



Research Article

EMPLOYABILITY AND PRODUCTIVITY OF GRADUATES: AN EXPLORATORY ANALYSIS OF PROGRAM STRENGTHS AND WEAKNESSES

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ABSTRACT

The purpose of the study was to assess the employability and productivity of the graduates across programs in aid of policy formulation and curricular enhancement. The study asked 630 randomly selected respondents from the colleges of education, engineering, and architecture to respond to a questionnaire that sought information on the employability and productivity of the graduates. The findings revealed that the graduates of Don Honorio Ventura Technological State University are highly employable, and that a great majority of them have jobs aligned with their pre-service preparations. The graduates were found to be highly productive in terms of their perceived readiness on the requirements of their jobs. In terms of their performances in licensure examination, the education, civil engineering, and electronics and communication engineering graduates performed much higher than the national passing rates; but not for the electrical and mechanical engineering and architecture graduates. Some operational strategies and control mechanisms are deemed exigent to further improve the productivity of the graduates.

KEY WORDS: Employability, productivity, employability framework, Don Honorio Ventura Technological State University

INTRODUCTION

Employability and productivity are central issues in the strategic direction of higher education institutions. This interest is associated with the human capital theories of innovation and economic performance. Growth in the stock of human capital is essential for economic growth. In the words of Ramirez, Cruz, and Alcantara (2014), a nation's economy runs on the knowledge and skills of its people. The requirements for skills evolve with external

investment, technological advances, and globalization. To keep pace with the challenges, people need to acquire skills to be productive and earn a living, and all of these can be achieved through education. Education is considered to be the most important mechanism for the empowerment of the people.

The human capital theory argues that education increases individuals' employability and productivity. Education provides functional knowledge and marketable skills which include professional skills, language skills, and other life skills, and this gives highly educated people

greater chances to employment and better opportunities to become productive. (Cai, 2012)

Employability is defined in different context. For Hillage and Poland (1998), the term refers to a person's capability of gaining initial employment, maintaining employment, and obtaining new employment if required. Felicen and Mejia (2013) opined that employability is the capability of individuals to move self-sufficiently within the labor market to realize potential through sustainable employment. Different authors moreover agree that employability depends on the knowledge, skills, abilities, attitudes and values (KSAV's) the individuals possess, the way they utilize their KSAV's in workplace, and the way they present themselves to employers.

Productivity on the other hand refers to the individual's physical and mental capacity, the propensity of graduates to exhibit attributes (knowledge, skills, attitudes, and values) that employers anticipate would be necessary for the effective functioning of the organization. In more practical terms, productivity may be construed as the readiness of the graduates on the requirements of their jobs, as well their perceived capability to respond to the job challenges in the organization. (Cruz, 2009)

Higher education institutions (HEI's) play a critical role in preparing graduates for productive employment. HEI's need to ensure the graduates that they possess the cognitive, behavioral, and social skills that would allow them to perform effectively and meet the challenges in the workplace, better still to bring in advanced knowledge to solve complex problems, promote new ideas, and engage in diverse cultural environment. Without a solid capacity to innovate and deliver quality services and products, the young graduates would most likely join the big group of unemployed professionals.

In the Philippines, no less than the Labor Secretary Patricia Sto.Tomas lamented the mismatch between the graduates being produced by the country's universities and colleges and the jobs available. She sees it as one of the factors behind the country's increasing unemployment rate. She stated that job-skill mismatch is a very serious matter that must be addressed and be given sufficient priority if the government is to effectively deal with employment and underemployment problems. (Remollino, 2006)

Bennet et.al. (2000) opined that a critical issue in examining employability of graduates is looking into the possibility of embedding employability into the curriculum. They pointed out terminological problems associated with "core" and "generic skills. They settled for using the term "core" for disciplined specific skills, and "generic" to represent the so called transferable skills that can support study in any discipline. Most important

for this guide is their identification of four management skills that can be applied across a range of context:

- i. Management of self
- ii. Management of others
- iii. Management of information
- iv. Management of task

The "Skills Plus" project lists 39 aspects of employability for possible consideration in curriculum planning and development. Essentially, this means that in addition to the subject-specific knowledge, the programs may be upgraded to include other professional and life skills like emotional intelligence, language skills, information retrieval, critical analysis, creativity, problem solving, decision making, stress tolerance, initiative, environmental awareness, ethical sensitivity, and more.

