Evaluation of a Speed Reading Program in the Faculty of International Tourism

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Reading in another language is a very important skill to develop. The significance of this skill is particularly true in Japan for those students wishing to attain higher scores on language proficiency tests. A better reading score on a test such as TOEIC serves as important yardstick for many employers during the job-hunting process in Japan (ETS, 2012), and for the TOEFL or IELTS, a higher reading score could lead to study abroad. As well as the extrinsic goals for improvement, reading is also important in the foreign language context as it can provide learners with language input. Therefore, during the time that students spend in universities in Japan, foreign language curriculum should reflect the importance of reading in another language.

Reading in another language is, however, a skill that requires much effort from the learner. Learners that read slowly often fixate on certain words and may often look back at what they have already read (Chung & Nation, 2006 ; Nation, 2005). This puts the reader into cycle of bad habits referred to as 'the vicious circle of the slow reader' (Nuttall, 1996, p. 127). The skill to read without unnecessary pausing has been referred to as fluency, and along with meaning-focused input, meaning-focused output, and language-focused learning is an essential part of language learning, not only for reading, but for all of the sub-skills necessary to master a second language (Nation, 2007a).

Research into reading in another language dealing with fluency development has resulted in the implementation of a number of different activities such as extensive reading in another language. Through the use of extensive reading both in and outside of class, students have been able to improve their reading speed (He, 2014) and start to appreciate the pleasure of the reading activity (Dickinson, 2016 ; Takase, 2012). There are also a number of different indirect ways to evaluate the success of the reading program, such as student reports, and measuring reading speed (ERF, 2018, p. 9).

Another reading activity used to promote faster reading is a speed reading course (Chung & Nation, 2006 ; Quinn, Nation & Millett, 2007). These courses offer conditions for fluency development because the texts are

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produced with restricted and known vocabulary. Following the texts, students engage in comprehension questions based on measuring overall meaning of the text. Evaluation is carried out by learners recording both their speed and comprehension scores for a text (Macalister, 2008). Some speed reading activities have been found to both increase the reading speed of language learners (Chung & Nation, 2006 ; Macalister, 2010 & Tran & Nation, 2014) and motivate leaners towards the task of reading (Chang, 2010). While some researchers have claimed that faster reading might lead to lower comprehension (Carver, 1992), others have found that even with slight increases in reading speed, comprehension level is maintained (Chang, 2010).

In the Faculty of International Tourism Management, both extensive reading and speed reading programs have been implemented. In this study, the speed reading component based on one reading per week will be evaluated. Designed to increase reading speed, this study measures whether gains in both student's reading speed and comprehension could be realised over the course of a semester.

Research into Speed Reading

Starting as a way to develop L1 reading speed, speed reading in the second language was pioneered by Paul Nation of Victoria University, New Zealand. He and his colleagues developed a reading course based on topics related to Asia and the Pacific region and its history and culture updated in Quinn et. al. (2007), which were used in subsequent speed reading-focused studies. The revised readings comprised of twenty 550-word readings, accompanied by ten comprehension questions. The readings are written using the 1000 most frequently used words of English. For such speed readings, Nation (2009b) states a reasonable reading speed goal for foreign and second language learners with known words is approximately 250 words per minute (p. 72).

A number of studies in the foreign and second language setting have found speed reading courses can increase reading speed. Starting in South Korea, Chung and Nation (2006) measured the reading speed of 40 university students who read twenty-three texts over a nine-week period. Results showed that on average there was a 52% increase based on differences between the average of the first three and last three readings, with the most increases in speed seen in the first half of the readings. These results should be viewed with some caution due to the small sample size and the fact that a number of outliers were present in that sample, possibly unrealistically inflating the average scores.

A second study by Macalister (2008) focused on 29 ESL learners in pre-university classes in New Zealand. Learners read twenty readings over a course (although the speed reading activity length is unclear), and it was found that the majority of students had seen increases in the first three and last three readings when compared. However, the increases seen during the speed reading activity were maintained by only 50% of the sample by the end of the course (again, course length unreported). Macalister concedes that "... it appears that factors other than the speed reading course contributed to gains in reading speed," p. 31. Again, the sample size in this study is small, and there was a proficiency difference between the classes, possibly signaling that the readings may not

have been suitable for part of the sample.

