Original Research Article

Determinants of Students’ Participation in the TESDA National Certificate Assessment for Agricultural Crop Production

ABSTRACT

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| This study aimed to determine the factors affecting the decision of students to take the Technical Education and Skills Development Authority (TESDA) National Certificate Assessment for Agricultural Crop Production in the Third District of the Division of Camarines Sur, Philippines. Specifically, it sought to identify the factors affecting the decision of students to take the TESDA National Certificate Assessment for Agricultural Crop Production and propose an intervention program to increase the number of students taking the assessment. It utilized descriptive- developmental research design, employing survey questionnaires and interviews with 112 Senior High School students, teachers, and administrators. The study’s results revealed the top three (3) factors that affect students’ decision to take the TESDA NC assessment for ACP, which are: preparedness on competency, classroom and laboratory environment, and family support, while the teacher influence runs the lowest. It is therefore concluded that while progress has been made, a reevaluation of current practices based on the students’ needs is necessary to increase student participation in the certification process. With that, this study proposed an intervention program based on the needs of the ACP students. This intervention program is “Pathway to Success: Senior High Schools’ TESDA Agricultural Crop Production NC II Certification Journey.” The aim is to increase motivation for senior high school students to take the NC Assessment. |

*Keywords: TESDA National Certificate, Agricultural Crop Production, Technical Vocational Education, Student motivation, Intervention program*

1. INTRODUCTION

Education stands as the foundation of humanity's progress and the key to modernizing civilization. It is the indispensable pillar that unites nations and propels them towards triumph. Education nurtures both individual and communal advancement, aiming to unleash every person's creative potential and empower them to take charge of their lives and achieve their aspirations (Rashid, 2019). Aligned with the UN's Sustainable Development Goals, particularly SDG 4, the Philippine government has been steadfast in its commitment to providing inclusive, high-quality education and fostering lifelong learning opportunities for all. Motivation is recognized as one of the most important elements in teaching and learning because it drives learners to reach their goals and sustain their engagement in academic tasks (Filgona, et al. 2020). The Technical and Vocational Education and Training (TVET) program is a pivotal part of the Philippines' strategy to enhance competencies and drive economic growth while reducing poverty. Furthermore, vocational training is a cornerstone of Ambisyon Natin 2040, the government's long-term vision for transforming the nation into a prosperous and middle-class society, with a substantial 39% of students opting for a vocational track upon entering 11th grade. To revamp the Philippine education system, the Enhanced Basic Education Act, or Republic Act 10533, was enacted in 2013, with a focus on fortifying the curriculum and introducing the Senior High School (SHS) program as a key feature of this law (Official Gazette, 2013). SHS, a 2-year secondary education program, empowers students to select a specialization based on their aptitude, interest, and school capacity. These additional two years equip learners with the skills needed for future endeavors, whether in employment, entrepreneurship, further vocational training, or higher education. Students can choose from three tracks: Academic, Technical-Vocational- Livelihood Track (TVL), and Sports and Arts, with TVL offering various strands, such as Agri-fishery Arts (AFA), Home Economics (HE), Information and Communications Technology (ICT), and Industrial Arts (IA) (DepEd Order No. 33 s. 2018). For instance, Agricultural Crops Production (ACP) is a specialization under the AFA strands. Upon completing the TVL tracks, a Grade 12 student can obtain a National Certificate Level II (NC II) by passing the competency-based assessment of the Technical Education and Skills Development Authority (TESDA). School-based agricultural programs have been shown to enhance students’ practical skills and contribute to food security, highlighting the importance of integrating agriculture into educational settings (Montales, 2024). NC I and II enhance graduates' employability in fields like Agriculture, Electronics, and Trade. Moreover, SHS creates avenues for students to apply for TESDA Certificate of Competencies (COCs) and National Certificates (NCs), opening up better work opportunities (Official Gazette, n.d). The National Certificate serves as a steppingstone in securing employment, signifying the holder's expertise and competence in their field. Despite its significance, the implementation of SHS offering TVL tracks faced procurement challenges, leading to the launch of the Joint Delivery Voucher Program-Technical-Vocational-Livelihood (JDVP-TVL) in SY 2018-2019 (Manalo, et al.'s study, 2018). This program was designed to enable learners in public SHS with inadequate facilities to pursue TVL specializations in selected private TVLs that partner with DepEd SHS. The JDVP-TVL aims to provide the essential learning environment required for specializations and address resource provision delays (DepEd Order No. 33 s. 2018). However, Declaro-Ruedos's assessment of the JDVP Program in Selected Public Schools in Occidental Mindoro, Philippines, revealed some challenges in its implementation. Although students demonstrated adequate competency and passed the national assessment, the program's reach was limited. For instance, data from Doña Basilia S. Quilon Memorial High School of Bagong Sirang, Pili, Camarines Sur, showed that only a small percentage of enrollees benefited from the program. The restricted funds allocated to the JDVP-TVL program for Agricultural Crop Production students were identified as one of the limiting factors. Given these challenges, it is essential to identify areas for improvement and ensure the effective implementation of programs aimed at enhancing vocational education and training.This study determined the factors in taking TESDA NC assessment for ACP students in third district of Division of Camarines Sur. Specifically, this study aimed to:

