

## **PROGRAM RELEVANCE AND GRADUATES' COMPETENCIES OF THE NORTHWESTERN MINDANAO STATE COLLEGE OF SCIENCE AND TECHNOLOGY**

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### **Abstract**

The quality of graduates is influenced by the relevance of educational program offerings, which vary across institutions. This tracer study examined the relationship between the relevance of programs at Northwestern Mindanao State College of Science and Technology (NMSCST) and the development of graduates' competencies. A descriptive-correlational method was used, employing the Program Relevance Assessment Questionnaire (PRAQ) and Graduate's Competencies Assessment Tool (GCAT). A total of 284 graduates participated. Data were analyzed using mean, standard deviation, t-test, F-test, and Pearson's *r*. Results revealed that NMSCST programs were rated very highly relevant in terms of curriculum, academic assessment, and graduation requirements. Graduates perceived a high level of competency development in intellectual, personal, practical, and professional domains. The findings indicate that the very high relevance of the programs contributed significantly to the development of graduates' competencies, highlighting the importance of aligning educational offerings with industry and societal needs.

**Keywords:** curriculum, program of study, assessment, graduation requirements, competencies

### **1.0 Introduction**

College curricular programs vary widely depending on universities and colleges. These programs are the focus of many educators to look into whether the trainings are effective in instilling skills and competencies to graduates (Kemsley & Riegle, 2008; Raines, 2009; Seldomridge & Dibartolo, 2005; Suplee & Glasgow 2008; Walker C, Scott Tilley, Lockwood, & Walker MB, 2008).

The College of Agricultural Sciences and Natural Resources (CASNR) at the University of Nebraska Lincoln employs predominantly a faculty advising system for undergraduate advising to monitor the effectiveness of agricultural programs (Karr-Lilienthal, 2013). Faculty advising help to raise the level of effectiveness of different college programs (Hemwall, 2008). There is a tension between complex education quality reform and course program effectiveness principles which all stakeholders need to recognize in the design and implementation of programs. It concludes with

some lessons learned for designing complex education reform programs in ways which maximize program effectiveness in developing countries (Berry & Bogale, 2011). If education programs have a "hodgepodge approach," the organization of these programs hinders teachers to succeed in improving student outcomes, (Pugach & Warger, 2001). Such an approach includes the use of varied curriculum and instruction by teachers, varied vocational options, lack of individualized instruction in general education, and few to no programs for those with the lowest skills levels (Wasburn-Moses, 2006).

In the field of nursing schools, a continuing nursing education (CNE) program in the specified format can help nurses to update knowledge and skills to identify and manage different psychiatric disorders in children. A 10-day CNE program comprising 60 hours of teaching with lectures, case demonstrations, ward rounds, group work, discussion with audiovisual aids, individual assigned work, case conference, and quiz competition spread over 10 days is an effective module for significantly improving the knowledge of nurses in child psychiatry (Chakraborty et al., 2006).

A study reported in Sinclair (2006) that students learn primary and community care from different sources, such as witnessing long personal relationships, the effect of social environment on health and dealing with people rather than diseases during their training in health care centers (Howe, 2001; Landström, Mattsson & Rudebeck, 2011).

In English-language related course, university students who are planning to teach English as a foreign language (EFL) are in a special position in this regard since they are positioned simultaneously as both learners and would-be teachers in the course of their education. They are still doing coursework aimed at increasing their mastery of English while, at the same time, they are also taking courses that inform them pedagogically about teaching English as a foreign language (TEFL). This study can also be used as part of any formal or informal assessment of the effectiveness of TEFL-oriented programs to respond successfully to the global and local trends and demands in language teaching as they reveal fine details about the effects of students' training that otherwise may go unnoticed (Zareva & Fomina, 2013).

In agriculture, preparation for careers in agricultural communications (AGCM) should include a solid collegiate experience and professional preparation. However, this will require investments in higher education and human capital development, including faculty members, to prepare highly qualified agricultural communicators to serve the growing agricultural sector in Mali (Maiga et al., 2013).

The university course in preparing preservice teachers in the area of school health appeared effective at influencing how a preservice teacher values health education in the school, their intentions to include and confidence in including health in their teaching, and their ability to provide a student with information on personal health issues. Program effectiveness is measured through ongoing course assessment, successful internships, portfolio reviews, exit interviews of program graduates, and feedback from different industry recruiters (Crutsinger et al., 2006).

