

## Research Article

## THE PSYCHOSOCIAL FACTORS RELATED TO STUDENT SILENCE IN ANSWERING TEACHER QUESTIONS

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Duangkamon Suanthong<sup>1\*</sup><sup>1</sup>Faculty of Education, Thailand National Sports University, Phetchabun 67000, Thailand

\*Corresponding Author, E-mail: dktnsupnb@gmail.com

**Abstract**

The purposes of this research were to study the relationship between the psychosocial factors and student silence in answering teacher questions and to explore the key predictive factors of student silence behavior in answering teacher questions. 140 students of Bachelor of Education Program, year 1-4, 2019, obtained by stratified sampling. The record forms of silence behavior in answering teacher questions and the questionnaire were used to collect the data. The questionnaire consisted of two main parts: general data and questions about silence behavior in answering teacher questions which measured the reliability by Cronbach's Alpha coefficient and the score of internal consistency of the instrument was 0.95. The statistics used in the analysis are Pearson correlation coefficient and Stepwise multiple regression analysis.

Results showed that: the psychosocial factor in the aspect of trained speaking skills positively and significantly affected silence behavior in answering teacher questions (Beta = 0.278,  $p < 0.05$ ). The psychosocial factor in the aspect of self-confidence positively and significantly affected silence behavior in answering teacher questions (Beta = 0.563,  $p < 0.05$ ). The independent variables of the psychosocial factors in all 5 aspects were efficient to predict and describe the dependent variable (Silence behavior in answering teacher questions) at 10.20%. It can be written in the predictive equations of a raw and a standard score as follows.

$$\hat{Y} = 16.104 + 5.461 X_1 - 2.477 X_2 + 11.718 X_3 - 5.471 X_4 - 4.339 X_5$$

$$\hat{Z} = 0.278 X_1 - 0.165 X_2 + 0.563 X_3 - 0.275 X_4 - 0.291 X_5$$

**Keywords:** Classroom Participation, Classroom Silence**Introduction**

Culture has a powerful influence on information related behaviors not only at the most basic level concerning what is considered to be legitimate information but also at the national level Thai society is a society with a high context culture, namely, speaking and expression that require interpretation or ambiguous speaking, along with more use of nonverbal communication. Hall (1976), an anthropologist, stated that a high

context culture mainly focuses on interpersonal relationship and implications rather than frank speaking. Therefore, learning and understanding nonverbal communication will bring correct understanding to audiences.

According to the literature review, it was found that each society pays attention to silently differently. For example, China always uses silence in classrooms due to an influence of its culture (Zhong-hua, 2008, pp. 35-39). It is also a way to show respect to teachers' knowledge as teacher-centered learning. Japan also prefers expressions through silence. According to the culture of Japanese people, they do not like speaking that much but rather focus on outcomes instead (Ishii & Bruneau, 1991). In contrast, people in western countries prefer talking, asking, and exchanging their ideas. Social cultures related to different language expressions in those people also conform to the atmosphere in classrooms of Thailand. To describe, teachers expect students to interact with classmates and teachers during instruction and in-class activities. However, some students do not answer questions, causing silence in classrooms. As a result, the atmosphere is frustrating and communication for instruction is not as successful as it should be. The teacher's methodology is also considered as fatal method and lead to the students who becoming more silent (Cheng, 2000) Self-Efficacy and educators' intervention can help students express themselves in the classroom (Meada, 2017)

Silence behavior is convert behavior. Only students themselves know the reasons why they choose to keep silence and not to answer questions. This silence in expressions may be due to lack of confidence to answer, worries, fear of wrong answers, fear of being teased by classmates, or no understanding of lessons. Some students have inaccurate knowledge about information and conclusions from what has been read (Boonphadung, 2015, pp. 10-20). If teachers find out and understand causes of silence, no answers, or no interaction from students, they will know whether or not their students understand lessons. They will also understand students more and can improve/develop new suitable activities that motivate students to answer questions or have courage to show their opinions in classrooms.

Hence, the researcher, as a lecturer of Faculty of Education, Thailand National Sports University, was interested to study the psychosocial factors related to student silence in answering teacher questions because a key mission of the Education Faculty is to produce physical education teachers with knowledge, communication skills, and teaching proficiency, but many students keep silence in classroom communication. The study aimed to explore which factors caused student silence in answering teacher questions in order to apply the findings for further approaches of student development.

