IMMEDIATE VERSUS DELAYED FEEDBACK IN PROMOTING STUDENT TEACHERS SKILLS FOR LESSON PLAN IMPLEMENTATION

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ABSTRACT *The present study aimed to address the effect of immediate and delayed feedback via the use of Blackboard in promoting English language student teachers' lesson plan implementation. A four-aspect performance observation card that is adopted by participants' scientific department was used to assess respondents' lesson implementation skills, namely lesson planning, lesson implementation, assessment of students' achievement, and classroom management. The experimental approach was used and (50) student teachers majoring in English language who were enrolled in "Practicum" course participated in the present study. Participants were distributed randomly to two experimental groups of (25) students in each. Respondents in the first experimental group received immediate feedback after the submission of their weekly lesson plans while their peers in the second experimental group received delayed feedback after the submission of their weekly lesson plans. Findings indicated that delayed feedback was more effective in promoting respondents' skills in lesson plan implementation except their skills in classroom management.*

KEYWORDS: Blackboard system, immediate and delayed feedback, student teachers, & lesson planning.

INTRODUCTION

It is true that learning should be the main concern of any type of education. Teachers should utilize the teaching and learning techniques in the most effective manners to promote, increase and facilitate knowledge acquisition. Course designers should design the teaching courses in a way that accounts for and makes a balance between time constraints and course objectives. Many student teachers enrolled in "Practicum" course or what is known as field experience at Najran University are unable to keep up with highly demanding teaching profession because it is their first time to experience teaching. Accordingly, the improvement of teaching skills, in general and more specifically their skills in lesson implementation plans is important for them as their professional future, as teachers depends mostly on their experience they are assumed to gain from practicum. One important issue that can give a hand to do so is the kind of feedback that learners receive after the completion of tasks and assignments. For those student teachers, feedback provided by their academic supervisors is crucial and helps them with the main guidelines of lesson implementation skills. Feedback is meant to inform someone of where his or her performance stands in comparison to a particular goal and what he or she needs to do in order to reach that goal, Daniels & Daniels, in (Williams, 2012). Feedback is a critical component in the learning process and it is integral to most training programs, (Bolton, 2006). Furthermore, timing of feedback also plays a role in improved learning, (Kehrer, et.al. 2013). Feedback is most effective when it provides a basis for correcting mistakes or misconceptions a student may have gained during instruction, and does not appear to have much impact as a reinforcing tool, (Lemley, 2005). Sadler in 1989 mentioned that feedback needs to provide

information specifically relating to the task or process of learning that fills a gap between what is understood and what is aimed to be understood, (Hattie & Timperley, 2007).

Using feedback in a classroom can be as simple as writing a few notes on a student's essay, math homework, quiz, etc. Correcting a paper and writing or telling students how to find the right answer allows them to understand the concept better and know why they got it wrong and how they can correct it, (Norlin, 2014). Feedback is usually provided after the student's response to a question or completion of an exercise or exam. Immediate feedback, which is provided as soon as the learner replies to a question or completes an assignment, promotes retention of learned information. However, delayed feedback, which is withheld for a period of time is more conducive to learning, (Lemley, 2007). New technologies are creating opportunities for online assessment not previously available at schools or higher education institutions, (David, 2013). Online Feedback can be employed to improve and promote the learning-teaching process as one aim of educational technology. It is a set of pieces of information that can be provided via various means of technology to a student after presenting his answer. Online Feedback System is an e-learning tool that effectively supports the provision of formative feedback and helps students be more motivated with it, (Hatziapostolou & Paraskakis, 2010). Learning, thinking, and understanding are ultimately the products of good feedback to a student, which includes feedback that may not be as concrete as students would like. Nevertheless, concrete ambiguity may be the key in helping our students develop their thinking, as well as their writing, Reyes (2013). Current research suggests that the timing of feedback also plays a role in improved learning. Some researchers have shown that delaying feedback although makes learning better might lead to a desirable difficulty and makes students' performance lower, (Kehrer, et.al., 2013). Therefore, the present study is concerned with the investigation of the impact of both types of feedback, immediate and delayed, on the enhancement of the lesson plan implementation of English language student teachers at Najran university. Results are assumed to be beneficial for academic supervisors, teachers and students regarding the provision of feedback via Blackboard system provided by the university.

Questions of the study

The present study aims to find convenient answers to these four main questions

1. Is there any statistically significant difference between the use of immediate and delayed feedback in promoting lesson planning skill of English language student teachers at Najran University?

2. Is there any statistically significant difference between the use of immediate and delayed feedback in promoting lesson implementation skill of English language student teachers at Najran University?

3. Is there any statistically significant difference between the use of immediate and delayed feedback in promoting the assessment of leaners' achievement skill of English language student teachers at Najran University?

4. Is there any statistically significant difference between the use of immediate and delayed feedback in promoting classroom management skill of student teachers majoring in English language at Najran University?

