
Enhancing Student’s Appreciation of Agricultural Crop Production through Varied Teaching Styles

Jennifer B. Duran, MagDev

Barcelona National High School, Dapitan City, Philippines

ABSTRACT

The study investigated the appreciation of Agricultural Crop Production and the varied teaching styles among Grades 11 and 12 students in Barcelona National High School, Dapitan City. It addressed factors such as participants' perceptions, students' appreciation, teachers' preferred teaching styles, and the relationship between teaching styles and students' appreciation. Data was collected using a questionnaire, and the data were treated using frequency, percentage, weighted arithmetic mean, and Spearman rho correlation tests.

Over half of student participants perceived that agricultural crop production involves growing and harvesting crops, planting, cultivation, and pest control. Students appreciate the agricultural teacher's real-world application and engaging teaching method. The demonstrator method, which uses multimedia presentations and hands-on demonstrations, was most adhered to by students and teachers. Challenges faced by students include limited resources, ignorance, and lack of engagement in hands-on agricultural activities. Teaching farming as a dignified profession and encouraging attendance at seminars are acceptable solutions.

Students may learn harvesting procedures, clearing, cleaning, sorting, packing, and delivering produce to the market. Educators may arrange hands-on experiments, field trips, farm visits, and visits to crop-producing sites to connect theoretical information with practical applications. Teachers may invite resource people, foster curiosity, use multimedia presentations, and engage students with local resources. Department heads may provide support and assistance, while schools should strengthen links with government agencies for projects, research, and innovation development. Future researchers may use the findings to improve teaching methods and address student challenges.

KEYWORDS: *Agricultural Crop Production, Teaching Styles, Challenges, Correlational Method, Philippines*

BACKGROUND

Farming is educational, and teaching your children where exactly their food comes from the lesson itself. Children will see the hard and effort that goes into planning, growing and harvesting crops as well as raising and caring for livestock. Understanding the farming process can help children to be grateful for their food. Farming for kids is a great way to learn responsibility. Feeding and watering, cleaning and grooming, building and fixing are daily task that farmers do. This allows children to learn the skills necessary to care for other living things while also learning the responsibility required for the organic production of farm –

grown foods. This responsibility can transfer to other areas of a child's life including classroom activity and social interaction with others.

The time children spend on a farm is very important. A child helping out on a farm learns that the lives of animals matter. Farming teaches them why and how different animals receive different feed, why they require different types of shelter and need different care all the times. Farming teaches children how to work hard to increase production of vegetables, fruits, eggs, and meat. They will also know that farming is one of the hardest jobs at the end, it is very rewarding.

Because of children's inquisitive minds, they are eager to know why things are the way they are and will ask many questions about their immediate environment. The children who experience farming will develop positive attitudes about themselves, natural life, weather and mother nature. It helps to develop respect for and appreciation of all forms of nature and a greater appreciation of all forms of nature and a greater appreciation to understand the relationship between habitats and humans. As a farmer, they will be aware of weather and observers of the environment. Spending time on a farm will change the way to see food.

In the Philippines, agriculture has been introduced in general curricula at senior high school level as an optional subject. Under the Vocational Livelihood (TVL) Tract of the Department of Education, students are given option to choose Agricultural Crop Production (ACP) Strand which includes Computer Servicing, Food Processing, Bread and Pastry Production and Animal Production Strand. The rationale for offering agriculture to senior high school students counters the apparent negative attitude to farming by many senior high school students whose occupational choices are often limited and thus exposing them to the knowledge and skills that they would require in crop production should they choose to become farmers (Abalu, 2001).

Agriculture is taught at senior high school level to develop self – reliance in agriculture, to demonstrate that farming is a dignified and profitable occupation, and to enhance skills needed in carrying out agricultural practices. This would develop occupational outlook in agriculture and to enable schools to take an active part in national development through agricultural activities. The objectives of the senior high school education are aimed at preparing students to make a positive contribution to the development of society and acquire knowledge, skills, and attitude for the development of the self and the nation (Mwiria, 2005).

Creating worthwhile learning opportunities for a diverse set of vocational agriculture students is one of the biggest issues facing vocational agriculture educators. Annually, a diverse range of students with varying abilities, goals, backgrounds, training, and aspirations enroll in vocational agriculture programs. Moreover, there are comparable differences between the resources available for learning experiences and programs involving supervised vocational experience (Mabaso, 2023).