## Objectives

1. To study the relationship between the psychosocial factors and student silence in answering teacher questions.
2. To explore the key predictive factors of student silence behavior in answering teacher questions.

## Scope

**Population:** The population in this research included 350 students of Bachelor of Education Program, year 1-4, 2019.

**Samples:** The samples included 140 students of Bachelor of Education Program from year 1-4, including 37 first year, 36 second year, 29 third year and 38 fourth year students via stratified sampling in the second semester of the 2019 academic year.

#### Variables

1. The independent variables included trained speaking skills, speaking experience, self-confidence, good attitudes toward answering teacher questions, and perceived self-efficacy in speaking.
2. The dependent variable was student silence in answering teacher questions.

#### Conceptual Research

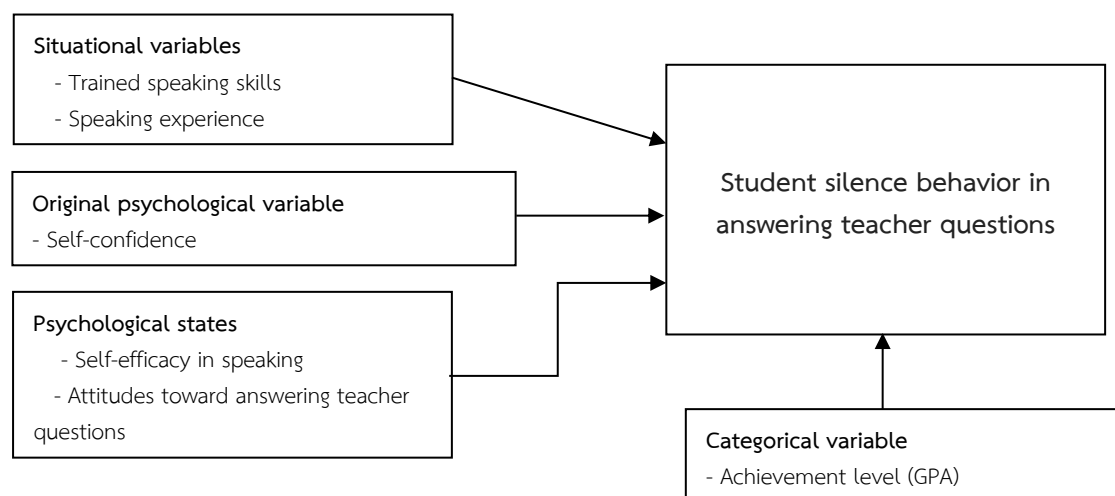
1. This research used the concept of an interactionism model (Magnusson & Endler as cited in Bhanthumnavin, 2006, pp. 169-170) as the framework for document processing and explaining student behavior by considering the external cause, i.e., the situational variables, and the internal causes, i.e., the original psychological variable and the situational psychological variables as the discriminating variables of student silence behavior in answering teacher questions.

2. The following were concepts of studying student behavior related to answering teacher questions.

2.1 Learning styles (Skehan, 1991, pp. 275-298) Skehan defines learning styles as “cognitive, affective, and physiological traits that are relatively stable indicators of how learners perceive, interact with, and respond to the environment”

2.2 The role of teachers to support learning in accordance with the concept of Rogers (1994) that teachers are only facilitators and providers of educational experiences that facilitate learning. Likewise, the concept of Runjiang Xu and Liangguang Huang (2010) views that teacher performance influences their student.

2.3 Bandura’s social cognitive learning theory includes observational learning, self-regulation, and self-efficacy.



**Figure 1** Conceptual Framework

According to processing of these concepts and theories, the conceptual framework was obtained. It included the situation variables, i.e., trained speaking skills and speaking experience; the original psychological variable, i.e., self-confidence; and the situational psychological variables, i.e., perceived self-efficacy in speaking and good attitudes toward answering teacher questions. The categorical variable referred to achievement level. All of the independent variables led to student silence behavior in answering teacher questions.

## Methods

The samples included 140 students of Bachelor of Education Program, which consisted of 37 first year, 36 second year, 29 third year and 38 fourth year students via stratified sampling in the second semester of the 2019 academic year.

Below were the instruments for data collection.

1. The record forms of silence behavior in answering teacher questions, i.e., student self-assessment form and observation form for teachers to assess each individual student. Frequency (number of times) of silent answer or no answer was recorded everyday in February 2020.

