

Action Research

Recycling Lower-Level Concepts in Semester III to Build Language Proficiency

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This action research investigated the efficacy of an 8-week program designed to improve language proficiency in Arabic language programs during Semester III at DLIFLC. This analysis aims to determine whether this program led to improvements in students' language proficiency as assessed by the In-Course Proficiency Test (ICPT) 302 and the Defense Language Proficiency Test/Oral Proficiency Interview (DLPT/OPI). The program integrates principles such as recycling, review, and repetition, derived from established literature on language acquisition. The instruction incorporated core curriculum and authentic materials encompassing listening, reading, speaking practice, and comprehensive reviews, basing material selection and individualized instruction on a careful analysis of student needs and test performance. This action research project compared students' scores on the ICPT 301, ICPT 302, and DLPT/OPI. The findings suggest that the program effectively reinforces foundational language skills and knowledge. Further investigation can focus on adapting this program for other language categories; examining its potential as an intervention for at-risk students; or as part of Graduation Readiness Intensive Training (GRIT) courses.

Keywords: Pedagogical Strategies, Educational Intervention, Curriculum Enhancement, Recycle and Review

INTRODUCTION

An extensive body of research exists regarding second language acquisition (SLA) teaching practices related to the reinforcement of prior learning. A common theme cited in second language (L2) research is students' inadequate retention of key concepts or lexical items covered in previous learning (Cheng & Matthews, 2018). Alhawary (2013) noted that a learner is not likely to retain input of lexical items or language constructs from a single exposure.

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Not surprisingly, therefore, several studies have researched the role of repetition or recycling of vocabulary and lexical items and have found them to be crucial to learning (Azim et al., 2020; Masrai, 2019). While there are various approaches related to the role of repetition, recycling, and review found in SLA literature, researchers stress the integration of effective strategy use. These include tasks such as integrating listening and reading activities (Brown et al., 2019) and promoting the development of students' metacognitive skills to increase retention (Dubiner, 2019).

Reviewing and recycling the learning materials at a specific interval is also important to consider (Rogers, 2017) and was a fundamental aspect of this 8-week program. Essentially, when a learner retrieves a word form or meaning based on a specific cue, representation and connection are strengthened. Nakata (2015) determined that spaced distribution of materials led to significantly higher scores for explicit knowledge on posttests, particularly regarding contextual vocabulary learning. Schuetze (2015) examined short-term gains and long-term retention in experiments on vocabulary acquisition. He found that over an 8-week instructional period, with three tests, one immediately following material introduction and the other two spaced at four-week intervals, students showed gradual improvement in retention after each review and test. These studies provide a foundation for this action research and for the analysis of the results.

Statement of the Problem

A high number Iraqi and Modern Standard Arabic (MSA) students fail lower-level questions (levels 1, 1+, and 2) on the 3rd semester tests ICPT 301 and 302, indicating potential gaps or deficiencies in their understanding of foundational materials or vocabulary. This pattern is concerning because it suggests that students may struggle with fundamental concepts, which will likely adversely affect their overall DLPT/OPI performance.

My awareness of this concern was raised when I analyzed the ICPT 301 and ICPT 302 scores of several previous classes and found that an average of 30%–40% of students missed a large number of questions at varying proficiency levels on topics covered in the Sem I and Sem II curricula. An analysis of the breakdown of ICPT 301 results by ILR levels 1-3 revealed the same consistent pattern: numerous students (both low- and high-achievers) missed 40% - 60% of low-level questions (1 and 1+) and an average of 20% of questions at the 2 and 2+ level. To address this problem, I developed and conducted an action research project intended to improve students' language acquisition and retention for foundational topics.

Purpose of the Research

The purpose of this action research was to implement an 8-week program to review and practice foundational grammar structures, lexical items, and language skills in order to ultimately improve students' performance on the DLPT/OPI. The program was implemented during Sem III with three separate classes in two different language programs. The program was initiated after students took ICPT 301, ICPT 302 was taken four weeks later, and an analysis of the results was used to determine whether any modifications to the program's content were required. The DLPT was

taken four weeks after ICPT 302, and the researcher compared the results between the three tests in all three modalities to assess the potential effectiveness of the program in improving students' performance.

