Homework Worksheets Designed to Promote Learner Autonomy

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> The Barcelona Conference on Education 2020 Official Conference Proceedings

Abstract

This paper examines the effectiveness of a simple worksheet designed based on the Recall Protocol assessment framework as an effort to help students develop learner autonomy. Building students up for autonomous learning can be a long and arduous journey, but it is what language educators aspire to achieve. The worksheet was inspired by one of the author's first-hand experience in the professional interpretation training and the Recall Protocol process. The worksheet was later modified to adapt to different proficiency level students in the intermediate and higher-intermediate Chinese Courses at the Defense Language Institute classrooms. The worksheet streamlines and prompts the processes for learners to take ownership of learning by examining their own comprehension, identifying areas for improvement and setting goals for each learning task. With proper guidance to use the worksheet in homework and in class, students can self-assess learning progress, achieve higher order thinking and set action plans for further learning and background knowledge building in self-directed fashion. This paper details the research attempting to examine the effectiveness of the worksheet and its variations by comparing students' performance on their proficiency tests before and after the worksheet was introduced to their homework and classrooms. The paper will lay out how the device is scaffolded in homework, how instructors utilize it to gain insights into students' learning and thinking processes and how these insights are instrumental for individualized instruction.

Keywords: Learner Autonomy, Listening Comprehension, Reading Comprehension, Recall Protocols, Notetaking, Metacognitive Learning, Self-Regulated Learning

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Introduction

For as long as people can think back, selected-response assessment has been widely employed in schools of all levels, including multiple-choice, matching and true-false questions while there is a growing interest in constructed-response assessment that requires students to compose their own answers (Stecher et al., 1997). At Defense Language Institute Foreign Language Center (DLIFLC), comprehension assessments are either a hybrid module of multiple-choice and short-answer questions or a multiple-choice only module. While the hybrid module employs two types of assessment to make up for the drawbacks of one another, it still does not provide enough clues as to how much a student genuinely comprehends from a passage and what a student needs assistance with, be it vocabulary, grammar or background knowledge.

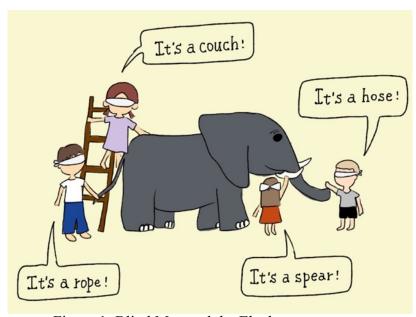


Figure 1: Blind Men and the Elephant

Comprehension, fundamental to language acquisition, is the second subsequent cognitive thinking process in Bloom Taxonomy that requires learners to interpret, categorize, summarize, infer, compare and explain. In this cognitive learning level, the teacher's role is to demonstrate, listen and examine (Oscarini & Bhakti, 2010). Learners' conceptualization and further interpretation of a passage bases on a full scope of information they gather from the passage. To achieve that, a teacher shall provide guidance by demonstrating, listening to students' summaries, inferences, interpretations and explanations, and then examining students' overall comprehension. As shown in Roediger and Marsh's study (2005), taking a multiple-choice test did not help subjects recall information. In the authors' experiences, multiple-choice tests do not provide either students or teachers enough clues to examine students' cognitive learning processes, progress and/or problem-finding skills. As depicted in Figure 1, if one has not been able to both trace the silhouette of the elephant and touch each part of it, conceptualization of the creature being an elephant would not be possible. Constructedresponse questions may provide a better look at a student's comprehension level and yet still only a partial look.

To better guide and facilitate students to have comprehensive understanding and progress to the next cognitive learning levels of applying, analyzing, evaluating and creating, both students and teachers need a way to examine progress, pinpoint problems and set courses of actions. In the classroom, a teacher can guide students to both draw out the main idea and describe details in depth; however, when doing self-study, students either move on too quickly from an apprehensive idea or dwell on a certain unfamiliar word for too long. As a solution to the predicament in the authors' classrooms, the RPW and its modified variations were introduced to students' homework to help them track their own train of thoughts without teachers present. A similar note-taking and thinking process in consecutive interpretation is being emulated in the procedure of using the RPW. The RPW is designed vertically and sectioned for note-takers to easily track their thoughts and reconstruct their memories just like how an interpreter would do on a fast-paced consecutive interpretation session (Laurenzo, 2008). Bernhardt and James (1987) described the Immediate Recall Protocol as the procedure in which students listen to or read a passage and reconstruct the information and that offers teachers a chance to obtain more information as in how and what students understand. James (1987) also researched the Immediate Recall Protocol framework involving the listening modality. The framework has been most known as an alternative assessment framework for tests and has been the tool for diagnostic assessment at DLIFLC. Grounded by Hayes and Flower's (1980) observations that the Recall Protocol could help teachers peek into students' analytical process of text, the RPW was designed to visualize the framework mainly for students' self-directed learning in homework and life-long language acquisition. Being a simple chart, it simplifies the self-learning process so students can line up their thoughts gained from both written and spoken text. It also serves as an instrument for teachers to gauge students' genuine progress and further differentiate instruction catering to individual students' areas of improvement.