I. identify the factors affecting students’ decision in taking the TESDA National Certificate Assessment for Agricultural Crop Production, and

II. Propose intervention programs to increase the number of takers of the TESDA NC assessment on ACP.

2. Materials and methods

This study used both qualitative and quantitative methods of research. The descriptive quantitative method was employed to identify the factors affecting students’ decision in taking the TESDA National Certificate Assessment for Agricultural Crop Production (ACP). A validated researcher-made survey questionnaire, based on initial student interviews and previous related studies, was used to gather data. The questionnaire consisted of two parts: the profile of the respondents and the factors influencing their decision, rated using a 5-point Likert scale. A total of 112 Grade 12 ACP NC II students from the third district of the Division of Camarines Sur served as respondents. In addition, qualitative data were collected through structured interviews with selected ACP teachers and school administrators to provide context for the development of an intervention program. Frequency and mode were used to analyze the survey results, while the development of the proposed intervention program was based on the data and responses gathered from both the surveys and interviews.

3. results and discussion

**3.1 Factors affecting students’ decision in taking the TESDA NC assessment for ACP in the third district, Division of Camarines Sur**

The factors were categorized into several domains: Family, Peer, Teacher, School, Classroom and Laboratory, Community, Career, Practicability, Documentary Requirements, Location, and Preparedness on Competencies Assessment. Each factor was evaluated based on frequency and mode, indicating the extent of influence among the respondents. Their extent of influence was discussed by factor in the succeeding pages.

**3.1.1 Summary of factors affecting the decision of students in taking the NC assessment for ACP in third district, Division of Camarines Sur**

*Table 1. Ranking of the Factors Affecting the Decision of Students in taking the TESDA NC assessment for ACP.*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Pre-Determined Factors** | **Frequency** | | | | | **Mode** | **Description** |  |
| DA  (1) | WA  (2) | LA  (3) | MA  (4) | SA  (5) | Rank |
| Family Factor | 62 | 111 | **118** | 113 | 56 | **3** | *Slightly Affects* | 3rd |
| Peer Factor | 70 | **136** | 120 | 89 | 45 | 2 | *Somewhat Affects* | 6th |
| Teacher Factor | **120** | 106 | 85 | 75 | 74 | 1 | *Does not Affects* | 10th |
| School Factor | 97 | **141** | 99 | 73 | 50 | 2 | *Somewhat Affects* | 5th |
| Classroom And Laboratory Room Factor | 65 | 121 | **127** | 100 | 47 | **3** | *Slightly Affects* | 2nd |
| Community Factor | 95 | **118** | 111 | 82 | 54 | 2 | *Somewhat Affects* | 8th |
| Career Plan Factor | 65 | **117** | 109 | 101 | 68 | 2 | *Somewhat Affects* | 9th |
| Practicability Factor | 76 | **161** | 107 | 70 | 45 | 2 | *Somewhat Affects* | 4th |
| Documentary Requirements in Filing the TESDA Assessment and Certification and Its Location Factor | 34 | **125** | 121 | 94 | 86 | 2 | *Somewhat Affects* | 7th |
| Preparedness On Competencies Assessment Factor | 51 | 121 | **141** | 114 | 33 | **3** | *Slightly Affects* | 1st |