This action research aimed to answer the following question: Does implementing this 8-week program—which incorporates repetition, spaced review, and the integration of listening and reading activities—result in demonstrable improvements in students' language proficiency, particularly in speaking, reading, and listening skills, as measured by the ICPT 302 and the DLPT/OPI?

ACTION PLAN

Background and Structure

The 8-week program is an instructional action plan utilizing an open architecture approach and is designed to be implemented following completion of ICPT 301. Open architecture is a design approach that embraces flexibility and adaptability in instruction, allowing for the integration of diverse teaching methods, resources, and technologies. This approach enables educators to tailor their teaching methods and materials to meet the specific needs and preferences of learners. The program framework integrates teaching materials sourced from the Arabic Basic Course (ABC) or Iraqi Basic Course (IBC) curriculum books Semesters I, II, and III, complemented with authentic, supplementary materials ranging from ILR Levels 1 to 3. Instructors act as facilitators during instructional hours. Tailored homework assignments reinforce the content covered during the day, helping students assimilate and effectively retain foundational grammar structures, vocabulary, etc. Students could also seek individual assistance or join a remediation group during any of the non-instructional hours.

The process intends to hone core language proficiencies for each student by revisiting earlier, lower-level materials and systematically progressing through core curriculum activities and more complex, authentic supplementary materials. There are two crucial elements of this program. First, it is vital that instructors conduct diagnostic assessments to identify and address any problems a student encounters in a lesson, or if necessary, to schedule the student for remedial instruction to cover knowledge gaps. Another key element of the program is guided self-study, in which students utilize any free classroom time by revisiting relevant materials or accessing online sites recommended by facilitators. Through this process, students are fully engaged and assume responsibility for their learning. Based on a self-assessed process of need, they are free to revisit any area of the materials that they feel require more review.

Actions Taken

In designing the 8-week program, I placed a strong emphasis on the principles of repetition, recycling, and spaced review of learning materials. Research indicates that these elements are critical to language acquisition, particularly in the context of vocabulary retention (Azim et al., 2020; Masrai, 2019; Nakata, 2015). To operationalize these principles, the program was structured to ensure that students engaged in repeated exposure to key vocabulary and grammatical structures through integrated listening and reading activities. Specifically, materials from the Arabic Basic Course and Iraqi Basic Course curricula were revisited in intervals that aligned with findings from spaced repetition research (Rogers, 2017).

Furthermore, I adopted an approach that emphasized the development of students' metacognitive skills, which has been shown to increase retention (Dubiner, 2019). Students were encouraged to actively engage with the material, self-monitoring their understanding and progress, and incorporate the action plan developed from the diagnostic assessment that informed their tailored review sessions.

By integrating these strategies into both the morning and afternoon instructional blocks, I aimed to reinforce foundational language skills and facilitate long-term retention, which are essential for success in the ICPT 302 and DLPT/OPI assessments.

- 1. Needs Analysis. I analyzed each class's results in the ICPT 301 to determine the specific areas of difficulty that these students were experiencing. This analysis provided a baseline to evaluate each student's performance. I compiled a sub-set of the number of questions missed by level with MS Excel and later compared these to the scores of each student's results in the ICPT 302 and DLPT/OPI (see Appendix for students' scores).
- 2. Content Selection and Scheduling. I selected level-appropriate content and existing supplementary materials, focusing on authentic materials selected from a bank of resources created by faculty and adapted as needed.
 - a. 1st and 2nd hours: Listening and reading, with students reviewing designated passages drawn from the core curriculum books for 30 minutes and then reading or listening to instructor-chosen authentic materials.
 - b. 3rd and 4th hours: Students review authentic materials and passages presented earlier in the course, with 30 minutes allocated for a designated number of passages and 20 minutes for online materials on the same topics.
 - c. 5th hour: One-on-one speaking practice conducted on Teams with no cameras on, simulating the environment in which they will take the OPI.
 - d. 6th hour: Students review higher-level listening and reading materials, utilizing GLOSS, JLU, and other prepared materials.
 - e. 7th hour: All students encouraged to attend and designated for a comprehensive review of the lessons covered during the day.