The above studies only focused on speed, and did not address changes in comprehension. To rectify this, Chang (2010) measured the reading speed and comprehension of 84 university students in Taiwan split into a control and experimental group. Those who had the speed reading intervention showed average increases of 25%, but their comprehension level increased by only 4%. Although this is not a large increase, accuracy was seemingly not sacrificed by the increase in reading speed for this group. Further, a follow-up survey found that over 74% felt they had increased their reading speed and been able to concentrate better through reading, while 59% claimed their confidence had increased. Importantly, this study concluded that even one activity lasting only 15 minutes a week has the capacity to improve learners' reading speed and reading confidence.

Regarding the question of how many reading texts is sufficient to produce readings gains, Dalton and Fuisting (2011) measured scores from two group of Japanese university students, who like the students in Chang's study, met only once per week. The first group of 23 did one speed reading activity per class for the whole academic year, whereas the second group of 19 did two readings per week for the same period. Both groups recorded significant gains in reading speed between the first and last three average scores, with the group doing two readings over one week displaying significantly more gains than the group reading of once per week ($F(1, 36) = 14.42$, $p = .00$, partial $\eta^2 = .29$). On the other hand, the group doing one reading had an increase in comprehension scores from 5.5 to 6.2 (eight-point scale) by the end of the course. The other group saw their comprehension scores drop slightly from 5.4 to 5.2. The authors speculate that an increase in reading speed may lead to a sacrifice in comprehension. Caution should be taken with the results because the differences in majors existed between the two groups as well as inconsistencies in the reading protocols, namely that the number of questions completed for the first and last readings were different.

In the last and most recent study, Taferner & Murray (2013) set out to investigate how reading texts of different lengths affected reading speed and comprehension rates for 150 Japanese university students of varying majors. Participants were split into three groups : Treatment Group 1 ($n = 61$), Treatment Group 2 ($n = 53$), and a Control Group ($n = 36$). Using a pretest posttest reading measure as a criterion, Treatment Group 1 had ten 400-word readings, Treatment Group 2 had ten 200-word readings, and the control group had only the pretest and posttest over the ten-week period. All groups saw an increase in average comprehension between pretest and posttest with the most recorded by the Treatment Group 1 at 33%, followed by Treatment Group 2 at 13% and 5% for the Control Group. Results from an ANOVA found that the treatment created a significant difference in speed ($F(1, 149) = 59.616$, $p < .05$). Differences in comprehension scores were seen for both control groups showing an 11% increase, while the treatment group dropped slightly in comprehension scores by 1.85%. Again this shows that once a week maybe enough to improve reading speed, but the practice effect of reading 400-word texts may have added to the likelihood of Treatment Group 1 outperforming other groups.

The above studies show that gains in speed and comprehension through speed reading are possible, in both

the second and foreign language environments. However, Macalister (2010) admits that the picture is unclear and future studies are needed. This is true in the limited exposure of foreign language environment (Wang, 2009) ; thus, more research is necessary to ascertain how speed reading courses can lead to development of reading fluency and accuracy. Research has also shown that proficient and less proficient readers read in different ways (Nutall, 1996), mainly due to an inability of less proficient readers to process lower level or word-decoding because of short-term memory constraints (Grabe, 2004), so research that looks at how speed reading affects learners of different reading proficiencies may also be beneficial. Lastly, learners' perceptions of learning activities can affect the learning process (Hadi, 2013), but to date studies that focus on the perceptions of speed reading activities have been scarce. Based on the previous research, this study will attempt to answer the following questions :

1. To what extent did the overall reading speed of all three reading proficiency groups change?

2. How did the overall reading comprehension of the three reading proficiency groups change?

3. Depending on size of speed increase, to what extent did participants perceive differently the efficacy, level of comprehension, enjoyment and difficulty of the speed reading activities?

Methods

Participants

　　Data used in this study came from 170 second year students at the end of a compulsory Applied Reading course. Students in this course were divided into ten separate groups based on their TOEIC reading scores. The course focused on reading in different genres and included a weekly 15-minute speed reading activity. At the start of the semester the purposes of the readings were explained and it was further stated that the data were for research purposes and submission of the speed reading charts recording speed and comprehension was voluntary and would in no way affect students' grades.

