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Strengthening Adult Education: An Assessment of Technical and Vocational Texts

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Abstract: Education is a basic right, but not everyone is privileged to get access to quality education. In the Philippines, the Technical Education and Skills Development Authority which offers non-degree education to underprivileged Filipino adults is challenged by several problems in instruction including assessment. To address this concern, this study focused on assessment which is essential in enhancing the quality of education across all levels. This study specifically assessed and analyzed the level and quality of texts in a vocational school in the Philippines to help improve the transfer of learning toward a knowledgeable and skilled workforce. Using a descriptive-quantitative research design, this study measured the level and quality of vocational texts to address assessment concerns. This study measured the readability of technical and vocational texts from four vocational courses through measures of text difficulty and readers' perspectives. The results of this study revealed a discrepancy between the level of texts and readers' perceptions. The assessment of the "readability" of technical and vocational texts is therefore recommended. This study also presents some pedagogical implications to the importance of assessment in informing instruction.

Keywords: Assessment, technical and vocational texts, readability, text difficulty, readers' perspectives

1. Introduction

Filipinos have the right to quality education, as indicated in the Article XIV, Section 1 of the Philippine Constitution (Official Gazette, 2021). Unfortunately, not all Filipinos are privileged to get access to quality education. According to De Los Reyes & Bagona (2022), more than 6 million Filipinos are functionally illiterate. The Department of Education (2020) also noted almost 4 million students who did not continue with their basic education. Accordingly, data from the Philippine Statistics Authority (2017) revealed that five of ten Filipino families have at least a member who has not completed basic education (Valencia, 2018). Besides education, the Philippines also faces problems with unemployment that reached 2.93 million in May 2022 (Zayed et al., 2018). To address the perennial problems in illiteracy and unemployment in the Philippines, the government has offered quality yet affordable non-degree education to Filipino youth and adults through the Technical Education and Skills Development Authority (TESDA). This government agency aims to provide education and develop work skills among underprivileged Filipinos.

TESDA is the lead government agency that provides relevant, accessible, high quality and efficient technical education and skills development towards the development of high-quality Filipino middle-level manpower (Jiao et al., 2019). TESDA aims to enhance the technical and vocational skills of Filipinos especially the overseas Filipino workers (OFWs). Moreover, the focused goal of TESDA in the new administration is to improve the education and the agricultural sector (Talento et al., 2022).

There are four training modalities in TESDA: 1) school-based, 2) center-based, 3) enterprise-based, and 4) community-based. There are currently 57 TESDA administered schools, 60 training centers, among other enterprise- and community-based training held in the country in collaboration with the local government units (LGUs).

Bound by the law to create a medium-term (six-year) plan for the development of middle-level workforce, TESDA created the National Technical Education and Skills Development Plan (NTESDP) 2018-2022. The ultimate goal of this six-year development plan is to mobilize and seek the participation of the labor sectors, industries, government units, and educational institutions for the development of the country's human capital resources (Jiao et al., 2019).

The Technical Vocational Educational Training (TVET) sector of NTESDP has been challenged by several problem

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areas that the agency has encountered through the years. One problem is the rapid technical innovations worldwide, while the other is the low employability of TESDA graduates. These said problems call for an intensive and more-quality training for the development of well-educated and more-skilled workforce that will be equipped, efficient, and competitive in various skills jobs.

The TVET sector is also challenged by the lack of facilities and resources, assessors, and trained trainers. To address these challenges, NTESDP sets strategic responses through the following (Jiao et al., 2019). TVET with Agility—to prepare the Philippine workforce for global competitiveness and future world of work; TVET with Scalability—to deliver high quantity job-ready, quality workforce; and TVET with Flexibility and Sustainability for social equity and economic inclusion. However, it is less clear as to how these strategic responses can be done. None has been indicated by TVET as to how *Agility, Scalability, Flexibility*, and *Sustainability* can all be achieved.