REVIEW OF RELATED LITERATURE

Despite the general agreement among all education stakeholders that feedback plays an important role in the performance and achievement of learners, many studies are being conducted to address the impact of different types of feedback whether at schools from K-12 or at universities. For instance, Lemely (2005) explored the impact of different feedback types in a non-traditional distance. Results proved that those students who received immediate feedback performed significantly better on course final exams, but surprisingly those who received delayed feedback completed the course in significantly less time. Quinn (2014) investigated how differences in the timing of corrective feedback on oral production affect second language learning and learners' reactions to feedback. Findings showed that learners preferred immediate feedback, but that immediate feedback might constrain learners' independence, while delayed feedback might cause anxiety or embarrassment. Hatziapostolou & Paraskakis (2010) aimed to enhance feedback reception and to strengthen the quality of feedback through the way feedback is communicated to the students based on the belief that effective feedback communication mechanism should be integrated into a student's online learning space. Empirical evidence showed that the developed system successfully addressed the issues of student engagement and motivation and achieved its objectives. The results of using the system for two years indicated a positive perception of the students. Marden, et.al. (2013) investigated the impact of online feedback quizzes on the learning experiences and outcomes of undergraduate students enrolled in an introductory physiology course. Results revealed that the vast majority of students perceived online quizzes as a valuable learning tool. In addition, there was a significant relationship between performance in quizzes and end-of-course examination scores. Brookes (2010) presented the findings from an empirical study that sought to evaluate students' perceptions of the potential of podcasts to deliver formative feedback and the impact on their learning experience. Results identified that most students perceived that podcasts have a positive impact on their academic performance and can be an efficient way to provide formative feedback. Brown, et.al. (2016) explored students' beliefs about the role and purpose of feedback and the relationship of those beliefs to self-reported, self-regulation, self-efficacy, and achievement. Results showed that feedback exists to guide next steps in learning and thus contributes to students' self-regulation, academic self-efficacy, and increased grade point average. Harks (2013) concluded that process-oriented feedback was perceived as more useful than grade-oriented feedback and that the perceived usefulness of feedback had a positive effect on changes in achievement and interest. Consistent with this, process-oriented feedback had a greater positive indirect effect than grade-oriented feedback on changes in mathematics achievement and interest via its perceived usefulness. There were no such effects on changes in self-evaluation. Narciss, et.al. (2014) explored the influence of feedback parameters and student characteristics on students' immediate and post-feedback behavior, i.e. skipping vs. trying to accomplish a task, and failing vs. succeeding in providing a correct answer. Results proved that feedback strategies and pre-test performance had an impact on how many tasks learners attempted to solve. Learners that were exposed to the conceptual-procedural feedback strategy engaged in fewer tasks than learners in all other feedback-strategy groups did. Yasaei, (2016) indicated that the provision of both immediate and delayed oral feedback had a significant effect, enabling the learners to use the targeted function with greater accuracy. The superiority of experimental groups who received immediate or delayed feedback over the control group that received direct correction was because students have great difficulty in interpreting and understanding written form of corrective feedback. Yekta & Dafe'ian (2016) studied the effect of immediate and delayed feedback on the depth of vocabulary knowledge and findings indicated that teacher's delayed

feedback was significantly more successful than teacher's immediate feedback in increasing the depth of vocabulary knowledge. Van der Kleij, et.al. (2015) investigated the effects of methods for providing item-based feedback in a computer-based environment on students' learning outcomes. Findings showed that elaborated feedback e.g., providing an explanation produced larger effect sizes than feedback regarding the correctness of the answer or providing the correct answer. In addition, immediate feedback was more effective for lower order learning than delayed feedback and vice versa. Maleki & Eslami (2013) investigated the impact of writing corrective feedback on the writings of intermediate EFL students. The participants received direct, indirect or no correction feedback. The results showed that the recipients of writing corrective feedback whether immediate or delayed achieved better than those who did not receive any kind of feedback. Metcalfe, et.al. (2009) investigated whether the superior memory performance sometimes seen with delayed rather than immediate feedback was attributable to the shorter retention interval from the last presentation of the correct information in the delayed condition. Results indicated that delayed feedback produced better final test performance than did immediate feedback, which in turn produced better performance than did no feedback at all. Kheradmand & Sayadiyan (2016) investigated the effect of teacher immediate and delayed corrective feedback on EFL learners' writing accuracy in using two functions of English articles. Findings indicated that, teacher immediate feedback was more beneficial than delayed feedback and no feedback. Aglah, et.al. (2014) sought to find out the different feedback strategies and their contribution to students' performance. Results indicated that feedback does not have any impact on students' academic performance however, students would have performed better if feedback was immediate and given to them on time. Kleij, et.al. (2012) investigated the effects of written feedback in a computer-based assessment for learning on students' learning outcomes. Results suggested that students paid more attention to immediate than to delayed feedback. Students perceived immediate knowledge of correct response and elaborated feedback to be more useful for learning than knowledge of results. Sinha (2012) investigated the effects of immediate versus delayed feedback following multiple-choice questions on subsequent performance on multiple-choice and recall questions. Results demonstrated that delayed feedback improved performance on the short-answer questions by increasing the subsequent generation of the correct response, but does not influence recognition of it.

In brief, feedback of all kinds is an important issue in education. It can play a significant role in encouraging and motivating learners to achieve better. Timing of feedback is decisive in learners' success to modify their ways of learning and correcting their mistakes. The teacher should be proficient in the provision of this feedback. He should realize the suitable time that fits his students and provide them with immediate or delayed feedback. He should be aware of the aim of this feedback, i.e. correct their responses or teach them how to answer the questions or do their assignments. Learners, on the other part should be responsive to this feedback and look at it as integral to their learning but not as a kind of discouraging criticism.

