the theoretical framework of the present study is [151]'s theory of learning which involves interactions with resourceful peers. Students' self-regulation facilitates the incorporation of cognitive abilities and other-regulation levels, which takes place during engagement with more resourceful peers; Thus, for students to attain their expected level of performance their ZPD), they need to work in collaboration with more capable students through the process of other-regulation [108] and [151]. Students, more capable and less capable students, support each other when they do collaborative activities [91]; [130]. Students would co-construct their language skills and attain their ZPD [108]; [112];[130].

In this study, the digital writing portfolio has facilitated social constructivism, which has

involved the EFL students in co-productive writing tasks. The stages of the writing process allowed students to reflect on writing portfolios (students' writings from prewriting activities to final writing drafts). Students sequentially internalize what they learn in collaborative writing tasks and attain their ZPD[151].

- **2.2. Digital writing portfolio**

A writing portfolio could be described as an organized selection of students' work that has been collected to show students' motivation[98], self-effectiveness [95]-[96], academic development, self-evaluation [79], and performance [122]. Digital Writing portfolios make students active learners while participating in learning and assessment processes [129].

- **2.3 Features of Digital Writing Portfolio**

The audiovisual features of a digital writing portfolio increase students' motivation and ensure collaborative environments. Furthermore, digital writing portfolios enable students to create their writing drafts in various appearances in little space online and upload and download their writing drafts at their convenience [89]and [95]. Several websites and online applications provide digital writing portfolio courses [33].

[33]'s study Findings have indicated that a Facebook-based writing portfolio could enable students to measure their progress, reflect on their drafts, and do more writing. The online environment encouraged the students to be more careful about their writing content, structure, and language functions. Furthermore, some hindrances, such as trouble typing and reading texts, have impeded the writing achievement of some EFL students.

[112] investigated the effect of digital writing portfolios on EFL students' writing skills and their perceptions of the blogger-based digital writing portfolio course. The findings indicated that a digital writing portfolio was an efficient instructional process for enhancing EFL students' writing skills. Moreover, the results revealed that the students positively perceived the digital writing portfolio course. The students' positive perceptions helped them enhance their writing and collaboration skills. The students also said they quickly completed the writing process online because the writing stages were well-organized. Furthermore, students received helpful and satisfactory feedback from their peers and instructor.

As such, this study has addressed the following question:

What perceptions do university writing students have of DWP?

3. Methodology

- **3.1 Study Design**

The study utilized an experimental design.

- **3.2Participants**

The participants were 130 English as a foreign language (EFL) learners enrolled in four advanced writing courses. Six intact writing classes were randomly assigned to one DWP group. The age of the participants ranged from 19-to 25. The students' majors were mainly nursing, English Literature, Business, Psychology, Science, and Medicine.

- **3.3Process**

The present study employed Edmodo (<https://new.edmodo.com/>), a free online Platform to give a digital writing portfolio. It is worth noting that various online platforms could be utilized for digital writing portfolio

courses. Edmodo allowed instructors to help learners connect with them and with their peers synchronously and asynchronously [129] and [116]. Edmodo helped students and instructors connect, exchange material and feedback, and address language learning difficulties. The instructors assigned learning tasks on Edmodo and could give feedback to learners through the Edmodo learning environment. Instructors created an Edmodo-based online class and gave students a code they received. The instructors and students shared materials and audiovisuals.

Furthermore, the instructors submitted assignments regularly. Instructors also used Edmodo to track students' tasks, projects, and progress [150]. Students were assigned different articles to conduct their research of interest. These articles were related to integrating technology into classrooms and to the learning, teaching, and perceptions of students and teachers of several issues [98]-[145]. The instructors used the survey the researcher adapted to solicit students' perceptions of the DWP. Students filled out the link they received via email and Google Drive save and automatically generated figures and tables showing students' perceptions.

• 3.4 Instrument

A survey was utilized and adapted to serve the purpose of the study (See Appendix A). The survey included 13 items. Two items were open-ended and used to elicit participants' reflection logs. Participants gave their consent to fill out the survey.

• 3.5 Data Collection and Analysis

Data were collected using a Google Drive form sent to all participants via email. Descriptive statistics were collected and analyzed. In addition, a thematic analysis was conducted to investigate the participants' reflection logs.

Results

The study findings showed that most participants had positive perceptions of using DWP. However, some indicated hindrances that might not facilitate creating and implementing the DWP projects. The results also suggested that the organization, exemplary posted samples, choice of content, and sampled peer reviews further improved students' positive perceptions of DWP.

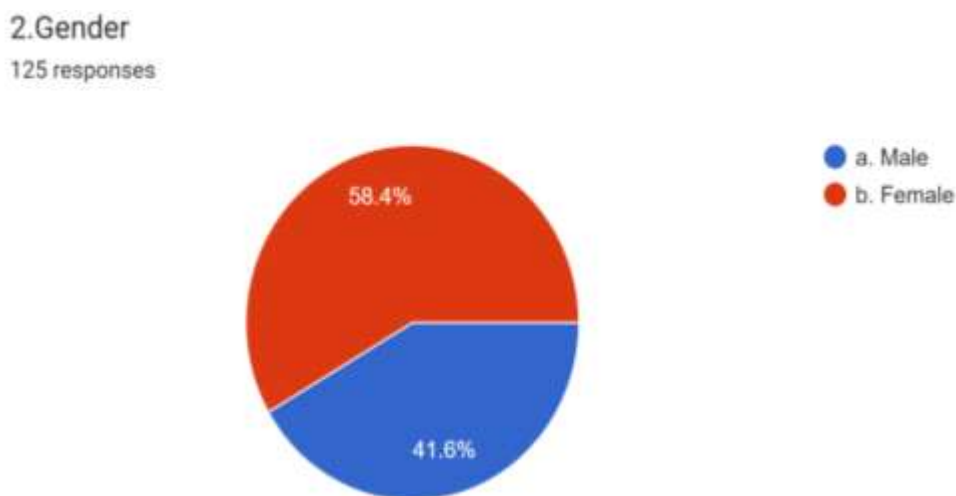


Figure 1.

The age of the participants ranged from 19, 58.4% were females, and 41.6% were males. (See Figure 1).