- 3. Faculty Training. I conducted familiarization sessions with team members so that they could have a thorough understanding of the sequencing and intent of the teaching materials and the daily schedules. This session included a discussion of findings from the analysis of the students' needs from the ICPT tests (step 1 above) and rationales for the study materials selected (step 2).
- 4. *Monitoring and Communication*. I conducted weekly meetings with teaching team members to gather perceptions and recommendations during the process.
- 5. *Class Observations*. I observed the three classes at least once a week to gauge students' engagement in the process as well as appraising instructors' preparedness.
- 6. Individualized Student Instruction. Teaching team instructors evaluated each student's daily and weekly performance and provided recommendations for attendance in additional instructional hours (Zero-hour, 7th hour, and 8th hour) based on the student's availability. Forty-two students voluntarily participated in these sessions.

Data Collected

In order to explore how this 8-week program may have helped students in Semester III answer test questions related to Semesters I and II, the scores of each student in these three courses studied were analyzed. The data sets included listening, reading, and speaking scores of students for ICPT 301, ICPT 302, and DLPT/OPI in three independent classes: Group 1 MSA program; Group 2 Iraqi program A; Group 3 Iraqi program B. See Appendix for students' scores. Students' identities were anonymized. The results for both ICPTs were converted from letter grades to numerical scores using a range scale modeled on the DLPT levels ranging from 1 (F, D-) to 26 (A) points. The DLPT score levels (0 through 3 for MSA and Iraqi lower-range tests) are equated at specific numeric values. For example, level 0+=6; level 1=10; level 1+=16; level 2=20; level 2+=26; level 3=30. Upper-range scores begin at 3+(36) and higher. Of note here is that the numeric value is not the raw score. The DLPT level to numeric value was obtained from the Directorate of Academic Affairs and is uniform across all DLPT tests. All other data involved in the research was internally available to the researcher and no student interaction was required.

FINDINGS AND DISCUSSION

The findings derived from the data analysis provide valuable perspectives into the efficacy of this language program and demonstrate improvements in language proficiency among students and across all three groups. Improvements were noted in all skills, though particularly in speaking more than listening and reading comprehension. The program's effectiveness in reinforcing foundational language skills and preparing students for the DLPT and OPI assessments highlights the importance of needs analysis and tailored language instruction in facilitating meaningful learning outcomes. An informal comparison of the scores of these three groups of students compared to the scores of previous students who were not in this program shows that the program did help students with foundational language concepts.

Group 1: Modern Standard Arabic Program

Of the 14 students in the MSA group, only one achieved a lower score in reading on the DLPT than the ICPT 301 (see Table 1, Appendix). Comparing scores from ICPT 301 to 302, approximately half of the students' scores on ICPT 302 stayed the same or improved across each modality. The areas where students continued to struggle between ICPT 301 and 302 were in Listening and Reading; there was a greater score increase in Speaking. All students had higher scores on the DLPT/OPI than on ICPT 302 across all modalities.

Observations and Feedback

During my class observations, I observed that students appeared less confident during listening and reading activities, which may indicate a need for more active learning strategies. I noted that students seemed to answer and complete the reading and listening tasks such as content questions or multiple-choice answers by speaking in the target language, which may explain the greater score increase in that modality. Teachers' feedback highlighted that while students participated well during class discussions and speaking exercises, they often struggled with the complexities of reading comprehension and the nuances of listening tasks, particularly when dealing with authentic materials. Students expressed that they sometimes found reading texts dense and overwhelming and that listening audios often felt too fast-paced, contributing to their difficulties. Students also expressed anxiety about focusing on lower-level materials in SEM III due to the requirements for higher-level content.

Why the Challenges in Reading and Listening

I believe the students' struggles in reading and listening between ICPT 301 and ICPT 302 can be attributed to a few factors. First, the complexity of authentic materials might have posed a challenge, especially if students lacked sufficient exposure to similar texts or audio resources during their study hours. Second, it's possible that the pacing of the lessons didn't allow enough time for students to fully process and engage with the material. Additionally, the lack of varied and repeated exposure to vocabulary and syntax in authentic contexts might have hindered students' ability to internalize and recall information effectively during the activities.

