Effects of Reading and Writing Persuasive Messages on Career Intention to be a Professional Farmer among High School Students in Thailand Rural

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Abstract

This experimental study aimed to investigate the effectiveness of reading and writing persuasive messages on career intention to be a professional farmer in 652 high school students. The career intention consisted of the 1) intention to exploit farming knowledge (IET), 2) intention to explore farming knowledge (IER), and 3) recognition to farming learning opportunity (RLO). The results from the analysis of variance revealed the effectiveness of reading persuasive messages on all of the dependent variables. The students who read the persuasive messages reported high IET scores, high IER scores, and high RLO scores more than those who did not read. This finding was evidently in the total sample and all subgroups. For the effectiveness of writing persuasive messages on the intentions, the students who wrote persuasive message reported high IET scores, high IER scores, and high RLO scores more than the those who did not write. The findings provide valuable inputs to design effective approaches to motivate students' career intention to be a professional farmer. They furthermore help policymakers to support new-generation citizens' engagement in the farming occupation in Thailand.

Keywords: career intention, high school students, persuasive message, professional farmers, reading and writing.

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Introduction

According to a 2013 survey by the National Statistical Office of Thailand, in 2000, the farmer population in Thailand was approximately 36 million, representing 60% of the total Thai population. In 2010, this figure decreased to 12 million, accounting for only 20% of the total population, and has exhibited a declining trend. By contrast, the Thai population has grown steadily at the annual rate of two percent, driving an increase in rice demand (Department of Provincial Administration, 2016). A decrease in the farmer population could affect the country's future food security.

Many new-generation farmers have had a successful farming career by applying King Rama IX's new agricultural theory and traditional wisdom in conjunction with modern technology. These farmers have been able to generate substantial incomes and settle within a short time—in a manner no different from other occupations. New-generation individuals, however, largely believe the historical picture of the failures and poverty of Thai farmers.

Formal education and its longer curriculums in today's educational institutions are based on the skill set required to succeed in capitalist markets, pushing young people in rural areas to run away from the rice fields (Siamwalla, 2004). Even established farmers prefer their children not inherit their farming occupation because of the inherent difficulties, such as past uncertainties about earnings from rice production. These are key factors for why new-generation citizens reject the farming as an occupation.

Finding approaches to encourage young people living in Thailand's rural areas to accept and attach great importance to farming is critical, especially among high school students, because they are beginning to search for their identity and focusing on academics to prepare for a career and higher education. They will be the country's next generation of farmers. Providing them with correct and current knowledge about farming is, therefore, important for their futures. Based on this rationale, a study of the promotion of the career intention to be a professional farmer to high school students' in Thailand was considered in this research. This study investigated the effectiveness of reading and writing a persuasive message on career intention to be a professional farmer among high school students.

Purposes of the study to explore the effectiveness of reading and writing a persuasive message on career intention to be a professional farmer among high school students in Thailand rural.

1. Career Intention to be a Professional Farmer: This study explored the vocational intention of high school students in Thailand. The vocational intention in this study was a farming vocation. Vocational intention is one of the behavioral intention types. Behavioral intention relates to behavior in accordance with the theory of reasoned action introduced by Ajzen & Fishbein (1980). This theory aims to explain the relationship between attitudes and behavior within human action, and their effects on human behavior when engaging in a particular behavior.

Behavioral intention is a subset of attitude. Attitude can be divided into three components (Bhanthumnavin, 1988; Eagly & Chaiken, 1993;Suprawan, 2017): 1) a cognitive component relating to evaluation of an individual as useful–harmful or valuable–invaluable to act, 2) an affective component relating to the individual as satisfied or unsatisfied to act and 3) a behavioral intention component relating to intention or readiness to act.

For this study, a behavioral intention component was a dependent variable.

To acquire high potentiality for effectiveness in conducting research, the researchers have determined the components of the intentions as three components that apply ambidextrous organization theory. This theory explains an organizational ambidexterity that requires the organizations to manage exploration and exploitation techniques to be successful (March, 1991; Mom, Van Den Bosch, & Volberda, 2007; Prieto, Revilla, & Rodríguez-Prado, 2009; Seo, Chae, & Lee, 2015)and consists of (1) *Intention to exploit farming knowledge* (IET), which refers to intention or the readiness of the students to act to promote and exploit their knowledge concerning the farming; (2) *Intention to explore farming knowledge* (IER), which refers to the intention or readiness of the students to act by searching and exploring knowledge related to the farming; and (3) *Recognition of farming learning opportunity* (RLO), which refers to the recognition of the value and importance of information, news, and various activities around the students related to the farming.

