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An Investigation into the Teaching Practices and Material Effects on Student Outcomes: A Case Study from Oman

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ABSTRACT

Acquisition of an additional language is assumed to involve several internal and external factors for the learner. Among external factors, instructional procedures and materials are vital in helping learners master L2 skills. This study investigates how the instructor's instructional variables and in-house materials influence tertiary-level Omani students' academic writing proficiency in Omani technological education. The study used a quasi-experimental research design in which two treatment (N = 60) and comparison (N = 60) groups and two instructors were included. The researchers selected participants for the current study using a random purposive sampling technique. The treatment groups received writing instruction via in-house materials, while the comparison groups were instructed using the prescribed textbook by two instructors for two semesters. The study employed four research instruments (a pretest, mid-semester, final exam, and intervention instrument) to gather data, which were analyzed using descriptive and non-parametric tests (Mann-Whitney U test). The results of an MNOVA test that comprised three components (class, instructor, and comparison or treatment group) revealed statistically significant effects on all three factors; class (F = 6.18, p =.001), instructor (F = 2.83, p =.001), and group (F =1. 15, p =.001), indicating that an instructor's effective instructional procedures and in-house materials, influenced the study groups' outcomes. Given the findings, it can be concluded that different instructional strategies and in-house materials can affect students' academic writing proficiency differently.

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1. Introduction

In higher education, professors, instructors, and materials play a crucial role in teaching to help learners achieve academic, career, and life success. Educational researchers generally agree that teachers may influence students' learning. Some teachers seem far more successful than others (Schacter & Thum, 2004; Seidel & Shavelson, 2007; Tomaszewski, Xiang, Huang, Western, McCourt, & McCarthy, 2022). Growing evidence suggests that teacher quality is vital to student achievement in primary and secondary education (Vlieger, Jacob & Stange, 2016; Cook & Mansfield, 2014). In addition, several studies provide empirical evidence for the impact of teaching practice and learning opportunities that maximize student engagement, academic performance, and attainment (Olivier, Galand, Morin, & Hospel (2021).

While teacher quality and teaching practice have been investigated in different teaching contexts (Wang, Brinkworth & Eccles, 2013; Olivier, Galand, Morin, & Hospel, 2021; Cents-Boonstra, Lichtwarck-Aschoff, Denessen, Aelterman, & Haerens, 2020; Roorda, Jak, Zee, Oort, & Koomen, 2017; Wentzel, 2002), little research has been conducted to examine the effectiveness of two variables together (teaching practice and materials) in tertiary-level language skills acquisition. The literature on L2 acquisition emphasizes the critical role of effective teaching practices in improving student outcomes (Cooper, 2014; Wentzel & Ramani, 2016). Most studies deal with teacher qualifications, teacher beliefs, or students' perceptions of teachers, and most of them are based on qualitative studies. Tertiary-level students expect their instructors to possess sound subject knowledge and use various teaching methods (Fortson & Brown, 1998; Tam, Heng, & Jiang, 2009). Meanwhile, Lee et al. (2019) view motivational strategies used by L2 teachers, such as providing additional self-learning materials can cause changes in attitudes and behaviors within the classroom context and outside. Several survey studies which examined tertiary-level students' perception concerning the most preferred teaching practice in an L2 class include a conducive and enjoyable learning environment that supports students develop their language skills progressively (Mauludin, 2021; Ahmed & Al-Ward, 2020; Alshehri & Etherington, 2017; Fedesco, Bonem, Wang, & Henares, 2019). Most of the studies cited above inform us that given the tertiary-level students' expectations, instructors must align their teaching practices that support learners in achieving their expected learning outcomes at the end of a study program.

The current study is an experimental one that examines how different instructors' instructional variables and materials (in-house and contrived) affect tertiary-level college students' academic writing proficiency. The researchers hypothesize that different instructors' instructional procedures will affect students' academic writing proficiency differently because classes will report varied results in the final academic writing exam. The research problem described below will be used to form a specific research question for further investigation, and the current study on the teaching practices and materials' effects on students' outcomes could help to inform college administration in which this study was conducted to consider some factors associated with delivering lessons in a classroom context by different instructors using different instructional procedures and materials.

1.1. Research Problem

The students who are admitted to an Omani college of Technology to follow a certificate, a diploma, or a higher diploma course should study English in the preparatory program to develop their English language proficiency in language skills (Listening, speaking, reading, and writing). Once the students sit for the admission test, they are grouped into four levels depending on their marks, and their classes begin. Each class lasts one semester with two examinations (Mid-semester and Final). In one of the colleges of Technology, the first and the second researcher taught an Academic Writing course to level three students who were expected to produce well-written academic essays at the end of the course. However, the quality assurance unit of the college that analyzed the mid-semester and final exam writing results indicated that most of the level three students' performance was deficient in that several students only copied the question onto the answer script while some wrote a few sentences as the answer to the essay questions given in the mid-semester and final exam even though these students study English as a subject for around ten years at school before they enter a college of Technology, where they can learn a writing course for two semesters namely level one and level two before they are promoted to level three.

Preparatory-level students at this college can pursue three major subjects, Information Technology, Business Studies, and Engineering, in the post-foundation program in which the medium of instruction is English. Given this transition from foundation to post-foundation, most students fail to complete their study programs within the given period. As a result, several students are forced to leave their courses at the beginning or in the middle, posing problems for the institution in particular and Omani society in general. As is often the case with tertiary-level studies, to some extent, a student's academic achievement is determined by their ability to write in English.

As the academic writing problem seemed to have recurred for several years, the researchers, as shown in figure 1 below, implemented an instructional intervention with Level 3 students with the premise that a different instructional procedure supplemented with teacher-prepared materials could influence students' writing performance. The first researcher instructed two groups (one treatment and one comparison), while the second was also assigned two groups (one treatment and one comparison). As the instructional method for the treatment groups, the researchers used the in-house materials delivered through the process genre model of writing proposed by Badger and White (2000) because the process genre model enabled learners to understand writing as a process rather than a product. The comparison groups were taught using the prescribed textbook *Ready to Write-2,* which followed the process writing approach. The process genre model of writing includes five phases: prewriting, composing, rereading, peer editing, and teacher feedback (Badger & White, 2000; Henry & Roseberry, 1998; Kim & Kim, 2005), whereas the process wiring includes (according to the textbook) prewriting, writing, and revising. Considering previous research studies and the motivation for the current study, the research question is as follows:

"To what extent do instructors' instructional variables and in-house materials affect student achievement in academic writing?"

