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The Implementation of the 11th Grade Senior High School Program Academic Track in Science Technology Education Center (STEC): An Action Plan

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***Abstract* – This action research assessed the extent of the implementation of the 11th Grade Senior High School Program Academic Track in Science Technology Education Center (STEC) in Basak Lapu-Lapu City for school year 2016-2017. The findings of the study were the bases for Proposed Improvements/Action Plan. This study utilized the descriptive-evaluative type of research in gathering the responses employing the quantitative and qualitative approaches. The research participants of the study were the SHS teachers and SHS students. The implementation of the SHS program in STEC had mixed response ratings. Fair on the Infrastructure and Learning facilities; Very Good on Instruction and Curriculum and Poor on Admission and Retention. The infrastructure has certain positive degree of association with the academic performance. By supplementing the lack of infrastructure, facility and learning environment, it would have higher significant impact on the performance of the students. The Instruction has certain positive degree of association with the academic performance. Good teaching is equal to good learning. In spite of the lacking facilities and no admission and retention policy, the teachers were able to provide a resourceful mechanism of delivering the lessons in a meaningful way.**

***Keywords* – Academic Track, Action Plan, Implementation of Senior High School Program, Senior High School.**

I. Introduction

The fate of this country depends upon the education of the people according to Dr. Isagani Cruz (2010). It is believed that with the implementation of K-12 Senior High School program, the Philippines will improve the compatibility of the Filipino students and professionals around the world. The additional years in high School is believed to provide sufficient time for mastery of concepts and skills, develop lifelong learners, and prepare graduates for tertiary education, middle-level skills development, employment, and entrepreneurship. Specifically, a 12-year program is found to be the adequate period for learning under basic education and is a requirement for recognition of professionals abroad following the Bologna and Washington Accords (International Engineering Alliance, 2010).

Improving the quality of education for global competency really looks good, but the implementation of the system will be a challenge for the government to pursue. While Senior High School program prepares the student with skills essential for the field of working, it will cost the country a tidy sum of money. According to some Filipino economists, "K-12 is a must for our country, but sadly to say we are not yet ready for it. The current condition of our education sector makes it impractical. Increasing the number of years will not make things better, it'll just worsen things." In response to these negative thoughts, Sec. Armin Luistro (2014) said "Indeed, DepEd is in lack in budget for the implementation of K-12 but increasing the budget of the government on education can resolve this issue." There is no harm in a society prioritizing education of its people, for Education is one of the essentials of an effective society, he added (Seamo-Innotech, 2010).

Since the roll-out of Senior High School Program in Lapu-Lapu City Division particularly in Science & Technology Education Center, there has been no study made on assessing the implementation of the Program. It is in the aforementioned rationale that the researcher who is a research enthusiast and Senior High School research teacher in STEC finds it necessary to assess the status of the implementation of STEC SSHS academic track so that whatever findings are made maybe utilized to improve the SHS program in action planning, policy formulation and development.

II. Review of Related Literature

This study is anchored on the Republic Act 10533 also known as "Enhanced K-12 Basic Education," The idea is derived from the concept of Washington Accord which prescribes 12 years basic education as an entry to recognition of engineering professionals and the Bologna Accord which requires 12 years of education for university admission and practice of profession in European countries (Department of Education (2010). Semeo-Innotech (2010) explained that the implementation of K-12 curriculum in the Philippines is supported by the 1987 Philippine Constitution which stated that, "The State shall establish, maintain, and support a complete, adequate, and integrated system of education relevant to the needs of the people and the society." Such mandate gives justice to the basic rights of every Filipino child: the right to quality education and the right to a quality life.