2. Persuasions: In this research, the persuasions were the manipulated variables, that is, two of the three independent variables. The persuasions were classified into two types, namely, persuasive reading and persuasive writing. The details of these two types are as follows;

2.1 Reading persuasive messages (RPM) is a method to change an attitude of an individual through the transmission of media, such as articles or speeches, through various channels that can cause agreement in the recipient. Individuals process the new information with their own knowledge to cause attitude change (Wibulsawat, 1985). It has been suggested

that the presentation of content or knowledge of a persuasive message to cause attitude change can be performed by using two methods: 1) the presentation of a one-sided message, that is, to only present either supportive or contradictory content; 2) the presentation of a two-sided message, which is to present both supportive and contradictory contents (Bettinghaus, 1968). Furthermore, many studies related to persuasion for attitude change have used an RPM (e.g., Kengsakul, 2005; Panyasakulwong, 2012; Pet-in, 2012; Singhato, Rojroongwasinkul, & Charoonruk, 2017)

In this study, positive messages were selected to point out the advantages of being a farmer. The benefits mentioned in the message of this study are divided into three aspects: 1) Benefits to oneself, for example, farmers are self-employed and earn substantial income 2) Benefits to family, for example, being an innovative farmer is to inherit the occupation of ancestors and there is no need to move away from hometown and family for work. 3) Benefits to the society, for example, being an innovative farmer, guarantees the nation's food security and occupational wisdom of the nation.

2.1 Writing persuasive messages (WPM) allows the target group to practice reasoning the benefits or advantages of being professional farmers. This practice was derived from the concept of immunity according to the psychological approach of McGuire (1969). The concept suggests that an individual can search for evidence to persuade or defend an argument when they are emotionally influenced. This search makes the individual's thoughts and behaviors firmer or strengthens their immunity. WPM has attracted attention in Thailand. For instance, Termkunanon (2010), Kengsakul (2005) and Panyasakulwong (2012).

In this study, the experimental group of students was asked to defend an argument by writing the benefits and advantages of being professional farmers. They composed a verbal persuasion essay for being farmers on this topic: convince your friends to agree with the idea of being farmers and persuade friends or relatives to become farmers.

3. Agriculture Vocational Personality (AVP) is realistic (R) type, that is, 1 of 6 personalities in the vocational personality theory offered by Holland (1973).

Personality means that individuals with this personality tend to engage in activities that use tools and machines. They love outdoor activities and activities that promote muscular strength but dislike socialization or educational activities. They are better at actions than expressing opinions. Therefore, in this study, the AVP is defined as the perception of personality for students who love working with tools and being innovative, taking a good care

of pets, matching and collecting things, cooking, being doers rather than thinkers, and outdoor activities.

The results from Nauta (2010) summarized the development and status of Holland's theory of vocational personality over the past 50 years and indicated that the theory is a quality theory in terms of empirical measurement and user-friendliness, with numerous supporting empirical data. The result also indicated that each individual's personality has an influence on attitudes, including career satisfaction, work motivations and values, career preparation, career choice and vocational interests(Chinpinklieo, 1994; Ishitani, 2010; Pike., 2006; Rogers, Creed, & Glendon, 2008; Schröder, Schmitt-Rodermund, Arnaud, 2011; Treephan, 2003).

4. Hypotheses

H1. Students who read or wrote persuasive messages had high IET, IER, or RLO scores, compared with students who did not.

H2. Students who read and wrote persuasive messages and had high AVP scores had higher IET, IER, or RLO scores than students who did not read or write persuasive messages and had low AVP scores. Conceptual framework

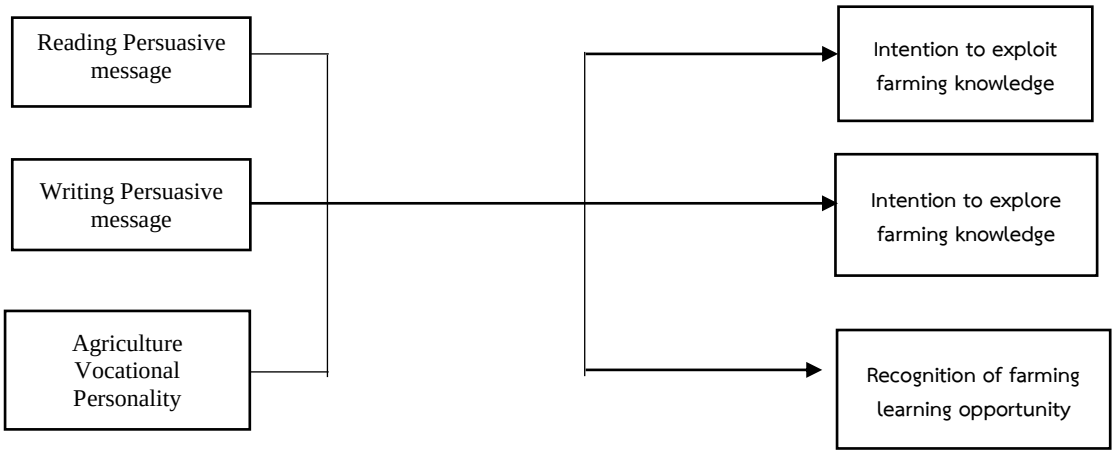

Figure 1 Conceptual framework of the experimental study

Methods

1. Population and process of samples: The population in this experimental research are high school students of grade 10 and 11 because students of this age are searching for identity and preparing to apply knowledge for career preparation or pursue higher education. More importantly, these young people will drive the country in the near future. In this study, selected schools are high schools located closely to farming because the study emphasizes on farmers. The students who are closely related to farmers will have an understanding of the career which is beneficial to better understand the questionnaire.