METHODOLOGY

The study, as mentioned previously aims to address the effect of immediate and delayed feedback in enhancing lesson plan implementation by student teachers at the department of English language at Najran University. Fifty (50) student teachers who were in their eighth academic level and were enrolled in "Practicum" course took part in the study. Respondents were divided randomly to two equal groups of (25) participants in each one. Blackboard system

was the main link between student teachers and their academic supervisors. Students were to weekly prepare one lesson plan and submit it to their concerned academic supervisors. Respondents in the first group were provided with immediate feedback as soon as they submitted their lesson plans as assignments. Respondents in the second group, on the other hand, received delayed feedback some days after submitting their lesson plans. Figure (1) illustrates the main page for the eLearning system (Blackboard) through which student teachers could submit their assignments.
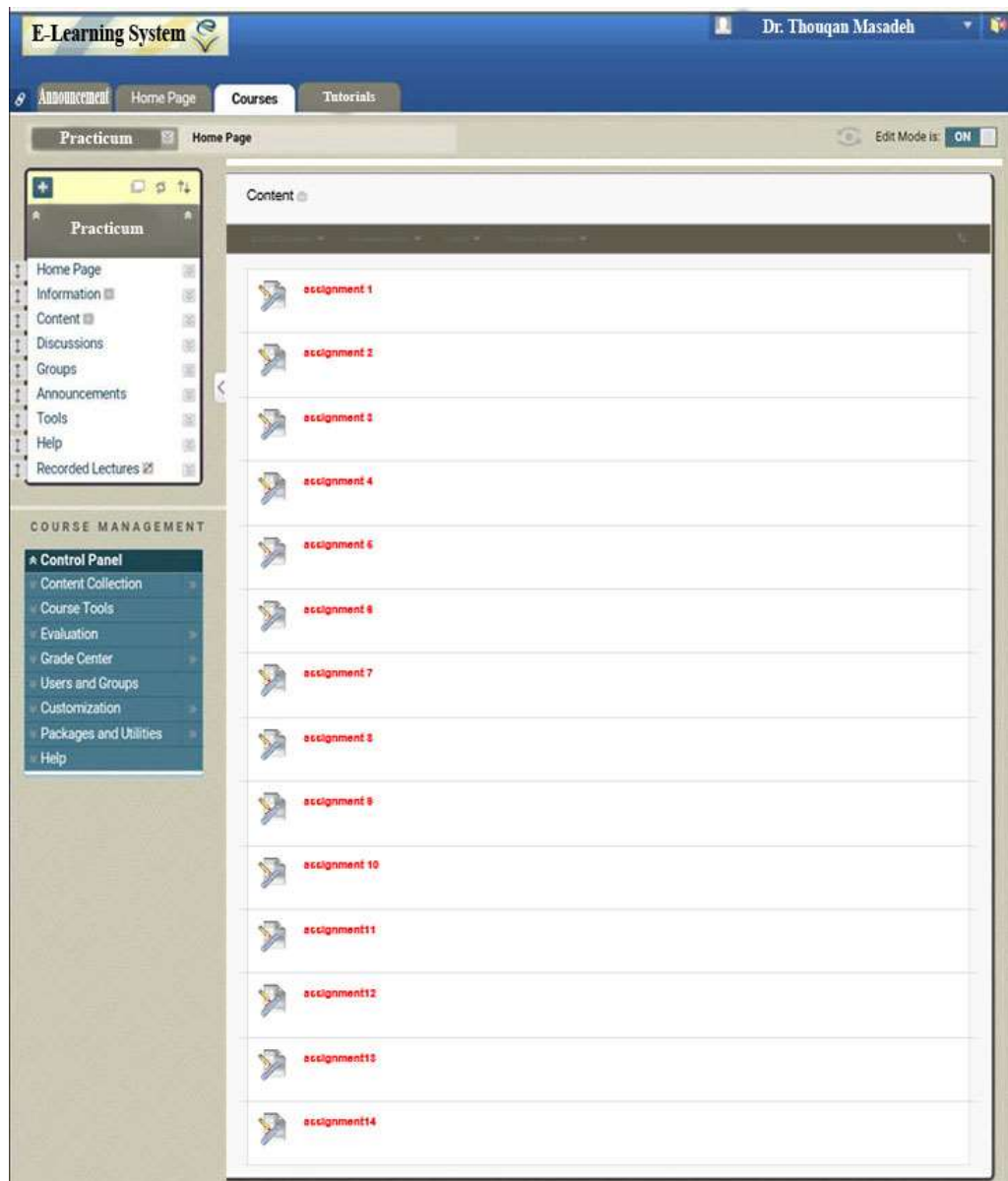

Figure (1): assignments provided to students through Blackboard system

Concerned academic supervisors could receive, evaluate and send feedback to them via a link called Grade Center: assignments as illustrated in figure (2).

Figure (2): Grade Center: Assignments in Blackboard

A group on WhatsApp involving all participant students in the first experimental group in addition to their academic supervisor was created. Each student had to inform his supervisor hat he had submitted his weekly assignment via this WhatsApp group. The academic supervisor, in his turn had to check Blackboard system as soon as he was informed. He then had to assess the sender's lesson plan and provide him with immediate feedback via Grade Center: Assignments link. The student teacher, on his turn, had to reply through the WhatsApp group and notify his academic supervisor that he had received his feedback. However, assignments of participant students in the second experimental group were also submitted via Blackboard but assessed at the end of the week. Academic supervisor's delayed feedback was provided to students through Grade Center: Assignments on blackboard system. Figure (3) illustrates the design of both kinds of feedback. The total time from the initial assignment to the final assignment assessment was held constant in these experiments. What varies between these two assignments, is when the feedback was given. In the immediate feedback condition, the feedback was given virtually at the time of the initial assignment. In the delayed feedback condition, it was given after a few days.
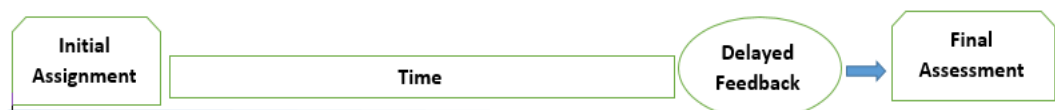

Figure (3): design of intermediate and delayed feedback used in the present study

Study Design

The experimental approach was used for data gathering. Therefore, pre and posttest group design for two equivalent groups was to be used. Table (1) illustrates the study design.

