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Reflective Teaching Model for Reading Comprehension

Summary of the PhD Dissertation

by

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INTRODUCTION

The concept of 'reflection' has a decades-long history of use. Almost a century ago, John Dewey (1933) had already applied the concept of 'reflection', 'reflective thought', and 'reflective thinking'. Reflection or critical reflection is an activity involving the rethinking process of past experiences, logical consideration and evaluation of these events Jaybhaye (2012). Paterson and Chapman (2013) prepared a precise description of the reflective practice to interpret reflective teaching and learning practices more clearly. They mentioned that reflective practice is the teacher's careful consideration of his/her past experiences and modification of them into better ones. Ashraf and Zolfaghari (2018) also explained that reflective teaching is a kind of teaching approach that can encourage teachers to improve their teaching skills by engaging in critical reflection on their teaching-learning process.

Teacher's conscious reflective practice is applied in different fields of education e.g., English as a second language (Fatemipour, 2013), mathematics (Polya, 1945), librarian and informatics education (Sen & Ford, 2009), dance education (Tembrioti & Tsangaridou, 2014), and business English (Wu & Wu, 2016). In fact, this study is about reflective teaching in reading comprehension of English in Myanmar. Therefore, it is necessary to know first the background situation of Myanmar, and the problem or why the reflective teaching is necessary for the Myanmar context.

Context of the Study

The study was conducted in Myanmar, where transformative economic events have strongly impacted the education system. The Myanmar education system is highly centralized and top-down with Myanmar teachers, schools, colleges, and universities having no autonomy (Ulla, 2017). They are all under government control. That is, the Ministry of Education has responsibility for hiring, placing, and promoting qualified in-service teachers (UNESCO, 2020). Myanmar education has been in a poor state in relation to other countries in the world due to the country's economic difficulties in the last decades (Hayden & Martin, 2013). The evidence of this is clear in the poor condition of classrooms, school buildings, outdated traditional teaching methods, and a lack of training for upgrading teachers' skills. Currently, the Myanmar government has joined with some developed countries: the United States (US Institute of International Education; IIE) and the United Kingdom (British Council), to develop Myanmar teachers' English proficiency skills (Goodman, 2013), and Japan (Japan International Cooperation Agency; JICA), to update its education system (Ulla, 2017). Some

studies have focused on teacher training to improve the skills of educators in Myanmar (Simon, 2013) because most Myanmar teachers depend on more conventional and teacher-centered methods (bottom-up approaches). Therefore, the present study aims to help them improve their skills in teaching English language reading comprehension.

Problem Statement

In English language teaching (ELT), reading is emphasized as the most important skill among listening, speaking, reading, and writing (Rodli & Prastyo, 2017). Reading is also the most fundamental skill for nearly all academic subjects, students' educational success, and their later careers (Okkinga et al., 2018). In teaching reading comprehension, various studies have shown that different teachers employ various teaching strategies to teach reading comprehension effectively. Studies have been conducted on methods such as reciprocal teaching (Okkinga et al., 2018), interactive teaching (Anyiendah et al., 2019), and questioning (Barjesteh & Moghadam, 2014). The results of these studies have concurred that the particular teaching method employed had a significant effect on students' reading comprehension. However, it is noteworthy that there is no perfect teaching method, and they may have different kinds of weaknesses because "there are many factors that influence how teachers approach their work and which particular strategies they employ to achieve their goals" (Richards & Lockhart, 2007, p. 97). Therefore, Aliakbari and Adibpour (2018) suggested that teachers should consider reflective practices to support their method-centered teaching. Valdez et al. (2018) further asserted that reflective teaching is a *post-method* as the latter encourages teachers to revise and modify their teaching strategies. Furthermore, Mezirow (2006) put forward a transformative learning theory that led the students' effective learning by reflection. Mezirow exclaimed that not all students' learning is transformative, and thus, the students need to reflect on their learning to get a complete understanding. Only such kind of complete understanding is called transformative learning (Mezirow, 2012). Based on Mezirow's transformative learning theory, reflective teaching is crucial for all teachers and students for their effective learning.

Furthermore, most of the researchers in the education field (especially, the teachers and Master/Ph.D. students of Myanmar) emphasized students' perceptions (Soe, 2015; Ulla, 2017), motivations (Sant, 2018), teaching/learning materials, and some teaching strategies (Naw, 2021). They lacked emphasis on reflection in the teaching context. In one project, Strengthening pre-service Teacher Education in Myanmar, which was organized by United Nations Educational Scientific and Cultural Organization (UNESCO, 2020), noted that "the new curriculum in schools is developed by reflection and practice and thus, more support is

needed to embed reflection in each lesson – teacher educators have acknowledged that reflection is the first element to go if they do not have enough time for the lesson" (p. 72).