This paper is to discuss the effectiveness of the use of RPW and its modified variations in homework and in class. While the Immediate Recall Protocol framework is the basis of the practice, the focus of this paper is on how the Worksheets are scaffolded and benefit students in their self-regulated and autonomous life-long learning.

Methodology

Participants

The paper is based on the qualitative analysis of the formal and informal feedback of a total of 18 students, 11 from two classes in the Chinese intermediate course (64 weeks) and 7 in the Chinese higher-intermediate course (6 weeks/19 weeks). Quantitative analysis of the results of their proficiency tests before and after the RPW and its variations were implemented as well as teachers' in-class observations also inform the basis of the paper. Including intermediate to higher-intermediate level students provides a larger scope of the application of the RPWs. All students in both courses were required

to obtain or maintain a minimum of ILR Level 2 proficiency¹ for both listening and reading on DLPT5².

Context

The mission of DLIFLC is to provide culture-based language programs for prospect linguists. That being said, exploration of a plethora of subject matters in target languages is fundamental to the training, and it is instrumental to train students to work with unfamiliar topics or context in their target languages. It is ideal that, when working with unfamiliar topics, students process information bottom-up, gathering information from each time they listen to or read a passage and connecting the dots to paint the big picture. Unfortunately, due to lack of background information or prior knowledge of the topics, students tend to get frustrated or dwell on a certain word or unclear idea for too long. The authors designed the RPWs to help their students systematically look through their own notes, organize their thoughts and at least develop a rough picture without getting stuck. The structure is intended to help students stay grounded and follow through each comprehension drill even when no teacher is present to provide assistance or guidance.

Instead of using the Immediate Recall Protocol for diagnostic assessment, which is the common practice within the Chinese Department at DLIFLC, the authors designed and refined the RPW for homework to help students gain ownership of their learning and teachers to gain insights into students' thinking processes.

Class I-1, one of the two intermediate classes participating in the study, started using the Lower-Intermediate Level Recall Protocol Worksheet (LIRPW) or passage listening and reading homework in Week 25 and the original RPW in Week 51. Class I-2, the other intermediate class in the study, started using the RPW in Week 45. Every class was different, so the implementation timing varied. Both classes were given detailed instructions and demonstrations on how to work with the device. The higher-intermediate class participants started using the Learning Process Worksheet (LPW), a refined version of the RPW, from the first week of the course for listening and reading homework.

When Classes I-1 and I-2 students' proficiencies were at the lower-intermediate level, they needed guidance to work through the materials with unfamiliar topics and vocabulary, so they started with the LIRPW with elaborate instructions (Figure 2). This was the first phase of scaffolding to train the students to listen to or read a passage one to two times or three times maximum, to obtain its main idea and retrieve as many details as possible. Depending on students' learning styles, they could work from bottom up to organize the details and form a main idea instead. A very important step was for the students to check their own comprehension by comparing their own notes

¹ ILR (Interagency Language Roundtable) provides descriptions characterizing 6 basic language skill levels from 0 to 5 and their "plus levels". The minimum requirement of DLIFLC students, ILR Level 2, is described as to have "sufficient comprehension to understand conversations on routine social demands and limited job requirements" for listening and to have "sufficient comprehension to read simple, authentic written material in a form equivalent to usual printing or typescript on subjects within a familiar context" for reading. Full descriptions can be found at https://www.govtilr.org/index.htm

² DLPT5 (Defense Language Proficiency Test 5 System) is designed to assess native English speakers' acquired language proficiency. The DLPT5 rating system is based on the descriptions of the ILR Language skill system.

with the listening passage scripts, so they could "diagnose" their own comprehension hurdles by looking at the words, grammar patterns and/or ideas they missed. Since this was the first phase, instead of answering content questions, the participants were asked to design five questions based on the details they extracted, which encouraged them to think like a teacher putting in perspective all the ideas or details. Figure 3 is an example of a participant's homework LIRPW, including the teacher's feedback.