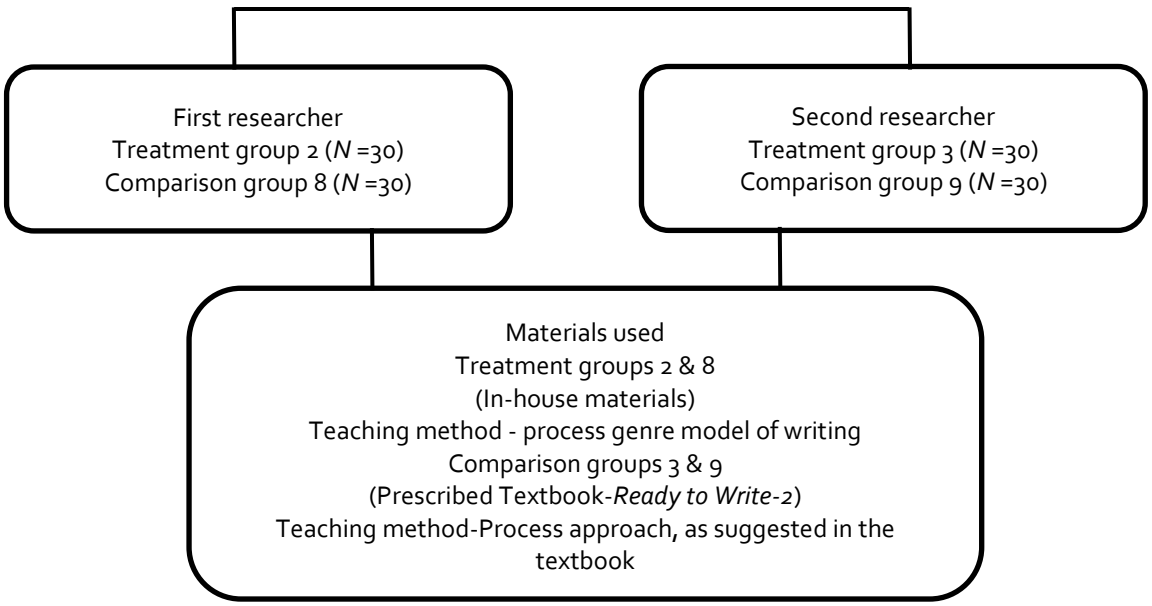

Figure 1 Composition of the treatment and comparison groups in the study

2. Literature Review

Teachers' classroom instructional techniques profoundly affect student learning and achievement (Hattie, 2009), and some teachers are more effective than others in promoting desirable educational outcomes (Atteberry, Loeb, & Wyckoff, 2015). Identifying the attributes contributing to teacher effectiveness has been and continues to be critical to improving education. For this reason, the empirical examination of teacher characteristics potentially linked to teacher effectiveness has prompted considerable interest over the past decades (Darling-Hammond, 2000; Klassen & Tze, 2014). Many studies have been conducted to determine whether teachers influence student outcomes in the school context. In contrast, few studies have examined the instructor/professor's effects on learners' outcomes in university courses (Vlieger, Jacob & Stange, 2016). Several studies the researchers reviewed are based on subjects such as Maths and Economics, while studies focused on instructor/professor effects on students' achievements in ESL/EFL are limited. Therefore, the researchers hope that the current research investigating the instructor's instructional techniques and in-house materials' impact on tertiary-level students' academic writing skills will contribute to the EFL/ESL research domain.

Several past studies have reported that the discrepancy between college instructor effectiveness is smaller than that of elementary teachers. Hoffmann and Oreopoulos (2009a), who researched a Canadian university to examine the professor's effectiveness in introductory courses, found that the standard deviation of professor effectiveness in course grades is not larger than 0.08. In contrast, Carrell and West (2010) examined how professor quality affects student achievement using a US Air Force Academy dataset and reported mixed results. They found that the professors who taught Introductory courses significantly affected student achievement in contemporaneous and follow-on related courses. Still, the effects were quite varied across subjects. In the initial mathematics course, professors as a group performed well. However, they performed worse in math, science, and engineering courses. Braga, Paccagnella, and Pellizzari (2014) assessed teacher effects on student

academic achievement and labor market outcomes at Bocconi University. They found only a slight correlation between instructor effectiveness in educational and labor market outcomes. Another study by Tomkin and Charlevoix (2014), who investigated the impact of professors, and other instructional staff, on student content knowledge acquisition in a physical science MOOC, offered through the University of Illinois at Urbana-Champaign, reported that instructor intervention was not statistically significant on overall completion rates, overall badge acquisition rates, student participation rates, or satisfaction with the course. Lee et al. (2019) examined the after-class effects of L2 motivational strategies and found them positive in English courses that used additional self-learning materials. For their study, they collected 84 reflective journals over one semester from 42 tertiary students enrolled in various English courses at a Hong Kong university. After analyzing the reflective journals, they found that students who used additional self-learning materials made fewer writing mistakes than those who did not use additional self-learning materials. The researchers attribute the findings of their study to L2 teachers' motivational efforts of using additional self-learning materials in after-English classes.

Moreover, stressing the crucial role that instructors play in distance learning programs conducted by open universities, Frankola (2001) has highlighted the fact that students will withdraw even in a well-developed course in which students find no healthy interaction between the students and the instructor and thus, the instructor role is regarded as one of the vital elements in effective online courses. A study, which is similar to the current research in the regional context (Arab region), conducted by Ibrahim, Rwegasira, and Taher (2007) focused on the institutional factors that led students to withdraw or complete the distance learning programs conducted by the Arab Open University in Saudi Arabia. They performed their study with randomly selected 184 participants using a questionnaire to gather data. At the end of the study, they found only two factors significant (the quality of the interaction with instructors and the variety of technologies used in the university) out of the eight factors, while the multiple discriminant analysis revealed that 9 (50%) participants out of 18 were predicted to stay with the university and 9 (50%) predicted to leave the university from the group membership category-intend to stay, whereas, from the group membership category-intend to leave, 40 (46%) out of 166 predicted to remain. In contrast, 76 (65.5%) were predicted to leave the university. Even though this study focused on distance learning students, its outcome suggests that instructors' ability to deliver a lesson, whether online or onsite, can influence students' decisions on whether to continue or leave a course they have started studying in the Arab region.