In Malaysia, employment statistics shows that from 2007-2009, the number of people seeking for jobs exceeded the number of job vacancies. With a high percentage of graduates looking for jobs, for instance, 26.7 percent in 2009, Malaysia also faces high graduate unemployment rates. Nugroho et.al. study disclosed that the modern economy needs highly trained and skilled human resource, and higher education institutions are challenged to produce qualified graduates to meet the needs of national development and employers. Industries define the characteristics and skills requirements of their workforce which may or may not be produced by HEI's. In the Indonesian context, employability is usually associated with how quickly a graduate finds employment. As a result the waiting period for seeking employment dominates the indicator of whether an institution is able to produce qualified graduates for the job market. (Syafiq and Fikawati, 2008)

McQuaid and Lindsay (2005) disclosed that the oversupply of graduates in some fields is also an issue. Students enrolled in over-subscribed programs were found to be unable to find jobs in their areas of specialization. The lack of work experience particularly in the cutting-edge industries of the IT sector was found to be another limiting factor to graduates employment prospects. The Philippines has no recent data on unemployment of new graduates but as cited by McQuaid and Lindsay report, the number of unemployed college graduates in general has been increasing from 2007 to 2009.

Don Honorio Ventura Technological State University is a state-funded higher education institution committed to produce quality individuals with competent capacities to generate knowledge and technology and enhance professional practice for global competitiveness through continuous innovation. As such, it intends to pursue its thrusts for quality, excellence, and relevance in its

program offerings by way of looking into its internal efficiency and the external productivity of its graduates. Bringing to fore the employability and productivity phenomenon of the graduates would not only offer empirical data on how well the institution is pursuing its mandate. It would also yield significant information on its program strengths and weaknesses which would be useful in policy and program enhancement and development.

OBJECTIVES OF THE STUDY

The major objective of the study was to assess the employability and productivity of the graduates across programs in aid of policy formulation and curricular enhancement.

Specifically, the study aims to :

- i. Assess the phenomenon of employment of DHVTSU graduates from SY 2011-2012 to SY 2013-2014 in terms of:
 - a. Employment rate
 - b. Employment status
 - c. Nature of employment
 - d. Waiting time for employment
 - e. Job level position
 - f. Monthly income.
- ii. Compare the employability of the graduates compare across programs.
- iii. Assess the productivity of the graduates be described in terms of:
 - a. Performance in licensure examinations;
 - b. Perceived readiness of the graduates on the requirements of their jobs; and
 - c. Job performance
- iv. Determine how the graduates perceive the institution's strengths and weaknesses in terms of the following factors:
 - a. Program of studies
 - b. Teaching competence of the faculty
 - c. Adequacy of classroom facilities
 - d. Adequacy of laboratory facilities
 - e. Adequacy of library facilities
- v. Propose policy and program interventions necessary to further improve the employability and productivity of the graduates.

MATERIALS AND METHODS

Method and Techniques

The study utilized the descriptive survey method of research in assessing the employability and productivity phenomena of the respondents. Essentially, the Graduate Tracer Study Questionnaire developed by the Commission on Higher Education was used as the primary data gathering tool. Documentary analysis was also used extensively in the study. The data gathered were analyzed

using the mixed method of quantitative and qualitative approaches.

Population and Sample of the Study

The respondents of the study were the graduates of the Don Honorio Ventura Technological State University in Bacolor, Pampanga, for SY 2011-2012 to SY 2013-2014 in the following board courses: Bachelor of Science in Electrical Engineering (BSEE); Bachelor of Science in Civil Engineering (BSCE); Bachelor of Science in Architecture (BS Archie); Bachelor of Science in Mechanical Engineering (BSME); Bachelor of Science in Electronic Engineering (BS Elec.Eng); Bachelor of Science in Education (BSE); Bachelor in Elementary Education (BEED); and Bachelor of Science in Industrial Education/Technical Education (BSIE/TE).

Systematic random sampling design was employed in selecting the respondents of the study. The following procedures were undertaken:

- i. The list of graduates in the different board courses from SY 2011-2012 to SY 2013-2014 were obtained from the Registrar's Office
- ii. The graduates were grouped according to program and school year
- iii. A number was assigned to each element in the population
- iv. All odd numbered graduates were taken as respondents since the desired sample size was fifty percent.