From the education standpoint, it is significant to make an analysis of the instruction which includes not only on how knowledge and skills are transferred to the students, but also on what instructional materials are used to teach the concepts and skills necessary for the development of knowledgeable and skilled workforce. The lack of assessors has already been identified as one of the problems of TVET. It is for this reason that this study assessed one of the substantial aspects of TVET training instruction, and that is the readability of their instructional texts. The readability of instructional texts is deemed useful in the improvement of existing instructional texts as well as the development of other instructional materials of the TVET sector.

1.1 Significance of The Study

In accordance with the strategic responses of TVET –Agility, Scalability, and Flexibility and Sustainability, this study aimed to make an assessment of its training instruction through the instructional materials used in selected non-degree courses of TVET. This study assessed the level of difficulty of TVET instructional texts which have been developed and used in a technical and vocational training center in San Jose, Nueva Ecija, Philippines. This study is rooted in the principles of education which involves the promotion of quality education in many forms including but not limited to the implementation of exceptional instruction. To contribute to the achievement of quality instruction, this study assessed the readability of technical and vocational texts which can serve as the basis for the development of age-appropriate and functional texts for adult learners.

1.2 Research Objectives

The study aimed to assess the level of ease or difficulty of technical and vocational texts.
Specifically, the study intended to meet the following research objectives:

a. Identify the readability level of technical and vocational texts
b. Describe the communication index of technical and vocational texts based on reader feedback
c. Determine whether a significant difference exists between the readability level and communication index of technical and vocational texts

1.3 Theoretical Background

1.3.1 Conceptual Framework

Material assessment provides significant information about the level of difficulty of texts and increase their reliability (Rahmawati & Sulistyono, 2021). Since the conception of readability formulas in the 1920s, most readability formulas have focused on assessing the difficulty level based on text features, particularly the syntactic and semantic complexities (Lively & Pressey, 1923, as cited in Hiebert, 2002). However, recent readability formulas have recognized reader feedback as a significant indicator of text difficulty. This move follows the classical Transactional Theory (Rosenblatt, 2018) which gives consideration to meaning making. This theory of reading takes into account the meaning that readers bring into the text, which is typical of the town-down reading model where text processing proceeds from whole to part (Rumelhart, 2017; Carrell, 1988). As readers come from different educational backgrounds with different level of understanding, the transactional theory recognizes several factors such as readers' knowledge, concepts, and beliefs that contribute to the understanding of text which likewise affect how readers regard the difficulty of texts they read. Hence, readers' perspectives are deemed vital in measuring the level of difficulty of texts including technical texts where TESDA texts are classified. This study therefore attempted to measure the readability of technical and vocational texts by TESDA using a reading-ease formula and a feedback-based formula.

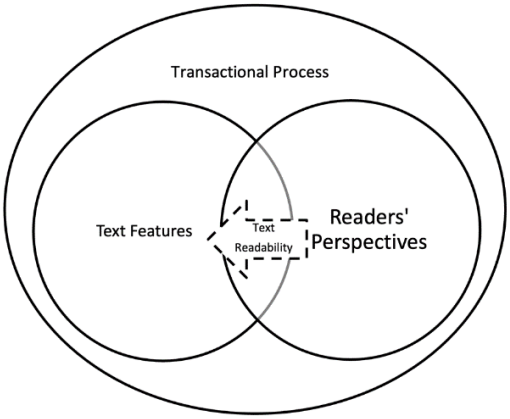

Fig. 1: Conceptual framework of the text assessment

1.3.2 Readability

Readability is defined by Dale and Chall in 1949 as the totality of all elements of a printed material that shapes a reader's success (DuBay, 2004). Readability, however, is defined by Pikulski (2002) as the level of ease or difficulty of a reading material with which it is to be understood by a reader. Comparably, Fry (1968) linked readability with comprehensibility. Readable texts are comprehensible to the readers. All the said definitions of readability make visible connections with the text and the reader.

