

The Efficacy of Clickers in Second Language Classroom

Promoting Interaction in Korean as a Foreign Language

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Abstract: In second language acquisition active interaction in classroom plays an important role. In light of this, L2 classroom would benefit with the help of learning tools which helps learners to express their level of understanding during the process of learning itself. This study introduced LRSs as an effective tool in prompting learners' output during classroom interactions and ultimately promoting foreign language learning. This is because the anonymity of Clickers allows learners to express their needs without the social risks associated with speaking up in the class. Eventually this tool promotes participation from learners, This is in turn, believed to be effective in fostering classroom interaction. This study is finalized by presenting the result of an experiment conducted to verify the effectiveness of this approach when teaching pragmatic aspect of the Korean expressions with similar semantic functions. The learning achievement of learners in the experimental group was found higher than the learners' in a control group. This study also explores the adult Korean language learners' perceptions of the use of LRSs in learning languages using a combination of quantitative and qualitative research instrument.

1 INTRODUCTION

This study introduced Learner Response System (LRSs, otherwise known as Clickers) as an effective tool for foreign language teaching and learning. LRSs is being widely used as an educational tool to facilitate communication in various discipline areas, particularly in large classrooms. The reviewed literature suggests many pedagogical benefits from introducing LRSs in lectures. However its usefulness in promoting learning language and potential benefits that it could bring to learning outcome have yet to be verified.

In order to explore how LRSs can help to accelerate language learning, firstly we need to look into L2 learners' cognitive process. According to Richards (2002), learners' cognitive process in L2 classrooms follows four steps as follows:

Noticing: Learners recognize differences between forms they are using and target-like forms.

Discovering rules: Learners identify the grammatical variables that operate in the target language and account for the specific linguistic characteristics of that language.

Accommodation and Restructuring: Learners reorganize their own underlying and developing language system, to frame and try out new hypotheses and to act upon the feedback received.

Experimentation: Learners forms hypotheses about the target language and use it tentatively and in an uncertain way.

Learners develop and try out new hypotheses to reorganize their own developing language system in the stages of discovering and restructuring rules. In this process, learners test their hypotheses through feedback gained from their peers or teacher during interactions. These stages of 'verification' are where actual learning takes place.

Learners' outputs made in the interaction with other members in the classroom play a very important role in language learning. Learners' outputs include not only sentences generated during interaction such as class activities, performing tasks given by the teacher but also all forms of outputs generated during the process of learning: hypotheses in the process of being developed, discussions conducted in L1 or L2 between peers. As long as

interaction in L2 classrooms remains a key factor for learning, any increase in learners' output will lead to active interaction in the classroom and result in improvements for language acquisition

This study introduced LRSs as an effective tool in prompting learners' output during interactions and ultimately promoting foreign language learning. The aim of this study is to explore the adult Korean language learners' perceptions of the use of LRSs in learning languages using a combination of quantitative and qualitative research instrument.

2 WHY CLICKERS?

Learner Response Systems, called Clickers, is composed of three components: keypad, receiver and software. A keypad allows learners to choose answers for the question and transmit them to the receiver. The receiver in turn transmits the information to the voting software on a computer in the class. Once the software has collated the data from learners, it displays a bar chart of the results using a data projector.

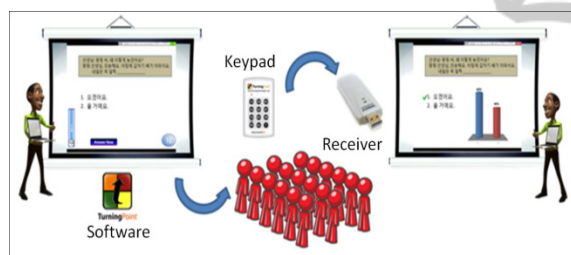


Figure 1: Operation of Clickers.