Both general education and vocational education have a duty to instill in each student the knowledge, skills, and attitudes necessary to help them grow into responsible, productive adults. Vocational and technical education must assist students in forming positive and productive work habits as well as acquiring the knowledge and abilities needed to begin and advance in a career (Mason & Cranmer, 2009).

One of the most exciting aspects of life was the array of choices that we have on daily basis. Some of our decisions were simple, like deciding what to eat for dinner or what shirt to wear. However, some choices were challenging and involved deep thought and consideration. Educators at all levels had long pondered how to enable students to become effective learners. According to Patrick Enggleton, “The teacher has to have the energy of the hottest volcano, the memory of an elephant, and the diplomacy of an ambassador”.

“Be proud you are a teacher, the future depends on you”. This was one of the motivating statements that encourages teachers in their fields to do their common tasks the best way they can. Teaching is a complex, multifaceted activity, often requiring us as instructors to juggle multiple tasks and goals simultaneously and flexibly (Eberly Center for Teaching Excellence). As a profession, teaching has been one of the indispensable professions in honing the future of a nation. It is service – oriented. It has the potential to have a great impact in the molding of the next generation (Cupino, 2006). It is a profession that does not only develop the cognitive ability but the total whole being of an individual. The kind of education that learning institutions offered simply depended on the capacity of its teachers, excellent teachers surely delivered quality education.

In the Philippine educational system, heterogeneous classes should be addressed by subject teachers to maximize learning outcomes. Effective teaching involves a positive attitude, a pleasant classroom climate, high expectations, lesson clarity, effective time management, strong lesson structuring, and varied questioning methods (OECD, 2012).

The term "teaching style" describes the autonomous attributes, dispositions, and characteristics of a teacher. It is closely related to the instructor's life philosophy, which is a subset of her educational philosophy (Fleming & Baume, 2006). There are two types of teaching styles: teacher-centered and student-centered, or any mix of the two. In a student-centered approach, the teacher expected the student to be self-motivated and to have faith in the teacher's assistance. It has been demonstrated that student-centered models with constructivist instruction and active learning are effective for students with non-traditional learning styles (Mokhtar, Majid & Foo, 2008).

In a teacher – centered style, the instructor organized the transmission of content knowledge to the learner, acted as a performance assessor, and provided opportunities for the learner, acted as a performance assessor, and provided opportunities for the learner to practice independently. Understanding where an instructor fitted in the continuum of styles and using that information to make informed decisions about instruction was one of the steps in becoming a professional’s educator, rather than simply a teacher.

Successful teachers took chances, stepped outside of their comfort zones, developed as educators, and set an example for the conduct they desired from their pupils (Vicus & Eisner 2008). The teaching strategies selected may support or undermine students' capacity to demonstrate their mathematical grasp and take responsibility for formulating and comprehending mathematical concepts. Students' problem-solving skills were shown to be enhanced by specific teacher practices, such as giving them frequent opportunities to practice problem-solving in a range of contexts, allocating enough time for problem-solving, and setting aside time especially for planning, monitoring, and reflecting on the solution. To accommodate the widest range of learning and teaching styles, a range of instructional tactics is required.

Teaching indeed is a very challenging job. It is because the welfare of the students is in the hands of the teachers and it is the responsibility of the teacher to instill knowledge to the students.

Similarly, in the field of Agri. Crop production, teachers should be observant enough in the way they delivered their lessons. They must ensure that each learner was learning during the discussion. Agri crop teachers must see to it that their teaching styles fitted the learning styles of their students such that learning must be at its highest, if not learning would be at stake.

This study was conducted to determine the students' appreciation of Agricultural Crop Production and the varied teaching styles of teachers. This study sought answers to the following questions;

1. What are the student-participants' perceptions on Agricultural Crop Productions?
2. What is the students' level of appreciation of Agricultural Crop lessons?
3. What are the preferred teaching style in Agri crop production?
4. What are the challenges encountered and the suggested solutions?
5. Is there a significant difference in the teacher teaching styles and their profile?
6. Is there a significant relationship between the teachers teaching styles and their students' appreciation of the Agricultural Crop lesson?