Recall Protocol Worksheet

Instructions: Follow suit the steps below and do NOT look up any words until you are done.

- 1. For listening:
 - Listen 2-3 times and write down every time the details you attain in Step 1 (keep 5W's and 1H in mind).
 Then organize your thoughts into a brief main idea.
 - 2) Read the script and highlight new words. Try to make educated guesses before you look up new words.
 - 3) Identify clues that can or could have helped you understand the context better, i.e. grammar patterns and conjunction words that show contrast of time or elaboration or extension of concepts, such as 以前、以後、不再 (contrast of time)、不僅/而且、雖然/但是...
 - 4) Diagnose your comprehension by recognizing the major hurdles, such as unfamiliarity with conjunction words, knowledge of specific subject matters, vocabulary, speed, etc.
 - 5) Design 5 questions based on the passage. Think from a teacher's perspective and apply the 5W's and 1H. Avoid L0+ questions like "What's his name?"
- 1. For reading
 - 1) Read 2 times and write down every time the details you attain (keep 5W's and 1H in mind).
 - 2) Identify important conjunction words, grammar patterns and function words that show contrast of time or elaboration or extension of concepts, such as 以前、以後、不再 (contrast of time)、不僅/而且、雖然/但是...
 - 3) Design 5 questions based on the passage. Think from a teacher's perspective and apply the 5W's and 1H Avoid L0+ questions like "What's his name?"

Step 1:

1 st listen/read			
2 nd listen/read	_		
3 ^{ra} listen/read	_		
Mala Harr	_		
Main idea:			
Grammar words and new vocab words:			
Self-diagnosis	_		
Seir-diagnosis			

Figure 2: Lower-Intermediate Level Recall Protocol Worksheet

Lower Intermediate

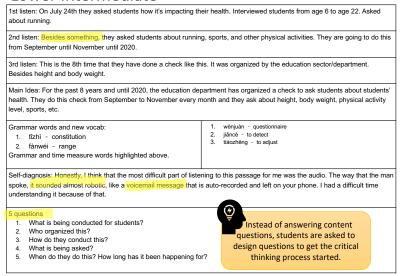


Figure 3: Example of Student's Homework Lower-Intermediate Level Recall Protocol Worksheet

The intermediate classes progressed to the next phase and started using the original version of the RPW (Figure 4), a rather concise version. After a few weeks of being eased into the recall protocol framework with non-textbook materials, they were expected to maneuver through their own thinking processes with more ease. Depending on students' learning styles, they could process a passage in a top-down manner by starting with the main idea and summary or in a bottom-up manner by jotting down every single detail extracted from the passage. Then they would, as part of their routine for listening passages, check their own comprehension by reading the scripts, self-evaluate their own mistakes and identify their areas for improvement and even set up courses of actions to address and improve on their learning issues. In this phase, they had the liberty to choose whether or not to continue with the design of five content questions. The teachers found the five questions could determine if a student activated his higher-order thinking skills.

Figure 5 shows how a student was familiar enough with the RPW to skip using the worksheet but still follow the format. The student also carried over the routine of creating five questions from the lower-intermediate level version. When implementing the RPWs, the students were granted the liberty to choose what worked best for them. This particular student was quite thorough with the details and appeared to be comfortable with the topic; thus, the teacher followed up with very limited comments and added to the student's self-diagnosis.

٠	Recall Protocol Work Sheet					
Ī	Main idea:					
ı						
ı						
ı	Summary:					
ı						
ı	Recall protocol:					
ı	1st listening					
ı	1 insterning					
ı						
ı						
ı						
ı	2 nd listening					
ı						
ı						
ı						
ı						
ı	3 rd listening					
ı						
ı						
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ı						
ı	<u>Self diagnosis</u>					
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Figure 4: Original Recall Protocol Worksheet for All Levels