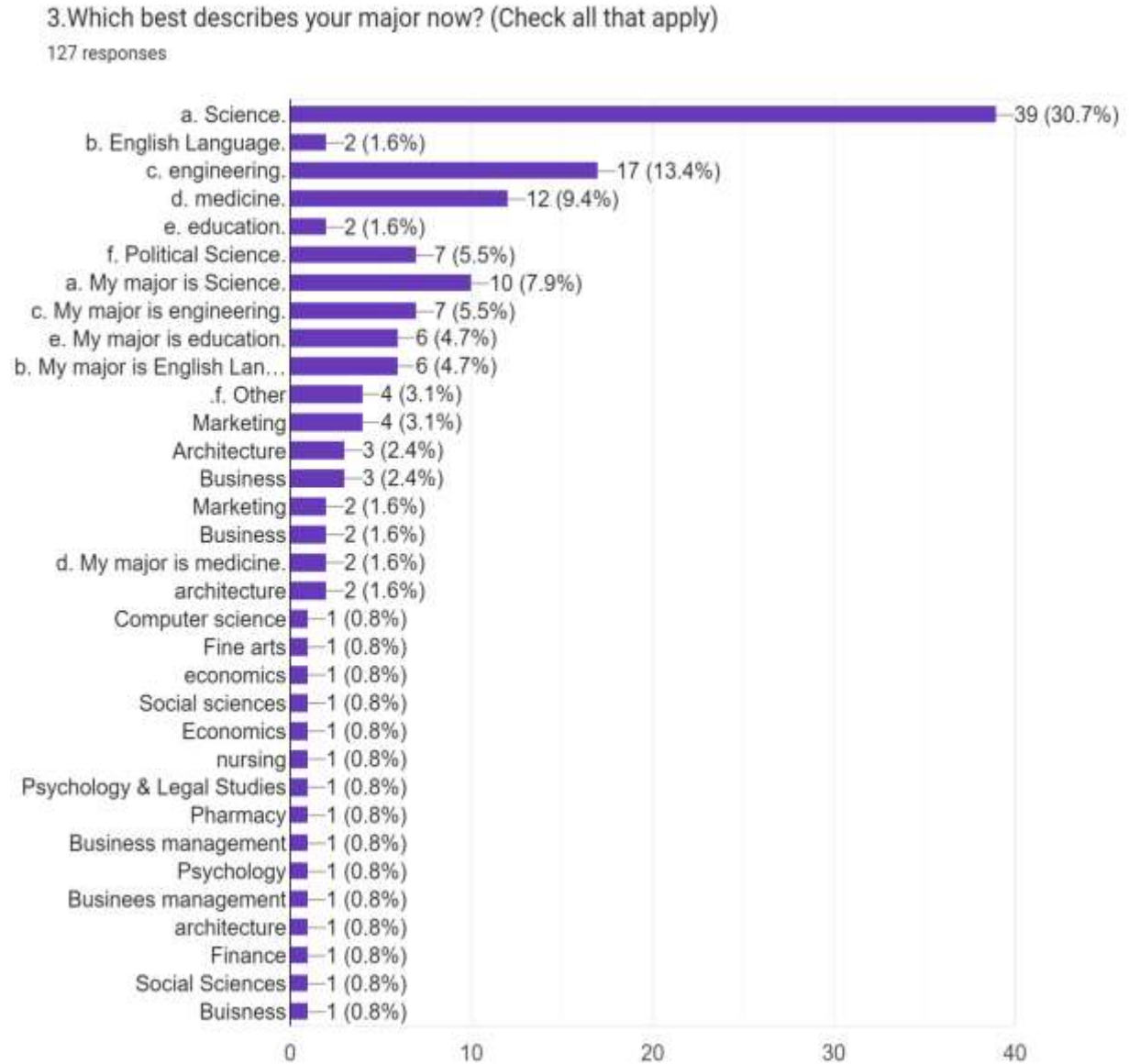


Figure 2

The major of 30.7% was Science. 6.3 majored in English, 18.9% in Engineering, 11% in medicine, 6% in Education, 5.5% in Political Science, 3.1% in Marketing, and 3.8% in Architecture. In addition, 0.8% majored in computer science. 1.3% in fine arts, 1.3% in

Social sciences, 1.3% majored in Economics, 3.2% in Business, and 0.8% in Finance. (See Figure 2)

6. Which courses do you think should incorporate Digital Writing portfolio ? (Check all that apply)

127 responses

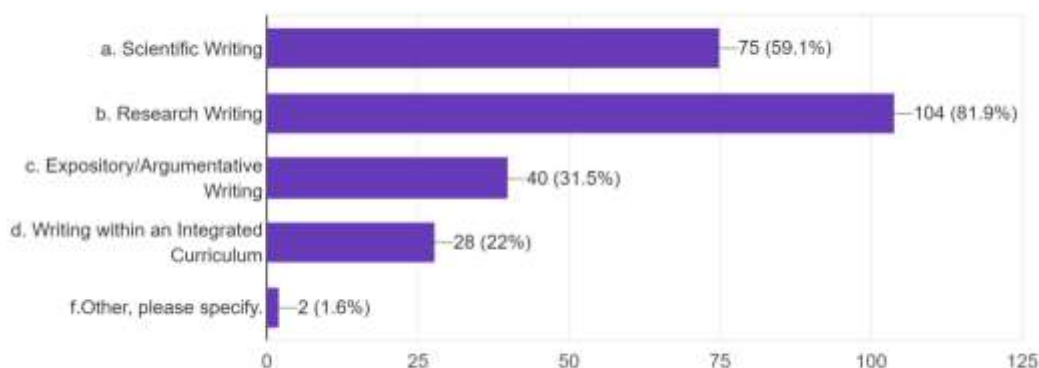


Figure 3.

104(81.9%)participants indicated that DWP could be incorporated into research writing courses.75(59.1%)participants indicated that DWP could be incorporated into scientific writing courses.

40(31.5%)participants indicated that DWP could be incorporated into expository/argumentative writing courses.

28 (22.2%)participants indicated that DWP could be incorporated into writing within an integrated curriculum.

2 (1.6%)participants indicated that DWP could be incorporated into other courses. (See Figure 3).

9. Digital Writing portfolio could be defined as writing folders that ask students to compose using multiple modalities. Have you heard of Digital Writing portfolio before?

127 responses

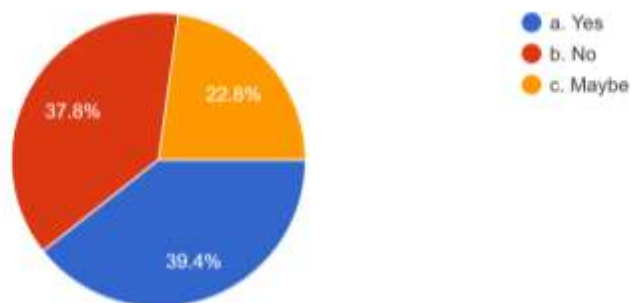


Figure 4.

38.4% confirmed that they had heard of DWP before.

37.8% asserted that they were not sure that they had heard about DWP before. 22.8% indicated that they did not hear of DWP before. (See Figure 4).

10. Do you implement Digital Writing portfolio assignments in your class?
127 responses

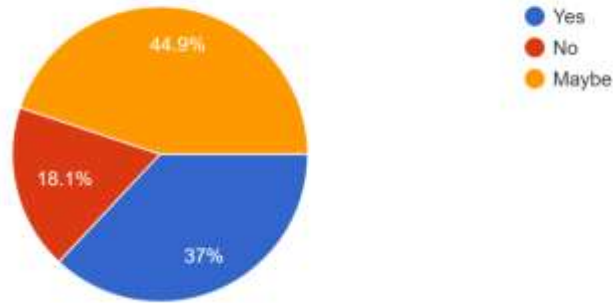


Figure 5.

37% confirmed that they had implemented DWP before. 18.1% indicated that they did not implement DWP before. (See Figure 5.).