2. The questionnaire with 3 parts as follows.

Part 1: General data, i.e., sex, current year of study, and achievement level.

Part 2: 25 questions about silence behavior in answering teacher questions, i.e., trained speaking skills, speaking experience, self-confidence, good attitudes toward answering teacher questions, and perceived self-efficacy in speaking; with 5-rating scale which measured the reliability by Cronbach's Alpha coefficient and the score of internal consistency of the instrument was 0.95.

Part 3: Open-ended questions for opinions and suggestions of answering teacher questions.

The researcher designed and examined the quality of the instruments, which were used later in February 2020. To describe, 1) students were asked to record the number of times of silent answer or no answer, and 2) teachers of all subjects were asked to record the number of times of silent answer or no answer. Then, the data obtained was brought to calculate mean of the number of times of silent answer from each student. The collected scores were analyzed by statistical methods. For the categorization criteria, students with high achievement levels referred to those with  $GPA \geq 75\%$  while students with low achievement levels referred to those with  $GPA < 25\%$ .

### Statistics for Data Analysis

The researcher used the following analytical statistics.

1. Mean, max, min, and SD were used for statistical analysis of the psychosocial factors.
2. Pearson correlation coefficient was used for analyzing the relationship between the psychosocial factors and silence behavior in answering teacher questions.
3. Stepwise multiple regression analysis was used for studying the psychosocial factors that could predict silence behavior in answering teacher questions.

### Compliance with Ethical Standards

The samples in this research were provided written a legal guardian informed consent. The study protocol was approved by the Institute of Physical Education Research Ethics Committee, with research no.017/2563. It was a request for approval of full board review. Date of approval: 20 Jan 2020.

### Results

Part 1: The results of opinion levels of the psychosocial factors related to student silence behavior in answering teacher questions.

The overall opinion level of the psychosocial factors related to student silence behavior in answering teacher questions was high. When considering each aspect, it was found that every aspect was also high. Good attitudes toward answering teacher questions was highest, followed by trained speaking skills, self-confidence, perceived self-efficacy in speaking, and speaking experience, respectively, as in Table 1.

**Table 1** Mean and SD of opinion levels of the psychosocial factors related to student silence behavior in answering teacher questions (N=140).

Psychosocial Factor	$\bar{X}$	SD	Opinion Level
1. Trained speaking skills	4.01	0.58	High
2. Speaking experience	3.61	0.76	High
3. Self-confidence	3.94	0.55	High
4. Good attitudes	4.16	0.58	High
5. Perceived self-efficacy in speaking	3.65	0.77	High
<b>Total</b>	<b>3.87</b>	<b>0.54</b>	<b>High</b>

From Table 1, it was found that every item was high. For trained speaking skills, when considering each item, it was found that 1 item was highest, “Teachers are always the good role models for me in term of speaking and answering questions”. And for good attitudes toward answering teacher questions, it was found that 2 items were highest while the other 3 were high. “I think answering teacher questions is useful to all subjects” was highest, followed by “Answering teacher questions allows me to practice reasonable opinions.”

Part 2: The results of hypothesis testing.

1. For “H1: The psychosocial factors which include the situation variables (Trained speaking skills and speaking experience), the original psychological variable, (Self-confidence), and psychological states (Self-efficacy in speaking and attitudes toward answering teacher questions) are negatively related to silence behavior in answering teacher questions.” The results are displayed in Table 2 and 3.

**Table 2** The analysis of the relationship between the psychosocial factors and student silence in answering teacher questions in the student group with high achievement levels. (N=107)

Psychosocial Factors	Student Silence in Answering Teacher Questions			
	Pearson Correlation (r)	Sig. (2-tailed)	Relationship	Direction
1. Trained speaking skills	0.094	0.336	Not related	-
2. Speaking experience	0.053	0.587	Not related	-
3. Self-confidence	0.147	0.131	Not related	-
4. Good attitudes	- 0.087	0.375	Not related	-
5. Perceived self-efficacy in speaking	0.087	0.375	Not related	-
<b>Total</b>	<b>0.071</b>	<b>0.469</b>	<b>Not related</b>	<b>-</b>

**Table 3** The analysis of the relationship between the psychosocial factors and student silence in answering teacher questions in the student group with low achievement levels. (N=33)