　　There were 170 students in the entire sample, but as can be seen in Table 1, along with TOEIC score data, the sample size used was 141 students (41 male and 110 female), with 34 from the lower three classes taking the lower level reading, 86 from the five mid-range level classes taking the mid-level reading, and 21 students from the top two classes who took the upper level classes. A total of data from 29 participants was disregarded due to incomplete information (explained in the Procedures section).

Table 1.　*Descriptive information about participants*

Group	Gender		TOEIC Reading		speed reading materials	
	male	female	M	SD	no. words	no. ques.
Lower ($n = 34$)	$n = 25$	$n = 9$	113.53	20.39	350	6
Mid ($n = 86$)	$n = 12$	$n = 74$	201.63	32.14	450	8
Higher ($n = 21$)	$n = 4$	$n = 17$	287.14	30.56	550	10
Total	$n = 41$	$n = 100$	193.12	61.38		

Instrumentation

Along with the speed reading materials explained below, the survey taken on the day of the last speed reading can be seen in Appendix A, along with an English translation. Items used in the survey for this study were revised from other studies (Chang, 2010) to fit the situation in this paper. After creating a short list of six items, the author and one Japanese teacher of English working at the same university translated the items from English to Japanese. Where necessary, a few changes to the original were made.

There were four questions chosen from the shortlist requiring students to specify a level of agreement (completely disagree, slightly disagree, somewhat agree and completely agree). The four items dealt with attitudes toward the efficacy and enjoyment related to undertaking the speed readings course.

Procedure

All students read one speed reading a week starting from the third week of the course. The readings are set at the 1000-word level, with the comprehension goal at around 70%, meaning seven out of ten questions should be answered correctly (Quinn et. al., 2007). This is the optimum comprehension level at which students should aim for when speed is the focus. The readings in the class were set at 550 words and with ten comprehension questions for the upper level, 450 words and eight questions for the mid-level and 350 words and six comprehension questions for the lower level. The author created the 350-word and 450-word levels using the original 550-word texts and editing them down further through use of Lextutor Ver. 4 software (Cobb, 2002), and simplifying some grammar, where necessary. The author considered it important to keep the structure of the story with fewer words, unlike the truncated stories used in Taferner & Murray (2013). To check the original 550-word version with the 450-and 350-word level readings, advice was sought from two native English teachers in the ITM who met with the author four times to edit the readings. In addition, two more readings designed by the author were added to the collection because some original readings were deemed to be inappropriate, and in some cases, uninteresting for Japanese students. Generally, the topics are related to Asia and the Pacific, so the new readings were created along the same very general lines (Australian aborigines and Gandhi).

For this study, the average speed and comprehension scores were used from the first and last three readings, a technique called Average Scoring Method first used by Chung and Nation (2006), which was concluded to be a conservative measurement technique. The Average Scoring method has been subsequently employed by most other speed reading studies. From the tenth class, reading charts and questionnaires were collected, but 29 speed reading charts indicating more three or more speed reading sessions missed were disregarded.

Next, in order to measure whether the means of the first three and last three scores for reading speed and comprehension were significantly different a Paired Samples *T* Test was used in PASW, Ver. 18.0 (SPSS Inc., 2009). This method was preferred over a one-way repeated measures ANOVA as there was no control and the lengths of readings and reading ability were different between the three groups (lower, mid and upper). Before

carrying out the tests, a number of assumptions were checked. First, the data were checked for outliers using boxplots, with none found. Second, the data was checked for normal distribution in each group. Although kurtosis and skewness level were high, scatterplot charts were checked in SPSS and appeared to have normal distributions. Lastly, a Bonferroni adjustment was applied to the p-value to guard against type 1 error. The p-value was adjusted as follows : .05 / 6 calculation, giving an adjusted p-value of $p = < .008$.

Lastly, the questionnaire was also given on day ten of the readings to measure perceptions, and again, it was explained that participation in the survey was voluntary. It took approximately three minutes for the participating students to fill out the questionnaire during class time. The speed reading charts of those students who had incomplete reading charts were not used for analysis.

Results

The results can be seen in Table 2. Addressing reading speed first, it can be seen that there are clear reading speed differences between the three groups. Between the first three mean speed and the last three, the low group had significant differences ($T(33) = -5.15$, $p = .000$), as did the mid group ($T(86) = -8.56$, $p = .000$), and also the upper group ($T(20) = -4.36$, $p = .000$). These translate to a 9.89% increase in reading speed in words per minute for the lower group, 9.64% for the mid group and 7.56% for the high group.