Hundreds of readability formulas were developed to measure the level of ease or difficulty of texts. There are differences, however, with the text elements that have been considered as the basis for text difficulty. Readability formulas also vary concerning to the kinds of texts (narrative or expository) that they measure.

1.3.3 Common Readability Formulas

The Automated Readability Index (ARI) was originally developed for use in the military particularly on typewriter tabulation. It measures the readability of texts by character and word counting. Presently, ARI is widely used to measure the readability of technical writing.

Dale-Chall Formula uses a unique formula for measuring text readability. Created by Edward Dale and Jean Chall in 1948 (Barry & Stevenson, 1975), it assesses text readability based on the number of 'hard words' which refer to unfamiliar words to most 4th-grade students.

The Flesch Reading Ease Formula is one of the oldest but the most accurate readability measures of school texts. Developed by Rudolph Flesch in 1948, Flesch Reading Ease Formula considers a text with shorter words and sentences as readable. It is used primarily to assess the difficulty of a school text written in English.

Fry Graph is a readability score that was created by Edward Fry in 1963. It assesses the next grade level by plotting the number of syllables per 100 words on the horizontal axis (x-axis) and the number of sentences per 100 words on the vertical axis (y-axis). The estimation of the grade level of text is based on a particular region where the point falls.

Simplified Measure of Gobbledygook or SMOG is a readability formula that was devised in 1969 by G Harry McLaughlin. This formula is used as an approximation of the necessary number of years of education a person needs to incur to be able to comprehend a piece of reading material. SMOG provides higher values than other readability formulas. McLaughlin validated this formula through McCall-Crabbs passages. While most formulas test 50%-75% comprehension, SMOG measures 100% comprehension. SMOG predicts scores at least twice higher in grade level than the Dale-Chall Readability formula. This formula is also appropriate for a wide range of readers – from fourth grade to college level. SMOG had been used to measure health-oriented literature.

1.3.4 Readability and the Reader

While most readability formulas measure text difficulty based on its syntactical features, the readers' perspectives are not usually considered as a clear measure of text difficulty. In the Philippines, a feedback-based readability formula was developed by Talisayon (1983). It was originally created to measure the difficulty of science texts in high school. This feedback-based formula identifies ambiguous text parts by marking the unclear words, sentences, paragraphs, equations, tables, figures, and/or graphs.

Among the many concepts of reading, readability is one of the most influential concepts to reading success, yet it is a less frequently discussed concept of reading in classes and even in reading research in the Philippines. It is for this reason that this study aimed to add to the body of knowledge in the reading discipline, specifically on the area of readability. This study, therefore, is an attempt to complement limited existing local research on readability of technical texts written in English.

This study is guided by Rosenblatt's Transactional Theory (2018) which claims that a text does not have similar meanings for everyone. Each reader brings individual background knowledge, beliefs, and context into reading. Thus, the level of ease or difficulty of texts is not only based on text features, but also on the reader's perceived understanding of these materials.

Through this study, the level of difficulty of technical texts in the form of instructional texts were identified. Hence, this study can serve as the basis for future action towards the development or revision of instructional texts for adult learners and Filipino skilled workers.

1.3.5 Scope and Limitations

The study dealt with the identification of the readability of technical and vocational texts used in Organic Agricultural Farming (OAP), Shielded Metal Art Welding (SMAW), Motorcycle Small Engine Servicing (MSES), and Automotive Servicing (AS) programs of a technical and vocational training center in San Jose, Nueva Ecija, Philippines. Texts used in other technological programs of TESDA were not included in the readability measures. A comparison between the readability index and communication index of technical and vocational texts in the four aforementioned TESDA programs was also explored to determine if a significant difference exists between these two variables. Hence, this study focused only on the readability of technical and vocational texts based on their structural features and reader feedback. The structural features include a measurement of sentence length based on the number of words in the sentence, as well as word length as identified by the number of syllables in a word. Reader feedback, however, includes an assessment of text readability based on unclear words, sentences, paragraphs, and figures/tables. Other variables that may affect readers' assessment such as the reader's interest, reading purpose, among others were beyond the scope of this study.

