



## Factors Affecting the Teaching Attitude of High School Agriculture Teachers in the Philippines

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**Abstract** The Enhanced Basic Education Act of 2013, also known as K to 12 Program, primarily aims to bring the Philippine education system at par with international standards through preparing graduates for college education, employment, or entrepreneurship. The Philippines has a clearer model with four Senior High School tracks compared to other countries. As the new program puts focus on student-centered learning, the quality of agriculture teacher education seems to be left behind. Previous literatures show that majority of the Teacher Education Institutions (TEIs) still has not aligned their curriculum to the needs of the K to 12 Program while current high school agriculture teachers have insufficient relevant trainings or seminars that relates to teaching strategies and in-service specialization. Aside from the effect of TEIs, one of the factors that can affect the quality of teachers is their teaching attitude. Teaching attitude encompasses complex topics, but this study focused only on preferences and motivations of high school agriculture teachers as these can be reflected to the interventions done in concurrent challenges in the Philippine education and agriculture. This study employed a semi-structured questionnaire for preferences on teaching and teaching agriculture and motivations in teaching. A five-point Likert-type scale revealed that the median for both preferences was ‘5’ which means most of the respondents have ‘very high’ preferences. This is despite only one (1) among seven (7) respondents stated that the first choice of profession was teaching. Qualitative analysis revealed that respondents encountered challenges in school facilities, professional development focusing on content knowledge, and lack of teaching and non-teaching personnel. The recommendation of this study is to focus on improving the holistic skills of high school agriculture teachers not only in teaching strategies but in content knowledge as well since these relate to their professional development.

**Keywords** teaching attitude, preference and motivation, high school agriculture teachers, content knowledge

### INTRODUCTION

The Enhanced Basic Education Act of 2013, also known as the K to 12 Program, primarily aims to bring the Philippine education system to international standards by preparing graduates for college education, employment, or entrepreneurship. This initiative entails two additional years of basic education, called the Senior High School (SHS) Program. The Philippines’ SHS Program has four tracks with 10 strands which makes it a more detailed model compared to that of Japan and USA (Sarmiento and Orale, 2016).

The four tracks of the Philippines' SHS Program are: Academic; Arts and Design; Sports; and Technical-Vocational-Livelihood (TVL). A school offers a track based on the capability and potentiality of the community where the school is located. Before the students choose a track, they are required to take the exploratory components of the Technology and Livelihood Education (TLE) subject, which includes: Agri-Fishery Arts (AFA), Home Economics (HE), Information and Communications Technology (ICT), and Industrial Arts (IA). (Perolina, personal communication, september, 2019)

The K to 12 Program focuses on student-centered learning, as can be seen in the 2019 Voluntary National Review of the Philippines on the status and implementation of the United Nations' Sustainable Development Goals (SDGs). However, there are still gaps in providing quality education to the students as the Department of Education (DepEd) identified that the proportion of teachers teaching in line with their specialization must be increased. According to the Philippine Business for Education (PBE), as cited by Montemayor (2018), only 20% of the Teacher Education Institutions (TEIs) have aligned their curriculum to the needs of the K to 12 Program. There have been inadequate teacher training programs that can help teachers acquire new knowledge and approaches (Alegado, 2018). Aside from the effect of TEIs and teacher training, one of the factors that can affect the quality of teachers is their teaching attitude. Teaching attitude encompasses complex topics. However, this study focused only on the preferences and motivations of high school agriculture teachers (HSATs).

## **OBJECTIVE**

This study aimed to determine the teaching attitude of HSATs in terms of preferences and motivations since these can be reflected in the interventions done in contemporary challenges of Philippine education and agriculture.

## **METHODOLOGY**

This study utilized Life History Approach (LHA) through one-on-one interviews. LHA does not follow a chronological path as it aims for the participants to tell the story of their lives without obstruction (Bakar and Abdullah, 2008). A total of seven (7) teachers from three (3) public high schools were interviewed from August to October, 2020. There were two (2) teachers from School A, a college preparatory high school and one of the basic education units of University A; two (2) teachers from School B, a science and technology high school; and three (3) teachers from School C, an agro-industrial high school. These schools were chosen to adhere to the primary function of the K to 12 Program, which is to prepare the students for college education, employment, and entrepreneurship, respectively. This study employed a semi-structured questionnaire for teaching and teaching agriculture preferences and motivations in teaching. A five-point type Likert scale (1 as very low preference; 5 as very high preference) was used to determine teaching and teaching agriculture preferences, while open-ended questions were used to identify the challenges encountered. In addition, the teachers were asked to rate the extent of how the challenges affect their teaching.