3. Research Methodology

3.1 Research Design

This study utilized a quasi-experimental design with two main groups (treatment and comparison). The treatment groups included 60 students from Level three (groups two and three). In contrast, the comparison groups also had 60 students drawn from the same level (groups eight and nine). The first researcher taught one treatment (3) and one comparison group (4), while the other the second researcher taught one treatment (8) and one control group (9) for two consecutive semesters. The researchers divided the groups between the two to eliminate potential researcher bias. The study aimed to examine if there were any

instructional and material effects on students' academic writing skills, which were tested using descriptive and non-parametric tests.

The research design included a pre-test to determine the study groups' writing levels before the instructional intervention began. The participants wrote an essay for the pretest in 45 minutes using not less than 350 words on the topic, *"Some people prefer to live in a small town, while others prefer to live in a big city." Which place would you prefer to live in? Use specific reasons and details to support your answer.* Likewise, they wrote two more opinion essays on different essay topics for the mid-semester and final exams, where they were given 60 minutes each with a word limit of between 400 and 450. These tests measured how effective the treatment was. Using the MANOVA statistical test, the researchers analyzed the data gathered from the pretest, mid-semester, and final exams to examine how the instructors' instructional variables and in-house materials impacted the treatment groups' writing proficiency. Likewise, how the instructors' instructional variables and *Ready to Write-2* (textbook) affected the comparison groups' writing proficiency.

3.2 Participants

The researchers used a random purposive sampling technique to select participants for the current study from a group of preparatory-level Omani students studying an English course at a technical institute. The students' ages ranged from 18 to 22, representing both sexes. Arabic is their native tongue. These students studied English in school for about 10 to 11 years. However, most students lacked the required degree of competency in writing in the target language.

3.3 Instruments

The researchers designed and developed additional teaching materials using the college's course outline for a level 3 academic writing course. The rationale for preparing in-house materials for the intervention was that the level three students' writing needs and writing skills were not the same as what the prescribed textbook (*Ready to Write 2*) includes. This textbook was not intended for a specific target population. The instructional method recommended in the book includes only three steps (prewriting, writing, and revising, *Ready to write 2*, p. 61), which is not in line with the process approach to writing, which must include four stages (prewriting, revising, editing, and proofreading) (Williams, 2005; Yan, 2005; Zamel, 1983). The topics for developing in-house materials were selected from this textbook. The researchers used the process genre writing model while creating writing activities. The writing activities included five phases: prewriting, composing, re-reading and rewriting, peer-editing, and teacher feedback. In addition, several writing strategies (organizing, outlining, drafting, revising, analyzing, and freewriting) were incorporated into the developed activities. *PowerPoints*, video clips, samples of students' writing, worksheets (relevant to the writing topics), and online tools for feedback were used (https://kaizena.com) to make the instructional procedures more interactive and engaging. In order not to discriminate against the comparison groups, *PowerPoint*, video clips, and writing worksheets were used in classroom teaching in line with their textbook.

3.4 Data Analysis Procedures

The researchers used four data collection instruments, the pre-test, mid-semester, final exam, and intervention, to collect data for this study. Two examiners rated the pre-test essays

the participants of both treatment and comparison groups wrote. The pre-test was graded on a scale of 20 using the IELTS writing rubric that included task response, coherence and cohesion, lexical resource, and grammatical range and accuracy. The five descriptors were weighted equally (5 points) each. The same approach was used to score mid-semester and final test answer scripts. After scoring the scripts, the participants' marks were saved in an Excel file for subsequent analysis. The data collected from the four research tools were analyzed using IBM SPSS (2019) statistical software at the end of the study, and descriptive and non-parametric statistics were calculated as described in the section below.

4. Findings

Table 1 summarizes the descriptive statistics received by each group on the pretest, mid-semester, and final exams.

Table 1. Descriptive statistics of treatment and comparison groups (pretest, MSE, and FE)

		Gender	Mini score	Maxi score	Mean	Standard Deviation	Standard Error
Pre-test	Treatment group (n = 60)	29 (m) 31 (f)	7 9	14.5 14.5	10.88	1.67	0.21
	Comparison group (n = 60)	27 (m) 33 (f)	7.5 6	13 14	10.38	1.60	0.20
Mid-test	Treatment group (n = 60)	30 (m) 30 (f)	9 9	18.5 18.5	14.78	2.46	0.31
	Comparison group (n = 60)	27 (m) 33 (f)	6 8	15 15	11.80	1.94	0.25
Final test	Treatment group (n = 60)	28 (m) 32 (f)	11 13	22 22	16.74	2.44	0.31
	Comparison group (n = 60)	27 (m) 33 (f)	8.5 7.50	16 16	12.15	2.18	0.28

Table 2. Statistics of the Paired Samples T-test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	T PRE T MT	3.90	1.98	.256	4.41	3.38	15.18	58	.000
Pair 2	T FT T MT	1.95	2.53	.326	1.30	2.61	5.99	58	.000
Pair 3	T FT T PRE	5.85	2.52	.325	5.20	6.51	17.98	58	.000
Pair 4	C MT C PRE	1.42	1.64	.211	1.00	1.84	6.72	58	.000
Pair 5	C FT C MT	.35	1.12	.145	.05	.64	2.41	58	.019
Pair 6	C FT C PRE	1.77	1.90	.246	1.28	2.26	7.19	58	.000

T=Treatment; C=Comparison; PRE=Pre-test; MT= Mid-Test; FE=Final Test

The researchers used paired t-tests to compare the scores of the treatment and comparison groups on the pretest, mid-semester, and final exams, as shown in Table 2. Comparison of the scores in the first pair between the pretest (*M* =10.88, *SD* =1.67) and MSE (*M* = 14.78, *SD* =2.46) with *t* (58) =-15.18, *p* =.001) showed a significant increase in scores in the treatment group. Likewise, the second paired samples revealed a significant difference between the final exam scores FE (*M* =16.74, *SD* =2.44 and the MSE (*M* = 14.78, *SD* =2.46), with *t* (58) = 5.59, *p* =.001 in the treatment group.