METHODS

In gathering the needed information to answer the problem objectives, the researcher used the correlational method. The respondents were informed of the value of the items so they would understand their respective responses.

The study was conducted in Barcelona National High School Dapitan City Division, Zamboanga Peninsula, Region IX. The respondents of this study were the sixty one (61) randomly selected Agri Crop students of grades 11 and 12 out of One hundred twenty (120) enrollees for the Agri Crop TVL track of Barcelona National High School Dapitan City Division in the school year 2023-2024.

Probability sampling was used in the study. The respondents of the study were randomly selected from the targeted population. The researcher took eighty percent (80%) of the overall population as the respondents of the study.

Table 1 shows the distribution of the student participants in terms of their sex and age. Thirty or 49.18 percent were males while 31 or 50.82 percent were females. In terms of age, almost half of the number of students, 30 or 49.18 percent aged 18 years old; followed by 18 or 29.51 percent aged 17 years old; with the lowest number of students, three or 4.92 percent aged 20 years old.

Table 1. Demographic Profile of the Student Participants (N=61)

Profile	Frequency	Percentage
Sex:		
Male	30	49.18
Female	31	50.82
Age		
17 years old	18	29.51
18 years old	30	49.18
19 years old	10	16.39
20 years old	3	4.92

The instrument used by the researcher to extract the necessary information were questionnaires. The questionnaire for students was made to draw out from them their appreciation of Agri. Crop Lesson. Items of the questionnaires were subjected to face validity among the members of the panel and internal consistency of the items using the Cronbach alpha coefficient.

During the gathering procedure, online Google forms were used to gather information from the participants. Printed copies of the questionnaires were also prepared by the researcher in case when the participants are not able to respond through Google forms. Answered questionnaires were evaluated to ensure that all items are answered. Tabulation, analysis and interpretation of the data followed.

The study used the both descriptive and inferential tests. Frequency and percentage distribution were applied in the analysis of the perceptions of the participants on Agricultural Crop, and teacher's preferred teaching style in the teaching Agricultural Crop Production. The weighted arithmetic mean and standard deviation were utilized in the analysis of the level of appreciation of Agricultural Crop lessons. The test of inferences used the Spearman rho correlation for significant relationship between the teacher's teaching styles and the students' appreciation of the Agricultural Crop Production lessons. The SPSS and online data analysis were used for the calculations of the tests of inference.

RESULTS AND DISCUSSIONS

Perceptions of the Participants on Agricultural Crop Production

The students' perceptions of agricultural crop production are presented in Table 2. More than half of the student-participants, 32 or 52.46 percent, perceived that agricultural crop production involves processes of growing and harvesting of agricultural crops; while a big portion considered the subject as involving practices like planting, cultivation, and pest control. The least number of students perceived the subject as involving sustainable agriculture.

It is true that a number of procedures or actions are involved in agricultural crop production, and these are required if farmers or plant growers hope to successfully cultivate and harvest crops. The first stage of growing crops is called planting, and the success of this process greatly depends on the quality of the seed or seedlings that are put in the soil. Plowing, tilling, and weeding are all part of cultivation. Plowing prepares the soil for seeding, tilling ensures that the soil is soft and absorbs water and nutrients needed for plant growth, and weeding keeps the land free of various weeds that could take up nutrients meant for the crops.

Crop rotation, integrated pest management strategies, and pesticide-based pest control procedures should all be taught to students. In order to ascertain whether the crops are ripe for harvesting in terms of both quality and timing, students need also learn how to harvest. The procedures for clearing and cleaning the planting area, sorting, packing, and delivering the produce to the market must be explained to the pupils after harvest.

Knowledge and skills in agricultural crop production are not only intended for prospective farmers and plant or crop growers, but as well as for those planning to become entrepreneurs in the field of agricultural crops. In this time, it is not enough that students focused on one area of specialization, rather they may need to be well-rounded individuals to become successful in their future careers and fields of interest.