The study was conducted in the central region of Thailand as the region has the highest rice production.

This research is posttest-only with a control group design achieved by dividing the sample of students into four groups. The groups were placed in different rooms by randomly assigning students without bias (random assignment) and distributing measures into four groups of students: (1) Group 1 read and wrote persuasive messages (n=169); (2) Group 2 read but did not write persuasive messages (wrote controlled message instead) (n = 163); (3) Group 3 did not read persuasive messages (read controlled messages instead) but wrote persuasive messages (n=157); and (4) Group 4 neither read nor wrote persuasive messages (read and wrote controlled messages instead) (n=163).

2. Experimental Methods: The researcher contacted high school officers and asked for their collaboration to conduct a study on students (Grades 10 and 11). Next, the researcher sent a letter of request to the school director for approval and schedules were arranged to collect the data by using experimental methods.

Firstly, when students were properly seated, the researcher gave the measures in a horizontal order. There were four types of measures according to the number of participant groups mentioned, which were already arranged in a numerical order (1 2 3 4, 1 2 3 4).

Secondly, for the first classification, Groups 1 and 2 were asked to read a persuasive message regarding the background, importance, and benefits of farming. Additionally, Groups 3 and 4 were asked to read the controlled reading.

Thirdly, after the first level of classification, the students were further divided. Groups 1 and 3 were asked to write a persuasive message to convince others regarding the background, importance, and benefits of farmers. Groups 2 and 4 were asked to write a controlled material. All students were required to answer four questions and given 15 minutes to complete their tasks.

Penultimately, all students received measures to evaluate the resulting variables, manipulation check, psychological traits, situations, psychological states, and biosocial backgrounds of students. Finally, data was collected for analysis.

3. Manipulated Variables: This experimental research was divided into two parts: reading and writing persuasive messages (1) The students read either a persuasive or controlled message, with a 10-minute time limit. (2) The students wrote either a persuasive or controlled message with a time limit of 15 minutes.

4. Measures: The variables in this study were mostly measured by using a summated rating method with 6-point scale ranging from "absolutely true" to "absolutely not true." Most questionnaires were constructed by the researcher. The questionnaires were in the Thai language.

4.1 Dependent variable measures: the career intention to be professional farmers consisted of three measures. *Firstly*, IET referred to a student's report about the intention to exploit or avoid their knowledge relating to famers. Regarding the content of items, the researcher developed all the new items for this measure: IET with a total of 15 items. The alpha reliability score was 0.86. *Secondly*, IER referred to a student's report about the intention to explore or avoid their knowledge relating to famers. Regarding the content of items, the researcher developed all the new items for this measure: IER with the total of 15 items. The alpha reliability score was 0.90. *Finally*, RLO referred to a student's perception and report about the recognition or non-recognition of farmer learning opportunities. Regarding the contents of items, the researcher developed all the new items for this measure: RLO with the total of 15 items. The alpha reliability score was 0.92.

4.2 Independent variable measures*:* the measure***s*** consisted of two measures.

Firstly, the manipulation check is measure designed to ensure the respondents receive the researcher's intended message and evaluate the extent that the respondents can recall the messages. The questionnaire included extracts of some persuasive readings to evaluate the ability to recall the message. The average score of students who read the persuasive reading was higher than the group of students who did not. In other words, the students who read the persuasive reading could answers questions relating to farmers more correctly than those who did not. *Secondly*, the AVP is based on Holland (1997). AVP is defined as the perception and report of the respondent regarding their personality. The contents of items in this measure were based on a vocational personality measure by Holland (1973). A total of 14 items were selected. Next, the 14 items were translated into the Thai language, which yielded the score reliability of 0.79.

4.3 Manipulation Check: The measure was designed to ensure that the respondents receive the researcher's intended message and evaluate the extent that the respondents are able to recall the messages. The measure was created by the researcher and there are a total of 20 questions. When the answer is 'correct,' the students will receive 6 points on the condition that they answered both 'correct' with 'high confidence'; 5 points will be granted to those who answered 'correct' with 'medium confidence' and 4 points for 'low

confidence' respectively. However, if they answered wrongly, 3 points will be given to those who answered 'wrong' and 'low confidence,' 2 points for 'wrong' and 'medium confidence' answers, and 1 point for 'wrong' and 'high confidence' answer. Therefore, the score will range from 20 points to 120 points. It could be implied from the study that the students with high score correctly answered according to the content in the persuasive material.

The average scores of students (n = 332, average scores = 74.14, SD = .48) who read the persuasive material report higher scores than the non reading students (n=320, average scores = 67.73, SD = .47). It was found that students who read the persuasive message about farmer career were able to answers the questions more correctly than those who did not (F = 90.49, p < .001, prediction = 12.80%). The details show in Table 1.