44.9% asserted that they were not sure they had implemented DWP before. 18.1% indicated that

11. After learning about Digital Writing portfolio, do you think that you will implement it in your class?
125 responses

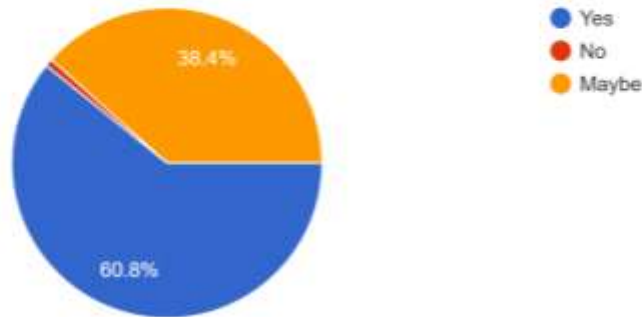


Figure 6

60.8% confirmed that they would implement DWP in their classes later on. 1.30% indicated that they would not implement DWP. (See Figure 6.).

38.4% asserted that they were not sure that they would implement DWP. 1.30% indicated that

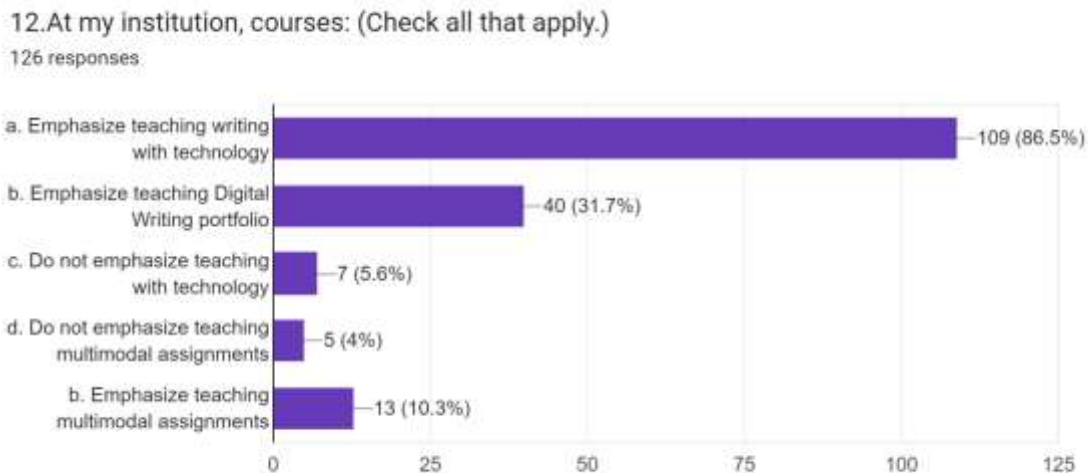


Figure 7.

109(86.5) emphasized that teaching writing with technology was feasible. 40(31.7) emphasized that teaching DWP was feasible.

7(5.6) did not emphasize that teaching writing with technology was feasible.

5(4%) did not emphasize teaching multi-modal assignments.

13(10.3%) emphasized that teaching multi-modal assignments was feasible. (See Figure 7.).

13. Digital Writing portfolio play an important role in teaching students to write.
126 responses

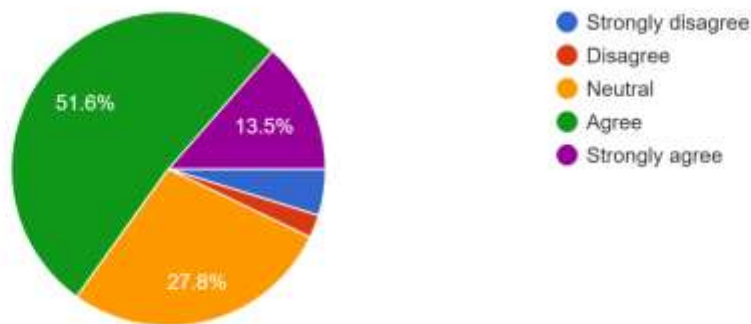


Figure 8

51.6 % asserted that DWP was essential in teaching students to write. 27.8% confirmed

that they were hesitant about the critical role of DWP in improving students' writing skills. 13.5

% asserted that DWP did not play an essential role in teaching students to write.

What limitations, if any, hinder your ability to use digital writing portfolios?

Some participants (23%) indicated no limitations or impediments to creating and using digital writing portfolios. Furthermore, a few participants(15%) asserted that they used advanced technology to create digital writing portfolios. However, some participants (36%) confirmed that the lack of proper Wi-Fi connection would remain an impediment.

A few participants (11%) pinpointed that the lack of training on using digital writing portfolios in the age of Covid-19 would hinder its effectiveness.

A few students (14%) confirmed that digital portfolios would not be possible due to the lack of necessary support at home. Few participants (12.3%) asserted that lacking confidence and motivation would hinder creating or using the DWP.

14. Digital Writing portfolio are more time consuming to teach than traditional writing assignments. 126 responses

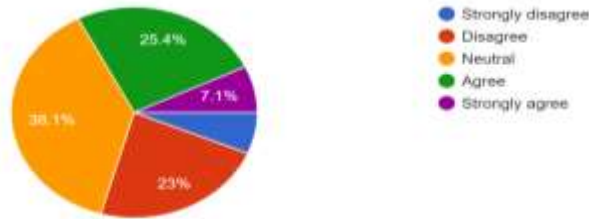


Figure 9

28% asserted that DWP was more time-consuming to teach than traditional writing assignments. 38.1% were hesitant to confirm that DWP was more time-consuming to prepare

than formal writing assignments. 30.1% indicated that DWP was not more time-consuming to teach than conventional writing assignments.

17. What technologies and/or applications do you prefer using to learn DWP assignments? (Check all that apply) 126 responses

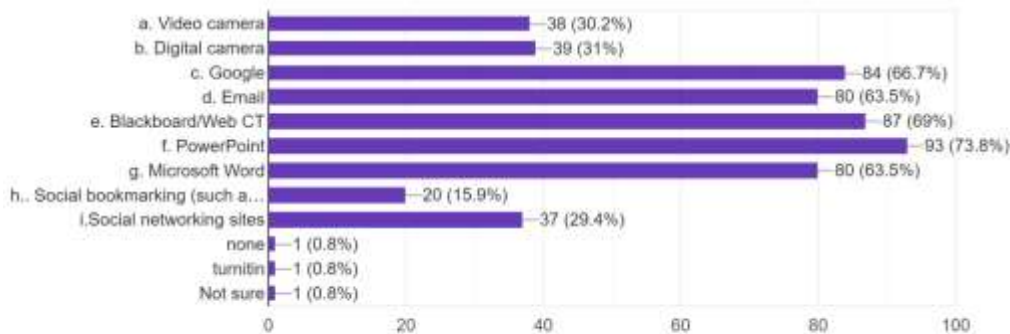


Figure 10

93(73.8%) participants preferred using PowerPoint to learn DWP assignments., 84 (66.7%) participants preferred using Google to learn DWP assignments.80 (63.5%) participants preferred using Microsoft.

28 (34.6%) participants preferred using video Camera.37 (29.4%)participants selected using social networking sites. 20(15.9%)participants preferred using social bookmarking.80(63.5%)participants preferred using email.

1(0.8%) participant preferred using Turnitin. (See Figure 11.).

