

**Original Article****Beyond Convention: Enriched Argument in L2 Writing Through Mobile-Assisted Reading****Mohammad Aghajanzadeh**

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**Received:** 2021/06/22**Accepted:** 2021/10/22**Abstract**

One integral constituent of argumentative writing is the capability of drawing upon relevant evidence to endorse an argument, a practice that itself necessitates elaborate reading and writing processes. Taking the position that writing can be an important skill to foster knowledge building pedagogy; this article explores changes made to argumentation behavior in L2 essay writing composed by two groups of language learners attending an integrated writing course. Thirty-one language learners as participants of the experimental group used two popular news mobile applications online and offline for reading as a pre-task activity that made them outperform their counterparts in the control group in terms of using factual evidence, namely statistics, incidence, findings, and quotations. The statistical analyses disclosed a significant difference in the overall writing ability of the two groups in the experimental group's favor. This outperformance partly resulted from richer content presentation in essays written by those who had read through mobile news applications and used more facts in their essays. Findings of the present paper can shed new light on how to utilize digital materials for the purpose of enriching EFL writing content.

**Keywords**

academic writing, argument, evidence, facts, MALL.

**Introduction**

In regard to the significance of computerized information and computer technology, learning with the help of mobile phones and other similarly modern devices has become an all-important segment of second language learning (49). Despite learners' initial objection to L2 reading through mobile phones due to novelty of medium and unknown required strategies, they can be guided to resort to this electronic version to facilitate their second language learning and production in a wider perspective (55). Wang and Smith<sup>52</sup>, similarly, have argued that providing that students are engaged in reading activities on their mobile phones, measurable improvements in their reading ability will be obvious. This technology can be employed for enhancing literacy skills of language students as undoubtedly there is a wide scope for learning through mobile technology (7).

Writing is one of the difficult skills for teaching and learning, and amongst different types of L2 writing, academic writing is usually intricate, and students have to further elaborate on their arguments to a specified rhetoric. Accordingly, learners take academic writing course to obtain the core academic writing skills consequently in order for paving the way for future academic performances (25). Institutions and educators value some types of academic writing over others in formal school settings, and argumentative writing is preeminent among valued genres (38). Mitchel 34(p.146) has maintained that writing persuasive arguments is the "defining characteristic of a good student at the undergraduate level". One critical part of argumentative writing is the proper employment of evidence to support a coherent argument, a literary endeavor that itself requires carefully involved reading or complete understanding of the source texts and writing

processes (46). There is much room to explore, however, about how novice L2 writers should acquire argumentation skills over time (21).

Evidence plays a key role in writing, especially in argument. Hyland<sup>15</sup>(p.178) asserts that “evidentiality refers to the writer’s expressed commitment to the reliability of the propositions he or she presents and their potential impact on the reader”. Indeed, Kibler and Hardigree<sup>21</sup> add that calls for evidence-based arguments have become so common that few have stopped to define what exactly counts as evidence. Most agree that evidence can include direct quotations, paraphrases, and summaries. Three types of evidence, namely unincorporated or original quotations, incorporated or reformulated quotations, and paraphrases have been proposed by Kibler and Hardigree<sup>21</sup> to carry six distinct functions of a) supporting of a claim b) illustrating the author position c) introducing the source text d) connecting two texts e) developing a counter argument f) giving background. Apart from types and functions, they included reporting verbs to explore evidence in writing argumentation. The background of writers, prior experience, and practice with sources, and motivation influence their ability to choose and justify evidence; this background or contextual knowledge may include familiarity with discourse and disciplinary ways of constructing arguments and contributing new knowledge to ongoing discussions within a particular field (19, 51).

Unlike computer-assisted language learning (CALL), which has been immensely employed for decades and has been embraced by a host of second language practitioners, the relatively inchoate field of mobile-assisted language learning (MALL) in EFL contexts necessitates further exploration (12,39).