The paired t-test results for the comparison group were as follows: There was a significant difference in the fourth paired sample t-test between the MSE (*M* = 11.80, *SD* = 1.94) and the pre-test (*M* = 10.38, *SD* 1.60); *t* (58) = 6.72, *p* =.000. There was a significant difference between the FE (*M* = 12.15, *SD* = 2.18) and the MSE (*M* = 11.80, SD = 1.94), according to the fifth paired samples t-test; *t* (58) = 2.41, *p* =.019. According to the sixth paired samples t-test, there was a significant difference between the FE (*M* = 12.15, *SD* = 2.18) and the pre-test (*M* = 11.80, *SD* = 1.94); *t* (58) = 7.19, *p* =.001. According to the paired test results, both the experimental and control groups improved their academic writing skills after the intervention.

4.1. In the Mid and Final, the main effects (of group, class, and instructor)

The researchers created a MANOVA model using the mid-semester and final exam scores as dependent variables and the class (i.e., study groups 2, 8, 3, and 9 **(**treatment or comparison) as independent variables to answer the research question. This MANOVA model informs the researchers about the treatment effect (i.e., whether the participants were taught using in-house materials or the recommended textbook) and if the varied instructors' instructions impacted the outcome. In other words, if the treatment was effective, irrespective of the instructor who taught a specific group. Finally, the MANOVA model reflects any variances between the four classes in the mid-semester and final exams. Table 3 below shows the overall major effects of the independent factors.

Table 3. The General Linear Model's main effects

Multivariate Tests						
Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Wilk's Lambda	.57	26.492[a]	3.00	114.00	.000
Class	Wilks' Lambda	.87	4.126[a]	3.00	114.00	.002
Instructor	Wilks' Lambda	.90	2.756[a]	3.00	114.00	.013
Group	Wilks' Lambda	.58	25.275[a]	3.00	114.00	.000

The researchers compared the effects of the group (treatment or comparison), class, and teacher on the students' performance in the mid-semester and final exams using a multivariate analysis of variance. Table 3 demonstrates that at 0.05, these three factors (instructor, class, comparison, or treatment group) were statistically significant. In addition, there was a strong main effect for class: 5.12, *p* =.002. *F* (3, 114.00) = 4.12, *p* =.002. Wilks' =.87, *F* (3, 114.00) = 5.12, *p* =.002. Wilks' =.87, *F* (3, 114.00) = 4.12, *p* =.002. As a result, at least one of a student's classes significantly affected one of the dependent variables (instructor's roles). Furthermore, one can see a significant main effect: Wilks' =.90, *F* (3, 114.00) = 2.75, *p* =.013, indicating that the instructor influenced the outcome of either the mid-semester or final test (or both). Wilks' =.58, *F* (3, 114.00) = 25.27, *p* =.001; Wilks' =.57, *F* (3, 114.00) = 26.27, *p* =.001; Wilks' =.57, *F* (3, 114.00) = 25.27, *p* =.001; Wilks' =.58, *F* (3, 114.00) = 25.27. This indicates that at least one post-test revealed a significant difference between the treatment and

comparison groups (i.e., the mid-semester or the final). Table 4 shows whether the key impacts indicated above occurred during the mid-semester exam, the final exam, or both.

Table 4. Between-Subject effects Test

Between-Subjects effects Test						
Source	Type III Dependent Variable	Sum of Squares	df	Mean Square	FF	Sig.
Corrected Models	Mid-T	334.523[b]	3	110.84	24.32	.000
	Final	773.350[c]	3	257.11	60.18	.000
Intercept	Mid-T	129.44	1	129.44	28.54	.000
	Final	323.00	1	324.00	75.80	.000
Class	Mid-T	1.74	1	1.74	.38	.529
	Final	25.13	1	25.13	5.19	.013
Instructor	Mid-T	6.14	1	6.14	1.38	.240
	Final	117	1	117	12.14	.001
Group	Mid-T	36.24	1	36.24	8.42	.003
	Final	248.61	1	248.61	59.16	.000
Error	Mid-T	511.21	115	4.40		
	Final	488.34	115	4.20		
Total	Mid-T	22060.24	119			
	Final	26321.00	119			
Corrected Total	Mid-T	846.73	118			
	Final	1262.70	118			

Concerning the Tests of Between-Subjects Effects, Table 4 revealed a statistically significant group (comparison or treatment) effect in the mid-semester exam, F (1, 115) = 8.42, p =.003. There was also a statistically significant group effect on the final exam, F (1, 115) = 59.16, p =.001. However, there was no significant effect of class (F (1, 115) =.38, p =.529) or instructor (F = 1.38, p =.240) on the mid-semester outcome, but the final test outcome (F = 5.19, p =.001) was significantly influenced by class (F = 5.19, p =.001) and instructor (F = 12.14, p =.001).

According to Table 4, either comparison or treatment group had a significant main effect on the mid-semester and final tests. One of the groups fared better than the other. Concerning descriptive statistics, table 3 shows that the treatment group had higher mean scores on both the mid-semester and final tests than the comparison group.

Table 5. Four classes' raw mid-semester and final exam values

N = 30		Mean	Std. Deviation	Std. Error
Mid-T	Class 2 (Treatment)	14.15	2.66	0.50
	Class 8 (Comparison)	10.93	2.00	0.36
	Class 3 (Treatment)	15.42	1.99	0.36
	Class 9 (Comparison)	12.68	1.45	0.26
Final-T	Class 2 (Treatment)	15.28	2.02	0.37
	Class 8 (Comparison)	11.63	2.65	0.48
	Class 3 (Treatment)	18.20	1.81	0.35
	Class 9 (Comparison)	14.42	2.27	0.42

Mid-T = Mid-Test; Final-T = Final test

The test between subjects confirmed that a student's class substantially affected the final exam outcome, as shown in Table 5 above.

An LSD post hoc test was used to determine how the classes differed, and the findings are shown in Table 6.