These above cases encourage a research problem to develop a reflective teaching procedure for all teachers to qualify their method-centered teachings in teaching reading comprehension, and to promote students' reading comprehension.

Aim of the Research

Based on the problem stated above, this research study aims at developing a new reflective teaching model for reading comprehension to encourage both pre-service and in-service teachers to reflect (think critically and systematically) on their teaching process, qualify teachers' method-centered teachings, and help the students comprehend their reading texts more clearly. To fulfill the research aim, this research is divided into three phases; (1) developing a theoretical Reflective Teaching Model for Reading Comprehension (RTMRC), (2) instruments validation by the pilot study, and (3) the empirical study of the main research. Therefore, this research is conducted in search of the answers to 20 research questions by dividing them into the pilot study and main study.

METHOD

Research Design

To conduct this study, the researcher chose an interventionist study (quasi-experimental research design) and followed its procedures for 15 weeks (75 sessions).

Participants

Based on Sedgwick's (2014) cluster randomized trial, the participants are 458 grade-10 students from Sagaing Township, Myanmar. Among them, 255 students are schoolgirls and 203 are schoolboys (aged from 15 to 16 years). The researcher randomly assigned 228 students to the experimental group and 230 students to the control group. In addition, the students' English language teachers (five English teachers from five selected schools) participated in the research. These teachers taught the students three different reading texts. The teachers who taught the students in both experimental and control groups were the same in all five schools. While these teachers were teaching the experimental group of students with the RTMRC approach, another 10 subject deans/peer colleagues (two per each school) were also involved in this investigation as observers. Control groups were taught in a traditional way, with no RTMRC support (i.e., without revised exercises/questions, student questionnaire, or peer observations). In total, in this cluster randomized trial study, the participants were 458 students, five English language teachers, and 10 observers.

Instruments

In this dissertation, the researcher used three main types of measuring instruments (pre- and post-tests, student questionnaire and observation scheme). The detailed lesson plans were also provided to the five participating English teachers to assist them in their effective instruction using the RTMRC approach. In pre- and post-tests, there are 27 reading comprehension questions; ten items for literal, two items for reorganizational, six items for inferential, five items for evaluative, and four items for appreciative comprehension questions (Surtantini, 2019). The student questionnaire was adapted from Richards and Lockhart (2007), and it includes 17 items (five items for reflection on the 'reader' factor, five items for 'strategy' factor, 4 items for 'text' factor, 3 items for 'task' factor) in this questionnaire. And the researcher used Richards and Lockhart's (2007) observation scheme directly in this study. It also consists of 14 items with the availability of open comments.

Data Analysis

According to Gliner, Morgan, and Leech (2017), the construct validity of an instrument is based on two types of validity measures: convergent and discriminant. They also mentioned three types of reliability measures for addressing convergent validity (measuring how the theory is related to the practice): (1) internal consistency reliability (Cronbach's alpha), (2) average variance extracted, and (3) composite reliability. For internal consistency reliability, it is recommended that Cronbach's alpha value be >.60 (Gliner et al., 2017). Kline (2015) recommended that the value of the composite reliability (CR) should be >.70. In the case of the average variance extracted (AVE), it should be >.50, according to Afari (2013). For the discriminant validity of the instruments (measuring how the supposed unrelated theory is unrelated to the practice), the researcher compared the square root of the AVE and the inter-construct correlation in the component correlation matrix of SPSS. Kline (2015) advised that if the value of the square root of the AVE is higher than the values of the inter-construct correlation among the components, its discriminant validity is acceptable.

To compare the experimental and control groups, a *t*-test was used (independent and paired samples *t*-tests). Lestari (2016) suggested that the normal distribution of the test should be checked before analyzing it with a *t*-test. Therefore, the item response theory (Rasch analysis) was used, and the Quest program was run to determine the estimates for both learners' ability parameters and the levels of item difficulty. The effect size was measured by Cohen's *d*. To quantify the size of experimental effects between independent samples and paired samples,

Kotrlik, Williams, and Jabor (2011) suggested the use of Cohen's *d* (*d* =.3, small; *d* =.5, medium, and *d* =.8, large, according to Cohen, 1988).