This experimental study, in regard to a review of related studies aimed to cast more light on the effect of reading news through mobile applications for facts and evidence on quality of argumentative essay writing with a focus on the content. Although several studies have been done into technologies and mobile application and their contribution to language learning, there is paucity of research into the effect of mobile assisted L2 reading on academic writing especially in an EFL context. This study explored any clue to determine whether mobile-assisted discursive reading can enrich the evidentiary basis in EFL learners' writing.

### **Literature Review**

Technology has different effects on students writing in different ways. A study conducted by Lenhart et al.<sup>29</sup> reported 59% of young learners had a high opinion of the role computers serve in writing skills because it would facilitate revision. By and large, MALL originally concerns with mobile phones, iPods and other similar devices as an extension of CALL which positively affects language learning (Chang et al., 2018). In a similar vein, Kukulska-Hulme<sup>23</sup> notes that in regard to 12 achievements, mobile phones can afford learners good opportunities to employ or interact with digital materials in a formal or informal settings; and having this in mind, any research design may thus be conditioned by the researcher’s choice of perspective and context. Language teaching studies and practices, especially in ESL contexts, have also been affected by this tide of change as well (44). By providing flexible, practical, and personalized opportunities of use in and outside the classroom, mobile learning challenges the conventional ways of teaching remarkably (24). Mobile Assisted Language Learning is a prevalent endeavor with unclear implications (50), but language learners are using it due to its portability, connectivity (40).

Educational affordances of mobile-based language learning positively transform the personal theories of teachers but they need to be professionally trained to promote full engagement in learners (54). Booton and Hodgkiss<sup>2</sup> find out that affordances of mobile applications have the potential to support learning in new ways, in line with existing research on children’s language learning processes, and this potential needs to be explored empirically. Mobile assisted language learning can be advantageous to young language learners to upgrade their reading comprehension skill. Booton and Hodgkiss<sup>2</sup> conclude that student motivation, attention to and learning new

lexical items, and subsequent language learning will be promoted owing to augmented reality, i.e. receiving context-sensitive information loaded and covered by real-life contexts (32). Cerezo, Calderon, and Romero<sup>3</sup> take the view that augmented reality takes much of this credit from teachers' expertise for positively influencing language learning. A study was conducted by Shree et al.<sup>43</sup> to see if prospective teachers who were passing teaching training courses, from 27 teacher training centers in Malaysia, have a high opinion of mobile learning effects on enhancing their argumentative writing. This genre has much commonalities with academic writing because it encourages critical thinking and reflective writing. The research reported a few setbacks, namely poor content, insufficient vocabulary knowledge, and mediocre organization, faced by the respondents while composing an argumentative essay. Shree et al.<sup>43</sup> also disclosed that learners found it difficult to relate to their ideas in writing because the process of writing does not take priority over product. Finally, they concluded that Mobile assisted L2 writing can offer a host of academic advantages for the opportunities it provides owing to its flexibility and potential for deep learning. Kessler<sup>20</sup> examined the extent to which the use of mobile phones helped to improve language learners' metacognitive awareness through writing reflection journals. It was revealed that MALL markedly strengthens metacognition in several domains so that quality learning occurs in second language writing.

Hyland<sup>16</sup> classified writing as narrative, expository, descriptive, persuasive and argumentative mediums of communication with readers. In particular, the definition of argumentative writing in current composition literature has been quite varied. Hillocks (2011) impressed by the model proposed by Toulmin<sup>48</sup>, for example, describes this genre as including presentation of logic, claims, evidence, support, and refutation. Mei<sup>33</sup> considers the argumentative essay is the most common genre that undergraduate students have to write. According to Hillocks<sup>13</sup>, argumentative essay is a kind of writing wherein writers states a claim by evidence in order to convince the audience.

It should be noted that there is divided opinion on what is argumentative writing. To illustrate, Schleppe<sup>41</sup>, adhering to a systemic functional perspective, believes that the genre that is actualized by writing a thesis supported by evidence can be known not as argument per se but as exposition, a higher order analytical genre that entails generalization, classification, and categorization through distinct linguistic features.