In sum, what matters most is what the graduates do for their organizations as a result of their education. That is, the evaluation of an education's effectiveness should extend beyond the college or university to the performance of the graduates for the organizations that hire them. The

evaluation should extend beyond tracking enrollments, retentions, grades, publications, grants, and accreditations to examining the value or results achieved (Gaudet, Annulis & Kmiec, 2008).

Another area of concern of this study is to look into the competencies that the students have after finishing a program. The literature that follows conceptually describes graduates' competencies.

Accelerated baccalaureate programs, which open doors to nontraditional students, have grown exponentially over the past decade; some experts predict that these graduates will prove to be an important factor in mitigating the increasing shortage of competent graduate (Siler, Debasio, & Roberts, 2008). Baccalaureate graduates are a critical pipeline for filling important vacancies in various works (Aiken, Cheung, & Olds, 2009). The encouragement of active, reflecting and decision-making students in the final year of the undergraduate curriculum in Gothenburg is made explicit in a many-faceted apprehension of competence as perceived by the students (Landström, Mattsson & Rudebeck, 2011). In the aspect of teacher education, determining the competencies and performance indicators of elementary school teachers is very important. The Ministry of National Education has paid regard to the common ground and integrating characteristics of the subjects rather than the special content knowledge of each subject. However, owing to the fact that each subject taught by the elementary school teachers necessitates different disciplines and approaches, it is also essential to determine the special content competencies related to the subjects being taught. Teachers' opinions particularly underline the significance of field content knowledge, while laying less weight on associating the program content with daily life and with other subjects (Lee & Johnston-Wilder, 2012).

It is observed that the teachers are aware of the information in the written sources; however, they are not fully aware of the process of putting the program content into practice, nor their skills. Some teachers are aware of the fact that it is important to teach mathematics topics and associate them with life, rather than possessing knowledge about mathematics special content at an advanced level. Furthermore, little emphasis is given to "utilizing appropriate measurement-evaluation-methods". A great majority of teachers stress keeping the students active and teaching the subject by taking the students' level into account; however, only few make reference to the importance of treating students equally and knowing about the differences among students (Gülteke et al., 2013).

Development and implementation of a competency-based assessment process require a considerable amount of work from dedicated faculty members. With health professions schools under pressure to provide evidence of their graduates' clinical competence, this is a worthwhile investment (Hill et al., 2006). There is a growing consensus in the international nursing community regarding the importance of equipping all nurses with a knowledge base and the minimum set of skills to enable them to meet the challenges they will face in dealing with the complexities of disasters. To this end, the World Health Organization (WHO) and International Council of Nurses (ICN) jointly formulated the ICN Framework of Disaster Nursing Competencies. These competencies help clarify the role of nurses in disasters, as well as guide the development of disaster training and education. It is envisaged that such training and education can

equip nurses with similar competencies from around the world while giving attention to local applications (Chan et al., 2010).

Physicians incorporate newly learned procedures into their clinical practice; concerns for patient safety warrant a change in training methodologies from being solely process oriented to one that is competency-based (Colt et al., 2010). Information technology has also been identified as essential for improving care quality, access, and safety and as a core competency for all health professionals. Hence, nursing graduates must have the IT skills and competencies to perform well in clinics and hospitals (Fetter et al., 2009). In support with this, videotaping has been suggested as an effective assessment technique that could be applied within nursing curricula. Videotapes allow faculty to conduct detailed assessments of students' ability to perform physical assessment, accomplish specific tasks, demonstrate communication techniques, and organize their thinking processes. It also allows for self-assessment and peer assessment of these skill performances. Students can increase their competence as they practice in a "safe" environment prior to performing the skills in clinical settings (Winters et al., 2003).

In the context of pharmacy, three Natural Health Products (NHP)-related core competencies were identified that are needed to be acquired by the pharmacy students, broadly summed up as: (1) the ability to incorporate NHP knowledge when providing pharmaceutical care; (2) the ability to access and critically appraise sources of information related to NHPs, and (3) the ability to provide appropriate education to patients and other health care providers on the effectiveness and potential adverse effects and drug interactions of NHPs (Byrne et al., 2010).