## **RESULTS AND DISCUSSION**

### **Preferences of High School Agriculture Teachers (HSATs) on 'Teaching as a First Choice of Profession', 'Teaching', and 'Teaching Agriculture'**

Table 1 shows the characteristics and preferences of HSATs on teaching, teaching agriculture, and teaching as the first choice of profession. Four (4) out of seven (7) teachers stated that they have very high preferences for teaching. Teacher A1 stated that teaching was not his first choice since he had other plans when he was in college. Teacher A1, who graduated from BS in Forestry, has been teaching in School A as part-time for four (4) years and as full-time for 29 years. During his part-time teaching in School A, he took the offer to teach agriculture; hence, he had to take his second

degree, BS in Agriculture. He was hired as a full-time teacher before he finished his second degree. He also took units on education which qualified him to take the Licensure Examination for Teachers (LET). However, at that time, he was the appointed principal of School A. Teacher A1 rated a 'high preference' on teaching stating, *"When you are in School A's system, your position is relatively stable but then at the same time you need to satisfy the school's requirements like an advanced degree, publication... things like that. It is stable, and at the same time, you have professional growth since you are required. If you do not take further studies, you will be dismissed from teaching."* Moreover, Teacher A1 rated a 'very high preference' in teaching agriculture stating, *"Some of our students here are really alien on agriculture since most of our students here come from private schools. ... There is a different challenge in high school since you do not just teach them; you also mentor them which sometimes become an additional effort."* Teacher A1 also stated that he shows the actual condition of agriculture in the Philippines not to discourage the students but to challenge them.

Teacher A2 stated that teaching was not her first choice of profession. She took the Licensure Examination for Agricultural Engineer administered by the Professional Regulation Commission (PRC). She tried practicing her expertise in public office for six (6) months, but when she did not feel any professional growth, she resigned then applied for a position in School A instead. Teacher A2 originally wanted to teach college students, but her husband, who has the same course and major as hers, was accepted as a college instructor in University A, where she wanted to teach. She did not pursue applying for the teaching position at University A since she did not want to be in the same working environment with her husband. She also stated, *"I thought to myself, I will just teach here in School A since the topics are somewhat similar."* Teacher A2, who has been in School A for seven (7) years, rated a 'very high preference' on teaching but asked to clarify the question, *"Is this based on what I felt before or what I feel now?"* which may imply that she may have had a lower preference during her early years in teaching since it was not her first choice of profession. Teacher A2 also rated a 'very high preference' in teaching agriculture and stated that she wanted to encourage students to take the same degree as hers or any agriculture-related courses.

Teacher B1, whose major was fish culture in Bachelor of Secondary Education (BSE), teaches crop production in School B. He stated that teaching was not his first choice of profession. According to Teacher B1, *"I took it because back then, it was the only four-year course offered in our province, which sounded very professional."* He has a 'high preference' for teaching because of the stable income while a 'very high preference' on teaching agriculture because of the suitability of crop production in the Philippine setting. Teacher B1, a member of a religious organization, also shared that he wanted to insist agriculture to students since agriculture existed as early as the bible recorded.

Teacher B2 took BS Agricultural Education and technical courses in cookery and pastry. She has developed her interest in teaching during her 40 years of experience but stated that teaching was not her first choice of profession. She shared, *"This was what my family could afford back then. It would have been very expensive had I taken nursing since my siblings and I were simultaneously studying."* Teacher B2 rated both preferences on teaching and teaching agriculture as 'very high' because of having a stable income.

Teacher C1 stated that he originally wanted to work overseas on a different job despite graduating with a degree in BSE. He was underqualified with the work he applied for overseas. Therefore, he decided to settle in the Philippines and apply for a teaching position in School C. This was also why he rated 'high preference' on both teaching and teaching agriculture.

Among the seven (7) teachers interviewed, Teacher C2, who has the shortest experience in teaching of two (2) years, stated that teaching was his first choice of profession. He stated, *"It is the only course that comes to my mind. It is like being a teacher is the only profession that I want."* He also rated his preference on teaching as 'very high preference' not because of income but because he wanted to impart knowledge to his students. However, he hesitantly answered 'neutral preference' when asked about his preference for teaching agriculture. Teacher C2 stated that his interest and pre-service specialization was IA, one of the four components of TLE, yet his in-service specialization was organic agriculture. In addition, there were only a few units for agriculture during the time he was taking his major courses.