Table 2.　*Reading speed and comprehension scores for three groups*

	reading speed (WPM)				comprehension score			
	Pre		Post		Pre		Post	
	M	SD	M	SD	M	SD	M	SD
Low	97.05	11.61	106.64	17.01	65.47	20.23	64.23	17.13
Mid	118.23	13.17	129.63	21.33	85.24	9.93	87.28	8.88
High	140.02	26.23	150.61	24.09	84.28	9.38	84.14	6.91

Note. Pre : Means for the first three reading activities.
　　　 Post : Means for the final three reading activities.

Next looking at changes in comprehension scores, there was a difference between low and mid and high, but little to separate mid and high. Also, it can be seen that very little change took place, with significant differences recorded between the first three and last three scores. The low group dropped slightly by -.1.91%, mid group rose slightly by 2.39% and the high group changes were statistically insignificant.

Lastly moving to results from the survey that students took at the end of the course, Table 3 shows each score divided into two categories based on their increase in reading speed. As the means increase for all groups was 10.64%, the threshold was set at 11%, so in Table 2 that means the left column represents those students who increased their reading speed by 11% or more, and those in the right column are those that achieved less than a 11% reading speed increase. Each column represented the percentages recorded for agreement with the

statements in the survey.

Table 3.   *Survey results based on % change in reading speed*

| | % changes in reading speed | | | |
| | > 11%(*n* = 66) | | <11% (*n* = 75) | |
	SA	CA	SA	CA
1. made me read faster	73%	9%	64%	7%
2. made me understand better	66%	13%	59%	12%
3. enjoyed topics	59%	17%	61%	21%
4. material easy	47%	6%	56%	16%

Note. SA = Slightly agree, CA = completely agree. Full description of items 1-4 is given in Appendix A.

Table 3 shows that students who increased their reading speed above the average seemed to feel that they were actually reading faster and felt that the reading material was easier than the group with below average reading speed increases. To a lesser extent, the higher increase group also appeared to perceive that they understood better, but there was little actual difference in agreement to the item, so this result is somewhat surprising. As for enjoyment of topics, both groups seemed to enjoy the topics, perhaps one factor that led to increases in reading speed. Generally, the results for perceptions of the speed reading course were positive with most participating students displaying agreement about the efficacy of the speed reading course.

Conclusion

This study suffered from a number of the same problems seen in many previous studies. They include a small *n*-size and the likelihood of practice effect from doing the same activities (Chung & Nation, 2006). In other words, learners may have become used to a certain type of text over the period, making it difficult to assume that gains could be maintained after the speed reading course has finished.

However, this study did find a number of interesting results. Firstly, it found that increases were possible even over the period of one semester at the pace of one reading per week. While the students in this study are no way near Nation's (2009b) stated goal for foreign and second language learners of 250 words per minute, or Chung & Nation's 2006 study of Korean university students' average increases of 52% (73 wpm), there were reasonable gains considering the number of classes, and a professed lack of reading outside the class.

Second, comprehension scores on average were maintained throughout the reading program. Chang (2010) found significant increases in reading speed, but minimal changes in comprehension. It appears, at least for the students in this study, they were reading with around 70% comprehension (Tran & Nation, 2014). Students should be encouraged to read faster, and increase their automaticity and word recognition, without worrying whether they will understand everything. Further, from personal experience, many Japanese learners hold unrealistic goals about the necessity of 100% comprehension for English input. Students need to know that, depend-

ing on the particular goals of a reading course, the expected comprehension level will change accordingly.

Third, the survey results showed that the majority of students that participated in the speed reading course felt it was of benefit to them in terms of being able to read faster and to a lesser extent, comprehend better. Having positive perceptions of reading activities may promote student motivation and in this study could have led to a possible effect on increasing reading speed. Nutall (1996) states that there should be a cycle of increased understanding and enjoyment, leading to possible increased motivation. That appears to be the case with this speed reading course.

Future studies could address how reading speed changes over a longer period of time, and how speed varies with reading genres, something that very few studies have addressed (Macalister, 2010). It is clear that giving students only speed reading will not address all comprehension aspects of reading. A previous study with second years in the same faculty found that 43% of respondents never read for pleasure in English outside of class (Robson & Hardy (2018). In other words, students in the faculty appear to be limiting their access to increasing fluency, so any speed reading gains may just be a short-lived phenomenon. More effort needs to be made within the curriculum to facilitate engaging students in out of class work.