Instrument of the Study

The primary data gathering instrument used in the study was the CHED Graduate Tracer Survey Questionnaire. Documentary analysis was also utilized extensively in obtaining data and information on list of graduates from the Registrar's Office and the performance of the graduates in licensure examinations. The data gathered were organized in three correlative parts. Part One dealt with the phenomenon of employment of the respondents in terms of employment rate, nature of employment, waiting time for employment, job level position, and monthly income. Part Two featured the productivity of the graduates using indicators performance in licensure examinations, perceived readiness of the graduates on the requirements of their jobs; and job performance as indicators. Part Three presented the perceptions of the graduates on the institution's strengths and weaknesses in terms of the following five parameters, namely: program of studies, teaching competence of the faculty, adequacy of classroom facilities, adequacy of laboratory facilities, and adequacy of library facilities.

The data gathered were analyzed using the following statistical procedures:

- i. Frequency counts and percentage procedure were used in describing the phenomenon of employment of the graduates and their performance in licensure.
- ii. Mean and standard deviation were utilized in reporting the productivity level of the graduates.
- iii. A five-point Likert Scale interpreted as follows was used in reporting the extent to which the independent variables influence the graduates' productivity:

Scale	Range Descriptive	Equivalent
3	2.50 -3.00	Great Extent
2	1.50 -2.49	Moderate Extent
1	1.00 -1.49	Small Extent

- iv. The comparison of the graduates' employability and productivity was analyzed using the F – Ratio or the Analysis of Variance Test (ANOVA).

RESULTS AND DISCUSSIONS

Phenomenon of Employment of DHVTSU Graduates

The phenomenon of employment of the graduates was described in terms of employment rate, employment status, nature of employment, waiting time for employment, job level position, gross income, and the graduates' readiness on the job requirements.

Percentage of employment

The findings of the study revealed that the education graduates registered a 100 percent employment rate for two consecutive school years, SY 2012-2013 and SY 2013-2014. On the other hand, the graduates of SY 2011-2012 posted a 90.3 percent employment rate. The engineering graduates posted the highest employment rate of 91.0 percent during the school year 2011-2012. The lowest employment rate of 87.9 percent was recorded in school year 2012-2013. The percentage of employment of the architecture graduates, ranged from 78.5 percent (SY 2012-2013) to 80.9 percent (2011-2012).

The education graduates posted the highest mean percentage of employment of 96.05 percent, followed by the engineering graduates, 90.0 percent. The lowest record was registered by the architecture graduates. As a whole, the institutional employment rate for the last three school years was 89.61 percent. The best time in terms of employment opportunities was school

year 2013-2014 which posted a 89.61 percent record. A closer look at the employment rate of the DHVTSU graduates across program, one can deduce a consistent employment increment for the last three school years.

Employment status of the graduates

The employment status of the graduates was described as regular or permanent, temporary, casual, contractual, or self-employed. Results of the survey conducted revealed that nearly three-fourths or 74.51 percent of the graduates hold regular or permanent appointment. Only 25.49 percent have temporary or probational appointment. The education graduates posted the highest percentage of permanent appointment, followed by the architecture graduates which registered a 78 percent record. Only 67.4 percent of the engineering graduates are permanently employed. Consequently, the engineering graduates recorded the highest percentage of temporary status followed by the architecture graduates. This is not surprising considering that in general the nature of work of engineers and architects are project-based.

Nature of employment

The nature of employment of the graduates was presented using the thirteen categories of occupation: School Administrator (Category 1); Professor/Instructor/Teacher (Category 2); Researcher (Category 3); Extension Worker (Category 4); Teacher/Trainer (Category 5); Clerk/Office Worker (Category 6); Construction (Category 7); Electricity/Gas/Water Supply (Category 8); Repair of Motors (Category 9); Machine Shop (Category 10); Electronics and Communication (Category 11); Wholesale and Retail (Category 12); and Private Household Type of Employment (Category 13).

The findings revealed that the great majority of the education graduates or 89.33 percent are employed as professors/instructors/teachers. The rest are school administrators, trainers, or tutors. Only 3.03 percent are employed as clerk/office worker. It is interesting to note that the majority of the engineering graduates or 73.43 percent are employed in construction firms. The rest, in other related employment like electricity, gas and water supply, repair of motors, machine shop, electronics and communication. Only about two percent are engaged in wholesale and retail business and other private household employment. Majority of the architecture

graduates are employed in construction-related kind of jobs. About one-third are engaged in business. The rest are employed as professors/instructors and researchers. It is interesting to note that a great majority of the graduates have jobs related to their program.