In another context, the study of Ramlall (2006) shows inadequacy of time and expertise on understanding the benefits of accounting, marketing, and other different functional areas to effectively develop and implement Human Resource (HR) strategies. There is indeed a wake-up call for more emphasis on measuring HR's contribution to the business strategy and the effectiveness of the respective HR strategies.

Competencies needed by agricultural communications graduates to meet the needs of the agricultural sector are key factors for promoting agriculture and food security in a developing country such as Mali (Maiga et al., 2013). Early professionals who pioneered agricultural communications were not only outspoken leaders within the new profession but were also national leaders of agriculture (Tucker et al., 2003).

Employers allege that colleges, universities and any other institutions are not producing enough highly qualified candidates that can blend the graduates' technical skills with the employers' business goals (Kamal, 2005). Hence, it is imperative to scrutinize the effectiveness in a specific program if it is in line with the demands of the society.

When academic departments examine the issues of program relevance, the process often starts with identification of the program learning competencies that meet student and employer expectations. However, once these program outcomes are identified, it is also obscure how to select the courses and content areas within those courses that best support these desired outcomes. Without understanding this important set of relationships, it is clear that diminished program effectiveness will result immediately (Kauffmann et al., 2002). Take a well-designed and well-managed practicum in universities as an example. The school practicum plays a vital role in

improving professional skills and competencies. Insufficient practicum duration, communication gap among three parties (students, external and internal supervisor), loose supervision and lack of focus on professional skills are the problems reported by graduates (Malik & Ameen, 2010).

The measures of program effectiveness were developed by drawing upon factors derived from previous developed lists of crucial elements. For the selection of the factors that were used in the study of Koenig (2010), each factor included had to appear on at least two of the lists of effectiveness. The following are the factors related to effectiveness of course delivery modes: class size density, utilization of educational resources, enhancement and application of cognitive skills, promotion of active participation by students, interaction of instructor and students within learning environment, allowance for student group collaboration, recognition of different learning styles, accommodation of diversity and multiculturalism, and effectiveness for learning course content (Koenig, 2010). Because of this, university faculty and administrators must develop sound methods of instruction to achieve appropriate competencies, which then determine program effectiveness, assure professional readiness, and meet accreditation standards (Winters et al., 2003).

Different programs cater students with the tools they need to better understand factors that affect job performance such as job expectations, task design, incentive systems, feedback systems, performance strategies and tools, job aids, and resources. Students learn to think strategically and design interventions that will positively impact workplace learning and performance (USM-DEWD, 2006).

The studies reviewed support that the relevance of the program that the school offers affects the development of competencies of its graduates. The researcher as a school administrator is interested to look into the relevance of the programs the school offers and its influence to the level of development of graduates' competencies. Results of the study will be used as basis of improving the quality of curricular programs of the school. Hence, this study.

## **2.0 Framework**

This study used the Stufflebeam's Context, Input, Process, and Product (CIPP) Evaluation Model. In this model, context evaluation includes examining and describing the program context, target population and its needs, opportunities for addressing needs and problems underlying the needs, whether program goals are sufficiently responsive to the assessed needs. Input evaluation includes activities such as description of the program inputs and resources; comparison of how the program perform compared to other programs; evaluation of the proposed design of the program; examination of alternative strategies and procedures for the program should be considered and recommended.

Process evaluation includes examining how a program is being implemented; monitoring how the program is performing; auditing the program to make sure it is following required legal and ethical guidelines; identifying defects in the procedural design or in the implementation of program. It is here that evaluators provide information about what is actually occurring in the program. This feedback can be helpful in making formative evaluation decisions (i.e., decisions about how to modify or improve the program).

Product evaluation includes determining and examining the general and specific outcomes of the program measuring anticipated outcomes; assessing the merit of the program conducting a retrospective benefit/cost assessment (to establish the actual worth or value of the program). Product evaluation is very helpful in making decisions what programs or aspects of the program be continued or discontinued.

In this paper, NMSCST's provision of educational service in the locality is considered as the context, the assessment of the relevance of the programs offered serves as the input evaluation and the evaluation of the development of the competencies of graduates is treated as process evaluation.