Table 1 Result of Manipulation Check in Total samples

(Section 1)

N	F	**%**prediction
652	90.49***	12.80

Note: *** p < .001

(Section 2)

Comparing of manipulated average score					
		95% Confidence Interval		correlation coefficient (r)	Effect site (Cohen's d)
Reading Group (SD)	Non reading Group (SD)	Lower Bound High, Low	Upper Bound High, Low		
74.14 (.48)	67.73 (.47)	68.66, 66.81	75.09,73.20	0.98	13.49

Results

The three-way analysis of variance with a post hoc test in terms of Scheffe' to examine *H1* and *H2* was significantly different at 0.5 when using SPSS software.

In this section, a three-way analysis of variance was performed on a group of dependent variables consisting of three variables: 1) IET, 2) IER, and 3) RLO by using RPM, WPM, and AVP as independent variables.

A three-way analysis of variance was performed on the following dependent variables: 1) IET, 2) IER, and 3) RLO by using the following independent variables: 1) RPM, 2) WPM, and 3) AVP. The details are as follows:

The RPM consisted of 332 students (50.92%) who read the persuasive message and 330 (49.08%) who did not. The WPM consisted of 326 students (50.00%) who wrote the persuasive message and 326 (50.00%) who did not.

The students' AVP ranged from 21 to 79, with an average of 49.37, median of 48.00, and standard deviation of 8.81. Using median as a cutting point to divide the score into two groups. It was found that 362 students (55.52%) had high scores and 290 students (44.48%) had low scores.

The data was analyzed in the total sample and other four subgroups based on students' biosocial backgrounds: 1) high age, 2) low age, 3) low grade point averages (GPAs), and (4) high GPAs (for the rest see the dissertation). The details are as follows:

1. Three-Way Analysis of Variance of IET According to RPM, WPM, and AVP: This section shows that scores of the IET were significantly different according to the level of each independent variable. A comparison mean of groups divided by the levels of independent variable found that 1) students who read the persuasive message reported higher IET scores than students did not, and this result was found in the total sample and all subgroups; 2) students who wrote the persuasive message reported high IET scores more than students who did not, and this result was found in students with a high age. And 3) students who reported high AVP scores reported high IET scores more than students who reported low AVP scores, and this result was found in the total sample and three subgroups. The significant group was students with a high age (Table 2).

Furthermore, a two-way interaction between WPM and AVP was found in students with a low age. After performing a post hoc test in terms of Scheffe' (Table 3), the results revealed one significant pair of means: among students who wrote persuasive messages, those who reported high AVP scores reported high IET scores more frequently than the students reported low AVP scores. Notably, a three-way interaction was not observed

Table 2 Three-way analysis of variance of intention to exploit farmer knowledge by the level of reading persuasive messages, writing persuasive message, and agriculture vocational personality

Group	Frequency	F							% Prediction
		RPM (A)	WPM (B)	AVP (C)	Ax B	Ax C	Bx C	Ax Bx C	
Total	652	39.11***	2.59	23.18***	<1	<1	1.12	0.02	10.5
Low Age	330	11.05***	<1	2.66	<1	<1	4.80*	<1	4.6
High Age	322	28.64***	5.14*	24.587***	<1	<1	<1	<1	18.9
Low GPA	326	37.05***	2.31	19.50***	<1	<1	<1	1.58	18.5
High GPA	326	7.76**	1.15	7.29**	1.58	<1	1.73	<1	6.8

Note: * p < 0.05, ** p < 0.01, *** p < .001

Table 3 Result of comparing average scores of intention to exploit farmer knowledge by writing persuasive messages and agriculture vocational personality in the low age students

WPM	AVP	n	Code	Mean (SD)	11 64.41	12 63.68	21 61.35
wrote	high	80	22	66.33 (10.61)	1.92	2.65	4.98*
don't write	low	89	11	64.41 (14.64)		0.73	3.06
don't write	high	70	12	63.68 (10.59)			2.33
wrote	low	91	21	61.35 (13.18)			

Note: * p < .05

2. Three-way analysis of variance of intention to explore farmer knowledge (IER) according to reading persuasive messages (RPM), writing persuasive messages (WPM), and agriculture vocational personality (AVP): This section showed that IER scores were significantly different according to the level of each independent variable. A comparison mean of groups divided by the levels of independent variable found that 1) students who read the persuasive message reported high IER scores more than students who did not, and this result was found in the total sample and all subgroups. 2) Students who wrote persuasive messages reported high IER scores more than students who did not, and this result was found in students with high age. And 3) students who reported high AVP scores reported high IER scores more than students who reported low AVP scores, and this result was found in the total sample and all subgroups. The significant group was students with a high age (Table 4).