Waiting time for employment

Analysis of the data reveals that the shortest waiting time of 1.69 (1 to 11 months) was registered by the architecture graduates, followed by the engineering graduates 1.89 (1 to 11 months). The education graduates posted a waiting time of 2.37 (1 to 11 months). The institutional waiting time record was 2.01. This finding indicates that the average graduate of Don Honorio Ventura Technological State University finds gainful employment in 1 to 11 months after graduation.

Job level position

In assessing the job level position of the graduates, five categories were utilized namely: managerial/executive level (Category 1); supervisory/administrative level (Category 2); teaching/research/planning/ training level (Category 3); rank and file (Category 4); and other job positions like “tutors” etc. (Category 5).

Moreover, about 89.04 percent of the education graduates have teaching, research, planning, or training kind of job. The rest work as “tutors” or rank and file employees in offices. About 50 percent of the engineering graduates handle construction jobs or other type of field assignments. Ten or 3.69 percent are occupying managerial assignments, while 45 or 16.61 percent are performing administrative/supervisory assignments. The rest or 29.89 percent of the engineering graduates are employed as planners, researchers, or trainers. Majority of the architecture graduates or 64.29 percent are employed in construction firms as architects or draftsmen. Five graduates representing 3.57 percent are occupying managerial position, while 20 or 14.29 percent are engaged in administrative and/or supervisory assignments.

It is noteworthy to find out that as a whole, the graduates are engaged in jobs related to the degrees or courses they finished indicative of the fact that program relevance as an institutional thrust of DHVTSU is given flesh. For instance, a great majority of the education graduates are engaged in teaching, research, or extension. In the same vein, the engineering and architecture graduates as

whole are occupying various job level positions in construction and design firms, or in research and planning offices.

Monthly income of the graduates

The income of the graduates, from less than P 10,000.00 to P 30,000.00 and higher. Only three (3) graduates or .48 percent receive a monthly income of P 30,000.00 and higher. A total of 23 graduates or 3.65 percent receive monthly income of P 10,000.00 or less. As a whole, the mean monthly income was P 18,190.47. The greater majority of the graduates have gross monthly income between P 10,000.00 to P 25,000.00.

The architecture graduates posted the highest mean monthly income of P 20,285.71. The lowest mean monthly income was kept by the education graduates. Appreciating the income data of the graduates in the light of the Annual poverty Threshold (NSCB Poverty Statistics, 2010) of P 17,298.00, the income data of the graduates of the Don Honorio Ventura Technological State University are way above the poverty threshold in the Philippines.

Comparison of the Graduates Employability

In assessing the employability of the graduates, it was hypothesized that the graduates will not differ significantly in terms of employment rate across programs, and any observed variation would simply be chance variation to be expected in a random sample.

The graduates of the education, engineering, and architecture programs registered appreciable employment rates of 96.05%; 90.0%, and 80.45% respectively. To find out whether or not the observed variations are statistically significant, the data were subjected to Analysis of Variance Test. Results of the ANOVA revealed a mean square between set of 218.514 and a mean square within set equal to 11.948, resulting to an F ratio of 18.289 with an associated probability equal to .003. This means that the null hypothesis may be rejected in favor of the alternative or research hypothesis that significant differences exist in the employability of the graduates across programs.

To determine which program recorded significantly higher employment rate than the rest, the data were subjected to a Tukey HSD Test. Results reveal that the education graduates registered a significantly higher mean difference than the architecture graduates, but not with the engineering graduates. In the same vein, the engineering graduates recorded a significantly higher mean difference than the architecture graduates.

Results of the random interviews conducted revealed that a number of architecture graduates were able to get employment early but had to quit their work to look for job opportunities more directly related to their preparations. This could be validated by the finding that their waiting time for employment was only 1.69. It may be deduced that the architecture graduates were more selective in terms of job choice and financial consideration. The mean monthly income of the architecture graduates which is P 20,285.74 was higher than the education and engineering graduates.

Productivity of the Graduates

Two parameters were utilized in assessing the productivity of the graduates. First, they were asked to self-perceive their readiness on the requirements of their job, and second, their performance in licensure examinations.

Perceived readiness of the graduates on the requirements of their job

The graduates readiness on the requirements of their jobs was examined in terms of knowledge learned, skills and competencies, attitudes and work habits, and values formation.