The ideal situation would be to increase the number of readings undertaken, perhaps for homework or reading classes in general. At the Faculty of International Tourism, however, there are ninety-minute contact hours per week for English reading classes. These results seem to show that even in a curriculum with limited study time, results for increased speed can be expected. However, this should be in conjunction with activities that address fluency in all facets of the learning situation. At the very least, Chung and Nation's recommendation that "a speed reading course should be included in every reading class," (2006, p. 198), is one worth seriously considering.

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Appendix A

Speed Reading についてのアンケート

　このアンケートの結果は、国際観光学部のレーディング授業を向上させるのに役立つよう、研究目的に使用させていただきます。それ以外の目的では一切使用いたしません。このアンケートの提出をもって、結果の研究使用に同意していただいたものとさせていただきます。成績には一切関係いたしませんので安心して全ての項目に正直にお答えください。

以下の項目について、つぎの回答に従い、番号で答えてください。

全く思わない (1)	あまり思わない (2)	多少そう思う (3)	よく思う (4)

<u>Speed reading　について</u>

1.　speed reading　コースを通して読書の速度が上がったと思う
2.　speed reading　コースを通して読書の全体の意味を取るようになったと思う
3.　speed reading　のテーマは面白かったと思う
4.　speed reading　のプリントはわりと楽に読めたと思う

(English version)

　This survey will only be used as part of research to improve reading classes at the Faculty of International Tourism Management. By handing in this survey, you agree to it being used for research. The information contained in this survey will be treated with the utmost confidentiality, so please feel free to answer honestly.

Look at the statements 1-4 below and state one of the following levels of your agreement with it.

I completely disagree	I disagree	I agree somewhat	I completely agree

<u>About the speed reading course</u>

1.　I think this speed reading course has made me read faster
2.　I think this speed reading course has made me understand reading better
3.　I enjoyed the speed reading topics that I read about
4.　The speed reading material was quite easy

【Abstract】

観光学部スピードリーディング課目の評価

ロブソン・グライアム＊

　調査は、L 2 リーディングにおいて、大量の易しいテキストを読むことは言語能力向上につながるのか、あるいはリーディング能力には時間の無駄となるのか、を探ろうとするものである。教師は学生の言語技能向上のために多くの方法を用いるが、その中の 1 つがスピードリーディングの課目である。これまでの調査では、スピードリーディングを通じて、学生の読む速度は向上するが、理解力は変わらない、ということが示されてきた。この調査では、国際観光学部 2 年次生でスピードリーディングの課目を受講し、1 学期で 10 冊読んだ学生からのデータを用いた。最初の TOEIC リーディングのスコアから 3 レベルにコース分けした（下位、34 名；中位、86 名；上位、21 名）。1 回目から 3 回目までと 8 回目から 10 回までそれぞれ平均スコアを比較した結果、全てのグループで、大きく成績が向上していた。一方で全体理解度は変わらなかった。追跡調査では、コースの肯定的な見方が示された。この調査の結果は、英語にふれる機会が限定的なカリキュラムおいて、スピードリーディングは十分に有意義であること示している。
キーワード：第 2 言語でのレーディングスキル、スピードレーディング、レーディング・フルエンシー、レーディングに対する学生の考え、日本の大学生

　Research into reading in another language postulates that reading easy texts on a regular basis can lead to fluency, or the ability to read with unnecessary pausing. Teachers can help develop student fluency through different means, one of which could be a speed reading course. Research has shown that through speed reading, students' reading speed usually increases, but their comprehension level stays the same. This study took data from 141 second year university students enrolled in a speed reading course in the Faculty of International Tourism (ITM) who read ten texts over the course of a semester. The course was divided into three levels from an initial TOEIC reading score (low, $n = 34$; mid, $n = 86$; and high $n = 21$). The mean of the first three and the last three speed reading scores were compared and significant increases in speed were recorded across all groups. On the other hand, comprehension scores remained unchanged. A follow-up survey showed very positive perceptions of the course. In curricula where English exposure is limited, the results in this study show that the use of speed reading is well justified.
Key words : reading in a second language, speed reading, fluency, reading attitudes, Japanese university students

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