Furthermore, a two-way interaction between RPM and AVP was found, and this finding was in the total sample (Table 5) and two subgroups: students with low age (Table 6) and students with high GPAs (Table 7). After performing a post hoc test in terms of Scheffe', the results revealed three significant pairs of means.1) Students who read persuasive messages and reported high AVP scores reported high IER scores more than students who did not read persuasive messages and reported low AVP scores.2) Among students who read persuasive messages, the ones who reported high AVP scores reported high IER scores more than those who reported low AVP scores.And 3) among students who reported high AVP scores, those who read persuasive messages reported high IER scores more than those who did not. Additionally, the test, in terms of Scheffe', displays a significant finding: students who reported the highest IER score were those who read persuasive messages and reported high AVP scores.

In addition, a three-way interaction between RPM, WPM, and AVP was found, and this finding was in the students with low age. After performing a post hoc test in terms of Scheffe' (Table 8), the results revealed three significant pairs of means. 1) Students who read persuasive messages, wrote persuasive messages, and reported high AVP scores reported high IER scores more than students who did not read, did not write, and reported low AVP scores.

Table 4 Three-way analysis of variance of intention to explore farmer knowledge by reading persuasive messages, writing persuasive messages, and agriculture vocational personality

Group	Frequency	F							
		RPM (A)	WPM (B)	AVP (C)	Ax B	Ax C	Bx C	Ax Bx C	% Prediction
Total	652	38.46***	1.66	28.08***	<1	8.47**	1.8	1.02	12.2
Low Age	330	10.48***	<1	4.23*	<1	7.31*	1.9	4.43*	8.6
High Age	322	30.54***	4.25*	30.15***	1.19	1.6	1.15	<1	20.5
Low GPA	326	28.56***	2.44	25.06***	<1	3.61	<1	<1	18.4
High GPA	326	12.37***	<1	6.83**	<1	4.52*	3.37	3.64	9.1

Note: * p < 0.05, ** p < 0.01, *** p < .001

Table 5 Result of comparing the average score of intention to explore farmer knowledge by reading persuasive messages and agriculture vocational personality in the total sample

RPM	AVP	n	Code	Mean (SD)	21 59.14	12 58.31	11 56.11
read	high	168	22	66.71 (12.19)	7.57*	8.40*	10.60*
read	low	164	21	59.14 (10.08)		0.83	3.03*
didn't read	high	122	12	58.31 (9.69)			2.20
didn't read	low	198	11	56.11 (13.21)			

Note: * p < .05

Table 6 Result of comparing average score of intention to explore farmer knowledge by readingpersuasive messages and agriculture vocational personality in the students with a low age

RPM	AVP	n	Code	Mean(SD)	**21 59.28**	**11 58.59**	**12 57.75**
read	high	73	22	65.41(11.81)	6.13*	6.82*	7.66*
read	low	76	21	59.28(11.29)		0.69	1.52
didn't read	low	104	11	58.59(12.22)			0.84
didn'tread	high	72	12	57.75(10.45)			

Note: * p < .05

Table 7 Result of comparing average score of intention to explore farmer knowledge by reading persuasive message and agriculture vocational personality in the students with high average grade

RPM	AVP	n	Code	Mean(SD)	21 60.23	12 59.04	11 58.39
read	high	74	22	66.50(12.93)	6.26*	7.46*	8.10*
read	low	92	21	60.23(10.72)		1.20	1.84
didn't read	high	57	12	59.04(10.95)			0.64
didn'tread	low	103	11	58.39(11.94)			

Note: * p < .05

2) Among students who read persuasive messages and wrote persuasive messages, those who reported high AVP scores reported high IER scores more than those who reported low AVP scores. And 3) among students who wrote persuasive messages and reported high AVP scores, those who read persuasive messages reported higher IER scores than those who did not.

Table 8 Result of comparing average score of intention to explore farmer knowledge by reading persuasive messages, writing persuasive messages, and agriculture vocational personality in the low age students

RPM	WPM	AVP	n	Code	Mean (SD)	212 63.42	211 61.78	121 58.89	112 58.39	111 58.29	122 57.12	221 56.78
					67.40						10.28	10.63
read	wrote	high	47	222	(13.65)	3.99	5.63*	8.51*	9.02*	9.12*	*	*
read	didn't				63.42							
	write	high	31	212	(11.46)		1.64	4.53	5.03	5.13*	6.30*	6.64*
read	didn't				61.78							
	write	low	40	211	(10.01)			2.88	3.39	3.49	4.65	5.00
didn't					58.89							
read	wrote	low	55	121	(12.07)				0.51	0.60	1.77	2.11
didn't	didn't				58.39							
read	write	high	39	112	(11.99)					0.10	1.26	1.61
didn't	didn't				58.29							
read	write	low	49	111	(11.19)						1.17	1.51

Table 8

RPM	WPM	AVP	n	Code	Mean (SD)	212 63.42	211 61.78	121 58.89	112 58.39	111 58.29	122 57.12	221 56.78
didn't	Wrote				57.12							
read		high	33	122	(9.80)							0.34
	wrote				56.78							
read		low	36	221	(11.15)							

Note: * $p < .05$

3. Three-way analysis of variance of recognition of farmer learning opportunity (RLO) according to reading persuasive messages (RPM), writing persuasive messages (WPM), and agriculture vocational personality (AVP): This section showed that cores of the RLO were significantly different according to the level of each independent variable. A comparison mean of groups divided by the levels of independent variable found that 1) students who read persuasive messages reported high RLO scores more than students who did not, and this result was found in the total sample and all subgroups. And 2) students who reported high AVP scores reported high RLO scores more than students who reported low AVP scores, and this result was found in the total sample and two subgroups. The significant group was students with a high age and students with low GPAs (Table 9).