Psychosocial Factors	Student Silence in Answering Teacher Questions			
	Pearson Correlation (r)	Sig. (2-tailed)	Relationship	Direction
1. Trained speaking skills	0.446*	0.009	Related	Same
2. Speaking experience	0.237	0.184	Not related	-
3. Self-confidence	0.331	0.060	Not related	-
4. Good attitudes	0.470*	0.006	Related	Same
5. Perceived self-efficacy in speaking	0.021	0.908	Not related	-
<b>Total</b>	<b>0.326</b>	<b>0.064</b>	<b>Not related</b>	<b>-</b>

\*Significance level of 0.05

According to the analysis results, it was found that the psychosocial factors in the aspects of trained speaking skills, speaking experience, self-confidence, good attitudes toward answering teacher questions, and perceived self-efficacy in speaking were not related to student silence behavior in answering teacher questions in the student group with high achievement levels.

Simultaneously, it was found that the psychosocial factors in the aspects of speaking experience, self-confidence, and perceived self-efficacy in speaking were not related to student silence behavior in answering teacher questions in the student group with low achievement levels. As for the psychosocial factors in the aspects of trained speaking skills and good attitudes toward answering teacher questions were positively and significantly related to student silence behavior in answering teacher questions.

2. For “H2: The psychosocial factors which include the situation variables (Trained speaking skills and speaking experience), the original psychological variable, (Self-confidence), and the situational psychological variables (Perceived self-efficacy in speaking and good attitudes toward answering teacher questions) can predict silence behavior in answering teacher questions;” the results are displayed in Table 4.

**Table 4** The multiple regression analysis of the psychosocial factors affecting silence behavior in answering teacher questions.

Psychosocial Factors	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
Constant	16.104	8.394		1.919	0.057
Trained speaking skills( $X_1$ )	5.461	2.123	0.278	2.572*	0.011
Speaking experience( $X_2$ )	-2.477	2.516	-0.165	-0.985	0.327
Self-confidence( $X_3$ )	11.718	3.562	0.563	3.290*	0.001
Good attitudes( $X_4$ )	-5.471	2.514	-0.275	-2.176*	0.031
Perceived self-efficacy in speaking( $X_5$ )	-4.339	2.495	-0.291	-1.739	0.084
R = 0.319 R <sup>2</sup> = 0.102 Adj R <sup>2</sup> = 0.069 F = 3.046 Sig = 0.000					

\*Significance level of 0.05

According to the analysis, the psychosocial factor in the aspect of trained speaking skills positively and significantly affected silence behavior in answering teacher questions (Beta = 0.278,  $p < 0.05$ ). The psychosocial factor in the aspect of speaking experience did not significantly affect silence behavior in answering teacher questions (Beta = -0.165,  $p > 0.05$ ). The psychosocial factor in the aspect of self-confidence positively and significantly affected silence behavior in answering teacher questions (Beta = 0.563,  $p < 0.05$ ). The psychosocial factor in the aspect of good attitudes toward answering teacher questions negatively and significantly affected silence behavior in answering teacher questions (Beta = -0.275,  $p < 0.05$ ). The psychosocial factor in the aspect of self-efficacy in speaking did not significantly affect silence behavior in answering teacher questions (Beta = -0.291,  $p > 0.05$ ).

The independent variables of the psychosocial factors in all 5 aspects, i.e., trained speaking skills, speaking experience, self-confidence, good attitudes toward answering teacher questions, and perceived self-efficacy in speaking were efficient to predict and describe the dependent variable (Silence behavior in answering teacher questions) at 10.20%. It can be written in the predictive equations of a raw and a standard scores as follows.

$$\hat{Y} = 16.104 + 5.461 X_1 - 2.477 X_2 + 11.718 X_3 - 5.471 X_4 - 4.339 X_5$$

$$\hat{Z} = 0.278 X_1 - 0.165 X_2 + 0.563 X_3 - 0.275 X_4 - 0.291 X_5$$

## Discussion

According to the result, there were key issues for discussion as follows.

1. The psychosocial factors in the aspects of trained speaking skills and good attitudes toward answering teacher questions were positively and significantly related to student silence behavior in answering teacher questions. These conformed to the concepts and theories of promoting answering teacher questions in classrooms, which focus on the role of teachers to promote learning with good relationship between teachers and students (Rothman, 1968); learning styles of Skehan (1991); speaking experience as a learning source; self-confidence with courage to show body language or words (Dittapanya, 2020); and attitudes as well as attitude change (Allport, 1976). These are to promote more courage to answer teacher questions.