Discussion

The findings revealed that the students positively perceived the digital writing portfolio course. The students' positive perceptions helped them enhance their writing and collaboration skills. The students also announced that they quickly completed the writing process online because the writing stages were well-organized. Furthermore, students received helpful and satisfactory feedback from their peers and instructor.

Most participants indicated that DWP could be incorporated into research writing courses. Some participants indicated that DWP could be incorporated into expository/ argumentative writing courses. In addition, around half of the participants noted that DWP could be incorporated into scientific writing courses. The majority confirmed that they would implement DWP in their classes later. However, few participants indicated that they would not implement DWP.

The majority asserted that DWP was essential in teaching students to write. Conversely, some confirmed that they were hesitant about the

critical role of DWP in improving students' writing skills. Few asserted that DWP did not play an essential role in teaching students to write.

The majority of participants preferred using PowerPoint to learn DWP assignments. Half the participants preferred using Google to learn DWP assignments, and some participants preferred using Microsoft. A few participants preferred using a video camera. In addition, some participants preferred using social networking sites. However, few participants preferred using social bookmarking. Half the participants preferred using email. Few participants preferred using Turnitin.

In collaboration with the Social constructivist theory, the study's findings showed that students had positive perceptions of their association with more capable students through the process of other-regulation while using DWP [108], [151],[86], and [91].

Students were able co-construct their language skills and attain their ZPD [108]; [116]; [130]. The findings of this study indicated that the digital writing portfolio had facilitated social constructivism, which involved the EFL students in co-productive writing tasks. The stages of the writing process allowed students to reflect on writing portfolios (students' writings from prewriting activities to final writing drafts). Students sequentially internalized what they learned in collaborative writing tasks and attained their ZPD[151].

The study findings align with those of [143], as DWP encouraged students to increase self-effectiveness. In the same vein as the study findings of [98]. DWP could improve students' motivation, and DWP could make students active learners while participating in learning and assessment processes [128].

In agreement with the findings of [89] and [144], the audiovisual features of a digital writing portfolio could increase students' motivation and ensure collaborative environments. In alignment with [33]'s findings, this study indicated that a Facebook-based writing portfolio could enable students to measure their progress, reflect on their drafts, and do more writing.

Limitations

A few participants (15%) asserted that the need for advanced technology to create digital writing portfolios was a significant limitation. Some participants (36%) confirmed that the lack of proper Wi-Fi connection would remain an impediment. A few students (14%) confirmed that digital portfolios would not be possible due to the lack of necessary support at home. Few participants (12.3%) asserted that lacking confidence and motivation would hinder creating or using the DWP.

Conclusion

This study investigated the advanced writing students' perceptions of digital writing portfolios (DWP). The study findings showed that most participants had positive perceptions of using DWP. The results also indicated that the organization, exemplary posted samples, choice of content, and sampled peer reviews further improved students' positive perceptions of DWP. It is crucial to conduct further research examining DWP's effect on improving students' writing achievement.

References

- [1]. Awwad, Rita, and Michael Ammoury. 2019. "Owner's perspective on the evolution of bid prices under various price-driven bid selection methods." *Journal of Computing in Civil Engineering* 33, no. 2 (2019): 04018061. DOI: 10.1061/(ASCE)CP.1943-5487.0000803.
- [2]. A.-N. El-Kassar and S. K. Singh, "Green innovation and organizational performance: The influence of big data and the moderating role of management commitment and HR practices," *Technol. Forecast. Soc. Change*, vol. 144, pp. 483– 498, 2019, DOI: 10.1016/j.techfore.2017.12.016.
- [3]. Adnan, M. (2017). Perceptions of senior-year ELT students for the flipped classroom: A materials development course. *Computer Assisted Language Learning*, 30(3-4), 204-222.
- [4]. Al-Abbas, Mohammad and Saab, Samer S. October 2020. "The Impact of Collaborative Research: A Case Study in a Developing Country," in 2020 4th International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMS), pp. 1– 7
- [5]. Abi Raad, Vanda. "How to implement simulation-based education in a new medical school" *BMJ Simulation and Technology Enhanced Learning* 1, no. 1 (2015).
- [6]. Awada, Ghada M. and Diab, Nuwar M. 2021. Effect of online peer review versus face-to-Face peer review on argumentative writing achievement of EFL learners. *Computer Assisted Language Learning*, 1-19. <https://doi.org/10.1080/09588221.2021.1912104>
- [7]. Awada, Ghada M. 2021. Exploring Intercultural Interaction Model for Literacy of Underprivileged Learners of EFL. *Journal of Intercultural Communication Research*, 50(2), 166-184. <https://doi.org/10.1080/17475759.2020.1839941>
- [8]. Awada, Ghada M., Ghaith, Ghazi M. and Diab, Nuwar. M. 2020. Using Third Space and Literature Circles (TSLC) as transformative pedagogy for marginalized EFL learners. *Innovation in Language Learning and Teaching*, 1-9. <https://doi.org/10.1080/17501229.2020.1819288>
- [9]. Al-Abbas, Mohammad and Saab, Samer S. October 2020. "The Impact of Collaborative Research: A Case Study in a Developing Country," in 2020 4th International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMS), pp. 1– 7