Table 1: Research Design

	Pre-test	Treatment	Post-test
Experimental Group 1	O1	X1	O2
Experimental Group 2	O1	X2	O2

Note. O1= Pre-application of the observation card

O2= Pre-application of the observation card

X1= Immediate feedback

X2= Delayed feedback

Study Instruments

Blackboard system

Two main instruments were used to achieve the study aims. Blackboard system provided by the Deanship of eLearning and Distant Learning at Najran University was used. It was available in the Teaching Site Design through which the teaching materials and weekly assignments were submitted during (14) weeks.

Performance observation card

The second study instrument was the same observation card to that was adopted by the university to assess the teaching performance of all student teachers of all university specialties. Four main aspects namely lesson planning, lesson implementation, assessment of learners' achievement and classroom management namely constituted the content of that card. The main reason for using that card was the fact that it was designed to assess the desired learning outcomes of student teachers at university level. Thus, there was no deviation from university rules when assessing students participating in the present study. In that observation card there were four main aspects. The first aspect was lesson planning with (4) items and (12) grades. The second one was lesson implementation with (9) items and (29) grades. The third aspect was to assess the trainees skills in assessing their learners' academic achievement that involved (6) items and had (18) grades. Classroom management was the fourth aspect with (3) items and (9) grades. The total mark for was (68) grades.

Homogeneity of Groups in the Observation Card

To ascertain the homogeneity of participant students in both experimental groups, they were to sit for an exam about teaching and lesson planning they were assumed to have got from a prerequisite course known as "Strategies of Teaching and Learning". Grades of all participants in the first and second experimental groups were subjected to analysis using ANOVA to identify the significance of differences between their mean scores. Tables (2, 3, 4, and 5) illustrate whether or not respondents were homogeneous.

Table 2: Significance of differences between groups regarding lesson planning

	Sum of Squares	DF	Mean of Squares	F. ratio	Sig.
Between Groups	0.80	1	0.080	0.042	0.838
Within Groups	91.040	48	1.897		
Total	91.120	49			

Findings in table (2) illustrate that there were no statistically significant differences between the mean scores of both groups in the pre-test. That is, participants in both groups were homogeneous in accordance to their skills and knowledge in lesson planning before being exposed to the experiment.

Table (3) explains whether participants in both groups were homogeneous regarding their skills and knowledge in lesson implementation.

Table 3: Significance of differences between groups regarding lesson implementation

	Sum of Squares	DF	Mean of Square	F. ratio	Sig.
Between Groups	3.920	1	3.920	0.658	0.421
Within Groups	286.160	48	5.962		
Total	290.080	49			

Findings in table (3) reveal that there were no statistically significant differences between the mean scores of both groups in the pre-test. That is, participants in both groups were homogeneous in accordance to their skills and knowledge in lesson implementation before being exposed to the experiment.

Table (4) reveals whether participants in both groups were homogeneous in accordance to their skills in assessing their students' achievement.

Table 4: Significance of differences between groups regarding their skills in assessing their students' achievement

	Sum of Squares	DF	Mean of Square	F. ratio	Sig.
Between Groups	0.020	1	0.020	0.006	0.940
Within Groups	168.480	48	3.510		
Total	168.500	49			

Findings in table (4) reveal that there were no statistically significant differences between the mean scores of both groups in the pre-test. That is, participants in their skills in assessing their students' achievement before being exposed to the experiment.

Table (5) illustrates if participants in both groups were homogeneous in accordance to their skills in classroom management.

Table 5. Significance of differences between groups regarding their skills in classroom management

	Sum of Squares	DF	Mean of Square	F. ratio	Sig.
Between Groups	0.020	1	0.020	.013	0.909
Within Groups	72.400	48	1.508		
Total	72.420	49			

Findings in table (5) reveals that there were no statistically significant differences between the mean scores of both groups in the pre-test. In other words, participants in both groups were homogeneous in accordance to their skills and knowledge in classroom management before being exposed to the experiment.

The experiment

Educating student teachers about the content of each aspect lasted for two weeks during which student teachers were to prepare and submit their own assignments. The whole training time took eight weeks to finish. Participants during these weeks were to submit a lesson plan as an assignment at the end of each week which means that they should have submitted sixteen lesson plans by the end of week eight. Participants in the first experimental group were added with their academic supervisor in a WhatsApp group. Each student was to inform his academic supervisor as soon as he has submitted the assignment through that group. Then the academic supervisor was to log in Grade center: Assignments on Blackboard system and assess the student's lesson plan and simultaneously provide him with his feedback. After that, the student had to reply informing telling the supervisor of receiving his feedback. However, participants in the second experimental group were to submit their assignments through Blackboard system but they had to wait until the weekend for the reception of their supervisor's feedback via Grade Center: Assignments on Blackboard system.

At the end of the eighth week or the experiment, all participant students were informed to prepare themselves for their teaching performance evaluation in their real teaching contexts at schools. One academic supervisor, who was one of the researchers in the present study, was assigned to observe and assess the performance of all. Each student teacher was visited and assessed twice according to the observation card. The first visit was directive during which the academic supervisor highlighted the trainee's points of strength and weakness and then suggested ways for improvement. The second visit, however, was evaluative where each student teacher was assigned a degree according to his performance in respect of each sub-skill involved in each of the card four aspects. After the completion of field visits of all participants, the process of analysis of participants' degrees in each group started using the T. test for independent samples.