2. Methodology

2.1 Research Design

A quantitative research design was used in the study. The first phase of the study centered on identifying the readability of technical and vocational texts used in four vocational programs. Randomly selected chapter texts were collected from the technical and vocational texts as instruments of readability measures. The Flesch Reading Ease Formula was used to measure the readability level of each technical text based on its difficulty level and suitability to students' grade/year level.

The second phase of the study focused on the feedback-based readability measure. This study argues that the readability of texts is not limited to the measurement of its surface features; hence, the readability of technical and vocational texts was also measured through readers' perspectives. The study determined how the users perceived the level of difficulty of technical and vocational texts. Using Talisayon's Feedback-Based Readability Formula (1983), the readability level of technical and vocational texts was measured based on readers' judgement on unclear words, phrases, sentences, paragraphs, figures and/or tables in the text. The responses of the participants underwent the community index computation. The readability of the texts was then identified separately and collectively.

The third phase of the study dealt with the quantitative data analysis of the results of the readability index and communication index. The results from the two methods were consolidated and analyzed to determine their relative similarities and/or differences. The results of the analysis were presented and sent to the participants to validate the correctness of the interpretation. The results of the analysis were presented to technical and vocational center to discuss the possible commendations towards a comprehensible technical and vocational texts for the youth and adult users (Wu, 2022).

2.2 Instruments

Randomly selected text chapters in Organic Agricultural Farming (OAP), Shielded Metal Art Welding (SMAW), Motorcycle Small Engine Servicing (MSES), and Automotive Servicing (AS) programs of a technical and vocational training center in the Philippines were used as instruments subject to readability measurements. To determine the readability of technical and vocational texts used in four TESDA course programs, a Flesch Reading Ease Formula and Talisayon's Feedback-Based Formula were used as measurements.

The Flesch Reading Ease scores determine the level of education any person needs to have to ensure that a piece of text is read easily. The scores are placed between 1 and 100. A conversion table as given below is then used to interpret this score:

Table 1: Conversion table

Scores	Interpretation
90-100	Very Easy
80-89	Easy
70-79	Fairly Easy

60-69	Standard
50-59	Fairly Difficult
30-49	Difficult
0-29	Very Confusing

The formulas are based on two factors: 1) sentence length as judged by the average number of words in a sentence, and 2) word length as identified by the average number of syllables in a word. This formula points out that sentences with fewer words are easier to understand than those with a lot of words.

Talisayon's Feedback-Based Formula, however, measures the readability of materials based on the readers' perceived clarity of texts as represented by the communication index. The participants' perceptions of text difficulty or ease were sought through a survey. The values of communication index are interpreted in this manner.

Table 2: Values of communication index

Values	Interpretation
0 < C.I. < 0.0001	Quite Clear
0.001 < C.I. < 0.01	Clear
0.01 < C.I. < 0.1	Unclear
0.1 < C.I. < 1.0	Quite Unclear

2.3 Data Collection Methods

Before the data were gathered, a module chapter for each course text was randomly selected. The randomly selected texts were measured according to their readability level which were categorized based on surface features and reader feedback. The data on text readability were first gathered using Flesch Reading Ease Formula. After gathering the results of text readability based on the surface features, the data on text readability according to readers' perceived difficulty of texts were collected through a survey. The participants were asked to mark the unclear words, phrases, sentences, paragraphs, and figures and/or tables they found in their course text. Reader feedback is expressed in communication index which were computed by dividing the element of the text (word, sentence, paragraph, figure and/or table) by the product of the number of elements in the text and the number of readers.