Suggestions for Improvement

Moving forward, I propose modifying the 8-week program to focus more time on developing students' reading and listening skills. This could include integrating more scaffolded exercises that gradually increase in difficulty, breaking down the passages into 2 to 3 sections, and incorporating more recycling games or short activities. Also, slowing down the pacing of listening activities will ensure students have adequate time to process and understand the material. Providing students with the listening transcription at the end of the activity would also allow students to self-assess on what they missed from the text.

Additional Observation

Students achieved higher grades in reading and listening on ICPT 302 compared to ICPT 301. I believe one contributing factor to this improvement may be attributed to the shorter time frame prior to ICPT 301, during which students were learning to incorporate new strategies and materials. By ICPT 302, students were able to recall vocabulary presented earlier in the course more quickly and accurately.

Group 2: Iraqi Program A

Of the nine students in the first Iraqi group, all achieved a higher score on the DLPT than the ICPT 301 (see Table 2, Appendix). Comparing the scores from the ICPT 301 to 302, approximately half of the students' scores on ICPT 302 stayed the same or improved across each modality. All students had higher scores on the DLPT/OPI than on ICPT 302 across all modalities

Observations and Feedback

During my class observations, I noted that students seemed more comfortable working on reading and listening passages. Reducing the emphasis on speaking the TL during these activities allowed students more time to focus on comprehension rather than spending effort on articulating their responses. This shift contributed to a more effective engagement with the reading and listening tasks. Teacher feedback highlighted that the recent adjustments in the program, such as more scaffolded exercises and adjusted pacing, were well-received. Students appeared more confident in their reading and listening tasks, demonstrating improved comprehension and performance. Students were highly engaged with the program and motivated to attend extra teaching hours during zero, 7th, and 8th periods. Additionally, some students requested extra and tailored homework assignments that were relevant to the lesson.

Why the Challenges in Reading and Listening

Despite the overall improvement, there were still some challenges noted in reading and listening tasks. Initially, the complexity of authentic materials and the pacing of lessons may have posed difficulties. However, the successful incorporation of targeted strategies, such as scaffolded exercises and practice with authentic materials, addressed many of these issues. The improved results suggest that while challenges existed, the adjustments made were effective in mitigating them.

Suggestions for Improvement

Moving forward, I recommend continuing to refine the program in the following ways:

• Maintain and possibly expand the use of scaffolded exercises that progressively increase in difficulty to further support student development.

- Continue breaking down reading passages into manageable sections to aid comprehension.
- Ensure that listening activities are paced according to students' expressed needs, allowing them sufficient time to process and understand the material.
- Provide transcriptions of listening exercises to help students review and self-assess their understanding.

Additional Observation

The positive impact of these changes may have contributed to the improved scores across both ICPT 302 and the DLPT. I believe the implementation of the suggested improvements led to higher scores and demonstrated that teachers were more adept at applying the revised program effectively. The enhanced strategies and teacher expertise contributed to the successful outcomes, reflecting well on both the test results and the overall program.

Group 3: Iraqi Program B

Of the 19 students in the second Iraqi group, results showed more consistent improvement on the DLPT than the ICPT 301 across all modalities 301 (see Table 3, Appendix). Comparing the scores from ICPT 301 to 302, most students' scores on ICPT 302 stayed the same or improved across each modality. The areas where students continued to struggle between ICPT 301 and 302 were in Reading and Speaking; there was a greater score increase in Listening. All students had higher scores on the DLPT/OPI than on the ICPT 302 across all modalities.

Observations and Feedback

During my observations of Group 3, students exhibited varying levels of comfort and proficiency in handling reading and listening tasks. The group, which was divided into two sub-groups based on ability, one of high achievers and one of students who struggled from the beginning, showed distinct patterns in their engagement. High-achieving students demonstrated a high level of confidence and effectiveness in tackling the material, leading to notable improvements in their performance. The struggling students initially faced challenges with material complexity and pacing, but adjustments like scaffolded exercises and varied pacing helped. Despite these benefits, the larger class size limited the ability to provide individual support to all students.