Table 2. Students' Perceptions of Agricultural Crop Production

Perceptions	Frequency	Percentage	Rank
Process of growing and harvesting of agricultural crops	32	52.46	1
Farming is fun	10	16.39	3
Involving practices like planning, cultivation and pest control	13	21.31	2
Sustainable agriculture	6	9.84	4

Students' Level of Appreciation of Agricultural Crop Lessons

In Table 3, the students' appreciation of agricultural crop lessons is presented. The overall mean of 4.48 indicates that most of the students have very high level of appreciation of agricultural crop lessons.

Among those very highly appreciated by the students referred to "My agricultural teacher lets me see real life applications of agricultural concepts." This got a weighted arithmetic mean of 4.75, interpreted as "Very High." This suggests that the pupils have a great deal of respect and admiration for their agricultural teacher's method of demonstrating the application of agricultural concepts in real-world situations.

It is also important to note that the students realize the importance of agriculture in their daily life. When students realize the importance of agriculture in their daily life, it signifies that they understand the significance of agriculture beyond the classroom. This awareness may

include recognizing how agriculture contributes to food production, environmental sustainability, economic development and over-all well-being.

It is noteworthy to mention that the kids understand the significance of agriculture in their day-to-day existence. Understanding the value of agriculture outside of the classroom is demonstrated by students' recognition of its significance in their daily lives. Understanding the role that agriculture plays in food production, environmental sustainability, economic growth, and general well-being is one way to demonstrate this understanding.

In addition, they commented that their teacher presented new lessons in an enjoyable and interesting manner. It shows that the method of instruction is successful in holding students' interest and providing an engaging learning environment. Enhancing student interest, motivation, and recall of material can be achieved through an interesting instructional presentation. Teachers can foster a positive learning environment that promotes active involvement and information retention by presenting lessons in an engaging and fascinating way.

The teacher's practical demonstration of agricultural principles improves the students' learning experience and comprehension of the subject matter. It also gives them more memorable, pertinent, and interesting lessons that are presented in real-world settings.

Table 3. Students' Level of Appreciation of Agricultural Crop Lessons

Statements	Weighted Arithmetic Mean	Interpretation
1. I admire the way my teacher's presentation of the lesson is something I found admirable.	4.51	VH
2. I appreciate the way my teacher guides the channels of learning in agriculture is something I appreciate.	4.49	VH
3. My agriculture teacher lets me see real life application of agricultural concepts.	4.75	VH
4. My agriculture teacher provides me better understanding of various agricultural concepts.	4.31	VH
5. I made realization how important is Agriculture in our daily life.	4.56	VH
6. My teacher presented new lesson in an enjoyable and interesting manner.	4.56	VH
7. I usually feel comfortable and at ease during my agriculture class.	4.44	VH
8. I favor my agriculture subject's one among other subjects.	4.39	VH
9. I easily understand the lesson presented by the teacher.	4.33	VH
10. I realized that agriculture is an interesting subject.	4.46	VH
Overall Mean	4.48	VH

Legend: 4.21 – 5.00 Very High (VH) 3.41 – 4.20 High (H) 2.61 – 3.40 Average (A)

1.81 – 2.60 Low (L)

1.00 – 1.80 Very Low (VL)

Teacher's Preferred Teaching Style in the Teaching of Agricultural Crop Production

Different teaching styles are necessary because the students need to be able to learn what the teacher is teaching. However, the choice of teaching styles used can also depend on the school mission statement, the classroom demographics, the educational philosophy of the teacher, and most importantly, the subject area. In the teaching of agricultural crop production, the teachers utilized four teaching methods, namely: formal or authority or lecture style, demonstrator method or the coaching style, facilitator or activity or action method, and the delegator or group method.

In this study, these four teaching methods were used and were observed by the students based on the predominant teaching style they experienced as their teachers taught their lessons agricultural crop production. The data reflected in Table 4 illustrates the different methods utilized by the teacher in teaching the different subject matters related to agricultural crop production.

Based on the students' perceptions, demonstrator teaching style was preferred by most students, as adhered by 27 of the 61 students or 44.26 percent; followed by teacher as facilitator with 13 or 21.31 percent. There is almost an equal distribution of students who preferred the authority or lecture type with 11 or 18.03 percent and delegator or group method 10 or 16.39 percent.