2.4 Ethical Considerations

Before going to the study site, a request letter to conduct the study was sent to the Vice-Rector of the technical and vocational training center in San Jose, Nueva Ecija. The nature of the study, the target study participants, and the instruments were all explained through a written correspondence. Once the approval of the administrator to conduct the study was sought, copies of technical and vocational texts to be read by the study participants in four of the course programs were also requested from the center.

Prior to the survey, the nature of the study as well as the participants' role in the study were comprehensively explained to the study participants. An informed consent form was also distributed to the study participants to seek their approval to partake in the study. It was clarified to the study participants that their responses will only be used for the purpose of the study and that they have the right not to participate if they feel not fit to participate in the research undertaking. It was also explained to them that if their perceptions about text difficulty were not favorable to the center, those will not in any way be used against them. Hence, their responses were accepted as valid and significant to the study.

2.5 Data Analysis

A Two-Sample T-Test was used to identify and analyze the readability of technical and vocational texts in OAP, SMAW, MSES, and Automobile course programs. Specifically, the two-sample t-test, also called the independent t-test, was used to determine whether or not a statistically significant difference exists between the means in two unrelated groups – the readability of texts based on surface features and reader feedback.

3. Results and Discussion

Using the Flesch Reading Ease Formula, the readability level of technical and vocational modules according to their structural features were measured. Table 3 shows the readability level of each TESDA course program. With readability indexes of 48. 9 for OAP and 47.9 for MSES, both courses were found 'difficult' to read which are applicable to college readers. SMAW and Automotive courses, however, were found to be 'fairly difficult'. SMAW is applicable to Grades 10-12 readers with 52 readability indices, while Automotive text was applicable to Grade 9 readers with 59.1 readability index. Overall, the readability of instructional modules for four TESDA course programs ranged from 'fairly difficult' to 'difficult' which were suitable for high school to college readers.

Table 3: Readability levels of technical and vocational modules

Courses	Grade Level	R.I.	Interpretation
OAP	College	48.9	difficult
SMAW	0-12	52	fairly difficult
AUTOMOTIVE	9	59.1	fairly difficult
MSES	College	47.9	difficult

To determine the readability of technical and vocational modules based on reader feedback, the communication index for each course text was measured. Table 4 shows the communication index of each course text according to different variables such as words and phrases, sentences, paragraphs, and figures. Text variables of OAP course were found to be 'quite unclear' and 'unclear'. Of all the text variables, the participants found the figures in OAP most ambiguous. Thus, it is clear that OAP students have difficulty understanding graphics or figures found in the text. It can also be gleaned from the results that students' understanding of non-textual information such as figures need to be further developed.

However, text variables in SMAW course were found 'quite unclear' except for words and phrases which were perceived as 'clear' by the participants. These results indicate that the challenge among SMAW students lies not in understanding vocabularies in the text, but in understanding the concepts in extended forms such as in sentences and paragraphs. The understanding of SMAW students of non-textual information, similar to that of OAP students, is still to be developed as the figures in the text were vague to them.

On the contrary, the Automotive text has differing communication indexes. Text variables were found 'clear' for words, phrases, and paragraphs, but 'quite unclear' for sentences, and 'unclear' for figures. These results suggest that AS students were challenged in understanding individual sentences as well as figures. However, when concepts were explained in paragraphs, they can understand clearly the general thought. These also denote that the sentences in a paragraph were coherently written; hence, even if individual sentences may be challenging for SMAW students to understand, they could eventually make sense of the text after reading each of the paragraphs.

Conversely, words and phrases in MSES course text were found 'unclear'. Interestingly, nothing in the sentences, paragraphs, and figures was marked 'unclear'; thus, these variables were considered as 'clear' by the readers. Table 2 shows that the readability levels of technical and vocational modules based on communication index were varied as text variables ranged from 'clear' to 'unclear'. It can be gleaned from the results that MSES students have difficulty understanding vocabularies or technical terms used in the course. However, when these technical terms were already used in context, SMAW students can already decipher the meaning of these terms. Thus, it indicates that these adult readers can apply context clues effectively to decode the meaning of a particular term. The results also show that they were skilled in interpreting non-textual information easily and accurately.