Seameo-Innotech (2010) discussed that forty European countries have signed up to the Bologna Accord in 2010. The aim is to adjust their university courses so that degrees are comparable. The Bologna Accord is intended to create a common university space, similar to the Common Market now in place for free movement of people, goods and services. In this process the shifting landscape will continue to significantly alter the behavior of academic institutions, leading to a radical change of scenario. Similarly, the Washington Accord has evolved from a small group of signatories to a well-structured and

sought-after organization. As benefit of agreed standards, the Graduate Attributes are the consensus emerging from a long learning process and capture a common understanding of the globally-relevant outcomes. It is a systematic, theory-based understanding of the natural sciences applicable to the discipline, conceptually-based mathematics, numerical analysis, statistics and formal aspects of computer and information science to support analysis and modeling applicable to discipline, and a theory-based formulation of engineering fundamentals required in the engineering discipline

Cruz (2010) cited, "Almost everybody knows about the current education system that regulates the public schools". This system is already popularly known as the K-12 education. There are thirteen grades that make up the K-12 system starting from kindergarten up to twelfth grade, thus the name K (kindergarten) to 12 (12th grade). This kind of education system is not just applied in United States. Even those who are living in United Kingdom, Canada, and other parts of Europe use the K-12 at the same time. However, the K-12 system before is not what it is right now. It already went through a lot of changes since the US Department of Education was established in 1979. The said department has been doing this in order to meet the changing demands in the education. But regardless of the changes, one thing remains the same. The K-12 education still needs financial help especially the schools that are located in urban districts.

To ensure best implementation, the Department of Education has come up with modeling Senior High School (SHS) – part of the government initiative to identify best practices in the implementation of Grades 11 and 12 under the K to 12 Basic Education Program. From this DepEd can draw learning prior to the full implementation of K to 12 in 2016. "The insights we will gather will be very instrumental in ensuring a seamless transition from the current system", Luistro explained. (DepEd Press Release – September 25, 2012.)

K-12 program will bring big change in different schools and it needs support from the whole organization and therefore, everyone must be prepared to its implementation so that it will succeed. In the study of Weiner (2009), Organizational readiness for change is not only a multi-level construct, but a multi-faceted one. Specifically, organizational readiness refers to organizational members' change commitment and change efficacy to implement organizational change. Several points about this conceptual definition of organizational readiness for change merit discussion. First, organizational readiness for change is conceived here in psychological terms. Others describe organizational readiness for change in more structural terms, emphasizing the organization's financial, material, human, and informational resources.

Cruz (2010) mentioned that in the study conducted by Dr. Claire Sinnema (2010) of the University of Auckland in New Zealand she said, curriculum implementation does not occur in a bubble. Teaching and learning at the classroom level is nested within, and influenced by, the school, community and national educational context. The practices deemed important in the curriculum can be either enabled or constrained by the conditions in place in each of those contexts. Just as the curriculum seeks to prepare students for lives that are profoundly different from the past, so too the curriculum requires a profound response. Implementation that goes beyond substituting language and altering paperwork, to profoundly changing and improving students' experience of teaching and learning, requires particular conditions. Preparedness or readiness to change what has been practice in the past must be considered to let the K-12 program in progress as quoted by Jennifer Walinga of the University of Victoria, change readiness demands that a person (leader or organizational member) is able to focus on his or her power to respond to the challenges of change rather than his or her power over the challenges of change or the change itself.

K-12 Basic Education Curriculum implementation is our first step towards progress and so that we will not be left behind by our neighboring countries in Asia and the rest of the world. Even though most of the Filipinos are competitors and would excel anywhere they go but we cannot deny the fact that our professionals here are not considered professionals abroad because of our ten year basic education which is considered insufficient, thus a 12-year program is found to be the adequate period for learning under basic education and is a requirement for recognition of professionals abroad like the Bologna and Washington Accords.