- [10]. Aboultaif, E. W. 2018. Revisiting the Druze Politics in Palestine under British Colonial Rule. *Arab Studies Quarterly*, 40(3), 233-253.
- [11]. Arayssi, Mahmoud, Jizi, Mohammad and Tabaja, Hala, H.2020. "The impact of board composition on the level of ESG disclosures in GCC countries," *Sustain. Accounting, Manag. Policy J.*, vol. 11, no. 1, pp. 137–161
- [12]. Awada, Ghada, Burston, Jack, and Ghannage, Rosie., 2020. "Effect of student team achievement division through WebQuest on EFL students' argumentative writing skills and their instructors' perceptions." *Computer Assisted Language Learning* 33, no. 3.275-300.
- [13]. Alianak, S. L. (2014). *Transition Towards Revolution and Reform: The Arab Spring Realized?* Edinburgh University Press.
- [14]. Aboultaif, Eduardo Wassim. "Revisiting the Druze Politics in Palestine under British Colonial Rule." *Arab Studies Quarterly* 40, no. 3 (2018): 233-253.
- [15]. Aboultaif, Eduardo Wassim, and Paul Tabar. "National versus communal memory in Lebanon." *Nationalism and Ethnic Politics* 25, no. 1 (2019): 97-114.
- [16]. Aboultaif, Eduardo Wassim. "Energy, mobilization, memory, and trauma in consociational systems." *Nations and Nationalism* 25, no. 2 (2019): 564-586.
- [17]. Badran, Dany. "Democracy and Rhetoric in the Arab World." *The Journal of the Middle East and Africa* 4, no. 1 (2013): 65-86.
- [18]. Bahous, Rima and Nabhani, Mona. 2015. Faculty views on developing and assessing learning outcomes at the tertiary level. *The Journal of General Education*, 64(4), 294-309
- [19]. Baroudi, Sami E., and Vahid Behmardi. "Sheikh Wahbah al-Zuhaili on international relations: the discourse of a prominent Islamist scholar (1932–2015)." *Middle Eastern Studies* 53, no. 3 (2017): 363-385.
- [20]. Baroudi, Sami E. "The Islamic Realism of Sheikh Yusuf Qaradawi (1926–) and [45] Sayyid Mohammad Hussein Fadlallah (1935–2010)." *British Journal of Middle Eastern Studies* 43, no. 1 (2016): 94-114.
- [21]. Baroudi, Sami E., and Jennifer Skulte-Ouaiss. "Mohamed Hassanein Heikal on the United States: The Critical Discourse of a Leading Arab Intellectual." *Middle Eastern Studies* 51, no. 1 (2015): 93-114.
- [22]. Baroudi, Sami E. "Countering US Hegemony: The Discourse of Salim al-Hoss and other Arab Intellectuals." *Middle Eastern Studies* 44, no. 1 (2008): 105-129.
- [23]. Baroudi, Sami. "US–Lebanese Relations in the 21st Century: A View from Beirut." *The Arab World Geographer* 8, no. 4 (2005): 196-219.
- [24]. Baroudi, Sami E. "Continuity in economic policy in postwar Lebanon: The record of the Hariri and Hoss governments examined, 1992-2000." *Arab studies quarterly* (2002): 63-90.
- [25]. Baroudi, Sami E., and Imad Salamey. "US-French collaboration on Lebanon: How Syria's role in Lebanon and the Middle East contributed to a US-French Convergence." *The Middle East Journal* 65, no. 3 (2011): 398-425.
- [26]. Baroudi, Sami E. "Business associations and the representation of business interests in post-war Lebanon: the case of the association of Lebanese industrialists." *Middle Eastern Studies* 36, no. 3 (2000): 23-51.
- [27]. Baroudi, Sami. "Conflict and Co-operation within Lebanon's Business Community: Relations between Merchant's and Industrialists' Associations." *Middle Eastern Studies* 37, no. 4 (2001): 71-100.
- [28]. Baroudi, Sami E. "Lebanon's Foreign Trade Relations in the Postwar Era: Scenarios for Integration (1990–Present)." *Middle Eastern Studies* 41, no. 2 (2005): 201-225.
- [29]. Baroudi, Sami Emile. "Islamist Perspectives on International Relations: The Discourse of Sayyid Muhammad Hussein Fadlallah (1935–2010)." *Middle Eastern Studies* 49, no. 1 (2013): 107-133.
- [30]. Bradley, L., Bahous, R., and Albasha, A. 2020. Professional development of Syrian refugee women: proceeding with a career within Education. *Studies in Continuing Education*, 1-18.
- [31]. Bahous, S. A., Salameh, P., Salloum, et al. 2018. Voluntary vs. compulsory student

- evaluation of clerkships affects validity and potential bias. *BMC medical education*, 18(1), 1-10.
- [32]. Bahous, Rima and Nabhani, Mona. 2015. Faculty views on developing and assessing learning outcomes at the tertiary level. *The Journal of General Education*, 64(4), 294-309.
- [33]. Barrot, J. S. (2016). Using Facebook-based e-portfolio in ESL writing classrooms: impact and challenges. *Language, Culture and Curriculum*, 29(3), 286-301.
- [34]. Bahous, Rima, Diab, R. and Nabhani, M. 2019. Language teachers' perceptions of practitioner research. *Journal of Applied Research in Higher Education*.
- [35]. Bradley, L., Bahous, R., and Albasha, A. 2020. Professional development of Syrian refugee women: proceeding with a career within Education. *Studies in Continuing Education*, 1-18.
- [36]. Baumann, Hannes. "Dumping Humpty-Dumpty: Blockages and Opportunities for Lebanon's Economy after the October 2019 Protests." *South Atlantic Quarterly* 120, no. 2 (2021): 456-463.
- [37]. Badaan, V., Richa, R., & Jost, J. T. (2020). Ideological justification of the sectarian political system in Lebanon. *Current opinion in psychology*, 32, 138-145.
- [38]. Bou-Karroum, Lama, Fadi El-Jardali, Nour Hemadi, Yasmine Faraj, Utkarsh Ojha, Maher Shahrour, Andrea Darzi, et al. "Using media to impact health policy-making: an integrative systematic review." *Implementation Science* 12, no. 1 (2017): 1-14.
- [39]. Clark, Janine A., & Bassel F. Salloukh. 2013. "Elite Strategies, Civil Society, and Sectarian Identities in Postwar Lebanon." *International Journal of Middle East Studies* 45 (04): 731-749. doi:10.1017/s0020743813000883.
- [40]. Christiansen, Connie Carøe. "Gender, Development, and Security in Yemen's Transition Process." *Journal of intervention and state-building* 13, no. 2 (2019): 197-215.
- [41]. Clark, Janine A., & Bassel F. Salloukh. 2013. "Elite Strategies, Civil Society, and Sectarian Identities in Postwar Lebanon." *International Journal of Middle East Studies* 45 (04): 731-749. doi:10.1017/s0020743813000883.
- [42]. Christiansen, Connie, and Sabria Al-Thawr. "Muhameseen activism: enacting citizenship during Yemen's transition." *Citizenship Studies* 23, no. 2 (2019): 115-138.
- [43]. Djoundourian, Salpie S. "Response of the Arab world to climate change challenges and the Paris agreement." *International Environmental Agreements: Politics, Law and Economics* (2021): 1-23.
- [44]. Dabbous, Amal, and Abbas Tarhini. "Assessing the impact of knowledge and perceived economic benefits on sustainable consumption through the sharing economy: A sociotechnical approach," *Technol. Forecast. Soc. Change*, vol. 149, 2019, DOI: 10.1016/j.
- [45]. Darwich, May, Morten Valbjørn, Bassel F. Salloukh, Waleed Hazbun, Amira Abu Samra, Said Saddiki, Adham Saouli, Hamad H. Albloshi, and Karim Makdisi. "The politics of teaching international relations in the Arab world: Reading Walt in Beirut, Wendt in Doha, and Abul-Fadl in Cairo." *International Studies Perspectives* 22, no. 4 (2021): 407-438
- [46]. Dibeh, Ghassan, Ali Fakih, and Walid Marrouh. "Decision to emigrate amongst the youth in Lebanon." *International Migration* 56, no. 1 (2018): 5-22.
- [47]. Djoundourian, S. S. 2021. Response of the Arab world to climate change challenges and the Paris agreement. *International Environmental Agreements: Politics, Law and Economics*, 1-23.
- [48]. Dabbous, Amal, and Abbas Tarhini. "Assessing the impact of knowledge and perceived economic benefits on sustainable consumption through the sharing economy: A sociotechnical approach," *Technol. Forecast. Soc. Change*, vol. 149, 2019, DOI: 10.1016/j.techfore.2019.119775.
- [49]. Deets, S. and Skulte-Ouaiss, J. 2021. Breaking into a Consociational Election. *Ethnopolitics*, 20(2), 157-185
- [50]. Deets, Stephen, and Jennifer Skulte-Ouaiss. "Breaking into a Consociational System: Civic Parties in Lebanon's 2018