To determine whether a significant difference exists between the readability of structural features and reader feedback, the means of both readability index and community index of each course text were obtained.

Table 4: Communication index of technical and vocational modules

TESDA Courses	Communication Index							
	Words/Phrases		Sentences		Paragraphs		Figures	
OAP	0.12	Quite unclear	0.45	Quite unclear	0.29	Quite unclear	0.06	Unclear
SMAW	0.004	Clear	1.04	Quite unclear	0.11	Quite unclear	0.14	Quite unclear
Automotive	0.007	Clear	0.0003	Quite clear	0.007	Clear	0.08	Unclear
MSES	0.09	Unclear	No unclear sentences		No unclear paragraphs		No unclear figures	

Table 5 shows that there is a significant difference between the readability index (mean: 51.975) and the communication index (mean: 0.2257) of the OAP course. Based on R.I., OAP was found 'fairly difficult', while it was found 'quite unclear' by the readers based on the C.I.

Table 5: Readability index and communication index of OAP course

Variable	Mean	Standard Deviation	Interpretation	P value	Decision
Readability Index	51.975	5.06	Fairly Difficult	.000	Significant
Communication Index	0.2257	.5049	Quite Unclear		

Similar to the results of OAP, the readability index and the communication index of SMAW course were also significantly different. Table 6 shows that the R.I. of the SMAW was 'fairly difficult' (mean: 51.975) while the C.I. was 'quite unclear' (mean: 0.2963).

Table 6: Readability index and communication index of shielded metal art welding (SMAW) course

Variable	Mean	Standard Deviation	Interpretation	P value	Decision
Readability Index	51.975	5.06	Fairly Difficult	.000	Significant
Communication Index	0.2963	.3487	Quite Unclear		

Comparably, the results of the readability index and the communication index of MSES course were also significantly different from one another. The R.I. of MSES course was 'fairly difficult' (mean: 51.975). However, unlike OAP and SMAW which were evaluated as 'quite unclear', the C.I. of MSES was found 'unclear' (mean: 0.09) by the readers.

Table 7: Readability index and communication index of motorcycle small engine servicing (MSES) course

Variable	Mean	Standard Deviation	Interpretation	P value	Decision
Readability Index	51.975	5.06	Fairly Difficult	.000	Significant
Communication Index	0.09	.1892	Unclear		

Similarly, the means of the readability index (mean: 51.975) and the community index (0.0337) of AS course in Table 6 were also significantly different. The communication index of Automotive course was found 'unclear' by the readers. The R.I. of AS course was also interpreted as 'fairly difficult' while the C.I. was also 'unclear' like in MSES course.

The results of the readability index and the communication index suggest that despite the texts suitability to high school and college readers, the materials were still challenging to read by the adult readers. The text variables for OAP, SMAW, and MSES were generally evaluated by the readers as 'quite unclear' to 'unclear'. Only the Automotive course was evaluated as 'clear' for three out of four text variables.

Table 6: Readability index and communication index of automotive servicing (AS) course

Variable	Mean	Standard Deviation	Interpretation	P value	Decision
Readability Index	51.975	5.06	Fairly Difficult	.000	Significant
Communication Index	0.0337	.6874	Unclear		

Table 7 shows the difficulty level and clarity of each text variable for all four course texts. Results show that words and phrases, sentences, paragraphs, and figures in OAP, SMAW, MSES, and Automotive texts were 'fairly difficult' for the target users. Text variables such as sentences, paragraphs, and figures were less clear to the readers, while words were unclear to them. This result coincides with Toyama's (2019) study which revealed that text features such as sentence length and word frequency among other factors contributed to text difficulty. Hence, it is important to note that aside from the fairly difficult readability level of technical texts, these materials were also found ambiguous to adult readers. Thus, adult readers must embody the skill to mentally perceive text features as they read to deeply understand of such texts (Ministry of Education, 2022). Nonetheless, the overall results of the readability index and the community index revealed that the significant difference that exists between the two variables are brought by the variance in the text difficulty level and the perceived difficulty level of texts by the adult participants.