As mentioned above, a significant part of any argumentative essay that makes it distinct in many ways from other text types or genres is the evidence that is employed to put forward or support a formulated argument. Hyland<sup>15</sup> (p.51) defines evidentials as a component of argumentation derived from a reliable source that "refer to information from other texts" that can "establish an authorial command of the subject. At the same time as they support arguments, evidentials can also be employed to actualize disciplinary-specific (15) and personal (31) goals while developing writers' authority.

As Hirvela and Du<sup>14</sup> assert, reading and writing are both essential to making evidentiary claims; and accordingly, meaningful literacy demands on writers should be stepped up because it lies with them to explore and draw from others' texts in order to present their own stance and beliefs. Yet language proficiency and literacy skills alone may not be sufficient. Because evidence-based arguments are so often connected to research writing, it is not uncommon for opinions, support, reasons, facts, details, and specifics to be used as synonyms for types of evidence. Writers formulate arguments using evidence extracted from different types of materials for an array of purposes and audiences that vary across disciplines. Moreover, writers' background knowledge, prior experience, and practice with sources, as well as motivation for the task, also influence their ability to choose and justify evidence (21). Similarly; according to Hyland<sup>15</sup>(p.51), evidential information refers to data from other texts and may "involve hearsay or attribution to a reliable source".

Liu and Stapleton<sup>31</sup> in an experimental study successfully encouraged L2 novice writers to

write counterarguments and enter the minds of others. They believe that counter-argumentation is an integral component of an argumentative essay to persuade readers that all second language writers, whatever the age, can take advantage of it; teenagers and even younger L2 writers can appreciate in practice the viewpoints of the opposing groups in their writing. Cotos & Chung<sup>5</sup> utilizing Systemic Functional Linguistics to employ the argumentative genre in several discourse communities have come to the conclusion that L2 learners should know how to use arguments in their written productions efficiently.

Upon writing an argumentative essay, writers must observe strict essentials germane to the structure of argumentation and divide their attention effectively between what they want to write, how they want to present it, and how to utilize their reasoning skills (8). Van Weijen, Rijlaarsdam, and van den Bergh<sup>52</sup> explored the multifaceted nature of writers' argumentation behavior. The purpose of their investigation was to see through if Cummins' Linguistic Interdependence Hypothesis (LIH) might also bear on L2 composition, by exploring the extent to which essay quality, source use and argumentation features differed between languages and if their second language proficiency level affected the relations between them. There was a positive relation between the quality of text the writers produced and the source use or the number of copied chunks from the original source they used. This relation was language irrelevant though. Added to this was the outcome that implied second language proficiency was an irrelevance as well.

All things considered, the present study was conducted to probe the effect of reading news through mobile applications on the use of facts and evidence in second language writing. In this regard, two research questions were formulated:

1. Do students who read through mobile news applications use significantly more evidence in their essays than those who read conventionally?

2. Is there any significant difference between the overall writing achievement of those students who read through mobile news applications and that of those who read normally?

### **Methodology**

In the first phase of the study that was germane to detection of evidence types in writing samples, two expert coders who had been teaching L2 writing more than 15 years attended two sessions to find evidentials. Turning to the experimental phase of the study, a sample of 62 students was selected from an original group of 75 students who had done a writing test in four language centers specializing in international English proficiency examinations. The participants included both male and female proficiency tests applicants and their age range fell between 18 and 28. The participants were randomly assigned to two groups: the experimental group and the control group. Each group included 31 participants.

First, a collection of high-scoring writings were explored to detect the components of facts used in essays. Second, the participants took writing tests as their pre-test and post-test. Simply put, in order to determine the homogeneity of participants before the treatment they wrote an essay, and the same test was given as a post-test to find out the effectiveness of mobile reading in the number of facts used in writing. The overall writing ability of the participants was also investigated. The total score of the pre-test and post-test was 100. One of the well-known L2 writing rubric ESL Composition Profile developed by Jacobs et al<sup>17</sup> was utilized to assess all written tasks in pre and posttests.