*Legend: Value Scale Verbal Interpretation*

*5 Strongly Affects (SA)*

*4 Moderately Affects (MA)*

1. *Slightly Affects (LA)*

*2 Somewhat Affects (WA)*

*1 Does not Affects (DA)*

Table 1 reveals the result of the extent of influence of the sub-factors affecting students' decisions regarding the TESDA NC assessment for ACP. The most pressing concern is students' preparedness on competencies assessment factor, ranked highest with a total frequency of 141, mode of 3, indicating a slightly affect in the decisions. This underscored the importance of students feeling confident in their knowledge and skills for certification. Similarly, the quality of classroom and laboratory rooms ranks high, also with a total frequency of 121, a mode of 3, indicating “slightly affects” on the decisions, emphasizing the significance of conducive learning environments. Family support follows suit, also with a total frequency of 118, a mode of 3, indicating “slightly affects” and highlighting its role in influencing students' decisions. Conversely, teacher factor ranks lowest with a total frequency of 120, mode of 1, indicating “does not have an effect” on the decisions, it implies that some students show satisfaction on the quality of teaching, expertise of their teachers in ACP, felt the guidance, support and encouragement of their teacher. In summary, these findings underscore the importance of student confidence, a conducive learning environment, and family support in decision-making, while also signaling the need for enhanced teacher involvement to support all the student certification decisions. Similar findings were reported in a recent study, where students’ interest and awareness in agriculture were closely linked to hands-on experiences and school-based initiatives, which significantly influenced their motivation to pursue agricultural-related competencies (Bisenio et al., 2025). Also, this finding can be linked to the study of Wernersbach (2011), where it was demonstrated in her study the impact of study skills courses and preparedness on academic self-efficacy that students identified as academically underprepared and exhibited lower levels of skill and academic self-efficacy compared to their well-prepared counterparts. This conclusion aligns with Hinduja et al. (2024), whose research revealed that students believed they would develop high levels of academic self-efficacy when encouraged to cultivate self-discipline, manage, and plan their time effectively, and receive guidance and support from fellow students, parents, and teachers. Also, classroom and laboratory resources can be supported by the study of Akinfolarin, C. A. (2015), where he emphasized the crucial role of physical facilities. Also, a study by Rugutt et al. (2005) investigated students' perceptions regarding various aspects of teaching and learning, including the quality of instruction, available resources, and the learning environment, suggesting these factors are essential for improving teaching and learning outcomes. Finally, Adesola (2005) discovered that the availability of resources positively impacts teachers' effectiveness, reflecting their dedication to delivering lessons effectively. And for the family factor, this finding is consistent with the research conducted by Hui and Lent (2018) regarding the career interests and objectives of Asian American college students. Their study emphasizes the substantial influence of familial and cultural influences on the process of career development.

**3.2 School intervention program for SHS Agricultural Crop Production students**

The intervention program was developed based on the data gathered from one hundred fifteen (112) grade 12 ACP in the third district, Division of Camarines Sur. From the data analysis, it revealed that the top three (3) factors that affects students’ decision in taking the TESDA NC assessment for ACP are the following: a. preparedness on competencies assessment, b. classroom and laboratory room, and family. This intervention program is titled Pathway to Success: Senior High Schools’ TESDA Agricultural Crop Production NC II Certification Journey.This program is anchored on the needs of the students for them to take the TESDA NC assessment for ACP.