Additionally, the significant difference between the structural features and reader feedback was brought by the limited variables measured by Flesh Reading Ease Formula. Paragraphs and figures were not included in the said formula as significant measures of text readability. Apparently, the adult readers noted that paragraphs and figures in the course texts were rather vague. Therefore, these text variables are also worth considering in the development, revision, or utilization of course reading materials.

Table 7: Difficulty level and clarity of each text variable

Variable	Mean	Standard Deviation	Interpretation	P value	Decision
Readability of words	51.975	5.06	Fairly Difficult	.000	Significant
C.I. of words	0.0553	.05875	Unclear		
Readability of sentences	51.975	5.06	Fairly Difficult	.000	Significant
C.I. of sentences	0.3726	.49290	Quite Unclear		
Readability of paragraphs	51.975	5.06	Fairly Difficult	.000	Significant

C.I. of paragraphs	.1018	.13520	Quite Unclear		
Readability of figures	51.975	5.06	Fairly Difficult	.000	Significant
C.I. of figures	.700	.05774	Quite Unclear		
Overall Readability Index	51.975	5.06	Fairly Difficult	.000	Significant
Overall Communication Index	.1398	.75049	Quite Unclear		

4. Conclusion

This study on the readability of technical and vocational modules in four TESDA course programs shows the important role of readers in deciding which reading material suits the level of the target users. Clearly, the study reveals that the readability level of the texts was different from the feedback of the readers. This implies that while teachers are confident that their course reading material is appropriate for their students because the book authors say it is, the readers' perceptions about its readability may say otherwise. Hence, if the material is ambiguous for the readers, the teacher must contemplate on the its suitability to the type and level of readers. The teacher must also look into students' vocabulary knowledge as it is a strong predictor of comprehension (Espin & Foegen, 1996). that can affect students' overall understanding of the course reading material. The skill of understanding non-textual information such as tables, figures, graphic organizers must also be mastered by vocational students as technical texts are usually loaded with these kinds of information.

It should also be noted from the study that instructional texts that are expository in type, such as the modules used in TESDA courses, are fairly more challenging to read than narrative texts because of their unfamiliar concepts, vocabulary (Sáenz & Fuchs, 2002), and varying organizational structures (Murphy, 2013). Therefore, pedagogical approaches to effectively teach vocational skills by helping adult readers clearly understand technical concepts and vocabulary must be carefully considered. The act of transacting meaning from what is read is achieved when readers bring their individual background knowledge, beliefs, and context into reading (Rosenblatt, 1978). Readers' individual capacity should likewise be considered in the instruction. Although the target users of these texts are adult readers, independently reading the modules without actual discussion, explanations, and inputs from the course facilitator may do more harm than good as these vocational students have different educational backgrounds as well as reading levels.

5. Recommendations

The following recommendations were drawn from the results of the study for future research:

As the study limits its measurement of readability to surface features of the texts, other factors such as readers' background knowledge, their interest in reading, their reading strategies, and their reading purpose, among others may also be explored to determine the factors that may affect the readability of a text-based on readers' perceptions.

Modules used in the TESDA courses may be revisited to improve their "readability" (Murphy, 2013), especially in the context of technical words used, construction of sentences and paragraphs, as well as the clarity of figures presented. With numerous concepts and terms introduced in technical courses such as those offered by TESDA, these terms and concepts must be clearly defined and explained both in the course material and in the classroom.

To ensure that course reading materials are readable for the target users, an assessment of text readability before the actual course teaching should be done. This will help the course facilitators determine which parts or aspects of the material should be given more importance and may be allotted more scaffolding. Instructions to connect reading with experience (Probst, 1987) may be conducted to achieve greater learning of technical skills.

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