Similar to the lecture style, the demonstrator method, also referred to as the coaching style aims to uphold authority in the classroom. Nevertheless, this teaching method coaches the students through entry points like multimedia presentations, class activities, and demonstrations rather than relying just on spoken lectures to impart knowledge. This approach works well for areas or subjects like music, painting, physical education, vocational and technical since understanding the material fully frequently requires seeing a demonstration. The lack of one-on-one connection between the teacher and students, however, is a drawback that makes it challenging to meet individual requirements.

In the context of agricultural crop production, the demonstrator teaching style entails the teacher actively showing a variety of strategies, tactics, and procedures linked to crop management and growth. In order to engage students, the teacher uses hands-on demonstrations of agricultural processes like planting, cultivating, controlling pests, and harvesting. With this practical method, students may watch and learn by doing, which improves their comprehension of real-world applications. When teaching in this manner, the instructor might show the procedures with pictures. Visual aids, such charts, diagrams, and real-world field demonstrations, make difficult ideas and procedures easier to understand and more relatable for students.

Through practical experiences, visual presentation, interactive opportunities, skill development, idea reinforcement, and experiential learning, demonstration teaching can improve students' learning. This method assists students in making the connection between theory and practice as well as in developing a useful comprehension of agricultural ideas and methods.

A considerable number of students preferred the facilitator teaching style. Through peer-to-teacher learning, the facilitator style, also known as the activity or action method, aims to promote self-learning. Teachers pose questions to their pupils instead of providing answers,

in contrast to the lecture format. Students are expected to use self-discovery to gain a deeper understanding of the subject and to hone their problem-solving abilities. Because the teacher must connect with each student individually in their role as a facilitator, something that can be challenging in bigger classes, this method works best in smaller classroom situations.

In their agricultural crop production course in particular, several students favored the facilitator teaching approach, preferring their teacher to lead or assist them in exploring and learning on their own. They were able to take charge of their own education while their teacher directed them in their investigation of agricultural ideas, procedures, and practices. Real-world scenarios or difficulties pertaining to agricultural crop production were given to the pupils. This method encourages the application of knowledge practically and the development of problem-solving abilities.

Table 4. Teacher’s Preferred Teaching Style in Teaching Agricultural Crop Production as Perceived by the Students

Teaching Styles	Frequency	Percentage
Formal or Authority	11	18
Demonstrator	27	44
Facilitator	13	21
Delegator	10	17
Total	61	100

Challenges Encountered and the Suggested Solutions

Generally, the students have high level of challenges in learning agricultural crop production as one of the subjects in the vocational-technical-agricultural stream. This is manifested in the overall mean of 3.86 which is interpreted as “High.” Limited land, equipment, and material resources in educational settings might make it difficult to involve students in experiential learning. Even with limited resources, teachers can discover creative methods to make the most of their classroom space by recycling items, sharing equipment across groups, and finding new uses for existing ones.

The students also faced the significant constraints of the ignorance of or lack of interest in the agriculture industry. Studies in agriculture could be seen as archaic, dull, or less prestigious than other subjects. It's possible that students are unaware of the variety of employment options in the agricultural industry or how crucial agriculture is to maintaining livelihoods and supplying food.

Students may have limited exposure to agriculture and may not have opportunities to engage in hands-on agricultural activities. Most parents prefer to labor in the fields and have their children sent to school. Another attribute could be the inadequate curriculum materials relevant to farming and agricultural crop production.

Table 5. Challenges Encountered by the Participants

Statements	Weighted Arithmetic Mean	Interpretation
1. Lack of awareness on the sources of their food.	3.67	H
2. There is a widespread misconception or lack of awareness about the importance and value of Agriculture in society.	3.80	H
3. Lack of engagement or connection with traditional teaching methods.	3.73	H
4. Lack of awareness or interest in the agricultural sector among children.	3.99	H
5. Limited resources including land, tools and materials. To engage students in hands-on learning.	4.04	H
6. Lack of understanding among students on a variety of other crop production-related topics, including soil science and pest management.	3.85	H
7. School's lack of updated and creative technologies applied to emerging agricultural techniques.	3.92	H
Overall Mean	3.86	H

Legend: 4.21 – 5.00 Very High (VH) 3.41 – 4.20 High (H) 2.61 – 3.40 Average (A)
1.81 – 2.60 Low (L) 1.00 – 1.80 Very Low (VL)

Level of Acceptability of Solutions to Challenges

Table 6 indicates the level of acceptability of the students on the solutions to the different challenges confronting the teaching of agricultural crop production. In the table, it can be observed that the highest weighted arithmetic mean is related to the statement, "Teaching children that farming is a dignified profession," with a WAM of 4.84. It is closely followed by the weighted arithmetic mean of 4.82 for the statement, "Encourage and motivate children to attend seminars and symposiums on agricultural crop production."