### 3.0 Methodology

The target population of the was the alumni of Northwestern Mindanao State College of Science and Technology in Tanguib City Misamis Occidental. These alumni were graduates of the Bachelor in Elementary Education, Bachelor in Secondary Education, Bachelor of Science in Agriculture, Bachelor of Science in Information Technology, and Bachelor of Science in Industrial Technology and Bachelor of Science in Hospitality Management.

Descriptive correlational study was used in describing the effectiveness of the programs offered and the level of development of graduates' competencies.

**3.1 Research Instruments.** The following instruments were used in gathering pertinent data and information in this study.

A. Program Relevance Assessment Questionnaire (Appendix A). This instrument measured the relevance of the academic programs offered by the school. The scale and indicators of the questionnaire were taken from the Association of Accredited Colleges and Universities in the Philippines (AACUP) Accreditation Instrument. The tool was answered by the graduates to describe the effectiveness of the program along the areas of curriculum and program of studies, assessment of academic performance and graduation requirements.

B. Graduate's Competencies Assessment Tool (Appendix B). The tool described the level of development of graduates' competencies after completing the programs of the school. The instrument measures the competencies of the graduates as to intellectual competencies, personal and civic responsibilities, practical skills and professional competencies.

The instruments underwent validation and reliability testing to ascertain its applicability and functionality. For the validation stage, the draft of the instruments was shown to the dissertation panel. They were asked to rate each item as "retain, revise or delete". Mean was computed and served as the basis for finalizing the items.

To ascertain the level of reliability of the tools, the revised draft was pretested to a group of graduates. Responses were used to calculate Cronbachs' alpha. When the desired reliability level was obtained, finalization of the instruments followed and data gathering proper commenced.



#### 4.0 Results and discussions

This sub section presents the study findings on program relevance and graduates' competencies of the Northwestern Mindanao State College of Science and Technology. The profile of the graduates included their sex, program graduated and year graduated. The data of these profiles are placed in Table 1.

Table 1. Profile of the Graduates (n=284)

Profile		Counts	Percents
Sex:	Male	156	54.93
	Female	128	45.07
Program Graduated:	Education	89	31.34
	BS Agriculture	18	6.34
	BSHM	23	8.10
	BS In. Tech.	113	39.79
	BSIT	41	14.44
Year Graduated	: 2004-2005	18	6.36
	2005-2006	11	3.89
	2006-2007	24	8.48
	2007-2008	30	10.60
	2008-2009	25	8.83
	2009-2010	36	12.72
	2010-2011	27	9.54
	2011-2012	55	19.43
	2012-2013	57	20.14

#### 4.1 Profile of the Graduates

**4.1.1 Sex.** The sex indicates their gender as to female or male. The data shows that out of 284 respondents, 156 respondents constituting 54.93 percent were males while the remaining 128 or 45.07 percent were females. The reasons are that, the college offers program where prevailing enrollees were boys. More males were encouraged to study in several areas of science and technology programs.

**4.1.2 Program Graduated.** From the data of Table 1, 89 or 31.34 percent were noted to be graduated of Teacher Education program. This is followed by 18 or 6.34 percent who graduated Bachelor of Science in Agriculture with area specialization in Animal Science and Crop science. This is followed by 23 or 8.10 percent who graduated Hospitality Management, and 113 or 39.79 percent who graduated from Industrial Technology with area of specialization in Automotive Technology, Electronics, Electrical, Civil Technology, Food Technology and Computer Technology, and 41 graduates or 14.44 percent who graduated Bachelor in Information Technology

program. Data indicate that bigger percentage of the graduates come from Bachelor of Elementary Education. This is because most of the graduates pass the Licensure Examination for Teachers and eventually hired in the teaching position. It can be said that most of the respondents were males who were inclined in technical and vocational program such as Information Technology, Automotive Technology and Electronics Technology, Electrical Technology, Civil Technology and Food Technology.

**4.1.3 Year Graduated.** This refers to the students' year of graduation from their taken program. The data indicate that 57 students or 20.14 percent graduated in the SY 2012-2013. This is followed by 55 or 19.43 percent in the SY 2011-2012, 36 or 12.72 percent in the SY 2009-2010 and 30 or 10.60 percent in the SY 2007-2008. The rest of the data constitute less than 10 percent of the total respondents in terms of the year graduated. This finding supports the idea that College curricular programs vary widely depending on universities and colleges. These programs are a focus of many educators to look into whether the school trainings are effective in instilling skills and competencies to graduates.