It is interesting to note that the graduates felt that they have learned the necessary knowledge, skills, and competencies, as well as the required attitudes, work habits, and values. This was shown by the obtained mean values ranging from 2.64 (engineering) to 2.74 (education) with descriptive equivalent of “excellent”. This finding indicates that as a whole, the graduates were quite appreciative of the kind of pre-service training they got from the institution, an indication also that the institution is pursuing its mandate of giving relevant trainings to its students to meet the demanding challenges of the ever growing industries.

The education graduates registered the highest mean assessments in all the criteria, obtaining the highest mean value of 2.74. The engineering and architecture graduates came up with a relatively high assessment also except for the criterion on “skills and competencies” which recorded a satisfactory rating. This is one area that can be looked into for possible curricular enhancement. Bennet et.al. (2000) pointed out the importance of “core” and “generic” skills to prepare graduates for industry requirements. He used the term “core” for disciplined specific skills, and “generic” to represent the so-called transferrable skills that can support study in any discipline.

Most important for this guide is the identification of four management skills that can be applied across a range of contexts:

- i. Management of self
- ii. Management of others
- iii. Management of information
- iv. Management of task

Linked with this is their model of course provision in which generic skills interlock with disciplinary content, disciplinary skills, workplace awareness, and workplace experience.

The experience of the University of Newcastle (UN) in responding to the challenge of enhancing graduates’ employability and productivity may lend valuable insights to DHVTSU administrators. UN recognized the need to further develop its curricular programs by providing students with what they call “skills plus”. Essentially, this means that in addition to the subject-specific knowledge, the programs may be upgraded to include other professional and life skills like emotional intelligence, language skills, information retrieval, critical analysis, creativity, problem solving, decision making, stress tolerance, initiative, environmental awareness, ethical sensitivity, and more. The University may strive to emphasize if not to embed these competencies as well as other employability-related initiatives in the curriculum.

Performance of graduates in licensure examinations

The Commission on Higher Education has considered the performance of graduates in licensure examination as a parameter of quality in assessing the performance of higher education institutions in the country. In this light, the performance of DHVTSU graduates in licensure examinations for the last three years was looked into.

Performance of education graduates in licensure examinations

It may be gleaned from the data that the College of Education operates three board courses: Bachelor of Elementary Education (BEED); Bachelor of Secondary Education (BSED); and Bachelor of Science in Industrial Education (BSIE)/Bachelor of Technical Teacher Education (BTTE). The data reveal that the graduates of the BEED program performed consistently higher than the national passing rate for the last five board examinations, that is from April 2011 (PR

= 29.17%) to September 2013 (PR = 72.31%). Two impressive performances were recorded in March 2013 Examination (91.67%) and September 2012 (84.62%). The mean performance of the BEED graduates is 65.84%, a record way above the mean passing rate of 29.33%.

The BSED program of the University registered an equally impressive performance in the licensure examination for the last three years, from April 2011 (62.50%) to September 2013 (52.22%). All ratings were above the national passing rate. The mean performance is 60.62, a value significantly higher than the national passing rate of 34.24%.

The performances of the BSIE/BTTE graduates also registered a higher mean board performance of 39.26 percent, as against the national record of 38.53 percent. Moreover, a closer look at the performance statistics, one could glean that the good performances were recorded in only two out of five instances, that is in April 2011 examination (40.0%), and in September, 2012 board examination (52.94%).

The grand mean performance of 55.24 percent which is higher than the national passing rate of 34.03 percent indicates that the DHVTSU College of Education is giving flesh to its mission of providing quality education to its clients, and that education can be considered a flagship program of the University.

Performance of the engineering and architecture graduates in licensure examinations

The civil engineering graduates registered good performances in licensure examinations for the last three years. Except for one instance, the May 2011 examination, the DHVTSU graduates recorded performance scores higher than the national passing rate, to wit: 55.56 percent in November 2010 board examination; 47.46 percent in November 2011; 35.0 percent in May 2012; 49.25 percent in November 2012; and 51.52 percent and 58.04 percent in the May and November 2013 board examinations. The mean performance of the institution was 45.98 percent, a record much higher than the mean national percentage.

The electronic engineering graduates also recorded a fairly good performance in licensure examinations from April 2011 to April 2013.