In order to teach farming to students as a dignified career, educators must emphasize to them the honor, dignity, and significance of agricultural activity. Teachers should stress that farmers are vital to the food production process because they raise the vital crops and livestock that support local communities and help ensure global food security. Teachers have the power to convey to their students the importance of studying agricultural crop production techniques, protecting the environment and ecosystems, and promoting long-term sustainability. Being a farmer is a noble profession because you may help the economy by growing rural communities, generating goods, employing people, and fostering agricultural innovation. Understanding how farming affects the economy highlights how crucial this industry is to promoting growth and prosperity.

In the same context, enticing and inspiring students to participate in agricultural crop production seminars and symposiums can positively benefit their academic and career growth. Students can learn about the most recent developments, discoveries, and innovations in agricultural crop production by attending these seminars and symposiums. They will be

exposed to fresh concepts, methods, and approaches related to farming and crop production, which can deepen their comprehension of the field. Through interactions with professionals and subject matter experts relating to agriculture and crops, these can also encourage and inspire students to investigate professions in related fields.

Table 6. Level of Acceptability of Solutions to Challenges

Statements	Weighted Arithmetic Mean	Interpretation
1. Train children to appreciate the value of agriculture to our daily lives.	4.62	HA
2. Teach children that farming is a dignified profession.	4.84	HA
3. Boost learners' interest in agriculture through varied teaching styles	4.44	HA
4. Encourage and motivate children to attend seminars and symposiums on agricultural crop production.	4.82	HA
5. Concentrate on key competencies by setting priorities for key competencies and creating activities that specifically target these competencies.	4.37	HA
6. Encourage students to work together and share materials, tools, and resources.	4.50	HA
7. Utilize interactive learning experiences offered by educational apps, internet resources, and virtual simulations to encourage hands-on learning.	4.25	HA
Overall Mean	4.55	HA

Legend: 4.21 – 5.00 Very Acceptable (VA) 3.41 – 4.20 Acceptable (A)
 2.61 – 3.40 Fairly Acceptable (FA) 1.81 – 2.60 Less Acceptable (LA)
 1.00 – 1.80 Not Acceptable (NA)

Test of Significant Relationship Between the Teaching Styles and Their Students' Appreciation of the Agricultural Crop Production Lessons

Table 7. Significant Relationship Between the Teaching Styles and Their Student's Appreciation of the Agricultural Crop Production Lessons

Variables	t-value of r	Probability value	Decision
Preferred Teaching Styles and Students' Appreciation of the Agricultural Crop Production	12.73	0.05	Statistically Significant

Ho: There is no significant relationship between the preferred teaching styles and the students' appreciation of the agricultural crop production lessons.

Table 7 shows the summary of the test of inference used to analyze the significance of the relationship between the preferred teaching styles and the students' appreciation of the agricultural crop production lessons. The computed t-value of r of 12.73 exceeds the critical value of 2.447 at the 0.05 probability level which signifies the rejection of the null hypothesis. Hence, there is a significant relationship between the preferred teaching styles and the students' appreciation of the agricultural crop production lessons.

The results suggest that a key factor in students' appreciation of the subject is their preference for the method of instruction. To increase student engagement, comprehension, and recall of agricultural crop production concepts, educators should adopt pedagogical approaches that suit the preferences and learning requirements of their students. According to this study, students preferred practical demonstrations that emphasized experience learning over demonstrations or hands-on activities. Students are more likely to have a satisfying and interesting learning experience when teaching methods are adjusted to suit different learning preferences.