## 4.2 Perceived Relevance of the Programs Offered at NMSCST

Table 2. Relevance of the Programs offered by NMSCST (n=284)

Program Relevance	M	StDev
Curriculum and Program of Studies	4.24	0.577
Assessment of Academic Performance	4.23	0.545
Graduation Requirements	4.45	0.479
<b>Overall Mean</b>	<b>4.31</b>	<b>0.534</b>

*Note: Relevance Scale: 4.21-5.0 (Very High); 3.41-4.20 (High); 2.61-3.40 (Average); 1.81-2.60 (Low); and 1.0-1.80 (Very Low).*

Data in Table 2 indicate that the graduates perceived the level of program relevance as to curriculum and program of studies as very high (M = 4.24). This finding means that the curricular offering reflects the national and regional goals and the vision and mission of the college. The curriculum and program of studies of the school enable the graduates to develop their professional competencies. Moreover, the graduates have a very high level of perceptions that courses offered in the College are logically arranged and that pre-requisite courses or subjects are identified as reflected in their curricular checklist. The curricular content responds to the needs of the country, more specifically in the technical and vocational aspect.

The growing awareness of employability in higher education is viable in the context of the development of a knowledge- based economy, a more diverse student intake, and changes in the nature of graduate employment. Colleges are encouraged to transform employable graduates into real professionals in their works. Graduates are expected to develop personal skills, qualities, and experiences that enable them to compete in the graduate labor market.

In this survey, graduates reveal that the curriculum provides opportunities for participation in activities such as immersion and practical training. These activities relate to their participation in different trade skills competition, field studies, practice teaching and taking the national



competencies examination administered by the Technical Education and Skills Development Authority (TESDA). Graduates are exhorted to develop personal skills, qualities, and experiences that enable them to compete and do well in the labor market.

The data further show that the graduates perceived a very high level of relevance in assessing academic performance ( $M = 4.23$ ). This finding means that the program of studies provides evaluation of students' academic performance in the form of quizzes, term examinations, projects and other forms of assessment. Varied evaluation tools were used to measure the students' performance such as portfolio, skills demonstration, oral examination, reports and research study. Student evaluation and grading system are defined and understood and disseminated to students. The grading system is stipulated in their student handbook and in the instructor's course syllabus. Parents and guardians were also informed of their children's performance by simply accessing the college website. Because of the very critical role of colleges, universities and other institutions in the development of necessary competencies needed for the jobs in line with their courses, the situation can be used as an instrument in evaluating university courses. Incontestably, students' rating is an old-fashioned and obsolete instrument in evaluating university courses.

The college offers two programs requiring licensure examinations: for Teacher Education - the Licensure Examination for Teachers (LET) and for the agriculture - the Licensure Examination for Agriculturists (LEA). Graduates in these programs are performing very well. Technical and Vocational courses have their National Competency Examination (NC) administered by the Technical Education and Skills Development Authority (TESDA). Graduates of these programs are all NC holders before they are allowed to graduate from their respective courses. Majority of the graduates succeed in gaining employment in jobs related to their education. Education graduates were already employed in the public school system and some in private schools while technical-vocational graduates were in the computer, electrical, electronics, cooperatives, automotive and tourism industries. Arguably, despite the best intentions of academics to enhance graduates' employability, the limitations inherent within the agenda will consistently produce mixed outcomes. Furthermore, it is argued that resources would be better utilized to add more employment-based training and experience, and employer involvement in courses, which were found to positively affect immediate graduate prospects in the labor market and, therefore, support graduates in the transitional stage into employment.

Furthermore, the data show that the graduates perceived a very high level of relevance of the graduation requirements of the school ( $M = 4.45$ ). The finding means that the students are regularly informed of the academic performance by accessing the college website to show their grades and discrepancies. Transferees and returnees were properly evaluated. Requirements such as honorable dismissal, transcript of records from their previous school where they last attended were the primary credentials before they are admitted to the college. Graduating students are required to conduct research and other activities related to their course. They also undergo On-the-Job Training, Practice Teaching, internship and apprenticeship to various business firms to apply their theoretical knowledge into actual situation. Remedial classes were also conducted to cater to graduating students who have discrepancy in their programs of study. Clearance is required as evidence that the

students were free from and cleared of all obligations and a proof that they are entitled for graduation.