Teachers appreciated the flexibility of the modified program, which allowed them to better cater to the diverse needs within Group 3. They reported high-achieving students responded well to the increased focus on reading and listening without the added pressure of frequent speaking tasks. Students in Group 3 expressed a range of responses to the program modifications. High-achieving students reported feeling more engaged and challenged by the adjusted activities and appreciated the opportunity to delve deeper into reading and listening tasks. They valued the additional practice and the tailored homework assignments that aligned with their needs. Students in the struggling sub-group also acknowledged the benefits of the scaffolded exercises

and the adjusted pacing. They noted that these changes helped them better manage the complexity of the materials and improved their overall comprehension.

Why the Challenges in Reading and Listening

Despite the overall improvement, there were still some challenges noted in reading and listening tasks. Initially, the complexity of authentic materials and the pacing of lessons may have posed difficulties. However, the successful incorporation of targeted strategies, such as scaffolded exercises and practice with authentic materials, addressed many of these issues. The improved results suggest that while challenges existed, the adjustments made were effective in mitigating them.

Some students voiced concerns about not receiving enough one-on-one attention due to the larger class size of 19 students. We therefore divided the larger class into smaller groups of approximately 6 to 8 students for certain activities. This division allowed for more focused group work and peer collaboration. Also, extra teaching hours were offered, allowing students to seek additional help outside of regular class time. Third, students could request customized homework assignments that targeted their specific areas of difficulty. These opportunities were well-received and played a significant role in enhancing student motivation and engagement.

Suggestions for Improvement

While the program modifications contributed to improving student outcomes and maintaining engagement, the feedback highlighted the ongoing need for balancing resources and providing adequate support for all students within a larger group setting. Extra teaching hours were offered, enabling students to seek additional help outside of regular class time, during zero and 8th hours. Students could also request customized homework assignments targeting their specific areas of difficulty.

Additional Observation

The positive impact of these changes may have contributed to the improved scores across both ICPT 302 and the DLPT. I believe the implementation of the suggested improvements led to higher scores and demonstrated that teachers were more adept at applying the revised program effectively. The enhanced strategies and teacher expertise contributed to the successful outcomes, reflecting well on both the test results and the overall program.

CONCLUSION

As the culmination of the DLIFLC's language programs, Sem III encompasses the totality of the learning experience. Students are continually exposed to the higher levels of the language, while still building upon and attempting to maintain previous learning. This action research intended to provide insights into the impact of an 8-week foundation-building program on students'

DLPT/OPI scores. The results from all three classes suggest that the process and content of the program were effective in reinforcing foundational language skills and bridging knowledge gaps, resulting in improvements in language proficiency. Of note is the improvement in speaking skills at each benchmark stage, which indicates that conducting instruction in a virtual environment simulating the OPI was beneficial for students.

Also interesting are the results from the Iraqi programs. For both classes of Iraqi students, the program produced consistent improvement in Listening, Reading, and Speaking, specifically evident on the DLPT/OPI tests. Of note for this language program, in the first four weeks, most students only maintained or even decreased scores on the ICPT 302. However, in the last 4 weeks of the program, there was a universal, very pronounced improvement for the majority of students across all modalities, indicating that the cumulative effect of the review of materials during the latter part of the program was particularly effective. This finding is consistent with the research completed by Nakata (2015), which stated that the spaced distribution of materials results in higher scores on posttests, particularly regarding contextual vocabulary learning. Also, Schuetze (2015) found that over an 8-week instructional period, with spaced-interval tests, students showed gradual improvement in retention after each test. This finding is consistent with the current research regarding spaced repetition and remediation strategies.