2. According to the analysis, the psychosocial factor in the aspect of trained speaking skills and self-confidence positively and significantly affected silence behavior in answering teacher questions, while good attitudes toward answering teacher questions negatively and significantly affected silence behavior in answering teacher questions. These results can be discussed as follow:

2.1 The psychosocial factor in the aspect of trained speaking skills positively and significantly affected silence behavior in answering teacher questions. This implied that despite increasing psychosocial factor in the aspect of trained speaking skills, silence behavior in answering teacher questions increased. This meant it did not promote student behavior in answering teacher questions. The result implied that students always perceived teachers as their good role models in term of speaking and answering questions. However, teachers did not clearly support providing examples of good speaking and answering questions to students, and to let them practice their speaking in class sufficiently; like Treffinger (1995) stated that teachers should train students to have sufficient basic skills. Before self-practice, teachers should direct and let students try by supporting them to participate in speaking activities in different occasions. Teachers should also encourage and assist them in suitable opportunities. Then, let students do it own their own without assistance.

2.2 The psychosocial factor in the aspect of self-confidence positively and significantly affected silence behavior in answering teacher questions. This implied that despite increasing psychosocial factor in the aspect of self-confidence, silence behavior in answering teacher questions increased. This meant it did not promote student behavior in answering teacher questions. The result did not conform to the research of Chaijamrus (2011), who stated that self-confidence was part of individuals' personalities expressing confidence in doing anything successfully as desired, along with explicit assertiveness and confident decision making. This might be due to the overview of no courage to answer teacher questions and to show their opinions against what they disagreed although they actually would like to develop their speaking skills for better.

2.3 The psychosocial factor in the aspect of good attitudes toward answering teacher questions negatively and significantly affected silence behavior in answering teacher questions. This implied that the psychosocial factor in the aspect of good attitudes toward answering teacher questions would reduce silence behavior in answering teacher questions. This meant it help promoting more behavior in answering teacher questions. This was resulted from the overview of students who viewed that answering teacher questions was useful to all subjects; that it allowed them to practice reasonable opinions; and that it increased



their knowledge. This conformed to the concept of attitudes of Triandis (1971), who stated about change of cognitive components. If these components changed in a direction that created knowledge, understanding, and correct thoughts, both cognitive and behavioral components would also change to a good and correct direction.

## **Suggestions**

### **Suggestions from the Research**

According to the results of the study on the psychosocial factors related to student silence in answering teacher questions, it was found that there were 3 aspects significantly affecting silence behavior in answering teacher questions, i.e., trained speaking skills, self-confidence, and good attitudes toward answering teacher questions; with the suggestions as follows.

1. In the aspect of trained speaking skills, teachers must have good relationship with students. Teachers must also accept, understand, be friendly, and promote self-development to students through clear support of sufficient in-class speaking practice. Examples of good speaking and answering questions should also be provided to students.

2. In the aspect of self-confidence, teachers must support and promote explicit assertiveness and confident decision making to students. By doing so, students will have courage to answer teacher questions and to show opinions against what they disagree. Support and promotion can be done by creating atmosphere for a good experience in class. Or it can be done by creating scenarios for learning opportunities or do it all on their own. Teachers should also allow students to show opinions and assigned responsibilities. Initially, teachers instruct/direct students and let them try in order to create their self-confidence.

3. In the aspect of good attitudes toward answering teacher questions, teachers should promote good attitudes toward answering teacher questions. Teachers must pay attention to change of cognitive components. If these components change in a direction that created correct knowledge, understanding, and thoughts toward expected benefits from answering teacher questions which will increase knowledge to students, both cognitive and behavioral components of students will change in a direction that increases behavior of answering teacher questions.

### **Suggestions for Future Research**

1. For more perfection of future studies, two-way ANOVA can be used by bringing demographic characteristics for analysis, too, e.g., sex, age, year of study, and achievement level. This is to examine that whether or not and how these demographic characteristics and these levels of psychosocial factors will affect student silence in answering teacher questions.

2. Future studies should combine a qualitative research with a focus group or an in-depth interview with students in order to examine their opinions toward psychosocial factors and causes of silence behavior in answering teacher questions, and to find out which factors can promote behavior of behavior of answering teacher questions.

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