III. Scope And Limitation

This study utilized the descriptive-evaluative type of research in gathering the responses employing the quantitative and qualitative approaches. Science Technology Education Center (STEC), Basak, Lapu-Lapu City Senior High School Department was the main locale of the study. This action research was mainly focused to gather data on: profile of 11th Grade students and SHS teachers; assessed the extent of implementation on: Infrastructure, Learning Facilities and Environment; Curriculum Understanding and Course Offering; Instruction and classroom management; and Admission and Retention; compute for the significant relationships between the implementation of SHS and academic performance of the students. It also gathered a qualitative data through a Focus Group Discussion on some aspects that require elucidation and clarification.

IV. Research Methodology

Sampling. The research participants of the study were the complete enumeration of (8) SHS teachers including the researcher and (167) SHS students enrolled in STEC for SY 2016-2017 for profiling purposes and measure the extent of implementation. However, only 10 Supreme Student Government Officers participated in Focus Group Discussion. The students are purposively selected due to their leadership and awareness of the SHS program.

Research Procedure. The researcher prepared the research design and tools to be utilized in the study Approval and recommendation from the principal was

sought. The proposed title and design was submitted to the DepEd Division office for approval; upon approved, the Division released endorsement to the Regional Office for the BERF program. Upon approved by the Regional Office, the researcher started the research gathering. Validation of the instruments through the STEC SHS Master Teachers was sought. Orientation of the participants (by group, Students and SHS Teachers) was done. Profiling of the participants (167 Students and 8 SHS teachers, separately) was done. Answering and retrieval of the research tool on the extent of implementation (167 students and 8 teachers, separately) was done. Focus Group Discussion on some points of clarification (10 SSG Officers) was done. Tallying of results and treatment of data was done. Analysis and Interpretation of Data was done

Ethical Issues. The right to conduct the study was strictly adhered through the approval of the principal, approval of the Superintendent of the Division and approval of the Regional office under BERF guidelines. Orientation of the respondents both the students and the teachers was done, separately. In the orientation, the issue on confidentiality and anonymity was discussed requiring them not to write names on the tools but they were assigned with codes. For Qualitative data, an Informed Consent Form was accomplished prior to the Focus Group Discussion. For the secondary data on academic performance, a written permission was sought to the principal.

Plan for Data Analysis. The profile of the respondents was treated with Simple Percentage Formula. The Extent of the implementation of the SHS based on the area focused was treated through a weighted mean and descriptions (refer to appendices for the scoring and description). The test of relationship was treated through Pearson r correlation. The qualitative data was gathered through a focused group discussion and note taking. The responses were analyzed through themes and codes.

V. Findings and Discussion

I. A. Profile of the SHS Faculty

The SHS teachers of STEC have the educational requirement and competence to teach in Senior High School. They also have adequate relevant trainings to teach in the SHS. Most of these trainings are acquired from the previous work experience as University instructors. Some teachers have teaching experience in Junior High School, in Higher Education Institutions (University) and Industry experience.

I. B. Profile of the SHS Students

Out of 167 students enrolled in STEC for Q1-Q2, there are 2 sections of STEM strand and one section for the other 3 strands. More students from public schools were enrolled in STEC SHS. It is worthy to note that Babag NHS, STEC and Marigondon NHS are good feeder schools for STEC. Based on FGD, most of these students are from GT, SOF and Science classes. Their main reasons of choosing STEC are accessibility; the only public school to offer STEM and quality science school in Lapu-Lapu City. In private schools, SACS and San Roque College de Cebu were the highest number of enrollees in private schools. Based on FGD, they chose STEC due to its known quality of teaching.

Majority of the students have very satisfactory average grades in 10th grade performance. It is also noteworthy that there are good numbers of students with outstanding academic performance.

In terms of the 11th grade academic performance in Q1-Q2, majority of the students have satisfactory grade. But it is noteworthy that there were good numbers of students who got very satisfactory and 20 students with grades of at least 90 were academic honors based on grade range. Based on FGD, most students are adjusting to the new environment and new subjects for Q1-Q2.

In terms of Retention rate for Q3-Q4, STEM strand was the most affected. Based on one-on-one assessment, around 20 students really expressed their intention to transfer since choosing STEM was more of their parent's choice and lack of understanding about STEM strand (some mistook it for a career in technical-vocational like SMAW).