**3.2.1 Short Refresher Course for Agricultural Crop Production NC II**

Based on the result of the analysis, preparedness of students on competencies assessment ranks one (1) as the factor that affects their decision to take the TESDA NC assessment for ACP. To review and prepare students, and help them in strengthening their understanding, skills and confidence, to focus on the key competencies required for Agricultural Crops Production NC II assessment, and to review the benefits and opportunities of having TESDA NC certification, the needed documentary requirements and filing process a two-week short refresher course for ACP NC II was proposed. According to Colman 2023 a refresher training courses are designed to take learners back to basics so they can review fundamentals they may have forgotten or upskill on new information they may be unaware of. Also emphasized that refresher training is a retraining in a subject to refresh memory and make sure knowledge is up to date. The University Grant Commission Bahadur Shah Zafar Marg in New Delhi, mentioned in 2019 that the duration of a refresher course will be two weeks, consisting of a minimum of twelve (12) working days and seventy-two (72) contact hours (six hours per day, six days a week), excluding Sundays.

**3.2.2 Support and Linkages**

Classroom and laboratory room ranks 2nd as to the factors that affects students’ decision to take the TESDA NC assessment for ACP wherein the results emphasized the impact having enough resources and equipment for mastery of learning competencies, the result of learning of students on suitability of classroom and laboratory room, the importance of good ventilation in learning process and having conducive learning environment affect students. Therefore, since different schools experienced limited or no fund for ACP specialization support and linkages was proposed to forge partnerships with the local government agencies, NGO’s, businesses, community organizations, and School Parents Teacher Association (SPTA) to provide additional support for students’ needs and expenses.

**3.2.3 Vegetable Garden for Financial Support**

Family factors rank 3 as to the factors that affects students’ decision in taking TESDA NC assessment for ACP the result shows that financial capability and the stability of occupation of their family to provide the expenses needed in taking TESDA NC assessment one of the constraints of the students’ decision in taking TESDA NC assessment on ACP. That is why vegetable garden for financial support was proposed as one of the strategic interventions to establish a sustainable vegetable garden within the school premises that will serve as training ground and gain fund that will be allocated to TESDA NC assessment, travel expenses, and other related costs with the involvement parents and students in growing and selling produced so that they will appreciate and see the value of agriculture.

4. Conclusion

In conclusion, the findings showed the preparedness on the competencies assessment particularly on planting crop competency, classroom and laboratory room particularly ventilation and family financial status, and occupation are pivotal in shaping students' decisions regarding the TESDA National Certificate Assessment for Agricultural Crop Production, as indicated by their highest ranking with a mode of 4. Understanding the significant impact of these factors, it becomes crucial for schools to actively address the needs of the students in terms of their preparedness, providing students with a conducive learning environment, and the financial challenges faced by families.

Furthermore, the intervention program titled "Pathway to Success: Senior High Schools’ TESDA Agricultural Crop Production NC II Certification Journey” was developed based on the needs of the students. This program aims to encourage learners to obtain the TESDA National Certification, increase the number of students taking the assessment, and empower them through a holistic support system. However, this study was limited to Grade 12 ACP NC II students in the third district of the Division of Camarines Sur, so the findings may not fully represent other districts or specializations. Data were also based on self-reports and interviews, which may involve personal bias. The proposed intervention program includes strategic interventions such as orientations, workshops, financial support initiatives, and recognition ceremonies, ensuring comprehensive support for students.

Consent

Informed consent was obtained from all the participants before their involvement. Parental consent or consent from legal guardians was secured for participants below 18 years of age. The objectives of the study were explained, and that their participation was voluntary. All participants were assured of the confidentiality of their responses and that they had the right to withdraw from participating at any point without any consequences.

Ethical approval

This study was conducted following the ethical principles outlined in Republic Act No. 10173, or the Philippines’ Data Privacy Act of 2012. Data collection ensured that all personal information is handled securely and will be used for research purposes only.

**Disclaimer (Artificial intelligence)**

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

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