RESULTS

Results related to the first question

To answer the first question regarding the effect of immediate and delayed feedback in promoting lesson planning skill of English language student teachers, T. test for independent samples was used. Results are appearing in table (6).

Table 6: Significance of differences between groups regarding their skills in lesson planning

Group	N	M	SD	Mean Difference	T. Ratio	Sig.
Experimental Group 1	25	7.84	1.79536	1.4	2.072	0.041
Experimental Group 2	25	9.24	2.86182			

Table (6) reveals that the T. ratio for the differences between participant's mean scores in both groups was (2.072). Mean score of the first experimental group that was trained by receiving immediate feedback was (M=7.48) whereas it was (M=9.24) for the second experimental group

that was provided with delayed feedback at the end of the week. That is, there was a significant difference (α=0.05) between the levels of performance of both groups in favour of the second group that received delayed feedback.

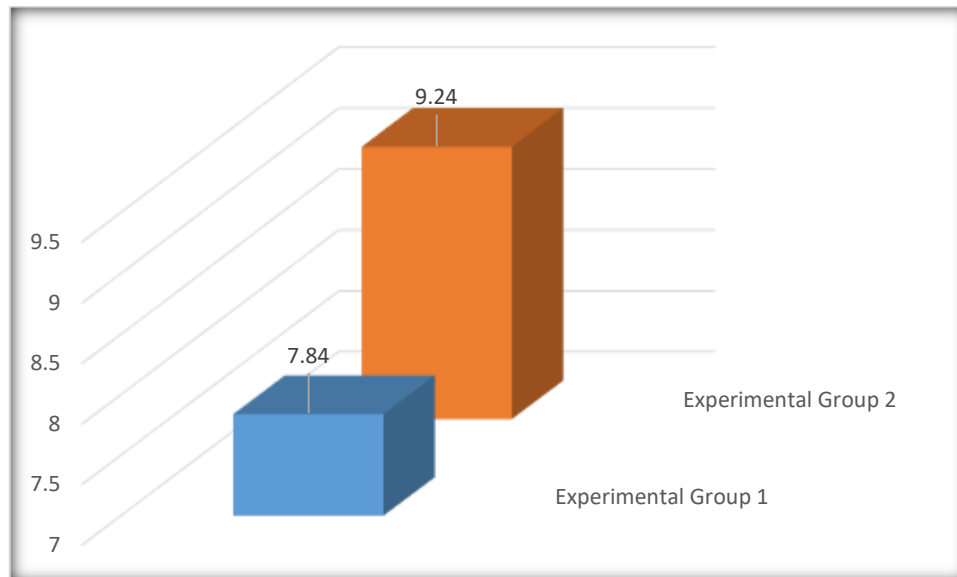Difference between the mean scores of both participant groups is shown in figure (3).

Figure (4): Mean scores of participants' performance in both experimental groups regarding lesson-planning skill

Results related to the second question

To answer the second question regarding the effect of immediate and delayed feedback in promoting lesson implementation skill of English language student teachers, T. test for independent samples was used. Table (7) illustrates the results.

Table 7: Significance of differences between groups regarding their skills in lesson-implementation

Group	N	M	SD	Mean Difference	T. Ratio	Sig.
Experimental Group 1	25	19.64	5.35319	4.0	2.102	0.029
Experimental Group 2	25	23.64	7.86808			

Table (7) reveals that the T. ratio for the differences between mean scores of participant's scores in both groups was (2.102). Mean score of the first experimental group that was trained by receiving immediate feedback was (M=19.64) whereas it was (M=23.64) for the second experimental group that was provided with delayed feedback at the end of the week. That is, a significant difference (α=0.05) between the levels of performance of both groups was noticed in favour of the second group that received delayed feedback.

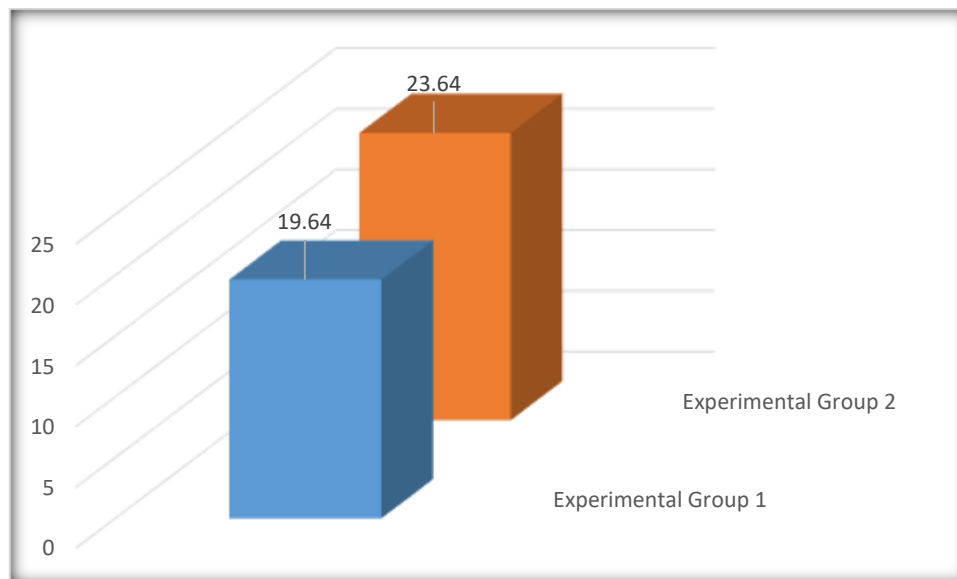Difference between the mean scores of both participant groups is shown in figure (4).