Structural equation modeling (SEM) was used to measure the teacher's reflection on the students' reading comprehension achievement. The researcher also measured the association between the student questionnaire and the students' achievement; and the association between the observation scheme and the students' achievement. The posttest scores were used as the students' achievement. Regarding the connection between the student questionnaire and the students' achievement, there were some fit indices to show how well the model fit with the data. The following goodness-of-fit indices were used to justify the model fit: comparative fit index (CFI), goodness-of-fit index (GFI), root mean square error of approximation (RMSEA) (Kline, 2015). The CFI and GFI range from 0 to 1, and larger values confirm a better fit, while values larger than.90 show an acceptable model fit. The RMSEA also indicates the model fit. It also ranges from 0 to 1, but .08 or less shows a good model fit (Kline, 2011).

Procedures

There are three phases to conduct the whole research, the first phase is developing the theoretical model (RTMRC) which is appropriate with the Myanmar context. The second phase is the development of the instruments and the content validation with some experts. In this second phase, the pilot study was also conducted for the construct validation of the instruments, and, planning and modifying for the main study.

The third phase is the main study to investigate the effectiveness of RTMRC with larger sample size. In this phase, the researcher selected five sample schools from Myanmar by using cluster randomized trial (Sedgwick, 2014). The intact groups in each school were randomly assigned to the experimental group and the control group. First, the researcher administered a pre-test to detect any initial differences between the experimental and the control groups to see if the two groups were essentially the same in their levels of reading comprehension before the treatment. Second, as the treatment, the experimental group participated in the developmental sessions and was taught using the RTMRC approach. The developmental period took fifteen weeks and consisted of 75 sessions (45 mins each). The control group did not have any special developmental sessions; these students learned in the traditional way. During the treatment period of fifteen weeks for each experimental group, five English language teachers used the three teaching strategies (reciprocal teaching, interactive teaching, and questioning) by following the lesson plans provided by the researcher. The students were given the related activities with these three teaching strategies. After these students' activities, the teachers

revised the text with reflective questions and exercises to clarify any confusion the students had related to information gained from the text. Then, following Brookfield (2017), the teacher's reflection was done from two different perspectives, (1) from the point of view of the students (student questionnaire), by asking them to fill the questionnaire to describe their learning preferences, and (2) from an observer's point of view (observation scheme), by requesting the colleagues to observe the teacher's instructional process in the classroom. For three reading texts, the student questionnaire was used fifteen times (five times for each reading text) for the experimental groups during the treatment period, but not for the control groups. To improve the reflective action of English language teachers, the observers also used the observation scheme to observe their teaching-learning process fifteen times (randomly during three reading texts each) during the intervention period of the experimental group. Third, at the end of the treatment period, both groups completed the post-test.

FIRST PHASE: THEORETICAL MODEL DEVELOPMENT

This research phase is concerned to a theoretical development of RTMRC. To develop the RTMRC, we reviewed 20 theoretical papers about the reflective teaching process and reading comprehension process. They are as follows.

Reflective Teaching Model for Reading Comprehension (RTMRC)

Reflective Teaching Process

A review of ten studies revealed reflective teaching has been explained in various ways. While Taggart and Wilson (2005) described reflective teaching as a cyclical process involving the three steps of planning, reflecting, and evaluating, Richards and Lockhart (2007) outlined four steps, namely, planning, acting, reflecting, and evaluating. Clarke (2008) included the following five steps: identifying a problem, planning, acting, evaluating, and following up/reflecting. Dennison (2012) noted reflective teaching has four steps: abstract conceptualization, active experimenting, concrete experiences, and reflective observation. While Hulsman et al. (2009) stated reflective teaching comprises the five steps of acting, looking back/reflecting on the action, awareness of essential aspects, creating alternative methods of action (planning), and trial/testing. As Pollard et al. (2014) explained, it includes the five steps of planning, acting, reflecting, analysis, and evaluation. Babaei and Abednia (2016) included the three steps of critical inquiry (reflection), analysis, and self-directed evaluation. Garzon (2018) explained reflective teaching comprises the four steps of reflective-collaborative work, namely, engagement in planning, enacting, monitoring, and revising

practices. While Kennedy-Clark et al. (2018) stated reflective teaching encompasses the three steps of acting, reflecting, analyzing, Ratminingsih et al. (2017) included the five steps of planning, acting, reflecting, evaluating, and feedback. Although these researchers explained the reflective teaching process in different ways, the four following steps are evident in reflective teaching: planning, acting, reflecting, and evaluating.