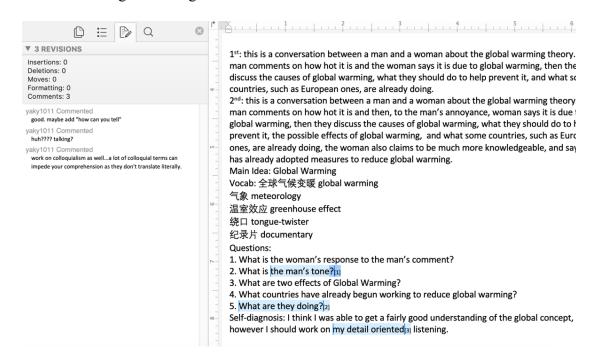


Figure 5: Example of Student's Homework Recall Protocol Worksheet

In the higher-intermediate curriculum, teachers worked with students who had taken the DLPT5, and all scored higher than Level 2 before the refresher course. Given that the students could understand authentic materials on everyday topics, most current events and essential points of their professional fields, more text typologies were introduced to their syllabi. Typologies required students to identify writer's tones, read between lines and infer from, interpret and analyze text embedded with abstract ideas and literary devices, such as metaphor, irony, allegory, etc. The worksheet was thus modified to accommodate the curriculum to guide students to go beyond the literal meanings of text (Figure 6).

The refined worksheet, LPW, to provide a "one-stop shop" including the prompts for students to take before, during and after listening and reading assignments. Since the topics and text typologies selected for this course were generally more complex, students were asked to do background research on the selected topics. When they listened to or read the passages, they were to write down the information they extracted, be it facts listed, arguments presented, connotations behind metaphors or writer's tones and then summarize the passage based on their own notes. As in the lower-intermediate and intermediate scenarios, the students were instructed to assess their work by comparing their notes with the listening scripts for comprehension check and then identify ways to improve.

Self-Examining Learning Proces	ss Sheet			
(A) Research the Topic (Relevant Background Information and knowledge):	Jot down the things you are uncertain of/or do not understand:			
(B) 1st Listening/Reading – Global				
Main Idea:				
(C) 2 nd Listening/Reading – Details Details/Key Info/ Important arguments:				
Or Any Hidden Message / Idea or Purpose / Author's Tone:				
Core arguments or supporting elements (if there are anv)+ 1.				
2. 3.				
···				
Summary:				
(D) After comparing with the Script (for listening) /which parts you miss or	misunderstand and why:			
(E) Self-Evaluation and Diagnosis/what you need to do in order to learn this kind of article better:				
(c) Self-Evaluation and Diagnosis/what you need to do in order to learn this	king of article better:			

Figure 6: Learning Process Worksheet for Higher-Intermediate Level Figure 7 shows an example of a student's homework using LPW to organize his thoughts. The student's input and teacher's feedback were all in the target language to match the student's proficiency level.

From lower-intermediate to higher-intermediate levels, the worksheets, and most importantly, the learning processes revolving around the worksheets, are to empower students to gain control of their own learning and develop their own learning strategies to navigate through different text genres and topics.

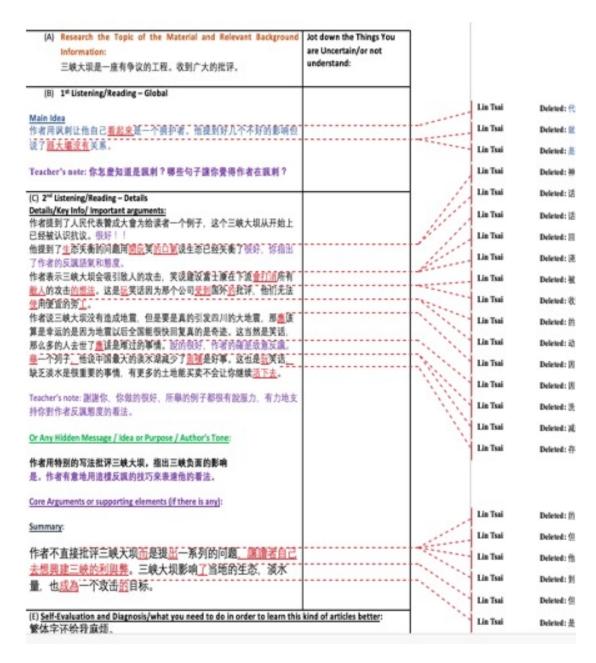


Figure 7: Example of Higher-Intermediate Level Student's Homework Learning
Process Worksheet

Data Collection and Analysis

The quantitative data include:

- 1. Classes I-1 and I-2 results of Proficiency Test I which tests comprehension of passages of factual content delivered in a standard dialect on everyday topics, well-known current events and narrations of events. The test was administered in Weeks 51 and 45 in respective class, the same week as the original RPW was implemented.
- 2. Classes I-1 and I-2 results of Proficiency Test II which tests the comprehension of concrete discussions, everyday vocabulary and some implications between lines, and requires more adequate vocabulary and knowledge base to excel at this level and understand overtones. The test was administered 1.5 months prior to the DLPT5.
- 3. Classes I-1 and I-2 projected DLPT5 results based on Proficiency Test II results and in-class observations
- 4. Classes I-1 and I-2 results of the DLPT5
- 5. Class H pre-course DLPT5 results
- 6. Class H post-course DLPT5 results

The teaching team of the intermediate classes projected their DLPT5 results based on their performance on a practice proficiency test modelling DLPT5 1.5 months prior to the DLPT5 and their in-class observations of the participants' learning styles and performance. The higher-intermediate level participants had taken the DLPT5 a few months before the refresher course and took the exam again upon the completion of the course. The practice test results, projected DLPT5 results and final DLPT5 results of the intermediate participants and the pre- and post-course DLPT 5 results of the higher-intermediate participants were compared in the quantitative analysis. The qualitative data from participants' feedback were included to better understand how the practice of using RPW for homework affects them in terms of the development of students' learner autonomy.

Findings

From Proficiency Tests I to II, none of Class I-1students showed progress in the listening modality; 4 out of 5 students saw improvement; one scored the same number of questions in the reading modality. In contrast, 4 out of 6 in Class I-2 showed progress in the listening modality and all 6 students improved in the reading modality.

When the projected DLPT5 results were compared with the final DLPT5 results, all five Class I-1 students scored higher than projected in the listening modality, 4 scored as projected in the reading modality and 1 scored higher than projected in the reading modality.

In Class H, one out of seven students showed improvement, five students maintained the same rating and one student declined in the listening modality in the DLPT5 after taking the refresher course. Five of seven students received a higher rating and one received a lower rating in the reading modality than their previous DLPT5 results while one student maintained the same rating.

Intermediate Students	Proficiency Test I (LC/RC)	Proficiency Test II (LC/RC)	Projected DLPT 5 Results (LC/RC)	DLPT 5 Results (LC/RC)
Class I-1				
I-1-B	40/47	37/43	1+/2	2/2+
I-1-C	42/49	33/47	2/2+	2+/2+
I-1-D	43/43	39/49	2/2	2+/2
I-1-H	45/41	36/46	2/2+	3/2+
I-1-S	42/50	37/45	1+/2	2+/2+
Class I-2	Proficiency Test I (LC/RC)	Proficiency Test II (LC/RC)	Projected DLPT 5 Results (LC/RC)	DLPT 5 Results (LC/RC)
I-2-AC	34/42	45/50	2/2+	2+/2+
I-2-JR	37/46	51/50	2+/2+	3/3
I-2-JJ	39/43	44/48	2/2	2+/2+
I-2-JN	47/51	51/57	2+/2+	3/3
I-2-CB	47/48	47/52	2/2+	3/3
I-2-M	46/46	46/47	2/2	3/2+

Table 1: Intermediate Level Student Proficiency Tests, Projected DLPT5 and Final DLPT5 Results³

Higher-	Pre-course DLPT 5	Post-course DLPT 5
intermediate	Results	Results
Students	(Listening/Reading)	(Listening/Reading)
H-L	2+/2	2+/3
H-T	2/2+	3/2
H-S	2+/2+	2+/3
Н-Е	3/3	3/3
H-M	2+/2+	1+/3
H-Su	3/2+	3/3
H-I	3/2+	3/3

Table 2: Higher-intermediate Level Student Pre- and Post- Refresher Course DLPT5
Results

There were a few variables in the study being participants' study habits, learning strategies, educational background, knowledge base and morale. Most of the participants in the 6- or 19-week higher-intermediate class have a bachelor's degree or took courses in colloge. That means their knowledge bases expanded and made it easier to maneuver the wide range of topics on the DLPT5.

In terms of study habits, most Class I-1 students lacked self-disciplines and procorastinated on their study plans. In Class I-2, most students developed their own study routines and never had homework incompletion issues in the final semester. Class H students were clear and ambitious on what they had to do to maintain or break through their previous DLPT5 scores.

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³ LC refers to Listening Comprehension and RC refers to Reading Comprehension. The numbers in column 2 and 3 are the sum of the questions each individual answered correctly out of 60 questions of each modality in each test. The numbers in column 4 and 5 are the ratings of each individual's proficiency rating based on the ILR system.