Figure (5): Mean scores of participants' performance in the two experimental groups regarding lesson-implementation skill

Results related to the third question

To answer the third question regarding the effect of immediate and delayed feedback in promoting the skill of English language student teachers in assessing their students' achievement, T. test for independent samples was used. Results are presented in table (8).

Table 8: Significance of differences between groups regarding their skills in the assessment of their students' achievement

Group	N	M	SD	Mean Difference	T. Ratio	Sig.
Experimental Group 1	25	12.16	2.89655	2.04	2.128	0.047
Experimental Group 2	25	14.20	3.81881			

Table (8) shows that the T. ratio for the differences between mean scores of participant's scores in both groups was (2.128). Mean score of the first experimental group that was trained by receiving immediate feedback was (M=12.16) whereas it was (M=14.20) for the second experimental group that was provided with delayed feedback at the end of the week. That is, a significant difference (α=0.05) between the levels of performance of both groups was discovered in favour of the second group that received delayed feedback.

Difference between the mean scores of both participant groups is shown in figure (5).
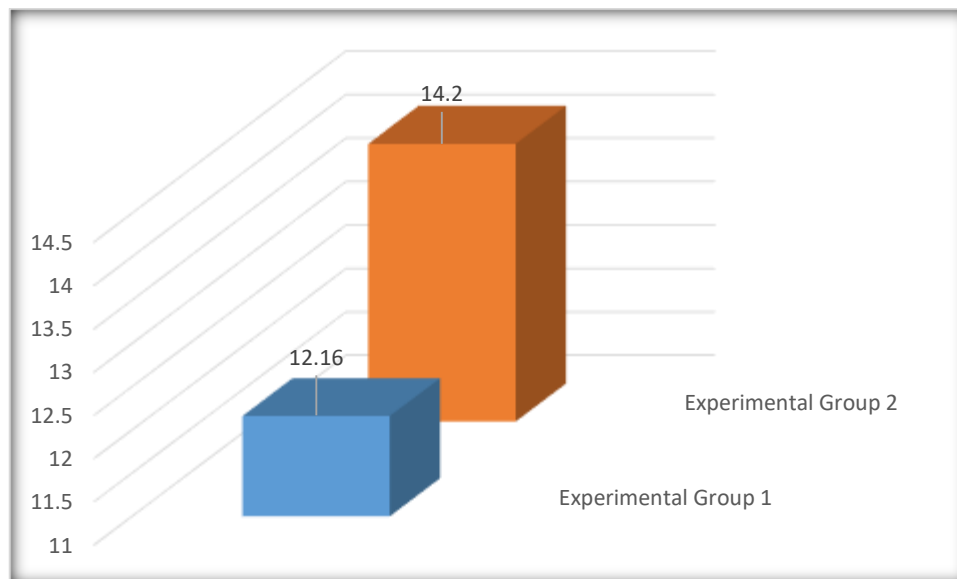
Figure (6): Mean scores of participants' performance in the two experimental groups regarding student teachers' skill of assessing their students' achievement

Results related to the fourth question

To answer the fourth question regarding the effect of immediate and delayed feedback in promoting the skill of English language student teachers in classroom management, T. test for independent samples was used. Results are illustrated in table (9).

Table 9: Significance of differences between groups regarding their skills in classroom management

Group	N	M	SD	Mean Difference	T. Ratio	Sig.
Experimental Group 1	25	6.32	1.67631	0.24	0.465	0.332
Experimental Group 2	25	6.56	1.95959			

Table (9) shows that T. ratio for the differences between mean scores of participant's scores in both groups was (0.465). Mean score of the first experimental group that was trained by receiving immediate feedback was (M=6.32) whereas it was (M=6.56) for the second experimental group that was provided with delayed feedback at the end of the week. That is, no significant difference (α=0.05) between the levels of performance of both groups was revealed in favour of any of the both group that received immediate or delayed feedback. In other words, the effects of immediate or delayed feedback on enhancing participants' skills in managing their classrooms were approximately the same.

A comparison between the effects of both kinds of feedback is shown in figure (7).
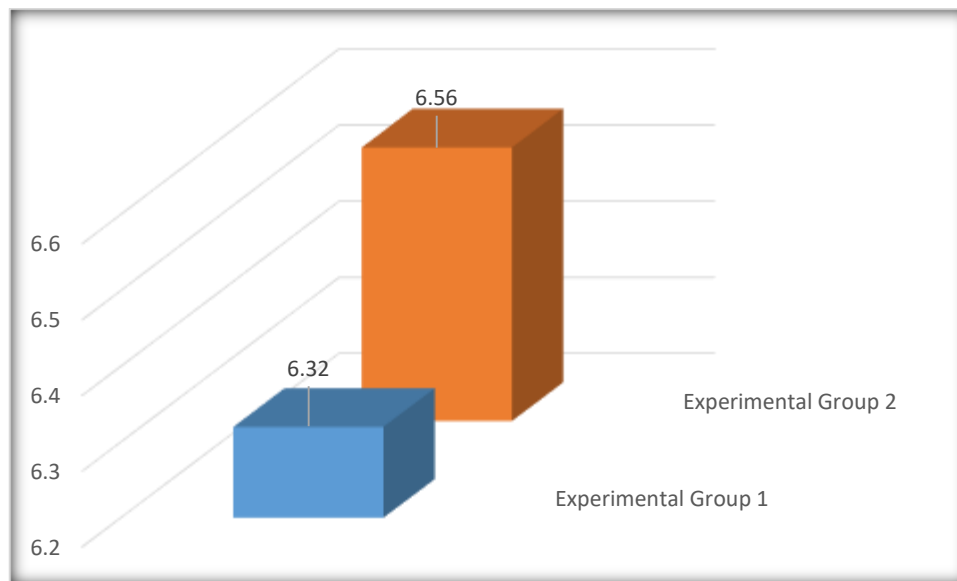
Figure (7): The effects of intermediate and delayed feedback in student teachers' skill in classroom management