Furthermore, a two-way interaction between the RPM and AVP was found in the total sample and three subgroups. The significant group was students with a high age. After performing a post hoc test in terms of Scheffe', the results revealed 3 significant pairs of means (Table 9). 1) Students who read persuasive messages and reported high AVP scores reported high RLO scores more than students who did not read and reported low AVP scores. 2) Among students who read persuasive messages, the ones who reported high AVP scores reported high RLO scores more than the ones who reported low AVP scores. And 3) among students who reported high AVP scores, those who read a persuasive message reported high RLO scores more than the ones who did not read. And the test in terms of Scheffe' displays a significant finding: students who reported the highest score of the RLO were those who read the persuasive messages and reported high AVP scores.

Table 9Three-way analysis of variance of recognition of farmer learning opportunities by reading persuasive messages, writing persuasive messages, and agriculture vocational personality

Group	Frequency	F							
		RPM (A)	WPM (B)	AVP (C)	Ax B	Ax C	Bx C	Ax Bx C	% Prediction
Total	652	29.50***	<1	11.92***	<1	8.99**	<1	<1	7.9
Low Age	330	5.33*	1.02	<1	<1	<1	2.4	7.02**	5.0
High Age	322	32.47***	2.36	19.67***	1.17	10.62***	<1	3.57	20.1
Low GPA	326	22.53***	<1	13.98***	<1	4.56*	<1	1.87	13.6
High GPA	326	9.48**	1.37	2.57	<1	4.88*	2.92	4.88*	7.6

Note: * p < .05

In addition, a three-way interaction between RPM, WPM, and AVP was found, and this finding was evidently in the students with a low age and students with a high grade point average. After performing a post hoc test in terms of Scheffe' (Tables 10 and 11), the results revealed 5 significant pairs of means in the students with a low age. 1) Students who read persuasive messages, wrote persuasive messages, and reported high AVP scores reported high RLO scores more than students who did not read, did not write, and reported low AVP scores. 2) Among students who read persuasive messages and wrote persuasive messages, those who reported high AVP scores reported high RLO scores more than those who reported low AVP scores. 3) Among students who wrote persuasive messages and reported high AVP scores, those who read persuasive messages reported high RLO scores more than those who did not read; notably, the findings of 1) to 3) were also found in students with high GPAs. 4) Among students who did not write persuasive messages and reported low AVP scores, those who read persuasive messages reported high RLO scores more than those who did not read. 5) Among students who read persuasive messages and reported low AVP scores, those who wrote persuasive messages reported high RLO scores more than those who did not write.

These results also revealed two significant findings in the students with high GPAs (Table 12). 1) Among students who read persuasive messages and reported high AVP scores, those who wrote persuasive messages reported high RLO scores more than those who did not write. Ad 2) the test in terms of Scheffe' displays a significant finding: students who reported the highest RLO scores were those who read persuasive messages, wrote persuasive messages, and reported high agriculture vocational personality.

Table 10 Result of comparing average score of recognition to farmer learning opportunity by reading persuasive messages, writing persuasive messages, and agriculture vocational personality in the low age students

RPM	WPM	AVP	n	Code	Mean (SD)	222 61.45	212 56.71	121 55.29	112 55.05	111 54.43	221 52.47	122 52.15
	don't				62.08							
read	write	low	40	211	(15.20)	0.63	5.37	6.78*	7.02*	7.65*	9.60*	9.92*
read					61.45							
	wrote	high	47	222	(16.97)		4.74	6.16	6.40	7.02*	8.98*	9.30*
read	don't				56.71							
	write	high	31	212	(15.05)			1.42	1.66	2.28	4.24	4.56
didn't					55.29							
read	wrote	low	55	121	(15.54)				0.24	0.86	2.82	3.14
didn't	don't				55.05							
read	write	high	39	112	(12.64)					0.62	2.58	2.90
didn't	don't				54.43							
read	write	low	49	111	(15.23)						1.96	2.28
	wrote				52.47							
read		low	36	221	(16.17)							0.32
didn't	wrote				52.15							
read		high	33	122	(14.57)							

Note: * p < .05

Table 11 Result of comparing average score of recognition to farmer learning opportunity by reading persuasive messages, writing persuasive messages, and agriculture vocational personality in the high average grade study