### 4.3 Level of Development of Graduates' Competencies

Table 3. Development of Competencies of Graduates (n=284)

Graduates' Competencies	M	StDev
Intellectual Competencies	4.09	0.579
Personal Competencies	4.18	0.543
Practical Skills	4.20	0.596
Professional Competencies	4.30	0.554
<b>Overall Mean</b>	<b>4.19</b>	<b>0.586</b>

*Note: Relevance Scale: 4.21-5.0 (Very High); 3.41-4.20 (High); 2.61-3.40 (Fair); 1.81-2.60 (Poor); and 1.0-1.80 (Very Poor).*

The level of development of graduates' competencies can be seen in Table 3. In the survey, graduates have a high level of development in intellectual competencies (M=4.09). It means that the graduates can comprehend textual and visual information at higher level and can communicate proficiently and effectively in writing and speaking. They understand basic concepts across the domains of human learning; knowledge, affective and motor-skills. They can think critically, analytically and can create something new. Graduates can apply different analytical modes quantitatively and qualitatively, artistic and scientific, textual and visual in solving problem.

Graduates confirm that they possessed a high level of development in terms of personal and civic responsibilities (M= 4.18). This means that they can interpret the human condition and experience. Furthermore, graduates have high a high level of perceptions on contemporary world from both Philippine and global perspective. The graduates can reflect critically on shared concerns and think of innovative, creative solutions guided accordingly by moral standards. Moreover, the graduates' have a high level of development on moral norms/ imperatives as they affect individual and society. The graduates have a high level of understanding and respect of human rights and that they contribute personally and meaningfully to the country's development.

Further, the graduates reveal that they have highly developed practical skills (M= 4.20). This finding means that graduates can work effectively in group. This can be noted in their project making and other technical work. Furthermore, the graduates have high level skills in computing and in the use of information technology to assist and facilitate their research work and can solve real world problems. The graduates have a high level of application on practical task related to their knowledge and skills.

The data further indicate that the graduates have very highly developed professional competencies. The graduates can perform the duties and responsibilities required by their respective professions and can demonstrate skills to carry out the application or strategy in actual work setting. This can be observed in their performance rating as indicated in the evaluation form during their on-the-job training and practice teaching. The graduates observe the code of conduct of the profession and that

they can highly contribute to the advancement of the profession. Furthermore, the graduates have highly developed skills in applying theories to real world problem in the field and keep updated in their profession through attending seminars, training and advance studies.

#### 4.4 Difference in Relevance of the Programs of the NMSCST when Grouped by the Graduates' Profile

Table 4. Test of Difference in the Relevance of the Programs of the NMSCST when Grouped by the Graduates' Profile

Variables	Computed Values	p values	Remarks
Curriculum and Program Graduated	F = 0.21	0.934	Not Significant
Assessment and Program Graduated	F = 0.83	0.509	Not Significant
Graduation Requirement and Program Graduated	F = 0.59	0.669	Not Significant
Curriculum and Year Graduated	F = 1.60	0.125	Not Significant
Assessment and Year Graduated	F = 0.72	0.676	Not Significant
Graduation Requirement and Year Graduated	F = 0.51	0.848	Not Significant
Curriculum and Sex	t = 0.80	0.425	Not Significant
Assessment and Sex	t = -0.94	0.348	Not Significant
Graduation Requirement and Sex	t = -2.11	0.036	Significant

The data (Table 4) present the difference in the relevance of the programs of the college when grouped according to the graduates' profile. The difference in program relevance as to graduation requirement is significant when grouped by graduates' sex ( $t = -2.11$ ,  $p = 0.036$ ). The finding indicates that the male and female graduates have varied experiences as to schools' graduation requirement. As observed, males return from their On-the-job training earlier than their female counter part. In this case male can complete their graduation requirements earlier than females. As observed, males double the time required for OJT, thus giving them enough time to complete their grade discrepancies. This finding supports the idea that college curricular programs vary widely depending on universities and colleges.