There are two supporting theories for the introduction of Clickers to promote L2 interaction: According to Vygotsky's Interaction Theory, learners moves from actual development level to potential development level by scaffolding tutor's questions and interaction with peers. The area between two levels, the proximity development zone, is where learners develop, verify and restructure hypothesis by interacting with peers or teacher. Interaction takes place in various ways though learners' outputs in any forms, i.e. during discussion using their first or second language or expressing their opinions and receiving the feedback from others.

But in L2 classroom, where not everybody participates in interaction eagerly, there is always some needs to promote learners' outputs during the classroom activities. This is because of social risks most of language learners experience during the

interaction in the classroom. L2 learners must express themselves verbally in their non-native language and they experiences anxiety of embarrassment. Krashen(1981) referred this psychological state as Affective Filter. According to his hypothesis, learners' apprehension, especially that of personnel with shyness, quietness, and reticence, inhibits verbalization and production of outputs, which comes to block acquisition.

Considering learners' psychological state of anxiety and needs to promote learners' outputs and interaction, we can introduce a tool called Clickers which allow learners express their ideas and opinions anonymously in the classroom interaction.

Based on many of recurring themes observed in previous LRSs literature, Cardoso (2012) summarized the benefits of Clickers as follows:

- 1) Motivation: Increase learners' motivation and the general interest in the class
- 2) Involvement: Increase involvement and participation in the classroom
- 3) Self-Assessment: Allows learners to self-assess
- 4) Comparison: Allows learners to compare their performance in relation to that of their peers
- 5) Interaction: Forster interaction in the classroom
- 6) Learning: Enhance the quality of learning and teaching

It was hypothesized that the use of Clickers in L2 classrooms would reflect those benefits described. The following experiment was conducted in a Korean language classroom where Clickers were introduced to adult learners, testing the efficacy of using such a learning system in context of teaching a foreign language.

3 EXPERIMENT

3.1 Method

As for the methodology, Q-methodology was adopted to convert the qualitative to the quantitative and Quasi-Experiment method that divide learners group into two: Control Group which does not use Clickers in learning and Experimental Group which use Clickers.

3.1.1 Participants

Twenty-Eight English speaking Singaporean students participated in this study. All students had

undergone 100 hours of elementary Korean course as one of the electives of undergraduate program. Students were divided into two groups of fourteen students under the same tutor.

3.1.2 Target of Activities

Students were asked to distinguish pragmatic differences between two Korean expressions with similar semantic functions: ‘-gett-’ and ‘-eulgeott-’. Students had previously completed learning syntactic or morphological variations of target grammar and making errors in actual use of the grammar by failing in distinctions of pragmatic variations between two similar expressions.

3.1.3 Materials

- 1) Clickers: Each student in experimental group was given a keypad.
- 2) Experiment Slides: 10 slides of PPTs with a question and a set of choices were prepared to be used in the stage of verifying hypothesis for the students in Control Group. Another 10 PPTs with same content were prepared using Turningpoint software for the students in Experimental Group.

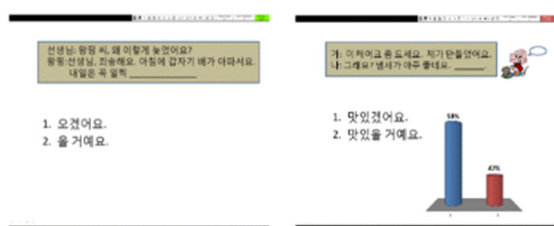


Figure 2: Sample Slide for Control Group (Left) and Experimental Group (Right).

- 3) Post Experiment Test with 30 questions about target grammar to compare performance of each group after experiment. To verify the validity of result of performance test, SPSS 21 was used.
- 4) Survey questions for Learners’ perceptions about the use of Clickers in the classroom were prepared.

3.2 Research Design

The experiment was conducted in the following process.

Earlier to the experiment, learners from both control group and experimental group had undergone grammar performance test to make sure

| Experimental group | Control group |
|--------------------------|---------------|
| Grammar Performance Test | |
| PPT with Clickers | PPT only |
| Post Experiment Test | |
| Survey | |

Figure 3: Design of the Experiment.

that both groups are in similar standards in understanding target grammars. The verification process showed p-value as greater than 0.5 which is considered as same standards for both groups.