II. A. Infrastructure, Learning Facilities and Environment

Mainly, there are areas that require immediate attention with poor evaluation by both students and teachers: Appropriate audio-visual rooms; laboratory intended for Science experiments; learning resource center/library; adequate drinking provision/washing facility; canteen space; ICT facility; computer facility for research; and study areas for students. On brighter aspects of learning environment, students acknowledged that there is a strong effort of the teachers to deliver and provide interactive learning opportunities that is respectful and conducive to students.

II. B. Curriculum Understanding and Course Offering

The teachers have more than adequate knowledge on SHS Curriculum. This could be attributed to the MTOT organized by the Regional office early June and Late of August 2016. Most of the SHS teachers are also familiar of the curriculum due to their college teaching experience. Admittedly, Q1-Q2 are all core subjects which are fundamentally basic subjects in College.

II. C. Instruction and Classroom Management

The students recognized the effort of the teachers in providing the learning experience most conducive for the students to become independent and competent with the 21st century skills. Teachers were rated excellent in subject matter competency and very good in other aspects.

II. D. Admission and Retention Policy

STEC does not have a retention policy for the SHS program. Currently, the STEC SHS program does not have any cut off grades or retention schemes for its students. There is also no admission policy that was adopted in accepting the current students of STEC. The students in STEC now are heterogeneous in nature. Hence, STEC will strictly adhere to the admission requirement set based on DO 55, Series 2016 for the incoming Grade 11 in 2017. This order was not adopted since it was early July which

was late already for implementation.

III. Test of Relationship between Extent of Implementation of the SHS Program and Academic Performance of Gr 11 Students.

The infrastructure has certain positive degree of association with the academic performance. By supplementing the lack of infrastructure, facility and learning environment, it would have significant impact on the performance of the students. The Instruction has certain positive degree of association with the academic performance. Good teaching is equal to good learning.

VI. Conclusion

1. The implementation of the SHS program in STEC had mixed response ratings. Fair on the Infrastructure and Learning facilities; Very Good on Instruction and Curriculum and Poor on Admission and Retention.
2. The SHS students in STEC are heterogeneous. Majority comes from public schools and some are academic achievers. The academic performance of the students is Satisfactory.
3. The infrastructure has certain positive degree of association with the academic performance. By supplementing the lack of infrastructure, facility and learning environment, it would have higher significant impact on the performance of the students. Provision of learning facilities: learning resource center, library, laboratory, ICT room, computers, study area, adequate classroom space (student ratio) would surely render better effect to students' performance.
4. The Instruction has certain positive degree of association with the academic performance. Good teaching is equal to good learning. In spite of the lacking facilities and no admission and retention policy, the teachers were able to provide a resourceful mechanism of delivering the lessons in a meaningful way.

VI. Recommendations

Based on the Areas of Implementation, the recommendations are covered in the proposed Action Plan. However, in the research process, if there is a replication of the study, the researcher recommends the following:

1. The response of the SHS teachers is through the questionnaires. They could have been part of the FGD or at least a separate FGD for them. For this research their remarks (explanation) on the tool for a rating of 1 or 5 was considered sufficient. The number of SHS teachers was also manageable and somehow there was no significant difference in the response based on the rating.
2. The tool on Instruction and Management could have been the Demo Teaching Rubrics based on the DO 3 s 2016 Hiring Guidelines for SHS Teachers Effective 2016-2017. But the realization and suggestion was late since the tool was already administered to the students.
3. The rating of the principal and Master teachers could have been part of the rating for Instruction and Classroom management. However, due to the differences of the area being covered, the researcher noted not to use the evaluation.
4. The research covered the entire 167 students minus those who were absent during the time of administration. But for replication covering big population (more than 300), the researcher can use random sampling or systematic random sampling.

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