Table 6. Multiple Comparisons of the LSD Post Hoc Test

Multiple Comparisons						
Final Exam						
Class	Class	Mean-Variance (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
2	8	3.6500*	.53032	.000	2.5996	4.7004
	3	-2.9167*	.53032	.000	-3.9670	-1.8663
	9	2.6000*	.53032	.000	1.5496	3.6504
8	2	-3.6500*	.53032	.000	-4.7004	-2.5996
	3	-6.5667*	.53032	.000	-7.6170	-5.5163
	9	-1.0500	.53032	.050	-2.1004	.0004
3	2	2.9167*	.53032	.000	1.8663	3.9670
	8	6.5667*	.53032	.000	5.5163	7.6170
	9	5.5167*	.53032	.000	4.4663	6.5670
9	2	-2.6000*	.53032	.000	-3.6504	-1.5496
	8	1.0500	.53032	.050	-.0004	2.1004
	3	-5.5167*	.53032	.000	-6.5670	-4.4663

Except for two treatment group classes, 2 and 3 (p = .050), all the other classes differed substantially in the final examination, as shown in the LSD post hoc multiple comparisons tests (Table 6). Class 2 (treatment) and class 8 (comparison) had a mean difference of 3.65 (p < .000), whereas class 3 (treatment) and class 9 (comparison) had a mean difference of 2.06 (p < .000). As a result, Class 2, which received instructions through in-house materials and was taught by the researcher, did better in the final examination than both comparison classes. Class 3 (treatment) and Class 8 (comparison) had a mean difference of 6.56 (p < .000). In contrast, Class 3 (treatment) and Class 9 (comparison) had a mean difference of 5.51 (p < .000). Class 3, which was instructed by the second researcher using in-house materials performed better in the final examination than the comparison groups. Significantly, comparison group 9, which the second researcher instructed, did better in the final examination than treatment group 2, which the researcher taught.

4.2. The role of the instructor and materials

The between-subjects test revealed that the instructor had no significant effect on the outcome of the mid-semester exam. The possible reason for the non-significant results yielded in the mid-semester exam in the study groups can be attributed to inadequate exposure to the writing exercises that focused on essay writing (see discussion section for more information). However, the instructor substantially affected the final exam outcome, as shown in Table 7. On the final exam, there was a significant main effect of Instructor F (1, 118) = 12.15, p = .001, indicating that the students taught by one of the two instructors scored

much better. Each instructor had 30 participants in the control and experimental groups (i.e., 60 students) to teach.

Table 7. Instructors' univariate analysis of variance

Tests of Between-Subjects Effects					
Dependent Variable: Final Exam					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	118.008[a]	1	118.008	12.154	.001
Intercept	25056.300	1	25056.300	2580.662	.000
Instructor	118.008	1	118.008	12.154	.001
Error	1145.692	118	9.709		
Total	26320.000	120			
Corrected Total	1263.700	119			

Table 8. The raw marks gained by various instructor groups in the final test: means, standard deviations, and standard error.

N = 60		Mean	Std. Deviation	Std. Error
FE	Instructor 1	13.5	2.97	.31
	Instructor 2	15.5	3.24	.36

Table 8 shows the mean raw scores received by the participants in the two researcher groups. Researcher 2's pupils received a higher mean score than researcher 1's. Researcher 2's students fared much better in the final exam than researcher 1's pupils, as indicated by the significant *F* value related to the mean difference (F (1; 118) = 12.15, p =.001). In other words, the current study's students' progress (across the experimental and control groups) demonstrates that the materials and how they were delivered in class aided students in improving their academic writing competency. Even though the utilization of the in-house materials in this study may have supported the treatment group to improve its academic writing performance in some way. But how the instructor contributed to their learning also remains critical. The results are described in the following section.

5. Discussion

According to the descriptive statistics, there is a statistically significant difference (=.05) between the mean scores of the treatment and comparison groups' writing performances across the three tests, as shown in Table 4. This difference in mean scores can be attributed to the treatment group's instructional technique (the treatment group was taught using in-house materials delivered through the process genre writing model, whereas the comparison group was not). Participants were separated into four study groups (two treatments and two comparisons). Furthermore, the first researcher taught one control group and one treatment group. In contrast, the second instructor taught another comparison group and treatment group so that the researchers could control the instructor's probable influence on the study's outcome. Both researchers used the prescribed textbook to train the control groups. The two researchers graded the treatment and comparison groups' tests (Pre, mid-semester, and final exam) papers using the IELTS Writing rubrics, while two moderators (The other two writing instructors from the ELC) were involved in the second markings and scorings of the test

papers of both treatment and comparison groups. After the research, the treatment group's pre-test, mid-semester, and final exam scores were compared to the comparison group's pre-test, mid-semester, and final exam scores.

The research question was, "To what extent do instructors' instructional variables and in-house materials affect students' achievement in academic writing?" The multivariate test results revealed a main effect for the instructor in the final exam, implying that subjects in different researcher groups had varied final exam scores (i.e., participants instructed by the first researcher performed better than participants taught by the second). Several internal and external factors can explain the students' performance differences between the mid-semester and final exams regarding instructors, materials, and learners. The possible reason for the non-significant results yielded in the mid-semester for the study groups taught by different researchers can be credited to the inadequate exposure to the writing exercises that focused on essay writing. The English Language Centre of the college decided to change the mid-semester writing question from writing a paragraph to an essay one month before the mid-semester exam because the language canter, as per its policy, wanted level three students to write a well-formed paragraph for the mid-semester exam and an essay for the final exam. By the time this change was informed to instructors and students, the instructors had already started focusing only on paragraph writing in which the instructors spent more time teaching all mechanics related to paragraph writing, such as writing a good topic sentence with a controlling idea and how to write supporting sentences, how to back up supporting sentences with facts and opinions drawn from other sources, and the importance of using linking words, transition words/phrases and also a conclusion to the paragraph. With this transformation, study groups had one and a half months of training to write academic essays, which was insufficient in terms of writing skills. It should be noted here that according to Skill Acquisition Theory, as has been explained by Lyster and Sato (2013):

> Declarative knowledge (explicit mental representation of language items that may include lexical or grammar rules) can be transferred into procedural knowledge (how to perform cognitive operations such as producing language with less or no effort by accessing items stored in long-term memory) through meaningful over many trials. (p.72).

Both psychological and second language acquisition theories argue that much practice is required to automatize a skill (DeKeyser, 2007).