Considering the need to cover new material in Semester III, some DLIFLC language teachers may question how to fit such an enhancement program into the curriculum. However, the program addresses this concern by allowing flexibility in scheduling and content delivery to complement existing curriculum materials. Teaching teams can integrate new Semester III material as needed while ensuring that foundational language skills are reinforced effectively. Additionally, by utilizing zero, 7th-hour, or 8th-hour sessions, instructors can incorporate the program and still cover essential curriculum content. This approach ensures that students are not overwhelmed or overworked.

The 8-week program was initially designed for Category IV Arabic language programs aimed at addressing identified deficiencies in student performance in Semester III. The program could be effectively adapted to a Category III language program with a thorough assessment of applicable curriculum and supplemental resources. Also, the program can be used in blended learning or immersive activities to facilitate its integration. Additionally, there is a potential to explore its utility as an intervention for at-risk students or as part of Graduation Readiness Intensive Training (GRIT) courses. Future action research projects can explore some of the findings from this study, such as how best to support students with individualized instruction in larger classes, or how to help students build bottom-up listening and reading skills (e.g., decoding, word boundaries) that they can apply to any future listening or reading activities.

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APPENDIX

Table 1Scores of Group 1: MSA Students on ICPT 301, ICPT 302, and DLPT Tests

Student	ICPT	ICPT	DLPT	ICPT	ICPT	DLPT	ICPT	ICPT	OPI S
	301 L	302 L	L	301 R	302 R	R	301 S	302 S	
S1	13	24	26	26	24	24	18	18	24
S2	20	13	30	24	24	30	20	20	24
S3	24	24	30	24	26	30	22	22	24
S4	20	24	30	22	26	30	22	24	24
S 5	10	13	26	22	22	26	18	20	22
S6	20	24	30	22	24	30	20	22	28
S7	24	22	30	24	26	30	18	22	24
S8	24	22	26	20	16	26	18	18	24
S9	22	22	36	22	26	30	20	24	24
S10	26	26	36	24	26	30	24	24	28
S11	20	16	26	22	13	26	18	20	24
S12	13	2	24	13	16	16	18	18	22
S13	20	22	30	22	22	24	18	20	24
S14	6	2	16	3	2	6	18	18	24
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Table 2Scores of Group 2: Iraqi Students on ICPT 301, ICPT 302, and DLPT Tests

Student	ICPT	ICPT	DLPT	ICPT	ICPT	DLPT	ICPT	ICPT	OPI S
	301 L	302 L	L	301 R	302 R	R	301 S	302 S	
S1	16	20	24	13	3	24	18	18	24
S2	20	26	24	16	16	26	20	20	24
S3	16	3	24	1	13	24	20	18	22
S4	16	16	24	13	10	26	24	16	24
S5	24	26	26	16	24	26	22	20	22
S6	16	16	24	13	13	26	18	16	22
S7	20	16	24	20	16	30	18	20	22
S8	26	26	30	16	22	24	24	24	24
S9	24	20	24	20	24	30	22	20	24

Table 3Scores of Group 3: Iraqi Students on ICPT 301, ICPT 302, and DLPT Tests

Student	ICPT	ICPT	DLPT L	ICPT	ICPT	DLPT R	ICPT	ICPT	OPI S
	301 L	302 L		301 R	302 R		301 S	302 S	
S1	13	24	26	26	24	24	18	18	24
S2	20	13	30	24	24	30	20	20	24
S3	24	24	30	24	26	30	22	22	24
S4	20	24	30	22	26	30	22	24	24
S5	10	13	26	22	22	26	18	20	22
S6	20	24	30	22	24	30	20	22	28
S7	24	22	30	24	26	30	18	22	24
S8	24	22	26	20	16	26	18	18	24
S9	22	22	36	22	26	30	20	24	24
S10	26	26	36	24	26	30	24	24	28
S11	20	16	26	22	13	26	18	20	24
S12	13	2	24	13	16	16	18	18	22
S13	20	22	30	22	22	24	18	20	24
S14	6	2	16	3	2	6	18	18	24
S15	16	16	16	20	3	24	18	20	24
S16	16	13	24	20	6	24	22	20	24
S17	10	13	24	16	24	24	20	20	24
S18	20	26	26	22	24	30	22	22	22
S19	24	22	24	6	24	26	22	22	24