- Parliamentary Election." *Ethnopolitics* 20, no. 2 (2021): 157-185
- [51]. El Khoury, Ghada, and Pascale Salameh. "Assessment of the awareness and usages of family planning methods in the Lebanese community." *BMJ Sexual & reproductive health* 45, no. 4 (2019): 269-274. DOI: 10.1136/bmjsex-2018-200067
- [52]. Fakhoury, Tamirace. "The European Union's Engagement in Conflict Processes and Conflict Spillovers: The Case of Lebanon Since the Onset of the Syrian War." *European Foreign Affairs Review* 22, no. 1 (2017).
- [53]. Fox, Rohan, and Marcel Schröder. "After Papua New Guinea's Resource Boom: Is the Kina Overvalued?." *Asia & the Pacific Policy Studies* 5, no. 1 (2018): 65-76.
- [54]. Fakih, Ali, and May Ibrahim. "The impact of Syrian refugees on the labor market in neighboring countries: empirical evidence from Jordan." *Defense and Peace Economics* 27, no. 1 (2016): 64-86.
- [55]. Fakih, Ali, Nathir Haimoun, and Mohamad Kassem. "Youth unemployment, gender and institutions during transition: evidence from the Arab spring." *Social Indicators Research* 150, no. 1 (2020): 311-336.
- [56]. Fakhoury, T. 2019. Power-sharing after the Arab Spring? Insights from Lebanon's political transition. *Nationalism and Ethnic Politics*, 25(1), 9-26.
- [57]. Fakhoury, T. 2017. The European Union's Engagement in Conflict Processes and Conflict Spillovers: The Case of Lebanon Since the Onset of the Syrian War. *European Foreign Affairs Review*, 22(1).
- [58]. Farah, Maya F., Zahy B. Ramadan, and Dana H. Harb. "The examination of virtual reality at the intersection of consumer experience, shopping journey and physical retailing." *Journal of Retailing and Consumer Services* 48 (2019): 136-143. DOI: 10.1016/j.jretconser.2019.02.016.
- [59]. Ghosn-Chelala, M., & Akar, B. (2021). Citizenship education for environmental sustainability in Lebanon: public school teachers' understandings and approaches. *Environmental Education Research*, 27(3), 366-381.
- [60]. Gjertsson, S. (2021). The Impacts of Corruption on Lebanon's Public Health. THE SWEDISH INSTITUTE OF INTERNATIONAL AFFAIRS | UI.SE. <https://www.ui.se/globalassets/ui.se-eng/publications/ui-publications/2021/ui-brief-no.-3-2021.pdf>.
- [61]. Kadri, Jude. "The Collapse of Yemen's Sovereignty by Permanent Violence: A Means of Both Production and Consumption of Value." *Arab Studies Quarterly* 43, no. 2 (2021): 98-120.
- [62]. Khoury, Melissa Plourde. "Challenging Panopticism through Representations: Burj al-Murr." *Middle East Journal of Culture and Communication* 11, no. 3 (2018): 295-315.
- [63]. Karam, Jeffrey G. "Reflections on Beirut Rules: the wider consequences of US foreign and security policy in Lebanon in the 1980s." *Intelligence and National Security* 36, no. 3 (2021): 431-443.
- [64]. Kadri, Jude. "Impact of 1962-68 North Yemen War on Cold War Balance of Power." *Middle East Critique* 30, no. 3 (2021): 265-286.
- [65]. Kadri, Jude. "Prospective for Yemen's violent contradictions." *Digest of Middle East Studies* 30, no. 3 (2021): 203-220.
- [66]. Karam, J. G. 2021. Reflections on Beirut Rules: the wider consequences of US foreign and security policy in Lebanon in the 1980s. *Intelligence and National Security*, 36(3), 431-443.
- [67]. Khansa, J. and Bahous, Rima 2021. Challenges of teaching Syrian refugee children in Lebanon: teachers' insights. *Intercultural Education*, 1-16.
- [68]. Melki, Jad P., Eveline A. Hitti, Michael J. Oghia, and Afif A. Mufarrij. "Media exposure, mediated social comparison to idealized images of muscularity, and anabolic steroid use." *Health Communication* 30, no. 5 (2015): 473-484.
- [69]. Melki, Jad. "The interplay of politics, economics, and culture in the news framing Middle East wars." *Media, War & Conflict* 7, no. 2 (2014): 165-186.
- [70]. Rowayheb, Marwan George. "Political change and the outbreak of Civil War: The

- case of Lebanon." *Civil Wars* 13, no. 4 (2011): 414-436.
- [71]. Rønn, Anne Kirstine (2020). The Development and Negotiation of Frames During Non-sectarian Mobilizations in Lebanon, *The Review of Faith & International Affairs*, 18:1, 87-96, DOI: 10.1080/15570274.2020.1729533
- [72]. Ramadan, Zahy B., and Maya F. Farah. "The advent of the social moment of truth in online communities." *International Journal of Web-Based Communities* 13, no. 3 (2017): 364-378
- [73]. Palmer, Lindsay, and Jad Melki. "Shapeshifting in the conflict zone: The strategic performance of gender in war reporting." *Journalism Studies* 19, no. 1 (2018): 126-142.
- [74]. Syed, Q. R., and Bouri, E. 2021. Impact of economic policy uncertainty on CO2 emissions in the US: Evidence from bootstrap ARDL approach. *Journal of Public Affairs*, e2595
- [75]. Salloukh, B. F. 2019. War memory, confessional imaginaries, and political contestation in postwar Lebanon. *Middle East Critique*, 28(3), 341-359.
- [76]. Salloukh, B. F. 2017. The Syrian war: spillover effects on Lebanon. *Middle East Policy*, 24(1), 62-78.
- [77]. Salloukh, B. F. 2019. Taif and the Lebanese state: the political economy of a very sectarian public sector. *Nationalism and Ethnic Politics*, 25(1), 43-60.
- [78]. Carless, D., & Boud, D. (2018). The development of student feedback literacy: Enabling uptake of feedback. *Assessment & Evaluation in Higher Education*, 43(8), 1315-1325.
- [79]. Cummins, P. W., & Davesne, C. (2009). Using electronic portfolios for second language assessment. *The Modern Language Journal*, 93, 848-867.
- [80]. Dillon, A., Chell, G., Moussa-Inaty, J., Gallagher, K., and Grey, I. 2021. English Medium Instruction and the potential of translanguaging practices in higher Education. *Translation and Translanguaging in Multilingual Contexts*, 7(2), 153-176.
- [81]. Diab, Rula, and Luma Balaa. 2011. "Developing detailed rubrics for assessing critique writing: Impact on EFL university students' performance and attitudes." *TESOL Journal* 2, no. 1: 52-72
- [82]. Habre, Cendrella, and Houeida Kammourié. "Redesigning Spaces for Effective Learning: Challenges Facing Riyad Nassar Library in Meeting Users' Perceptions and Expectations." *Journal of library administration* 58, no. 5 (2018): 519-544.
- [83]. Hamdan, M. 2017. Beyond the Given: Stretching Mathematical Thinking Through Journaling. *PRIMUS*, 27(10), 916-925
- [84]. Earl, L. M. (2013). *Assessment as learning: Using classroom assessment to maximize student learning* (2nd ed.). Thousand Oaks, CA: Corwin.
- [85]. Elbow, P. (1973). *Writing without teachers*. New York: Oxford University Press.
- [86]. Fathi, J., & Rahimi, M. (2020). Examining the impact of the flipped classroom on writing complexity, accuracy, and fluency: a case of EFL students. *Computer Assisted Language Learning*, 1-39.
- [87]. Fidaoui, Diana, Rima Bahous, and Nahla N. Bacha. 2010. CALL in Lebanese elementary ESL writing classrooms. *Computer Assisted Language Learning*, 23(2), 151-168.
- [88]. Ghaith, Ghazi M., and Awada, Ghada G. 2022. "Scaffolding Understanding of Scholarly Educational Research Through Teacher/Student Conferencing and Differentiated Instruction." *Teaching & Learning Inquiry* 10. <https://doi.org/10.20343/teachlearninqu.10.8>
- [89]. Godwin-Jones, R. (2008). Emerging technologies: Web-writing 2.0: Enabling, documenting, and assessing writing online. *Language Learning & Technology*, 12(2), 7-13. Page 38 of 44
- [90]. Hitti, Eveline, Dima Hadid, Jad Melki, Rima Kaddoura, and Mohamad Alameddine. "Mobile device use among emergency department healthcare professionals: prevalence, utilization, and attitudes." *Scientific Reports* 11, no. 1 (2021): 1-8.
- [91]. Kim, Y. (2008). The contribution of collaborative and individual tasks to the acquisition of L2 vocabulary. *The Modern Language Journal*, 92(1), 114-130.
- [92]. Khansa, Jida, and Rima Bahous. 2021. Challenges of teaching Syrian refugee