Factors Influencing the Reading Event

A review of ten studies revealed that factors have influenced reading events in various ways. Robertson (2017) showed reading events involve the four factors of reader, text, task, and context. Walker (2007) found the following five factors: strategy, reader, text, task, and context, Staden and Howie (2012) revealed three systems, namely, school, classroom, and students' home background influence their reading achievement, Zhang and Zhang (2013) noted the three factors of text, reader, and context interaction, and Suwanto (2014) found the five factors of strategy, reader, task, text, and context. Furthermore, Yusuf and Fitrisia (2015) revealed the four factors of teacher, strategy, reader, and text, Widdowson (2015) found the three factors of strategy, reader, and text, Yang (2016) showed the six factors of teacher, strategy, reader, text, task, and context, and Zhang (2016) indicated the three variables of reader, text, and context. Finally, Gilbert (2017) revealed only two factors, namely, reader and text. An analysis of these factors showed that strategy, reader, text, task, and context are the most common factors.

After consideration of the reflective teaching process and reading factors, the researcher developed an instructional design, reflective teaching model for reading comprehension, RTMRC (Figure 1) in 2020, which was employed as the conceptual framework in this study. This developed RTMRC is based on the instructional design criteria and also face-validated with four experts from the fields of instructional design and English language teaching.

Theoretical Framework of the Research

The RTMRC proposes teachers need to follow the following four steps in their instructional periods: planning, acting, reflecting, and evaluating. Furthermore, the researcher adopted three instructional strategies, namely, reciprocal teaching, interactive teaching, and questioning to teach reading comprehension (Figure 1) when employing RTMRC. Reciprocal teaching, which was elaborated by Palincsar and Brown (1984), is an instructional reading strategy based on the four reciprocal dialogs of predicting, questioning, clarifying, and summarizing so as to enhance students' reading comprehension skills (Rodli & Prastyo, 2017). Interactive teaching

is a hybrid approach of interaction between identifying meanings based on grammatical knowledge about words, phrases, clauses, sentence syntax, and texts in detail (bottom-up approach) (Ardhani, 2016) and gleaning meanings by integrating their background schema of the texts they read and their reading knowledge given in texts (top-down approach) (Birch, 2002). And questioning, which originated from Socrates more than 2,000 years ago, is a teacher's questioning strategy that is based on the Initiate-Response-Evaluate model in which the teacher first asks (initiates) the students' questions related to the text, the students answer (response) the teacher's question, and the teacher assesses (evaluates) the students' responses or gives them feedback so as to enhance their reading comprehension (Corley & Rauscher, 2013).

Figure 1

Reflective Teaching Model for Reading Comprehension
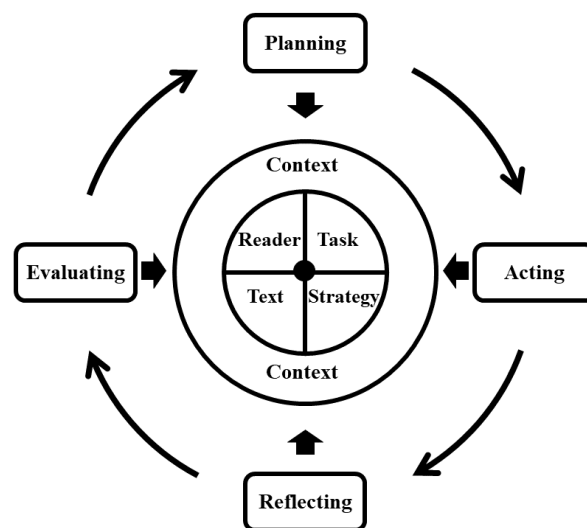
Note. Oo and Habók (2020, p. 133)

In the *planning* step (figure 1), teachers employ the above three instructional strategies; reciprocal teaching, interactive teaching, and the questioning strategy to plan their respective teaching procedures in detail. In the *acting* step, teachers employ the three strategies to teach their students. The *reflecting* step involves teachers reflecting on the instructional context, which includes reader, strategy, text, and task in accordance with a student questionnaire and observation scheme (Brookfield, 2017). In the *evaluating* step, teachers evaluate the student questionnaire and observation scheme as formative assessment and students' achievements as a summative assessment.

SECOND PHASE: INSTRUMENTS VALIDATION BY THE PILOT STUDY

In the pilot study, to investigate the effectiveness of the RTMRC teaching model, the researcher adopted a quasi-experimental approach involving three main types of instruments, namely, the pre- and post-tests, reflective questionnaire, and observation scheme and, the researcher validated them in different ways. These instruments were first content-validated with the content experts in this phase of the research.