The data reflect that the DHVTSU graduates performed much higher than the national passing percentage, except for the December 2013 examination where the institution experienced a downtrend. The obtained mean value of 52.97 percent suggests that as a whole, the electronic engineering program of DHVTSU is performing fairly well.

The engineering programs that need to be monitored more closely are the electrical engineering (BSEE) program and the mechanical engineering (BSME) program. cursory examination of the performance scores would indicate that the BSEE graduates registered only one performance score above the norm, and that was in September 2011 board examination. The BSME graduates on the other hand, posted a board performance higher than the national record only in April 2012 licensure examination. It may be gleaned that on the whole, the BSEE and BSME graduates recorded mean performances below the norm, that is, 31.72 percent for the former, and 48.64 percent for the latter.

The architecture program of the University poses the greatest challenge to the program implementers. The board performances of the graduates trailed consistently for three years. A number of interesting insights may be considered for possible program enhancement. First, a curriculum assessment may be considered in the light of the competency requirements of the professional organization and the Professional Regulation Commission. The disclosures of the graduates that they are generally appreciative of the teaching competence of the faculty lend support to this suggestion. Second, an enhancement of the pre-service Board Review Program may be considered. Beefing up the current faculty complement with seasoned educators and practicing professionals abreast with the current issues and trends in the discipline may offer the DHVTSU graduates better preparation and exposures on the professional and major subjects.

Finally, some operational strategies and control mechanisms may be put in place. The following may be considered. First, instituting a more selective admission procedure for those who would be allowed to proceed to the third curriculum year. Second, a valid selection examination may be administered for the purpose not precluding the use of other selection criteria. Third, the program implementers may get

insights on the practice of some institutions of conducting diagnostic and or achievement tests to carefully monitor how well the learning competencies have been mastered by students. If the result warrants, remediation activities may be conducted as a reactive response to noted deficiencies. Fourth, pre-board examinations may be administered to students after finishing all course requirements as a measure of overall achievement. This practice would offer students a good exposure and a systematic preparation for the board examination.

Perceptions of the Graduates on the Institution's Strengths and Weaknesses

An important element of the holistic approach in assessing the graduates' productivity is the consideration of the efficacy beliefs of graduates regarding the extent of contribution of four important program dimensions:

- i. The course contents
- ii. The professional competence of the faculty
- iii. The adequacy of the library facilities
- iv. The adequacy of laboratory facilities.

The education graduates perceived that the course content of their education program contributed to a great extent to their productivity. Five indicators were used as bases of their perceptions. In descending mean values, the graduates perceived that the course content of the program gave them opportunities to generate knowledge in the broad range of disciplines relevant and responsive to contemporary issues (2.95); they perceived the program to be responsive to local and international standards of quality and excellence (2.94); the curriculum provides depth and breath in content (2.92); the program of studies is consistent with the general goals of the institution (2.91); and promotes the development of critical thinking among students (2.89).

The respondents disclosed that their productivity was influenced to a great extent by the teaching competence of the faculty as demonstrated by their mastery of subject (2.98); their substantive knowledge and experiences (2.97); the use of innovative and critical teaching strategies, excellent teaching skills, and their harmonious relationship with students (3.0).

They also perceived the library to have influenced their productivity. Among the justifications identified were the strong book collection for literature search, background readings, and information sources (3.0); and the adequate collection of books, periodicals and other library materials to support academic instruction and research (2.88). The education graduates also spoke highly of the influence of the laboratory facilities and equipment of the University

(3.0); the lighting and ventilation (2.94); and the conduciveness of the laboratory facilities for study and research (2.89). The grand mean of 2.96 clearly indicates that the program of studies, the faculty, the library and laboratory facilities contributed significantly to the overall productivity of the graduates.

The engineering graduates also perceived a great extent of effect of the institution' program of studies, faculty complement, library and laboratory facilities to their productivity though at a lower scale. This was shown by the computed mean value of 2.89.

The graduates likewise perceived a great extent of effect of the institution's program of studies. They cited the provision for depth and breadth in terms of content (2.92); the responsiveness of the program of studies to local and international standards of quality and excellence (2.94); the development of critical thinking (2.89); and the provision of knowledge in a broad range of discipline responsive to contemporary issues and problems (2.84). Their perceptions indicate positive assessments of the teaching competence of the faculty. Among the reasons cited were the demonstration of substantive knowledge and experiences in the discipline (2.96); their flexibility and critical thinking skills (2.98); and their harmonious relationship with students (2.99).