Another possible reason for the non-significant results can be ascribed to the prescribed textbook for the writing courses. This textbook is intended for EFL/ESL learners who study English for general purposes rather than for a specific target population. The students at this college study English for specific purposes. As noted above, once the preparatory level students have completed their studies, they go to a post-foundation level where they study their chosen specialization in the medium of English (Engineering, Business Studies, and Information Technology).

It is also worth noting that, despite having different instructors, both treatment groups outperformed the comparison groups. However, as shown in table 6 results, it is evident that one treatment group taught by the second researcher outperformed a treatment group that was taught by the first researcher, even though both classes used the same materials and instructional procedures. This kind of improvement can be credited to several reasons: 1). The

learners' writing performance may have improved due to the intervention that included the process genre model, an instructional method supported by the in-house process materials, or possibly both. If the former caused the difference, we must accept that the second researcher's effective instructional procedures helped improve the student's writing skills. If it were the latter, we must admit that in-house rather than contrived materials could positively influence students' writing performance. As discussed above, the researchers designed the in-house materials in line with the process genre writing model that included five steps where students engaged in collaborative writing. According to the social constructivist perspective, education is a social activity (Vygotsky, 1978). By supporting this view, Allen et al. (1987) state that collaborative or group writing exercises are one method for encouraging social contact among students in writing classes. Another notable characteristic the researchers noticed was using L1 (in this case, Arabic) at the pre-writing stage. According to several research (Antón & Dicamilla, 2002; Swain & Lapkin, 1998; Villamil & Guerrero, 1996), L2 authors use their L1 during collaborative assignments. As Wang and Wen (2002) have observed that L2 writers have access to multiple languages. When composing in the L2, they may simultaneously do cognitive tasks in the L1 and L2. According to the interlanguage hypothesis (Selinker, 1981), learners do not construct rules in a vacuum; rather, they work with whatever information is at their disposal. This includes knowledge of their L1, which can be considered as 'input from the inside.' Given this view, it can be argued that the current study favors the interlanguage hypothesis proposed by Selinker (1981).

Another essential factor contributing to the treatment groups' academic writing improvement is the in-house writing material design. In designing materials to be used with the treatment groups, the researchers incorporated several writing strategies in the writing modules in this study. The materials included linguistic examples relevant to the type of writing (opinion and compare-contrast essays) and a model essay with essential parts highlighted. According to Watson (1982), models provide robust input to students as they are selected examples of good writing. When we refer to ESL/EFL student writers, most belong to the novice category irrespective of their class or grade. Therefore, providing them with a model essay has several benefits. They can use it as a guide that includes a clear structure with different parts highlighted so that students can study it and treat it as a resource rather than an ideal. In addition, each writing type in the in-house materials was supplemented with *PowerPoints,* student writing extracts, an editing checklist for peer editing, and video clips relevant to the topic of the essay. As observed by Lee et al. (2019), these materials can be considered self-learning materials that the researchers used to instruct the treatment groups, which are a part of motivational strategies that caused changes in the writing behaviors of learners within and outside the classroom contexts. The students in the treatment groups completed most of their writing activities at home. This indicates the degree of effort learners make to master writing skills. According to motivation theories in L2 learning proposed by Gardner (1985, 2001, 2005), Dörnyei (2005, 2009, and Dörnyei & Ushioda, 2011), this study supports the view "that instrumental motivation seems to be a major force determining success in L2 learning" (Ellis, 2017, p. 75). Moreover, as discussed above, the current study advocates the importance of incorporating strategies in academic writing courses as the learners must use cognitive strategies involved in constructing meaningful sentences, combining them to form a written discourse, and organizing ideas logically in a piece of writing (Wenden, 1985; Oxford, 1989; Larsen-Freeman, 2000; Ellis, 2017).

Another factor can be the method of feedback. In addition to providing students with oral feedback, researchers used an online software called Kaizena, available at www.Kaizena.com, for feedback. Using this program, students could submit their written work to instructors for quick feedback. This program allows instructors to give students written and oral feedback faster and better. The researchers found this program very useful as students loved receiving verbal feedback rather than writing (Samaranayake, 2017). The findings of this study should be considered when writing instructors provide their students with oral or written feedback in EFL/ESL teaching contexts.

Finally, a whole class discussion session in which, after grading the students' essays, two researchers selected three students' writing samples from each treatment group based on the scores each group received (the highest, medium, and lowest). These three students' writing samples were included in *PowerPoint* slides with each essay part (Introduction, first paragraph, second paragraph, third paragraph, and conclusion). This open discussion further allowed students to discuss what mistakes they still had made in content, organization, and language use. We found that this discussion session helps the study groups minimize errors in their subsequent writing tasks. Both researchers' actual teaching procedures with the treatment groups (2 and 3) and their success in mastering academic writing skills can be interpreted as the consequence of the two researchers' instructional methods and the in-house materials.

The findings of the studies (Ibrahim, Rwegasiria & Taher, 2007; Carrell & West, 2010; Lee et al., 2019), which were cited in the literature review section of this paper, are congruent with some of the findings in the current study in that the instructor and in-house materials influenced the improvement of writing proficiency of the treatment groups. Even though the findings of the studies cited above were different, such differences are instrumental in supporting existing theories and developing new ones (Hoover, 2021).

The researchers being academic writing instructors for more than five years at this tertiary-level institution have observed how Omani learners behave in writing classes. Different strategies should encourage students' creativity to improve their results (Schactcher, Thum & Zifkin, 2006). Based on the findings, the researchers would like to conclude that for an academic writing intervention to be effective with desired outcomes, both instructor's effective instructional techniques and the appropriate materials are crucial. In addition, delivering such materials in classroom teaching should complement new technologies for optimal results.

6. Conclusion

To conclude, this research aimed to see if there was a link between the independent variables (in-house materials and the instructors' instructional variables and who delivered them) and the dependent variable (academic writing proficiency of college-level EFL learners). According to the statistical analyses, the treatment groups' writing skills improved more than the comparison groups. According to a multivariate analysis of variance, groups had a significant main impact on the mid-semester and final exams. As a result, it can be stated that the intervention strategy used in the current study, which incorporated in-house materials, the process genre model of writing, and multiple instructors, helped improve tertiary-level students' academic writing skills.