Integral to carry out the research was introducing more tangible evidence types compared to what second language writing literature has presented. Thus, in the first phase; before the experimental study, high-scoring essays were probed to find evidentials. Considering the types and functions of evidence proposed by Kibler and Hardigree<sup>21</sup>, learner corpora accommodating 86 top-scoring academic compositions derived from the tests bank of Barattson Center in Baku preparing students for IELTS, TOEFL, and PTE examinations. In addition, 22 university writing performances were explored to find evidence written in untimed essays wherein citations had

been used. The rationale behind this corpus investigation is in line with what Swales<sup>47</sup> recommends implying that high-scoring essays would be exemplified by several kinds of evidence. Of 108 writing, 32 essays were randomly selected to be intercoded for four detected components. Once the types of evidence were determined, the experiments began with choosing the participants of the study.

Turing to the experimental phase of the research, 75 participants who were studying academic English and were aiming to sit for IELTS and TOEFL iBT wrote an essay, as a pretest and homogeneity test on Do you think news reporters should be sent to war zones? Given the sampling prerequisite and estimating the homogeneity of participants which had to prove high enough to ensure the continuation of the study, 62 participants whose writing scores were between 1 SD above and below mean were selected as the sample of the study and were randomly divided into two experimental and control groups attending 4 classes overall. The course lasted for 12 sessions, totaling about 16 hours. The control group received regular classroom instruction in reading comprehension integrated with writing in the end but the experimental group used mobile news applications for the reading course coupled with writing performances. For each session, they read news on specific global issues recently broadcast on popular applications, namely Flipboard and Google News - Daily Headlines. Key information were asked to be summarized. However, the control group was given highly ranked model essays to be summarized and highlighted for key information. Having being finished with the course, the two groups underwent a post-test writing on the same topic of the pretest but with the reworded structure to be evaluated in regard to their progress in terms of evidence used for the arguments they had formulated in their essays. T-tests were applied to check the overall writing ability of the two groups, and one-way ANOVA was employed to explore the number of facts written in essays before and after the treatment. It is worthy of note that LSD Pairwise Comparisons were used to find out the exact area of differences in the number of four types of facts.

## Results

Four types of evidence were coded and detected by two coders as follows:

1. Incidence: The journalist James Foley was beheaded by ISIS.
2. Quotation: Gramber (2010) notes that "The scope of ESL education is changing rapidly" (p. 2834).
3. Findings: A study has shown that food miles take heavy toll on citizens' health.
4. Statistics: More than 70 percent of football-loving females attend stadiums.

As Table 1 shows the results of agreement between two coders estimated through Cohen's Kappa that ensured the continuation of the study.

**Table 1.** Intercoding analysis

Measures	TOTAL AGREEMENT	CHANCE AGREEMENT	K
Incidence	.95	.2	.94
Findings	.98	.18	.96
Quotations	.91	.3	.90
Statistics	.99	.1	.98

At the outset of the experiment, it was necessary to investigate the current writing ability of the two groups (See Table 2).

**Table 2.** T-test Results of pretest writing

		Levine's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Writing pretest	Equal variances assumed	.257	.616	.00	29	0.894	.00067	2.54917	-5.45826	5.49159

The two tailed sig of the test above was “0.894” which is much higher than assumed p value which is “0.05”, so it could be inferred that there was no significant difference between the groups. More importantly, the employment of evidence was also investigated to check if the two groups were different in this regard (See Table 3). With respect to the main aim of the study, an investigation of argument behavior associated with the use of facts and evidence in writing, a one-way ANOVA test was run to explore whether the two groups were similar in this regard before introducing the treatment (See Table 3).

**Table 3.** Groups' statistics of facts mean scores in pretest writing

Groups	N	Mean	Std.Dev.	Std.Error	
Experimental	31	1.7097	0.6925	0.1244	
Control	31	1.5484	0.6239	0.1121	
ANOVA Summary					
Source	Degrees of Freedom DF	Sum of Squares SS	Mean Square MS	F-Stat	P-Value
Between Groups	1	0.4033	0.4033	0.9283	0.3392
Within Groups	60	26.0642	0.4344		
Total:	61	26.4675			

Based on the results retrieved, the total number of facts used in the two groups' pre-test writing was not significantly different with alpha 0.05. Statistical description of post test scores of control and experimental group in regard to their overall writing ability showed a significant difference. Tables 4 and 5 indicate the respective breakdown.