DISCUSSION OF THE RESULTS

The main aim of the present study was to address the effect of immediate and delayed feedback in enhancing the implementation of the lesson plans of the student teachers at the college of Education at Najran University. Results revealed that delayed feedback was more effective than immediate one in promoting the skills of English language student teachers in lesson planning, lesson implementation and the assessment of their students' academic achievement. Nevertheless, it was not so in developing their skills in classroom management. Certain factors like for instance, the fact that delayed feedback and the time between students' responses and assignment submission could provide participant students with the opportunity to think enough and make some analyses and comparisons. Students during this time could look for various answers and ways of doing their assignments and then choose proficiently the best of all of them. Delayed feedback, in the way it was provided allowed the respondents to discover their errors and then correct them. When feedback regarding their ineffective work was provided after some days, it was not odd or strange and they soon could realize the weak points in their assignments. The low effectiveness of immediate feedback in the present study might be due to the fact that learners were provided with the errors and mistakes they have committed and therefore their attention was focused on how to correct them. They did not take enough time to rethink of what they have done or how they could make their assignments better. These findings seem to be corroborating the results of Sinha & Glass (2015), Yekta & Dafe'ian (2016), Metcalfe, et.al. (2009), and Sinha (2012) regarding the fact that delayed feedback cues a student's prior response and increases subsequent recollection of that response. The practical implication is that delayed feedback is better than immediate feedback during academic testing. Findings are also of partial agreement with Lemely (2005), Narciss, et.al. (2014), Maleki & Eslami (2013), Yasaei (2016) and Van der Kleij regarding the effect of feedback. They all agree that feedback; whether immediate or delayed enable learners to achieve better. Achievement of learners who receive feedback is always better than the achievement of those who do not do so. On the opposite, results of the present study are in total disagreement with

Kehrer, et.al. (2013), Quinn (2014), Kheradmand & Sayadiyan (2016) and Kleij, et.al. (2012) who found out that immediate feedback was more effective than delayed feedback. Results of all these studies indicated that when given feedback immediately students learned more than when receiving the same feedback delayed.

In conclusion it can be said that results of the present study emphasize the importance of using delayed feedback in similar contexts. They also encourage faculty members who work as academic supervisors to benefit from and adopt the system of delayed feedback when thinking of enhancing their trainees' skills in lesson plan implementation. Furthermore, universities and higher education institutions should pay much attention to educate faculty members about the importance of delayed feedback and its role in the promotion of the educational process. They should work on training faculty members to employ this kind of feedback through systems of eLearning management via a set of training workshops that aim to develop their capabilities.

CONCLUSION

Results of the present can be beneficial for academic supervisors of English language student teachers and researchers interested in the use of immediate and delayed written corrective feedback. The gains that participants in the treatment groups got in lesson plan implementation, may encourage academic supervisors at higher education institutions, teachers at schools and researchers in the field of teaching profession to provide confidently their learners with delayed corrective feedback.

REFERENCES

Aglah, J. T.; Zotorvie, I. K.; Tsrah, P.; & Akpatsu, A. (2014). *The Effect of Feedback on Students Performance at the End of Semester Examinations in Health Training Institutions*, A Project submitted to the Department of Science and Mathematics Education of the Faculty of Education, University of Cape Coast, in partial fulfillment of the requirements for award of Bachelor of Education Degree in Health Science Education.

Bolton. A. E. (2006). *Immediate versus Delayed Feedback in Simulation Based Training: Matching Feedback Delivery Timing to the Cognitive Demands of the Training Exercise*, (Ph.D. Dissertation): University of Central Florida. Retrieved from http://stars.library.ucf.edu/cgi/viewcontent.cgi?article=1925&context=etd

Brookes, M. (2010). An Evaluation of the Impact of Formative Feedback Podcasts on the Student Learning Experience. *Journal of Hospitality, Leisure, Sport and Tourism Education, 9(1)*, 53 – 64. Retrieved from http://search.proquest.com/docview/366317130/fulltextPDF/E6850ED3372F4A59PQ/1?accountid=142908

Brown, G. T. L.; Elizabeth R. Peterson, E. R.; & Yao, E. S. (2016). Student Conceptions of Feedback: Impact on Self-Regulation, Self-Efficacy, and Academic Achievement, *British Journal of Educational Psychology, 86*, 606–629. DOI:10.1111/bjep.12126

Hattie, J. & Timperley, H. (2007). The Power of Feedback, *Review of Educational Research 77 (1),* 81–112. DOI: 10.3102/003465430298487

Hatziapostolou, T. & Paraskakis, I., (2010). Enhancing the Impact of Formative Feedback on Student Learning Through an Online Feedback System, *Electronic Journal of e-Learning 8(2)*, 111 – 122. Retrieved from http://www.ejel.org/main.html