For the pre-test and post-test, the same content was used with different question sets. Each test had 27 items after the judgment of content experts. In the analysis, the researcher confirmed the validity of the tests with item-response theory. Discrimination analysis of the items showed that one item (item 27) was seen to be the most difficult and three items (2, 3, and 21) were seen to be the easiest. However, these items are acceptable to be used in assessing students' reading comprehension achievement because the whole test is in a normal distribution (neither too difficult nor easy for students).

The reflective questionnaire had 20 items after the content experts' judgments. According to Pollard et al. (2014), five main factors influence teachers' reflection: strategy, reader, text, task and background situation. However, in the explanatory factor analysis (EFA) of the data for the reflective questionnaire, it was found that four main factors were most significant (i.e. had high factor loadings). Thus, the researcher eliminated some inappropriate items, retaining only four main factors: reader, strategy, text, and task. Other studies (Staden & Howie, 2012; Suwanto, 2014; Walker, 2008; Yang, 2016) have found that there were four main factors in this process. As a result, the new version of the questionnaire had only 17 items with strong reliability for measuring students' preferences for reader, strategy, text, and task (for reflection). This new version was also confirmed using the confirmatory factor analysis (CFA) measures, and it was also found that the reflective questionnaire had a good fit for the teacher's reflection in reading comprehension.

In the case of the observation scheme, it was copied directly from Richards and Lockhart (2007). However, for cross-cultural use, it was also translated and content-validated, and thus, there were only 14 items left in the observation scheme after the content validation with six content experts.

Consequently, it can be concluded that the instruments used in the RTMRC teaching design and the quasi-experimental research are reliable and appropriate for measuring students' achievement in reading comprehension in ELT.

THIRD PHASE: EMPIRICAL STUDY OF THE MAIN RESEARCH

After the instruments validation of the second phase, the researcher conducted the main study with the larger samples to investigate the effectiveness of RTMRC in teaching reading comprehension.

Pre- and post-tests (which are in the same content with different tasks for the students) were mainly used to examine the students' reading comprehension achievement. The ability parameters and item difficulty levels in the tests were also investigated. We employed Rasch analysis and conducted the Quest program to determine the distribution between students' achievement and item difficulty levels (Figure 2).

Figure 2

Person-Item Map Indicating Person Ability Levels and Item Difficulties on the Same Scale
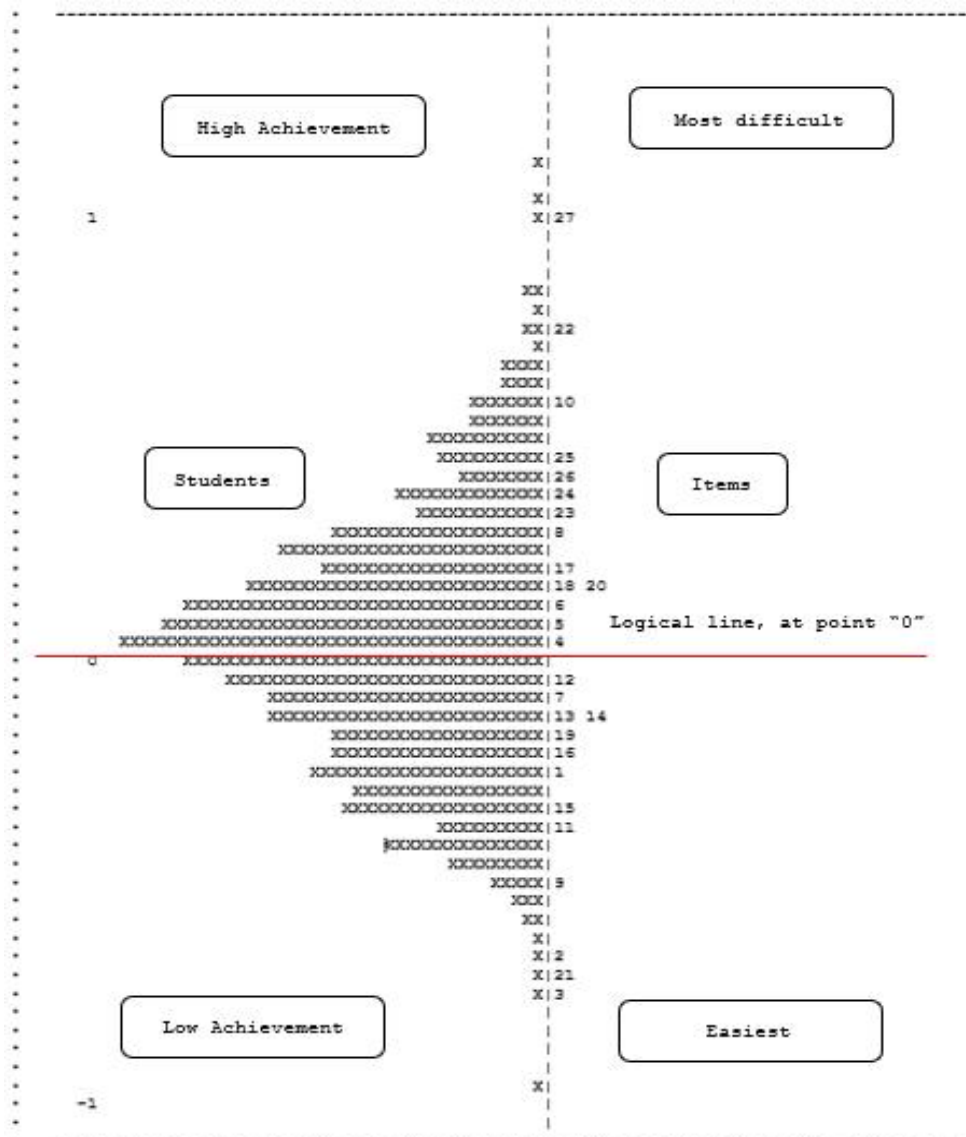
Note. Each 'X' represents   1.6 cases.