RPM	WPM	AVP	n	Code	Mean (SD)	211 59.02	212 58.83	121 56.53	221 54.94	122 54.58	111 54.35	112 54.16
read					68.61	9.58	9.77	12.07	13.67	14.03	14.25	14.44
	wrote	high	38	222	(14.75)	*	*	*	*	*	*	*
read	didn't				59.02							
	write	low	44	211	(15.43)		0.19	2.49	4.09	4.45	4.67	4.86
read	didn't				58.83							
	write	high	36	212	(16.08)			2.30	3.90	4.26	4.48	4.67
didn't	wrote				56.53							
read		low	49	121	(15.80)				1.59	1.95	2.18	2.37

Table 11

RPM	WPM	AVP	n	Code	Mean (SD)	211 59.02	212 58.83	121 56.53	221 54.94	122 54.58	111 54.35	112 54.16
	wrote				54.94							
read		low	48	221	(17.63)					0.36	0.59	0.78
didn't	wrote				54.58							
read		high	26	122	(15.57)						0.23	0.42
didn't	didn't				54.35							
read	write	low	54	111	(14.74)							0.19
didn't	didn't				54.16							
read	write	high	31	112	(13.19)							

Note: *p < .05

Table 12 Result of comparing average score of recognition to farmer learning opportunity by reading persuasive messages and agriculture vocational personality in the total sample

RPM	AVP	n	Code	Mean (SD)	21 54.87	12 52.46	11 51.90
read	high	168	22	62.75(16.50)	7.87*	10.29*	10.84*
read	low	164	21	54.87(16.66)		2.42	2.97
didn't read	high	122	12	52.46(14.89)			0.56
didn't read	low	198	11	51.90(15.16)			

Note: * p < .05

Discussion and Research Implications

The findings from the three-way analysis of variance of the three dependent variables (i.e., IET, IER, and RLO) according to the three independent variables (i.e., RPM, WPM, and AVP).

Main effect and simple effect results from the three-way analysis of variance revealed the supportive results of *H1*.

The results showed that RPM affected all dependent variables in the total sample and all subgroups. WPM affected 1 dependent variable in some subgroups, and the results were as follows: 1) the students who wrote persuasive messages reported high IET scores more than students who did not write persuasive messages. This result was found in students with a high age; 2) the students who wrote persuasive messages reported high IER scores more than students who did not write persuasive messages.This result was found in two significant

subgroups: students with a high age, and the low age students who read persuasive messages and reported high AVP scores; and 3) the students who wrote persuasive messages reported RLO scores more than students who did not write persuasive messages.This result was found in two significant subgroups: low age students who read persuasive messages and reported high AVP scores, and high GPAs students who read persuasive messages and reported high AVP scores. This finding consistent the previous studies (Kengsakul, 2005;Khantreejitranon,2018; Panyasakulwong, 2012; Pet-in, 2012; Rajh-Arch, 2005; Termkunanon, 2010).

This section could be summarized as follows: 1) RPM affected all dependent variables (i.e., IET, IER, and RLO) in total group and all subgroups, and 2) WPM affected on the dependent variables in some subgroups.

The three-way interaction results from the three-way analysis of variance support *H2* in some subgroups. Details are as follows.

1) Students with a low age who read persuasive messages, wrote persuasive messages, and reported high AVP scores reported high IER scores more than students with a low age who did not read persuasive messages, did not write persuasive messages, and reported low AVP scores. Furthermore, the students who had the highest IER scores were those who wrote persuasive messages and reported high AVP scores.

2) Students who read persuasive messages, wrote persuasive messages, and reported high AVP scores reported high RLO scores more than students who did not read persuasive messages, did not write persuasive messages, and reported low AVP scores. This result was found in students with a low age, and students with high GPAs. Furthermore, the low age students who had the highest RLO scores were those who read the persuasive messages and reported high AVP scores. The students with high GPAs who had the highest RLO scores were those who read persuasive messages, wrote persuasive messages, and reported high AVP scores.

The literature related to career personality issues (Pike, 2006; Rogers, Creed, and Glendon, 2008; Elke, Schmitt-Rodermund, & Arnaud, 2011) have found consistent results: personality relates to decision-making to engage activity, job satisfaction, career preparation, and career choices. Additionally, the literature related to RPM and WPM have found consistent results: students who read and wrote persuasive messages reported high desirable behavior scores and intention to act desirable behavior scores more than students who did not read and write the persuasive messages (e.g., Panyasakulwong, 2012, and Termkunanon, 2010)

This section could be summarized in that three independent variables (i.e., RPM, WPM, and AVP) affected the three dependent variables (i.e., IET, IER, and RLO) in some subgroups, namely, 1) students with low age were affected by the three independent variables in IER and RLO, and 2) students with high GPA were affected by the three independent variables in RLO.