#### 4.5 Difference in the Level of Development of NMSCST Graduates' Competencies when Grouped by Profile

Table 5. Test of Difference in the Competencies of the Graduates of NMSCST when Grouped by the Graduates' Profile

Variables	Computed Values	p values	Remarks
Intellectual Competencies and Sex	$t = -0.76$	0.448	Not Significant
Personal Competencies and Sex	$t = -1.02$	0.310	Not Significant
Practical Skills and Sex	$t = -0.03$	0.077	Not Significant
Professional Skills and Sex	$t = -0.98$	0.329	Not Significant
Intellectual Competencies and Program Graduated	$F = 0.58$	0.827	Not Significant
Personal Competencies and Program Graduated	$F = 0.84$	0.595	Not Significant
Practical Skills and Program Graduated	$F = 0.44$	0.926	Not Significant
Professional Competencies and Program Graduated	$F = 1.05$	0.402	Not Significant
Intellectual Competencies and Year Graduated	$F = 0.65$	0.737	Not Significant
Personal Competencies and Year Graduated	$F = 1.55$	0.142	Not Significant
Practical Skills and Year Graduated	$F = 1.29$	0.250	Not Significant
Professional Competencies and Year Graduated	$F = 1.09$	0.373	Not Significant

Data in Table 5 reveal the results of the test of difference in the level of development of NMSCST graduates' competencies when grouped by their profile. There is no significant difference among the graduate's competencies when grouped by the graduates' profile. This finding means that male and female graduates unanimously had developed the same level of intellectual, personal, practical and professional competencies, when grouped as to program and year graduated. It was noted that both male and female graduates can comprehend textual and visual information at higher levels, can communicate proficiently, thinks critically and creatively and can apply different strategies in tackling problems. It was further noted that graduates in all programs have generally the same level of competencies. Moreover, graduates of different school years have common level of intellectual, personal, practical and professional competencies.

Competencies are just a part of the process of maintaining a high-quality workforce and the "foundation of excellent care". The graduates are exhorted to develop personal skills, qualities, and experiences that enable them to compete and do well in the labor market.

#### 4.6 Relationship between the Relevance of the Programs of the NMSCST and the Level of Development of Competencies of Graduates

Table 6. Test of Relationship between the Program Relevance and the Competencies of Graduates

Variables	Intellectual <i>r (p)</i>	Personal <i>r (p)</i>	Practical <i>r (p)</i>	Professional <i>r (p)</i>
Curriculum	0.586 (0.000) **	0.553 (0.000)**	0.563 (0.000)**	0.597 (0.000)**
Assessment	0.650 (0.000) **	0.635 (0.000)**	0.646 (0.000)**	0.660 (0.000)**
Graduation Requirement	0.599 (0.000) **	0.606 (0.000)**	0.566 (0.000)**	0.592 (0.000)**

Note: \*\* - Highly Significant at 0.01

The data (Table 6) shows significant relationship between the relevance of the programs of NMSCST and the competencies of graduates. It is revealed in the survey that the relationship between the relevance of the programs and the level of developments of competencies of graduates is highly significant. These results can be observed in the graduates' performance in taking national examinations, their present employment status and current monthly income. It can be further noted that a number of graduates in teacher education presently employed in public institutions. This finding strengthens the argument that graduates can provide the employers with favorable competitiveness and have good adaptability to the environment as well as capabilities in communication and coordination, teamwork and cooperation, customer orientation, problem analysis and solving, the pursuit of excellent innovation, and adaptation to organizational changes.

#### 5.0 CONCLUSION AND RECOMMENDATIONS

The study affirms that the Northwestern Mindanao State College of Science and Technology (NMSCSR) through the years catered to more male than female students. The study puts on record that the program offerings of NMSCST are relevant as measured in terms of curriculum and program of studies, assessment of academic performance and graduation requirements. The study provides information that the school succeeds in equipping graduates with a high level of intellectual, personal and professional competencies and practical skills. The very high level of relevance of the programs offered by the NMSCST is a good factor of the high level of development of graduates' competencies.

The study recommends that the provision of highly relevant program of studies be maintained by the school. Other indicators of the college performance such as faculty qualification, provision of facilities and resources be studied in relation to graduates' competencies.

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