While the students' reading comprehension achievement is depicted on the left side of Figure 2, the item difficulty levels are illustrated on the right. The results of the person-item map depicted in Figure 2 reveal that the appreciative comprehension questions (items 19, and 22) and the reorganizational comprehension (item 27) are the most difficult for students. Furthermore, they experienced the inferential comprehension question (items 6), and the reorganizational question (item 26) as the easiest. The students found the literal comprehension (items 7, 8, 9, 10, 11, 12, 14, 16, 17, and 25), inferential comprehension (items 2 and 4), and evaluative comprehension (items 13, 15, 18, 21, and 23) as neither too difficult nor too easy. Accordingly, the whole test is almost in normal distribution to test students' reading comprehension achievement.

An independent sample t-test was employed to determine the initial differences between the experimental and control groups before employing the RTMRC approach in the experimental groups. The results of the independent samples t-test revealed no significant difference ($p = .238$) between the experimental and control groups. The maximum score of the pre-test was 50 points. The mean scores of both experimental and control groups were almost the same (M = 11.67, SD = 3.94; and M = 11.20, SD = 4.49).

After employing the RTMRC, the researcher also used an independent samples t-test to investigate whether there was a significant difference between the experimental and control groups. The results of the independent samples t-test showed a significant difference ($p < .001$) between the experimental and the control groups. The mean score of the experimental group (M = 35.19, SD = 5.16) was significantly higher than that of the control group (M = 30.46, SD = 4.16). The effect size of the RTMRC approach was also high (Cohen's $d = 1.00$). Therefore, one may deduce that employing RTMRC to teach was preferable to other traditional teaching methods.

The researcher also used a paired samples t-test to compare the results from the pre- and post-tests of the experimental groups. The results of the paired samples t-test demonstrated that there was a highly significant difference ($p < .001$) between the pre- and post-tests of the experimental group. The mean score of the post-test (M = 35.19, SD = 5.54) was significantly higher than that of the pre-test (M = 11.67, SD = 3.94). The effect size of the RTMRC approach was also high (Cohen's $d = 5.60$). it was quite safe to say that the RTMRC approach had a significant effect on students' reading comprehension.

The pre- and post-tests of the control group was also compared to perceive the effect size of the traditional teaching method. The data were analyzed by the paired samples t-test. The result showed a significant difference ($p < .001$) between the pre- and post-tests. The effect

size by teaching with the RTMRC (Cohen's $d = 5.60$) is higher than that by teaching with the traditional teaching method (Cohen's $d = 4.21$). Therefore, there was nothing wrong to say that teaching with RTMRC was more effective than the traditional teaching method.

When the RTMRC was employed, the teachers reflected on their instructional context by considering the student questionnaire and observation scheme. The researcher used the post-test scores of the students' reading comprehension achievement and considered two main associations, namely, the association between the student questionnaire and students' achievement, and that between the observation scheme and students' achievement.