Teacher C3 would have been a priest not until he decided he wanted to get married and have his own family. He left the seminary and would have taken BS Electrical Engineer, but due to financial

constraints, he opted to take BSE instead with the reason, “*Being a priest and a teacher is almost the same. The only difference is that one teaches the word of God, the other teaches academic lessons.*” Teacher C3 rated his preferences on both teaching and teaching agriculture as ‘very high,’ stating that “*As of now, maybe I am already in the highest preference because I am already here. I have come to like what I am teaching.*”

**Table 1 Characteristics and preferences of high school agriculture teachers on teaching as a first choice of profession, teaching, and teaching agriculture**

Respondent	Bachelor’ degree	Educational attainment <sup>a</sup>	Teaching as first choice of profession	Teaching <sup>b</sup>	Teaching agriculture <sup>b</sup>
Teacher A1	Forestry; Agriculture	3	No	4	5
Teacher A2	Agricultural Engineering	2	No	5	5
Teacher B1	Secondary Education	2*	No	4	5
Teacher B2	Agricultural Education	2; 4	No	5	5
Teacher C1	Agricultural Education	2	No	4	4
Teacher C2	Secondary Education	1	Yes	5	3
Teacher C3	Secondary Education	2	No	5	5

Source: Field Survey, 2019

<sup>a</sup>(1) Bachelor’s degree (2) Master’s degree (3) Doctoral degree (4) Technical/vocational degree (\*) Units only

<sup>b</sup>(1) Very Low Preference (2) Low Preference (3) Neutral Preference (4) High Preference (5) Very High Preference

### Challenges Encountered and Interventions Done by the High School Agriculture Teachers (HSATs)

Table 2 shows the factors affecting the challenges encountered by the HSATs and the extent of their effect daily. One (1) teacher and two (2) teachers from Schools B and C, respectively, rated ‘low extent’ for their problems on school facilities in terms of Information and Communication Technology (ICT) units and demonstration garden. According to Teacher B1, School B has the budget to provide the ICT units such as laptops and Liquid Crystal Display televisions (LCD TV) for their laboratory room. This situation makes it easy for him to teach as his limited teaching time will not be spent on the preparation of these materials. Regarding Teachers C1 and C3 related school facilities, specifically demonstration garden and ICT units, School C has enough area for hands-on farming activities. However, both teachers use their own laptop for everyday teaching, sharing that it has become a part of their daily routine as teachers. As per Teacher C3, he had to loan money to buy a laptop which has been a great help to him during the preparation of instructional materials and computation of final grades.

On the other hand, Teachers B2 and C2 rated ‘moderate extent’ for their problems with school facilities regarding their respective demonstration gardens. The garden for School B gets flooded when typhoons and heavy rains come, while Teacher C2 thinks that the area for the garden is still small. Typhoons and heavy rains are usually experienced in the Philippines from June to November, and this has been a problem for Teacher B2 for years. To cope with the environmental challenges, she does not plant leafy vegetables during these months as these can be easily damaged. In contrast to the previous statement of the other two (2) teachers in School C, Teacher C2 thinks that the school can still expand the demonstration garden to give the students more areas to experiment on their classroom learning.

Teachers A1 and A2 related their problems on school facilities in terms of the quality and availability of classrooms and laboratories and rated it as ‘high extent.’ School A borrows rooms and

various types of machinery from University A (approx. 5.5 km away) while its laboratory was only improvised. The improvised laboratory of School A, a four-poster shed with a galvanized iron sheet for the roof, is where the students conduct food processing. Teachers A1 and A2 shared that it becomes difficult for them to teach in the improvised laboratory, especially when it is raining, as their voices need to compete with the sound of rain on the roof. Animal production is also a part of the curriculum of School A; however, due to financial constraints, School A would ask the students for contributions to build cages and buy animals such as chicks and pigs. The students will, later on, be taught how to dress the chickens and slaughter the pigs, then take them home.

Three (3) out of seven (7) teachers rated ‘moderate extent’ for their problems on content knowledge. Teacher A2 related content knowledge not only on the topics that she teaches but also on the teaching strategies. As previously mentioned, Teacher A2 graduated from an engineering course; hence, she assessed that she lacks knowledge on the how-to of teaching. Teacher A2 plans to take education units in University A. Teachers C1 and C3 felt the need for more training or seminar for the reasons of interest in other fields and difference in pre- and in-service specialization, respectively. Teacher C1 wanted to know more about food processing as he thinks that learning how to grow agricultural products is not enough; the students also need to know how to put additional value to their produce. Meanwhile, Teacher C3’s pre-service specialization was electrical under HE but is now teaching organic agriculture. He has attended several trainings on organic agriculture before being assigned to teach it.