The library facilities were perceived to have contributed to the graduates' productivity to a great extent as shown by the obtained grand mean of 2.89. Positive assessments were given to the adequate collection of books and periodicals (2.90) and other reference materials (2.92); the proper lighting and ventilation (2.84); and the availability of professional librarians that assist them in their study and research needs (2.94).

The adequacy of the laboratory facilities was also cited though at a relatively lower scale. The indicators cited were the availability of laboratory facilities with the necessary equipment (2.86); the proper lighting and ventilation (2.86), and the conduciveness of the facilities for study and research (2.88).

The BS Architecture graduates expressed agreements with the education and engineering graduates though on a relatively lower note, that the course content of their program influenced their productivity to a great extent. They made positive assessments about the depth and breadth of the course content (2.90); the overall standard of quality and excellence (2.93); the development of critical thinking among students (2.90); and the responsiveness of the knowledge learned to current issues and development (2.92).

They also made very good assessments of the teaching competence of the faculty (2.95), based on their demonstration of the mastery of subject matter (2.94); their

manifestation of substantive knowledge and experience and their critical thinking skills in teaching, and the use of creative teaching strategies (2.92). Special mention was made on the ability of the faculty to maintain good working relationship with students (2.98) which helped a great deal in their studies.

On the physical infrastructure support, the graduates spoke highly of the adequacy of the library facilities in terms of the strong reference of book collection (2.90), periodicals and other library materials supportive of study and research (2.86), and the presence of professional librarians that assist students in their library needs (2.92). What appeared lowest in their ratings were their perceptions on the adequacy of laboratory facilities and equipment which registered mean values ranging from 2.82 to 2.85. As a whole, the perceptions of the respondents posted a grand mean of 2.84 which means that over all, they still perceived the positive influence of the laboratory facilities in their productivity.

Proposed Policy and Program Intervention

A number of interesting insights may be deduced from the assessments of the graduates. First, curriculum enhancement may be exigent to further improve the employability and the productivity of the graduates. Emphasis may focus on the skills and competencies the graduates found useful in their work place. The identified core and generic skills by Bennet et.al. (2000) in the Skills Plus project Report may be looked into. Among them were language skills, self management skills, problem solving skills, critical thinking skills, information technology skills, creativity, etc.

In the interest of further improving the productivity of the graduates in licensure examinations, a two-pronged instructional enhancement program may be considered. First, enhancement of the pre-service instructional program is in order. This may be complemented by a comprehensive review program (in-house or outsourced) to give the students a good refresher of the general education courses, professional, and major disciplines. This practice would offer students a good exposure and a systematic preparation for the board examinations.

A reassessment of the programs of studies in the light of the competency requirements of professional organizations and the Professional Regulations Commission may be conducted. This is to benchmark with emerging issues as well as with the standards being used by the Commission, and to keep the curriculum abreast with contemporary issues and challenges of the times.

Putting in place some operational strategies and control mechanisms may become a cutting edge advantage for DHVTSU programs. The following may be considered:

- i. Instituting a highly selective admission procedures for all board courses. A valid selection test may be administered for this purpose not precluding the use of other selection criteria.
- ii. Administering diagnostic and achievement tests for all board professional courses to carefully monitor how well the learning competencies have been mastered by students. If the results warrant, remediation/refresher activities may be conducted as a reactive response to noted deficiencies.

CONCLUSIONS

Based on the findings of the study, the following conclusions were drawn:

- i. The graduates of Don Honorio Ventura Technological State University are highly employable as shown by the nearly 90 percent gainful employment record of the graduates for all board courses.
- ii. The educational programs being offered by the University are relevant to the needs of industries and service providers as shown by the finding that a great majority of the graduates have jobs aligned with their pre-service preparations.
- iii. The graduates of the University are highly employable as indicated by the finding that the average graduate finds gainful employment in one to eleven months after graduation.
- iv. The productivity of the graduates could be further enhanced through substantial improvement in their performance in board examination particularly in the architecture program.
- v. Curriculum enhancement and physical infrastructure build-up are in order to keep the graduates abreast with the fast growing requirements of industries and other service providers in terms of knowledge, attitude, and skills.
- vi. The null hypothesis that the employability of the graduates across program did not vary significantly was rejected. While all graduates recorded appreciable employment rates, the employability of the education and engineering graduates were found to be significantly higher than the architecture graduates.

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