Three types of measuring fit indices (absolute index, SRMR; comparative index, CFI, and parsimonious index, RMSEA) were used to determine the association between the student questionnaire and students' reading comprehension achievement. Kline (2011) noted that a non-significant Chi-square (χ^2), degrees of freedom (df), and ($\chi2/df \leq .5$) are indicative of a model that fits the data well. In this association model, these values ($\chi^2 = 412.87$, $df = 199$, $p = .06$) showed that the model fit the data values. Other fit-indices (SRMR = .04, CFI = .90, and RMSEA = .04) also confirmed that the model fit well. The teachers' reflections on *strategy* and *text* had positive and significant effects ($\beta =.47$, $p < .01$ and $\beta =.62$, $p < .05$) on the students' reading comprehension achievement. The teachers' reflections on *reader* and *task* had negative but not significant impacts on student achievement ($\beta = -.09$, $p > .05$; and $\beta = -.07$, $p > .05$).

Figure 3

Association Model between the Student Questionnaire and the Students' Achievement
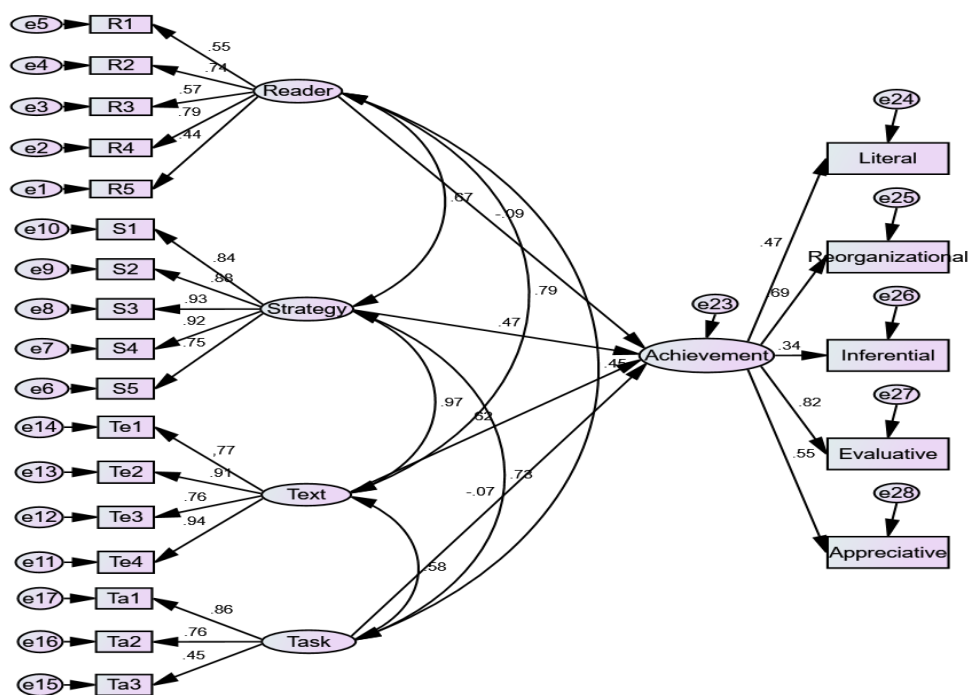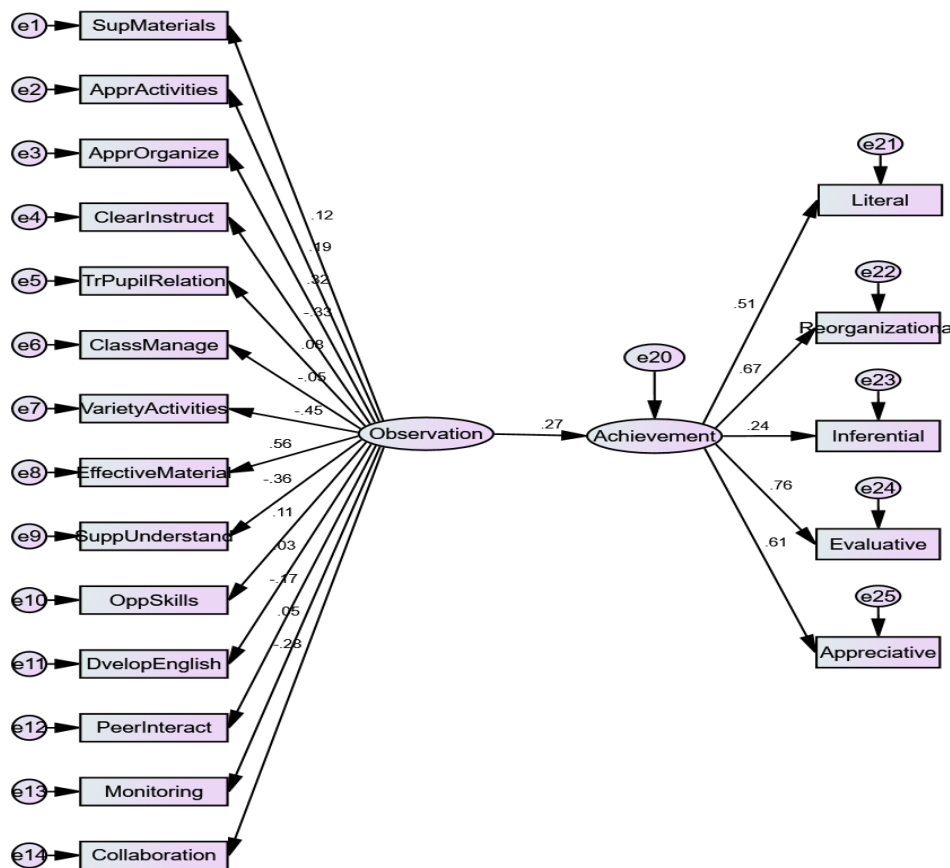