**Table 4.** Group statistics of the post test scores in two groups

	Group	N	Mean	Std. Deviation	Std. Error Mean
Writing score Posttest	Experimental	31	79.64	9.024	2.43644
	Control	31	69.400	10.035	2.52068

The mean score of the experimental group who received mobile-based reading treatment was far more than the mean of control group with placebo. Accordingly, the t-test revealed the significance of this difference (See Table 5).

**Table 5.** The independent sample t-test results of post-test writing

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances	.028	.965	-1.75	29	.01	-1..6333	3.5794	-16.325	-2.5431

In the table 5, the amount of sig two tailed is “0.01” which is significantly lower than the predetermined amount of p value which is 0.05. Therefore, it can be inferred that there was a significant difference between the overall writing ability of the groups. It is worthy of note that there was an attempt to figure out whether this outperformance could result from the number of evidence and facts that the two groups used in their writing. Table 6 compares the mean scores of number of facts by type written by both groups in pre and post writing tests.

**Table 6.** Mean scores of evidence in two groups' pre-writing and post-writing

Factor	control group		experimental group	
	pretest	posttest	Pretest	Posttest
Incidence	0.2	0.50	0.1	3.67
Findings	0.3	0.50	0.17	3.50
Quotations	1.00	0.67	0.42	0.53
Statistics	0.67	0.08	0.17	0.50

At first sight, it is noticeably seen that the mean scores of the experimental group were higher than the counterpart's in the post test writing. Given this inequality, a one way ANOVA test was employed if the difference in the total number of evidence and facts was significant (See Table 7)

**Table 7.** Groups' statistics of facts mean scores in pretest writing

Groups	N	Mean	Std.Dev.	Std.Error	
Experimental	31	4.2581	1.4135	0.2539	
Control	31	1.7097	0.6925	0.1244	
ANOVA Summary					
Source	Degrees of Freedom DF	Sum of Squares SS	Mean Square MS	F-Stat	P-Value
Between Groups	1	100.6623	100.6623	81.2599	.001
Within Groups	60	74.3262	1.2388		
Total:	61	174.9885			

It was indicated that in terms of using evidentials there was a statistically significant priority of the experimental group' performance over the control groups' i.e.(Sig.<0.05). Finally, post-hoc pair wise comparisons using LSD method was applied to reveal the exact area of differences (See Table 8).

**Table 8.** LSD pairwise comparisons

Dependent Variable	(I) group	(J) group	Mean Difference (I-J)	Std. Error	Sig. <sup>a</sup>	95% Confidence Interval for Difference <sup>a</sup>	
						Lower Bound	Upper Bound
Incidence_post	control	experiment	-2.359*	.635	.000	-3.610	-1.108
	experiment	control	2.359*	.635	.000	1.108	3.610
Findings_post	control	experiment	-1.171*	.581	.001	-1.014	-.727
	experiment	control	1.171*	.581	.001	.727	1.014
Statistics_post	control	experiment	-1.164*	.458	.072	-2.065	-.263
	experiment	control	1.164*	.458	.072	.263	2.065
Quotations_post	control	experiment	.013	.438	.976	-.848	.875
	experiment	control	-.013	.438	.976	-.875	.848

Table 8 shows that the differences in mean scores of incidence and findings were statistically significant in favor of the experimental group. This conclusion was drawn from achieved p-values of incidence and findings which were .000, .001, respectively.