The research implications are as follows. *First*, this study was experimental research to test the causes and consequences of manipulation, including reading and WPM, on the career intention of high school students to become professional farmers. *Second*, this study covers experimental research on the cultivation of attitude and intention of young generations to become professional farmers. Unlike the literature involving the career of farmers, this research put additional situational factors into the analysis, namely, the perception of social norms from family, friends, school, and media. With an emphasis on the study of particular groups at particular locations, this study realizes other aspects in promoting the career on a wider scale. However, this study integrated the psychology or behavioral science to evaluate the effectiveness of persuasive material on the career intention to become professional farmers and build encouragement to become professional farmers among Thai youths in the future. *Third*, the measures in this study were partly adapted from quality measures developed by other researchers, from Thailand and other countries, for the suitability of social context and behavior of participant groups. These measures are, therefore, high-quality, according to the study's objectives. Another part of the measures was developed by the researcher according to the collection of related data to ensure that the measures had sufficient quality to be qualified by experts. Furthermore, item discrimination, item total discrimination, and reliability were reported in the measures to demonstrate the quality of trustworthy tools during the measures, which can be further researched and developed. *Fourth*, the number of participants engaged in this study greatly exceeds the standard requirement and contributed to a more accurate study result. Moreover, the study was conducted on participants closely associated with the building of the new-generation farmers because they live in the central region of Thailand, which is regarded as arable land for farming. *Fifth*, this study evaluated the readiness to commit a new approach regarding three aspects according to the theory of ambidextrous organization: 1) intention to exploit farmer knowledge, 2) intention to explore farmer knowledge, and 3) recognition of farmer learning opportunities. As a result, the study result became more oriented. These aspects were broadly studied and tested, and it was found that the balance of the three aspects contribute to the

effective accomplishment at the individual and organizational levels (Good, & Michel, 2013; He & Wong, 2004; Ng, Rungtusanathan, Zhao, & Lee, 2015).*Finally*, the persuasive reading, in this study, was developed by the researcher according to the collected data to ensure that the content was accurate, up-to-date, and suitable. The material explained the advantages of farmers and disadvantages of the inexistence of farmers in three aspects: 1) individual 2) family and 3) society. The material was first approved by educational professors before put into the study. It was found that the students who read the persuasive material showed more intention to becoming professional farmers, compared with those who did not read the material (controlled material). Similar results were reported in the overall group and every subgroup, which demonstrated the quality of the persuasive material and can be further applied in future research.

Limitations of the study are as follows. *First*, a long-term comparison should be conducted to understand the effectiveness of persuasive material on the career intention of students to become professional farmers. *Second*, the study involves several types of variables that resulted in many versions of the questionnaire for evaluation. Because the participants spent a lot of time answering questions, they easily felt bored; for this reason, they may have provided inaccurate responses. To minimize this risk, the researcher must encourage the participants by offering small gifts to the respondents from a lucky draw activity and encourage them to complete the questionnaire with patience and submit the questionnaire on time.

Conclusion and Recommendation

This experimental study investigated the effectiveness of reading and WPM on career intention to be professional farmers in 652 high school students.

The main effect and simple effect results from a three-way analysis of variance revealed the effectiveness of RPM on all the dependent variables, and WPM affected the dependent variables (e.g., IET and IER) in some subgroups.

The three-way interaction results from the three-way analysis of variance showed 1) the low age students who had the highest IER scores were those who wrote persuasive messages and reported high AVP scores; 2) the low age students with the highest RLO scores were those who read the persuasive message and had high AVP scores, 3) and the students with a high GPA who had the highest RLO scores were those who read persuasive messages, wrote persuasive messages, and reported high AVP scores.

According to the study result, practical suggestions to encourage young generations to become professional farmers are as follows:

First, it was observed that RPM in this research was effective regarding the change of attitude and career intention to become professional farmers. Therefore, any institution trying to promote the understanding of farmers among high school students can apply this reading material because it is concise and thus requires less time to complete the reading together with other activities.

Second, it was suggested that WPM is effective among older students and positively affected their intention to exploit farmer knowledge and intention to explore farmer knowledge. The younger group of students might have limited information about the career, partly due to their perception that it is too early for them to prepare for the career, which contradicts the older students who should be readier for career preparation. Because older students presumably have more career information including about farmers, WPM was more effective in older students than younger students.

Finally, this research found that the low age students who read persuasive messages, wrote persuasive messages, and reported high AVP scores reported high IER and RLO scores more than students who did not read, did not write, and reported low AVP scores. It can be indicated from the study result that WPM will be effective in young students on the condition they have more agricultural personality together with the perception of farmer career information. Therefore, it is significant for educational institutions to provide more career information to younger students that relates to their personality type to encourage them to achieve future career success.

According to the study result, here are suggestions for future research. First, regarding the research involving the study of attitude or behavioral intention, it is suggested that the determination of variables should be well-established, similar to this research which studied the variables from three aspects: the intention to exploit an opportunity, the intention to explore for new opportunities, and the recognition of opportunities. Consequently, the study result will be clearer and more inclusive. Second, for a more effective study result, it is suggested to conduct a longitudinal study to evaluate the result of persuasive manipulation periodically on young people living in areas with the potential for cultivation or farming.

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