CONCLUSIONS

Over half of student participants perceived that agricultural crop production involves growing and harvesting crops, with a significant portion focusing on practices like planting, cultivation, and pest control. Sustainable agriculture is less popular. Successful crop cultivation involves plow, tilling, and weeding, while pest control and crop rotation are essential. The students highly appreciated the agricultural teacher's real-world application of agricultural concepts, recognizing its importance in food production, environmental sustainability, economic development, and overall well-being. Their engaging teaching method enhanced interest and retention of information. The demonstrator method, a coaching style, use of multimedia presentations and hands-on demonstrations to impart knowledge in various subjects, such as music, painting, and agricultural crop production was mostly preferred by the students. This type of method in teaching agricultural crop production was most adhered by the students and teachers as well. Foremost of the challenges expressed by the students were related to limited land, equipment, and material resources in educational settings which make it difficult to involve students in experiential learning; ignorance or the lack of interest in agricultural industry; and the lack of engagement to hands-on agricultural activities. Teaching the students that farming is a dignified profession and encouraging and motivating them to attend seminars and symposiums on agricultural crop production were seen as the most acceptable solutions to the challenges they encountered in the subject. A key factor in students' appreciation of the subject is their preference for the method of instruction.

RECOMMENDATIONS

Students may learn harvesting procedures, clearing and cleaning, sorting, packing, and delivering produce to the market. Educators may arrange for them to engage in hands-on experiments, field trips, farm visits, and visits to crop producing sites in order to give students

real-world perspectives and encourage them to learn more about the subject. They can foster inquisitiveness in their students, employ multimedia presentations and emphasize experiential learning, encourage cooperation and teamwork, and provide more chances for introspection. Teachers could invite resource people or guest speakers, such as farmers, agronomists, and researchers, to share their experiences and thoughts with the class. They can also engage the students with the resources of immediate school or community by taking advantage of outdoor spaces like school garden, local parks or community centers for hands-on learning experiences. Department heads in the technical, vocational and agricultural subjects may provide the necessary support and assistance to teachers and students in their endeavor to improve their students' engagement with agricultural crop production activities and improve their knowledge and skills on the subject. The school through the department heads and key officials may strengthen their linkages and tie-ups with government agencies and communities like Department of Agriculture and Department of Environment and Natural Resources for possible projects, research and knowledge, skills and innovation development and applications; and to provide field experiences to students and to demonstrate innovative tools and machineries to boost knowledge and skills in agricultural crop production. Future researchers may utilize the findings, conclusions and recommendations of the study in their research on the subjects related to the teaching methods in teaching specifically agricultural crop production, as well the challenges of students and the possible solutions to the subject's constraints. A similar study may be conducted with the wider scope of participants and to incorporate other variables.

REFERENCES

- i. Abalu, N, (2001). Education and agricultural efficiency in Nepal (Working paper no.822-03). Washington D.C.: World Bank.
- ii. Mwiria, Kilemi. 2005. Vocationalisation of Secondary Education: Kenya Case Study. DOI: 10.1007/1-4020-3034-7_6
- iii. Mabaso, Z. (2023). Experiences of senior female academic leaders in Universities of Technology in South Africa. <https://doi.org/10.51415/10321/5054>
- iv. Mason, G., Williams, G., & Cranmer, S. (2009). Employability skills initiatives in higher education: what effects do they have on graduate labor market outcomes? *Education Economics*, 17(1), 1–30. <https://doi.org/10.1080/09645290802028315>
- v. Cupino, P.C (2006), Ethics and Responsibilities in the Teaching Profession (<http://www.charter-human-respibilities.net/spip.php?article1002>)
- vi. Education at a Glance 2012 | OECD). https://www.oecd.org/en/publications/2012/09/education-at-a-glance-2012_g1g1fa8b.html
- vii. Fleming, N. and Baume, D. (2006) Learning Styles Again VARKing up the RIGHT Tree! *Educational Developments*, 7, 4-7. <https://www.scirp.org/reference/ReferencesPapers.aspx?ReferenceID=1223937>

- viii. Mokhtar, I.A., Majid, S. & Foo, S. (2008). Teaching Information Literacy through Learning Styles: The Application of Gardner's Multiple Intelligences.
- ix. Vicinus & Eisner, 2008. Eisner, Caroline and Martha Vicinus. (2008) Originality, Imitation and Plagiarism: Teaching Writing in the Digital Age. University of Michigan Press.

www.ijmas.com