In the control group, teacher presented questions using PPTs and checked students’ answers by raising hands. Students discussed about their answers using their L1 or L2 and correct answers and explanation were given by teacher.

In the experimental Group, teacher presented questions using Turning point PPTs. Students selected what they believed was the correct answer by clicking on the corresponding option on the keypad within a pre-specified amount of time. Results of the voting process were then displayed on the slide via a chart indicating the correct answer and the distribution of the responses. Students discussed about the answer using their L1 or L2 and correct answers and further explanation and feedback were provided by teacher when needed.

At the end of experiment, students were invited to answer to the survey questionnaire regarding efficiency of Clickers in their learning as well as their perceptions on these categories: Motivation, Involvement, Comparison, Self-Assessment, Interaction, and Quality of Learning.

Details of questionnaire are as follows:

- Motivation
 - The class was interesting.
 - I can confidently apply the contents of lesson to real life context.
- Involvement
 - I felt apprehensive about speaking up in class or expressing your opinions in class.
 - I made an effort to answer all questions that were open to the class.
 - I usually participate in class actively.
- Comparison
 - My peers’ answers to questions affect my own answers

- Self-Assessment
 - I was able to evaluate my own progress during the course of the lesson.
- Interaction
 - The classroom interactions was dynamic
- Learning quality
 - In general I had a quality learning experience.

3.3 Results and Discussion

The result of Pre / Post Test showed that Experiment group performed better than Control group.

Table 1: The Analysis Results of the Experimental and Control Group.

| | | average | N | Standard deviation | Average difference | t | p-value -both |
|--------------------|------|---------|----|--------------------|--------------------|--------|---------------|
| Control group | Pre | 52.4542 | 14 | 11.64930 | 18.8933 | 2.0739 | .0002 |
| | Post | 71.3475 | 14 | 10.84924 | | | |
| Experimental group | Pre | 54.2302 | 14 | 10.84924 | 23.8304 | 2.0738 | .0000 |
| | Post | 78.0606 | 14 | 8.41123 | | | |

In the post-test, both experimental group and control group showed improvement in marks 23.83 and 18.89 respectively when compared to that of pre-test. Slight decrease in standard deviation was shown in both groups but experimental group showed greater reduction in deviation of test scores.

The data compiled via the survey questionnaire showed learners’ perceptions to the use of Clickers as follows:

Motivation: the interest level for both group was considered high. 70% of Experimental group responded that using Clickers was fun

Involvement: Learners involved themselves more actively in answering to the question, discussing with peers, expressing their ideas without social risks when they use Clickers. The survey showed that there exists a certain level of apprehensiveness when speaking up in class. Hence, there is a demand to minimize this classroom anxiety, which is in turn addressed through mediums like Clickers that help learners express their ideas anonymously.

Comparison: Learners faces difficulties when they have answers which are different from the ones accepted by the majority. While control group responded that they are affected by other people’s answer, experimental group responded that they were not affected by answers from others.

Self-Assessment: While answering the question by participating in poll, Clicker users could receive the feedback promptly and used the feedback as a

resource for peer discussion and self assessment. Learners could have more chances to reorganize their own underlying and developing language system, to frame and try out new hypotheses and to act upon the feedback received

Interaction: Learners in experimental group responded that their interaction between teacher to learners and learner to learner was active and dynamic at the stage of verifying hypothesis

Quality of Learning: Overall quality of learning was satisfactory and learners have built up the confidence in differentiate the usage of two korean expressions with similar semantic function

4 CONCLUSIONS

For Learners’ perspective, anonymity of Clickers enables learners to express their ideas without the social risks associated with speaking up in the class.

For Teachers perspective, it enables teachers to judge the degree of understanding of learners by showing the number of learners who have selected the correct answers.

By accommodating learners’ social and emotional needs in the classroom, Clickers led to a greater enhancement in the cognitive aspect of language acquisition. And the experiment showed that Clicker is a useful tool for promoting learners’ participation and fostering interaction in the classroom.

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