### Discussion

The study indicated there existed a significant difference between the number of facts or evidence the control and experimental groups used in their writing. This outperformance brought up a significant positive change to the overall writing ability of the experimental group whose writing content had been enriched with the four types of evidentials learned from reading news through mobile applications. One possible reason behind this improvement in the writing of the experimental group would be the enhanced motivation and autonomy of learners encouraged by the interactive nature of the mobile applications and real-life situations they create (22). The problem-solution pattern used in news is the common rhetorical structure that a reader encounters: thus, efficient written communication utilizing the problem-solution framework is an essential competency for academic writing (30,36). Added to this contribution would be the authenticity of reading practice or writing materials that doubtless strengthens immersive exploration assists novice writers to perform better (27,42,45). Findings in this study resonate with the view that conventional literacy pedagogy is not linguistically, culturally, and digitally satisfactory, and a novel literacy thought should be implemented through multiple channels and modes for self-selected gaining knowledge, making meaning, and voicing ideas simultaneously (34). What is more, the recursive reading-writing course using electronic contents has positive implications for L2 learning improvement in terms of raising lexical knowledge, structural complexity, writing length, content richness, and audience awareness (28).

Lam, Hew, and Jia<sup>26</sup> argue that making intertextual connections between the text students read and the compositions they write not only has the potential to sharpen their interpretation of the texts but also strengthens their subsequent learning in an electronically-enriched writing class. According to Bazerman<sup>1</sup>(p.53), “intertextuality forms one of the crucial grounds for writing studies and writing practice”. Our writing mirrors the texts which we have previously read because this existing textual knowledge is transferred to our essays and other types of writing (18). One tool that may be used to stimulate students’ writing and to guide students into seeing themselves as real authors as they mimic the writer’s style from the sources explored are mentor



texts. Students both consciously and unconsciously use and transform elements of various texts they have previously experienced to provide more meaningful ideas in their writing (9, 11). In order for learners to become legitimate writers, they need to know what makes other texts insightful and they should read reflectively to create their own effective written performance (18).

Finally, idea generation appears as an integral element of writing that is almost considered by cognitive models of this language skill (10). Crossley, Muldner, and McNamara<sup>6</sup> note that writers can employ various methods to retrieve and develop new ideas in their writing. These important endeavors can be prompted by reading the quality texts of other writers and translating the received ideas into theirs. Despite receiving scant attention compared with other cognitive processes in writing, development of creative ideas can contribute to writing success (10). As shown in the study, the treatment brought about significant improvement in the content of writing that had been enriched with evidence composed for arguments or counterarguments. Given the urgency of current L2 proficiency models and assessments, it should be noted that conceptualization and assessment of meaning or content have to receive more attention. Accordingly, L2 testers must clearly specify and address the scope and measure the type of content. This is especially prominent in academic contexts wherein conveyance of topical knowledge is an integral part of one's communicative ability. Thus, test users would have this in their mind in the extent to which an L2 user's response is meaningful and content-responsible (37). Crossley and McNamara<sup>6</sup> assert that idea generation leads to higher quality texts in students' writing. This important part of writing is interpreted in terms of fluency, flexibility, elaboration, and originality. Fluency refers to the number of ideas but flexibility is accounted when ideas are different. Expansion and novelty of ideas are estimated through elaboration and originality respectively, as their names clearly suggest.

### Conclusion

Given that evidence performs a key role in argumentative and academic writing, almost students find themselves confronted by lack of knowledge about how to use it in their writing, though. Most of them do not know how evidence is valued, used, and analyzed differently in various discipline. This study investigated the implications of using mobile news applications for using facts and evidence in argumentative essay writing. The result showed that the treatment of the study was effective in improving the content of writing thanks to accommodating more evidence that could be an integral contributing factor for improving overall writing ability as well. This pedagogical intervention employed in the reading episode of the class can foster knowledge telling in academic compositions and acts as a tool to transform the writing knowledge. Therefore, there is an instructional need for having a rethink of writing programs and calling for expertise on designing writing courses integrated with technologically mediated reading as a solution to foster the knowledge of topics, discourse, and genre. Finally, it should be noted that there is much room for further research carried out into the facilitating processes and cognitive and metacognitive strategies learner adopt to write with the help of mobile assisted reading. It is hoped that the study encourages the EFL/ESL practitioners to host mobile phones for improving L2 literacy skills in the classroom environments.

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