The treatment groups improved more in academic writing proficiency than the comparison group, as reported by the results of the Mann-Whitney U-tests. Regarding the instructor and the role of in-house materials, the data revealed that the instructor had a substantial influence on the outcome of writing proficiency, but only in the final exam when one of the researcher's students outperformed the other. The findings of this study confirm that effective materials delivered through sensible instruction can have a larger effect on student achievement in terms of language skills.

References

Ahmed, W. M. A. & Al-Ward, A. S. (2020). Motivational teaching practices from EFL learners' perspective at the tertiary level in Yemen. *Indonesian Journal of Applied Linguistics, 9*, 695-703. doi: 10.17509/ijal. v9i3.23220

Allen, N., Atkinson., D, Morgan, M., Moore, T & Snow, C. (1987) 'What experienced collaborators say about collaborative writing.' *Journal of Business and Technical Communication, 1*(2), 70-90.

Alshehri, E., & Etherington, M. S. (2017). Motivational strategies: The perceptions of EFL teachers and students in the Saudi higher education context. *International Journal of English Language Education, 5*(2), 46–82. doi: 10.5296/ijele.v5i2.11727

Antón, M., & Dicamilla, F. (2002). Socio-Cognitive Functions of L1 Collaborative Interaction in the L2 Classroom. *The Modern Language Journal. 83*(2), 233–247. doi: 10.1111/0026-7902.00018.

Atteberry, A., Loeb, S., & Wyckoff, J. (2015). Do first impressions matter? Predicting early career teacher effectiveness, *AERA Open*, 1, 1-23.

Badger, R., & White, G. (2000). A process genre approach to teaching writing. *ELT Journal*, *54* (2), 153-160.

Braga, M., Paccagnella., M & Pellizzari, M. (2016). "The Impact of College Teaching on Students' Academic and Labor Market Outcomes," *Journal of Labor Economics*, *34*(3), 781-822. doi: 10.1086/684952

Bettinger, E. P., & Long, B. T. (2005). Do faculty serve as role models? The impact of instructor gender on female students. *The American Economic Review*, *95*(2), 152–157.

Braga, M., Paccagnella, M., & Pellizzari, M. (2014). The academic and labor market returns of university professors. *IZA Discussion Papers*.

Carrell, S. E., & West, J. E. (2010). Does Professor Quality Matter? Evidence from Random Assignment of Students to Professors. *Journal of Political Economy*, *118*(3), 409-432.

Cents-Boonstra, M., Lichtwarck-Aschoff, A., Denessen, E., Aelterman, N., & Haerens, L. (2020). Fostering student engagement with motivating teaching: an observation study of teacher and student behaviors. *Research Papers in Education*, *36*(6), 754-779.

Cook, J.B., & Mansfield, R.K. (2016). Task-specific experience and task-specific talent: Decomposing the productivity of high school teachers. *Journal of Public Economics, 140*, 51-72.

Darling-Hammond, L. (2000). Teacher quality and student achievement. *Education Policy Analysis Archives, 8*, 1-44.

DeKeyser, R. M. (2007). *Practice in a second language: Perspectives from applied and Cognitive Psychology.* Cambridge: Cambridge University Press.

Dörnyei, Z. (2005). *The Psychology of the Language Learner: Individual Differences in Second Language Acquisition.* London: Lawrence Erlbaum Associates.

Dörnyei, Z. (2009). The L2 Motivational Self System. In Z. Dörnyei, & E. Ushioda (Eds.), *Motivation, Language Identity, and the L2 Self* (pp. 9-42). Bristol: Multilingual Matters. Dörnyei, Z., & Ushioda, E. (2011). *Teaching and Researching Motivation* (2nd ed.). Harlow Pearson Education Limited.

Ellis, R. (2017). *Second Language Acquisition*. Oxford University Press.

Fedesco, H. N., Bonem, E. M., Wang, C., & Henares, R. (2019). Connections in the classroom: Separating the effects of instructor and peer relatedness in the basic needs satisfaction scale. *Motivation and Emotion*, *43*(5), 758-770. doi: 10.1007/s11031-019-09765-x.

Fortson, S. B., & Brown, W. E. (1998). Best and worst university instructors: The opinions of graduate students. *College Student Journal, 32*(4), 572-576.

Frankola, K. (2001). "Why Online Learners Drop Out" *Workforce, 80*, 53–58.

Gardner, R. C. (1985). Social Psychology and Second Language Learning: The Role of Attitudes and Motivation. London: Edward Arnold.

Gardner, R. C. (2001). Integrative motivation and second language acquisition. In Z. Dörnyei, & R. Schmidt (Eds.), *Motivation and Second Language Acquisition* (pp. 1-19). University of Hawaii Press.

Gardner, R. C. (2005). Integrative motivation and second language acquisition. Joint plenary talk at the Canadian Association of Applied Linguistics/Canadian Linguistics Association, May.

Goldhaber, D., & Anthony, E. (2004). Can teacher quality be effectively assessed? (Working Paper). Seattle, WA: Centre on Reinventing Public Education.

Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement.* Rutledge, Park Square, Oxon.

Henry, A. & Roseberry, R. L. (1998). An evaluation of a genre-based approach to the teaching of EAP/ESP writing. *TESOL Quarterly, 32* (1).

Hersberg, T., Simon, V. A., & Lea-Kruger, B. (2004). Measuring What Matters. *American School Board Journal, 191*(2), 27-31.

Hoffmann, F., & Oreopoulos, P. (2009a). Professor qualities and student achievement. *The Review of Economics and Statistics*, *91*(1), 83–92.

Hoover, L. (2021). What Is Qualitative vs. Quantitative Study? Retrieved from https://www.gcu.edu/blog/doctoral-journey/what-qualitative-vs-quantitative-study

Ibrahim, M., Rwegasira, K.S.P & Taher. (2007). A. Institutional Factors Affecting Students Intentions to Withdraw from Distance Learning Programs in the Kingdom of Saudi Arabia: The Case of the Arab Open University (AOU). *Online Journal of Distance Learning Administration, 10*(1), 1–19.

Kim, Y., & Kim, J. (2005). Teaching Korean University Writing Class: Balancing the Process and Genre Approach. *Asian EFL Journal,* 7(2), Article 5. Retrieved from http://www.asian-efl-journal.com/June_05_yk&jk.php

Klassen, R. M., & Tze, V. M. (2014). Teachers'' self-efficacy, personality, and teaching effectiveness: A meta-analysis. *Educational Research Review*, 12, 59-76.