On the front of learning strategies, Class I-1 was rather stubborn about accepting teachers' suggestions. They only had an epiphany in the last two months. 3 out of 5 students stated in the last month of the course that they realized they had to pick up their speed in the preparation for the DLPT5 and stick to the RPW in their homework as the backbone of their study routines. Class I-2 was generally a class of self-disciplined students. Although the class had not been exposed to authentic materials or much learning strategy training much when the author joined the class as the lead teacher at the two thirds mark of the course, it was easy for them to pick up the recommended learning strategies suggested by the new lead teacher. Class H participants were more experienced learners who graduated from the intermediate course at least one year ago. Most of them had their go-to learning sources, ranging from target language news outlets to flashcard apps.

As mentioned, background knowledge of the target language culture and topics ranging from economy to environment is one of the keys to reach a higher level on DLPT5. Class I-1 also had a lower average age and consequently was rather deficient of the knowledge base needed to achieve Level 2 and 2+ on the DLPT5. Most Class I-2 students were well read and curious by nature and found it easier to navigate the various topics covered in the DLPT5. Four of the Class H participants had a bachelor's degree and one took courses in college. Five had regular exposure to the target language news or TV shows.

Morale is an essential factor in the success of the students at DLIFLC, particularly in the intermediate course, as this intensive program lasts for 64 weeks and proceeds at an immensely fast pace. Class I-1, unfortunately, suffered low morale in the last semester. That might have had an impact on their Proficiency Test I. Class I-2, contrary to Class I-1, had their morale boosted when approaching the DLPT5 mainly because of the immersion trip to one of the target language countries. Many of them shared that the immersion trip allowed them to apply the target language and gain first-hand cultural experiences they learned in class. Some Class H participants were more driven in the refresher course than when they took the intermediate course mostly because they had more concrete goals and clearer pictures for their futures.

Student feedback showed positive relationships between their successes on DLPT5 and the use of the RPW and LPW. One student in Class I-1 mentioned in the end-of-course evaluation that "there are many notes on my assignments giving me in-depth feedback for everything I had done that night." Class I-2 students did not share any feedback on the RPW in particular, but in the last two months of the course, the students were very active with the RPW, turning in extra listening and reading in the RPWs. While Class I-1 and I-2 were more subtle or inspecific with their feedback on the use of the RPW and its variations, Class H students were very specific with their views on the implementation of the LPW. They shared in face-to-face interviews and written evaluations their thoughts: "They [LPW] helped me understand what I actually understand versus what I though I understood.", "The homework sheet is effective. I think it allows students to focus on the parts of that they feel they need to work on. Whether it's global understanding, specific grammar patterns, focus on vocab, determining the underlying meaning of the author, idioms. more freedom to explore each Units material by using HW sheet.", " ... using HW sheet to do an analysis of articles to get a deeper understanding of texts or sound files, and to be able to figure out what was not understood at first and realize mistakes to learn from them.", and "I plan to utilize newer study tactics moving forward such as analysis for listening practice and comprehension, and check my grammar and word usage."

Conclusion

While the study could not demonstrate to the fullest scope the direct relationships between the use of the RPW and students' standardized assessments in selected-response form, it generally made an impact on the participants' study habits and helped the vast majority of them meet or exceed their minimum graduation requirement of Level 2 on DLPT5.

Using recall as a teaching device in second-langauge acquisition is to "reflect naturally occurring processes in comprehension" (Bernhardt and James, 1987, p.17). While it is many language educators' experiences that it takes extensive time to grade and give feedback for students recalls, the insights into students' thinking processes and consequent individualized feedback/instruction are crucial to students' learning outcomes. In view of language learning being a continuous task, students ought to have a tool to self-evaluate learning outcomes and set courses of actions for higher goals. The study widened the scope of utilization of the Immediate Recall Protocol to the self-regulated learning processes by assigning RPWss and its variations as homework.

The authors changed their perspectives and created something to apply a much disussed framework in a shifted language teaching and learning paradigm. In the shifted paradigm, teachers are encouraged to look beyond a, b, c, d, and learners are empowered to manage their learning progress. Using the RPW for homework has been a routine for many classes in the Chinese department at DLIFLC. It has become prevalent from class to class and has been modified and refined to accommoate different teaching methodologies, learning styles and learning objectives.

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