- children in Lebanon: teachers' insights. *Intercultural Education*, 1-16
- [93]. Kadri, J. 2021. Prospective of Yemen's violent contradictions. *Digest of Middle East Studies*, 30(3), 203-220.
- [94]. Lorenzo, G., & Ittelson, J. (2005). An overview of e-portfolios. *Educause Learning Initiative*, 1, 1-27.
- [95]. Mazzetti, Silvia.2020. Multidisciplinary collaboration: an integrated and practical approach to project management teaching. *International Journal of Continuing Engineering Education and Life-Long Learning*, 30(1), 52-67.
- [96]. Mazzetti, Silvia 2019. A practical, multidisciplinary approach for assessing leadership in project management education. *Journal of Applied Research in Higher Education*.
- [97]. Maamari, B. E. and Majdalani, J. F. (2019). The effect of highly emotionally intelligent teachers on their students' satisfaction. *International Journal of Educational Management*
- [98]. Lee, I. (2017). Portfolios in classroom L2 writing assessment. In I. Lee (Ed.), *Classroom writing assessment and feedback in L2 school contexts* (pp. 105-122). Springer
- [99]. Melki, J. and Kozman, C. 2021. Media dependency, selective exposure, and trust during the war: Media sources and information needs of displaced and non-displaced Syrians. *Media, War & Conflict*, 14(1), 93-113.
- [100]. Melki, Jad, and Claudia Kozman. "Media dependency, selective exposure and trust during the war: Media sources and information needs of displaced and non-displaced Syrians." *Media, War & Conflict* 14, no. 1 (2021): 93-113.
- [101]. Melki, Jad P. "Sowing the seeds of digital and media literacy in Lebanon and the Arab world." *Media literacy education in action: Theoretical and pedagogical perspectives* (2013): 77-86.
- [102]. Marrouch, Walid, and Jana Mourad. "Effect of gasoline prices on car fuel efficiency: Evidence from Lebanon." *Energy Policy* 135 (2019): 111001. DOI: 10.1016/j.enpol.2019.111001
- [103]. Melki, Jad. "Journalism and media studies in Lebanon." *Journalism Studies* 10, no. 5 (2009): 672-690.
- [104]. Melki, Jad. "Media habits of MENA youth: A three-country survey." *Youth in the Arab World* (2010).
- [105]. Melki, Jad, Hani Tamim, Dima Hadid, Sally Farhat, Maha Makki, Lara Ghandour, and Eveline Hitti. "Media Exposure and Health Behavior during Pandemics: The Mediating Effect of Perceived Knowledge and Fear on Compliance with COVID-19 Prevention Measures." *Health Communication* (2020): 1-11.
- [106]. Melki, Jad, and May Jabado. "Mediated public diplomacy of the Islamic State in Iraq and Syria: The synergistic use of terrorism, social media, and branding." *Media and Communication* 4, no. 2 (2016): 92-103.
- [107]. Melki, Jad P. "Sowing the seeds of digital and media literacy in Lebanon and the Arab world." *Media literacy education in action: Theoretical and pedagogical perspectives* (2013): 77-86.
- [108]. Neumann, H., & McDonough, K. (2015). Exploring student interaction during collaborative prewriting discussion and its relationship to L2 writing. *Journal of Second Language Writing*, 27, 84-104.
- [109]. Nagle, John, and Tamirace Fakhoury. "Between Co-Option and Radical Opposition: A Comparative Analysis of Power-Sharing on Gender Equality and LGBTQ rights in Northern Ireland and Lebanon." *Nationalism and Ethnic Politics* 24, no. 1 (2018): 82-99.
- [110]. Nabhani, Mona, Nicolas, M. O. D. and Bahous, Rima. 2014. Principals' views on teachers' professional development. *Professional development in Education*, 40(2), 228-242. <https://doi.org/10.1080/19415257.2013.803999>
- [111]. Ramadan, Z. B., Farah, M. F., & Daouk, S. 2019. The effect of e-retailers innovations on shoppers' impulsiveness and addiction in web-based communities: the case of Amazon's Prime Now. *International Journal of Web-Based Communities*, 15(4), 327-343
- [112]. Rahimi, M., & Fathi, J. (2022). Employing e-tandem language learning method to enhance speaking skills and willingness to