Note. N = 3420 (fifteen times of reflection)

In relation to the association between the observation scheme and students' achievement, the non-significant Chi-square, degrees of freedom, and other approximate model-fit measures ($\chi^2 = 164.74$, $df = 151$, $p = .21$, SRMR $= .03$, CFI $= .96$, and RMSEA $= .01$) indicated that this association model fit well with the recommended values. The teachers' reflections had a positive significant effect ($\beta = .27$, $p < .01$) on students' achievement using the observation scheme (Figure 4).

Figure 4

Association Model between the Observation Scheme and the Students' Achievement

Note. N = 150, (fifteen times of reflection)

From the two association models, one may deduce that the teachers' reflections had a positive and significant impact on the students' reading comprehension achievement.

CONCLUSION

Teaching with the RTMRC approach benefits both teachers and students. The questionnaire gave the students the opportunity to give their opinions and learning preferences. They were also able to reflect on their understanding of their teachers' revised questions. Similarly, the teachers also had the opportunity to bridge the gap between their planned instructional context and practical teaching. Myanmar students are naturally dominated by culture and accordingly,

respect their teachers. The students find it very difficult to oppose their teachers. However, the students gave their preferences and opinions when responding to the questionnaire. For instance, they admitted that sometimes they guessed the meanings of words and acknowledged they did not like to read aloud alone. They also revealed their appreciation of their teachers. Based on their opinions, the teachers were able to modify their actions.

When the three strategies were employed without affording teachers an opportunity to reflect, researchers who have examined these strategies have highlighted weaknesses and made recommendations. Rodli and Prastyo (2017) recommended that teachers should take care of assigning the strategies of predicting, questioning, clarifying, and summarizing to student groups. Anyiendah et al. (2019) suggested that teachers should not use the pre-teaching vocabulary strategy to stimulate students' background knowledge to facilitate top-down learning because students showed a preference for other strategies such as the K. W. L strategy and the use of different teaching aids. Barjesteh and Moghadam (2014) indicated that teachers should also give students the opportunity to ask teachers questions. However, in this study, the teachers were able to reflect on the students' opinions and observers' suggestions and make modifications for better instruction.

In essence, the RTMRC approach had a significant and positive effect on the students' reading comprehension achievement. English language teachers in Myanmar often use conventional teaching methods and most do not have professional development training (Ulla, 2017). Because the RTMRC approach can be employed with every teaching method when teaching reading comprehension, it is of great importance that all English language teachers employ it to teach effectively. It is recommended that the RTMRC model be employed in future research to examine and compare various types of teaching methods for ELT teachers. It could also be used to address the limitations of method-centered teaching.

There were also some limitations to the research. (1) The intervention period could be planned for a longer time span and could be complemented by a follow-up study examining the long-term effect of the program. (2) Some other reflective tools (for example, *a portfolio* for teacher's records for the teaching innovations and strengths, *students' open feedback* to help the teacher improve his/her teaching, *teacher's diary* for teacher's reflection on what he had done in the instructional process, and so on) can also be used for the teacher's work, depending on the teaching-learning situation. (3) Information and communications technology (ICT) could be employed in the developmental sessions because, in the present research, teachers could not use ICT tools due to the lack of infrastructural background.

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List of Publications Related to the Dissertation

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