Kehrer, P.; Kelly, K.; & Heffernan, N. (2013). *Does Immediate Feedback While Doing Homework Improve Learning?* Proceedings of the Twenty-Sixth International Florida Artificial Intelligence Research Society Conference. Retrieved from https://www.aaai.org/ocs/index.php/index/index/index/index

Kheradmand, N. & Sayadiyan, S. (2016). Comparative Investigation of the Effects of Immediate and Delayed Error Correction on the Achievement of Male and Female Iranian EFL Learners' Writing Skill, *International J. Soc. Sci. & Education, 6(1),* 31-39. Retrieved from http://ijsse.com/sites/default/files/issues/2016/v6i1/paper-04.pdf

Lemley, D. C. (2005). *Delayed Versus Immediate Feedback in an Independent Study High School Setting*, (Ph.D. Dissertation): Brigham Young University. Retrieved from http://scholarsarchive.byu.edu/cgi/viewcontent.cgi?article=1335&context=etd

Lemley, D.; Sudweeks, R.; Howell, S.; Laws, R. D.; & Sawyer, O. (2007). The Effects of Immediate and Delayed Feedback on Secondary Distance Learners, *The Quarterly Review of Distance Education, 8(3)*, 251–260. Retrieved from http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=9e0de75b-e600-45bf-8927-20e313b43db0%40sessionmgr4006&vid=1&hid=4106

Maleki, A. & Eslami, E. (2013). The Effects of Written Corrective Feedback Techniques on EFL Students‟ Control over Grammatical Construction of Their Written English, *Theory and Practice in Language Studies, 3 (7)*, 1250-1257. doi:10.4304/tpls.3.7.1250-1257

Marden, N. Y.; Ulman, L. G.; Fiona S. Wilson, F. S.; & Velan, G. M. (2013). Online Feedback Assessments in Physiology: Effects on Students' Learning Experiences and Outcomes, *Adv Physiol Educ, 37*, 192–200. doi:10.1152/advan.00092.2012.

Metcalfe, J.: Kornell, N.; & Finn, B. (2009). Delayed versus Immediate Feedback in Children's and Adults' Vocabulary Learning, *Memory & Cognition, 37 (8)*, 1077-1087 doi:10.3758/MC.37.8.1077

Narciss, S.; Sosnovsky, S.; Schnaubert, L.; Andres, E.; Eichelmann, A.; Goguadze, G.; & Melis. E. (2014). Exploring Feedback and Student Characteristics Relevant for Personalizing Feedback Strategies, *Computers & Education, 71*, 56–76. https://doi.org/10.1016/j.compedu.2013.09.011

Norlin, S. (2014). The Importance of Feedback, *Journal on Best Teaching Practices.* Retrieved from http://teachingonpurpose.org/wp-content/uploads/2015/03/Norlin-S.-2014.-The-importance-of-feedback.pdf

Quinn, P. (2014). Delayed versus Immediate Corrective Feedback on Orally Produced Passive Errors in English, (Ph.D. Dissertation): Ontario Institute for Studies in Education, University of Toronto. Retrieved from https://tspace.library.utoronto.ca/bitstream/1807/65728/1/Quinn_Paul_201406_PhD_thesis.pdf

Reyes, R. (2013). On the Impact of Our Feedback: Students Choosing, and Using, to Learn, *College Teaching, 61*, 111–112. DOI: 10.1080/87567555.2013.787968

Sinha, N. & Glass, A. L. (2015). Delayed, but not Immediate, Feedback after Multiple-Choice Questions Increases Performance on a Subsequent Short-Answer, but not Multiple-Choice, Exam: Evidence for the Dual-Process Theory of Memory, *The Journal of General Psychology, 142 (2).* http://dx.doi.org/10.1080/00221309.2015.1024600

Sinha, N. (2012). *The Effects of Immediate versus Delayed Feedback after Multiple-Choice Questions on Subsequent Exam Performance,* (Doctoral dissertation), Rutgers University-Graduate School-New Brunswick.

Van der Kleij, F. M.; Eggen, T. J. H. M.; Timmers, C. F. & Veldkamp, B. P. (2012). Effects of Feedback in a Computer-Based Assessment for Learning, *Computers & education, 58 (1)*. 263 – 272. https://doi.org/10.1016/j.compedu.2011.07.020

Van der Kleij, F. M.; Feskens, R. C. W.; & Eggen, T. J. (2015). Effects of Feedback in a Computer-Based Learning Environment on Students' Learning Outcomes: A Meta-Analysis, *Review of Educational Research, 85 (4)*, 475–511 DOI: 10.3102/0034654314564881

Williams, J. W. (2012). *Formative Assessment: Comparing Immediate and Delayed Feedback*, (Masters Theses): The Graduate School, James Madison University. Retrieved from http://commons.lib.jmu.edu/cgi/viewcontent.cgi?article=1383&context=master201019

Yasaei, H. (2016). The Effect of Immediate vs. Delayed Oral Corrective Feedback on the Writing Accuracy of Iranian Intermediate EFL Learners, *Theory and Practice in Language Studies, 6 (9)*, 1780-1790. http://dx.doi.org/10.17507/tpls.0609.09

Yekta, R. R. & Dafe'ian, S. (2016). A Study of the Effects of Time Lag between Learners' Errors and Teachers' Feedback on the Depth of Vocabulary Knowledge. *Theory and Practice in Language Studies, 6 (11)*, 2109-2116, DOI: http://dx.doi.org/10.17507/tpls.0611.07