- communicate: the case of EFL learners. *Computer Assisted Language Learning*, 1-37.
- [113]. Rowayheb, Marwan G. "Lebanese Leaders: Are They a Factor of Political Change?." *The Journal of the Middle East and Africa* 5, no. 3 (2014): 181-200.
- [114]. Rowayheb, Marwan George. "Lebanese militias: A new perspective." *Middle Eastern Studies* 42, no. 2 (2006): 303-318.
- [115]. Rowayheb, Marwan G. "Walid Jumblat and political alliances: The politics of adaptation." *Middle East Critique* 20, no. 01 (2011): 47-66.
- [116]. Rahimi, M., & Fathi, J. (2021). Exploring the impact of wiki-mediated collaborative writing on EFL students' writing performance, writing self-regulation, and writing self-efficacy: a mixed-methods study. *Computer Assisted Language Learning*, 1-48.
- [117]. Salamey, Imad, and Rhys Payne. "Parliamentary consociationalism in Lebanon: equal citizenry vs. quoted confessionalism." *The Journal of Legislative Studies* 14, no. 4 (2008): 451-473.
- [118]. Salloukh, Bassel F. "The Syrian war: spillover effects on Lebanon." *Middle East Policy* 24, no. 1 (2017): 62-78.
- [119]. Salloukh, Bassel F., & Renko A. Verheij.(2017). "Transforming Power Sharing: From Corporate to Hybrid Consociation in Postwar Lebanon." *Middle East Law and Governance* 9 (2): 147–173.
- [120]. Salamey, Imad. "Failing consociationalism in Lebanon and integrative options." *International Journal of Peace Studies* (2009): 83-105.
- [121]. Salamey, Imad. "Post-Arab Spring: changes and challenges." *Third world quarterly* 36, no. 1 (2015): 111-129.
- [122]. Salloukh, Bassel F. "War memory, confessional imaginaries, and political contestation in postwar Lebanon." *Middle East Critique* 28, no. 3 (2019): 341-359.
- [123]. Salloukh, Bassel F. "Taif and the Lebanese state: the political economy of a very sectarian public sector." *Nationalism and Ethnic Politics* 25, no. 1 (2019): 43-60.
- [124]. Salloukh, Bassel F., & Renko A. Verheij.(2017). "Transforming Power Sharing: From Corporate to Hybrid Consociation in Postwar Lebanon." *Middle East Law and Governance* 9 (2): 147–173.
- [125]. Saab, Samer S., and Zaher M. Kassas. "Map-based land vehicle navigation system with DGPS." In *Intelligent Vehicle Symposium*, 2002. IEEE, vol. 1, pp. 209-214. IEEE, 2002
- [126]. Ouais, Makram, and Marwan Rowayheb. "Ex-combatants Working for Peace and the Lebanese Civil Society: A Case Study in Non-communal Reintegration." *Civil Wars* 19, no. 4 (2017): 448-469.
- [127]. Poehner, M. E. (2008). *Dynamic assessment: A Vygotskian approach to understanding and promoting second language development*. Berlin: Springer.
- [128]. Tabar, P., Denison, A. and Alkhomassy, M. 2020. Access to social protection by immigrants, emigrants, and resident nationals in Lebanon. *Migration and Social Protection in Europe and Beyond (Volume 3)*, 183.
- [129]. Teng, M. F. (2021). Interactive-whiteboard-technology-supported collaborative writing: Writing achievement, metacognitive activities, and co-regulation patterns. *System*, 97, 102426.
- [130]. Open Society Foundations, Jad Melki, Khaled Nasser, Sarah Mallat, Maysa Shawwa, Michael Oghia, Diana Bachoura, et al. *Mapping Digital Media: Lebanon: A Report by the Open Society Foundations*. Open Society Foundations, 2012.
- [131]. Osta, Iman, Colette Laborde, Celia Hoyles et al. .1998. "Computer technology and the teaching of geometry." In *Perspectives on the teaching of geometry for the 21st century*, pp. 109-158. Springer, Dordrecht.
- [132]. Oasis, Makram, and Marwan Rowayheb. "Ex-combatants Working for Peace and the Lebanese Civil Society: A Case Study in Non-communal Reintegration." *Civil Wars* 19, no. 4 (2017): 448-469.
- [133]. Shahzad, Syed Jawad Hussain, Elie Bouri, Mobeen Ur Rehman, and David Roubaud. "The hedge asset for BRICS stock markets: Bitcoin, gold, or VIX." *The World Economy* (2021).
- [134]. Salamey, Imad, and Zanoobia Othman. "Shia revival and wilayat al-faqih in the

- making of Iranian foreign policy." *Politics, religion & ideology* 12, no. 2 (2011): 197-212
- [135]. Salamey, Imad, and Frederic S. Pearson. "The Collapse of Middle Eastern Authoritarianism: breaking the barriers of fear and power." *Third World Quarterly* 33, no. 5 (2012): 931-948.
- [136]. Salamey, Imad, and Frederic Pearson. "Hezbollah: a proletarian party with an Islamic manifesto—a sociopolitical analysis of Islamist populism in Lebanon and the Middle East." *Small Wars & Insurgencies* 18, no. 3 (2007): 416-438.
- [137]. Salamey, Imad, and Paul Tabar. "Consociational Democracy and urban sustainability: Transforming the confessional divides in Beirut." *Ethnopolitics* 7, no. 2-3 (2008): 239-263.
- [138]. Salamey, Imad. *The decline of nation-states after the Arab spring: The rise of communitocracy*. Routledge, 2016.
- [139]. Salamey, Imad. "Middle Eastern exceptionalism: Globalization and the balance of power." *Democracy and Security* 5, no. 3 (2009): 249-260
- [140]. Syed, Qasim Raza, and Elie Bouri. "Impact of economic policy uncertainty on CO2 emissions in the US: Evidence from bootstrap ARDL approach." *Journal of Public Affairs* (2021): e2595.
- [141]. Syed, Qasim Raza, Elie Bouri, Raja Fawad Zafar, and Oluwasegun B. Adekoya. "Does geopolitical risk mitigate inbound tourism? Evidence from panel quantile regression." *Journal of Public Affairs*: e2784.
- [142]. Tabar, P., Denison, A. and Alkhomassy, M. 2020. Access to social protection by immigrants, emigrants, and resident nationals in Lebanon. *Migration and Social Protection in Europe and Beyond (Volume 3)*, 183.
- [143]. Martínez, J. F., Kloser, M., Srinivasan, J., Stecher, B., & Edelman, A. (2022). Developing Situated Measures of Science Instruction Through an Innovative Electronic Portfolio App for Mobile Devices: Reliability, Validity, and Feasibility. *Educational and Psychological Measurement*.
- [144]. Meyer, E., Abrami, P. C., Wade, C. A., Aslan, O., & Deault, L. (2010). Improving literacy and metacognition with electronic portfolios: Teaching and learning with ePEARL. *Computers & Education*, 55, 84-91
- [145]. Tarhini, Abbas, Jihan Tarhini, and Anwar Tarhini. 2019. "Information Technology Adoption and Implementation in Higher Education: evidence from a case study in Lebanon." *International Journal of Educational Management*.
- [146]. Ouais, Makram, and Marwan Rowayheb. "Ex-combatants Working for Peace and the Lebanese Civil Society: A Case Study in Non-communal Reintegration." *Civil Wars* 19, no. 4 (2017): 448-469.
- [147]. Yunis, Manal, Abbas Tarhini, and Abdunasser Kassar. 2018. "The role of ICT and innovation in enhancing organizational performance: The catalyzing effect of corporate entrepreneurship." *Journal of Business Research* 88:344-356.
- [148]. Yunis, Manal, Abdul-Nasser El-Kassar, and Abbas Tarhini. 2017. "Impact of ICT-based innovations on organizational performance: The role of corporate entrepreneurship." *Journal of Enterprise Information Management*
- [149]. Yammine, Kaissar, and Assi. Chahine. 2020. "Educational assessment of the major lower limb amputations videos on YouTube," *Vascular*, vol. 28, no. 5, pp. 536–541, 2020
- [150]. Won, S. G., Evans, M. A., Carey, C., & Schnittka, C. G. (2015). Youth appropriation of social media for collaborative and facilitated design-based learning. *Computers in Human Behavior*, 50, 385-391.
- [151]. Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. USA: Harvard University Press.

Appendix A:

[Survey on Perceptions of Digital Writing portfolio Implementation in Writing Classrooms - Google Forms](#)

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