**Table 2 Factors affecting the challenges encountered by the high school agriculture teachers and the extent of its effect**

Respondent	Years in teaching	School information	School facilities <sup>a</sup>	Content knowledge <sup>a</sup>	Lack of personnel <sup>a</sup>
School A					
Teacher A1	33	Basic education unit of University A	3	1	3
Teacher A2	7		3	2	3
School B					
Teacher B1	15	Under the management of Department of Education	1	3	1
Teacher B2	40		2	1	1
School C					
Teacher C1	12	(DepEd)	1	2	1
Teacher C2	2		2	3	1
Teacher C3	10		1	2	1

Source: Field Survey, 2019

<sup>a</sup>(1) Low Extent (2) Moderate Extent (3) High Extent

Teachers A1 and B2, who have been teaching for more than 30 years, rated ‘low extent’ on content knowledge. Teacher A1 thinks that this problem would have been rated ‘high extent’ if he were a new teacher, while Teacher B2 uses her own experience in farming as a reference in teaching. The World Bank (2005) as cited by Wongsamun et al. (2012), stated that one of the powerful tools that teachers can use in the learning environment of the students are their local or indigenous knowledge. Conversely, Teachers B1 and C3 rated ‘high extent’ for their problems on content knowledge. They both felt the need for more training and seminar for different reasons. Teacher B1’s pre-service specialization was fish culture, yet he teaches crop production in School B, while Teacher C2 has been teaching in School C for not more than five (5) years. Teacher B1 shared that if the designated topic for the day is too difficult for him to teach due to his lack of knowledge, he will opt not to teach the topic and search for another topic somehow related to it. He also shared that whenever his students ask questions that are too difficult for him to answer, he gives that question an assignment for them. As for Teacher C2, he would ask his co-teachers to explain unfamiliar topics to him.

The lack of personnel was rated as ‘low extent’ by two (2) teachers and three (3) teachers in Schools B and C, respectively. Since Schools B and C are under the DepEd, along with the implementation of the K to 12 Program is the hiring of non-teaching personnel. The non-teaching personnel are tasked to do administrative works. Teacher B1, on his initiative, maintains their

demonstration garden during his free time. Teacher C3 was appointed by their principal to be the canteen coordinator of School C. He also attends to the repair and maintenance of School C's facilities and other things as directed by their principal. Both teachers do not see these works as out of bounds since they think that these come as part of being a teacher.

On the other hand, both Teacher A1 and A2 rated the lack of personnel as 'high extent.' School A is the basic education unit of University A. Therefore, the implementation of K to 12 Program did not affect the hiring of additional personnel to attend to the changes in the curriculum. Teacher A2 needed to take some units/loads from Teacher A1 since the latter was appointed to an administrative position in School A. Both teachers shared that there is only one non-teaching personnel who can assist other subject's laboratories simultaneously. This situation causes a problem for the teachers since they must prepare class materials instead of doing other activities that can contribute to the betterment of their teaching performance. To cope with the lack of personnel, Teacher A1 would have to prepare the materials a day or two before the class.

## **CONCLUSION**

Based on the interviews, only one (1) HSAT preferred teaching as the first choice of profession. However, most of the interviewed HSATs rated 'very high preference' for teaching and teaching agriculture because of developed preferences, stable income, and passion for becoming an educator. In general, HSATs from the University A-managed school rated 'high extent' on both challenges encountered in school facilities and lack of personnel while HSATs from the DepEd-managed schools rated 'low extent' on these challenges. Conversely, HSATs from DepEd-managed schools rated 'high extent' on challenges encountered in content knowledge while HSATs from University A-managed school rated 'high extent' and 'moderate extent.' Therefore, it can be concluded that despite these challenges, the developed HSATs preferences and passion for teaching primarily drives them to ensure that their students learn the fundamentals of agriculture.

In this regard, the study recommends that the DepEd provide more accessible professional development activities such as lectures, seminars, or training to HSATs in Schools B and C through partnering with the nearby agricultural universities. At the same time, University A can further extend its assistance to School A by lending a kitchen laboratory used by one of its institutes.

For further study, there is a need to determine the life experiences of the HSATs that developed their preferences on teaching and teaching agriculture. The TEIs can use these life experiences to increase the number and quality of HSATs.

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