Larsen-Freeman, D. (2000). Techniques and Principles in Language Teaching. Oxford University Press.

Lee, T. S. O., Gardner, D., & Lau, K. (2019). The effects of L2 motivational strategies: within and beyond the L2 classroom. *Innovation in Language Learning and Teaching, 14*(5), 451–465. doi: 10.1080/17501229.2019.1620240

Leki, I. (1992). *Understanding ESL writers: A guide for teachers*. NH: Boynton/Cook.

Lyster, R., & Sato, M. (2013). Skills Acquisition Theory and the role of practice in L2 development. In Mayo, M. P. G., Mangado, M. J. G., Adrian, M. M (Ed.), *Contemporary Approaches to Second Language Acquisition (1–261)*. John Benjamin Publishing.

Mauludin, L. A. (2021). Students' perceptions of the most and the Least motivating teaching strategies in ESP Classes. *Iranian Journal of Language Teaching Research, 9*(1), 139-157.

Olivier, E., Galand, B., Morin, A., & Hospel, V. (2021). Need-supportive teaching and student engagement in the classroom: Comparing the additive, synergistic, and global contributions. *Learning and Instruction.* doi: 10.1016/j.learninstruc.2020.101389.

Oxford, R. (1989). *Language Learning Strategies: What Every Teacher Should Know*.Heinle & Heinle.

Rivkin, S. G., Hanushek, E. A., & Kain, J. F. (2005). Teachers, Schools, and academic achievement. *Econometrica, 73*(2), 417-458.

Roorda, D. L., Jak, S., Zee, M., Oort, F. J., & Koomen, H. M. (2017). Affective teacher-student relationships and students' engagement and achievement: A meta-analytic update and test of the mediating role of engagement. *School psychology review*, *46*(3), 239-261.

Samaranayake, S. W. (2017). *Academic writing issues of foundation level students: The effectiveness of context-specific teaching materials using a process genre approach to writing* [Doctoral dissertation, The University of South Africa]. Research repository. http://uir.unisa.ac.za/handle/10500/22795

Sanders, W. L. (2000). Value-Added Assessment for student achievement data: Opportunities and hurdles. *Journal of Personnel Evaluation, 14*(4), 329–339.

Schacter, J., Thum, Y. M., & Zifkin, D. (2006). How much does creative teaching enhance elementary school students' achievement? *The Journal of Creative Behavior, 40*(1), 47–72. https://doi.org/10.1002/j.2162-6057.2006.tb01266.x

Schacter, J., & Thum, Y. M. (2004). Paying for High and Low-Quality Teaching. *Economics of Education Review, 23*, 411-430. http://dx.doi.org/10.1016/j.econedurev.2003.08.002

Seidel, T., & Shavelson, R. J. (2007). Teaching Effectiveness Research in the Last Decade: Role of Theory and Research Design in Disentangling Meta-Analysis Results. *Review of Educational Research, 77*, 454-499. http://dx.doi.org/10.3102/0034654307310317

Selinker, L., & Lamendella, J. (1981). Updating the interlanguage hypothesis. *Studies in Second Language Acquisition, 3*(2), 201-220. doi:10.1017/S0272263100004186

Swain, M., & Lapkin, S. (1998). Interaction and second language learning: Two adolescent French immersion students working together. *The modern language journal*, *82*(3), 320-337.

Tam, K. Y., Heng, M., & Jiang, G. (2009). What undergraduate students in China say about their professors' teaching. *Teaching in Higher Education, 14*(20, 147-159.

Tomaszewski, W., Xiang, N., Huang, Y., Western, M., McCourt, B., & McCarthy, I. (2022). The Impact of Effective Teaching Practices on Academic Achievement When Mediated by Student Engagement: Evidence from Australian High Schools. *Education Sciences*, *12*(5), 358. http://dx.doi.org/10.3390/educsci12050358

Tomkin, J. H., & Charlevoix, D. (2014). Do professors matter? Using an a/b test to evaluate the impact of instructor involvement on MOOC student outcomes. *L@S '14: Proceedings of*

The First ACM Conference on Learning @ scale conference, 71–78. Doi: https://doi.org/10.1145/2556325.2566245

Villamil, O. S., & De Guerrero, M. C. (1996). Peer revision in the L2 classroom: Social-cognitive activities, mediating strategies, and aspects of social behavior. *Journal of second language writing*, *5*(1), 51-75.

Vlieger, P. D., Jacob, B., & Stange, K. (2016). Measuring Instructor Effectiveness in Higher Education. NBER Working Paper No. w22998. Retrieved from https://ssrn.com/abstract=2892422

Vygotsky, L. S. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Harvard University Press.

Wang, W., & Wen, Q. (2002). 'L1 use in the L2 composing process: an exploratory study of 16 Chinese EFL writers. *Journal of Second Language Writing, 11*(3), 225–46.

Wang, M. T., Brinkworth, M., & Eccles, J. (2013). Moderating effects of the teacher-student relationship in adolescent trajectories of emotional and behavioral adjustment. *Psychology*, 49(4), 690–705. https://doi.org/10.1037/a0027916

Watson, C. B. (1982). The Use and Abuse of Models in the ESL Writing Class. *TESOL Quarterly, 16*(1), 5–14.

Wenden, A. (1985). 'Learning strategies.' *TESOL Newsletter, 19*(1), 4-5.

Wentzel, K. R & Ramani, G. (2016). *Handbook of social influences in school contexts: Social - emotional, motivation, and cognitive outcomes*. Taylor & Francis.

Wentzel, K. R. (2002) Are Effective Teachers Like Good Parents? Teaching Styles and Student Adjustment in Early Adolescence. *Child Development*, 73, 287-301. http://dx.doi.org/10.1111/1467-8624.00406

Williams, J. (2005). *Teaching writing in second and foreign language classrooms*. McGraw-Hill.

Yan, G. (2005). A process genre model for teaching writing. *English Teaching Forum*, *43* (3). Retrieved from http://exchange.state.gov/forum/vols/vo143/no3/p18

Zamel, V. (1983). The composing processes of advanced ESL students: Six case studies. *TESOL Quarterly*, *17*(2), 165-187.