

## **Factors Affecting Vocational – Technical Skills Development of College Students in Cotabato City**

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**Abstract:** This study had for its main objectives to determine the effects of selected variables on the vocational – technical skills development of the college students in selected colleges and universities in Cotabato City. This study was a descriptive – correlation design. Stratified random sampling and equal allocation using the Slovin’s formula was used to determine the sample size of the respondents. The respondents consisted of a total of 141 students equally taken from the colleges and universities offering automotive, electronics, refrigeration and air-conditioning; 23 vocational – technical teachers; and 17 administrators. Three sets of self – made questionnaire were administered to the targeted respondents. Regression analysis and analysis of variance were used to find out the effects of selected variables on the vocational-technical skill development of the college students. As the results of the study, administrative support, was found very good; teachers were competent and committed; parents were very much involved in their children’s skill development more specially among electronics students; there was adequacy of teaching materials, equipment and the like; students’ interest was moderate. Moreover, there was no significant difference in the administrative support as perceived by the teachers and the administrators themselves. There was also no significant difference in the perceptions of the teachers and students: on the adequacy of instructional materials, equipment and the like in automotive and in electronics; however, there was a significant difference in the perception materials, equipment and the like in refrigeration and air conditioning. Adequacy of instructional materials and involvement of parents emerged as the best predictors among the variables specifically among electronics students. Therefore, these two factors have great influence on the skills development of the students in electronics. There was also an encouraging effect of the administrative support, adequacy of instructional materials, involvement of parents and interest of students and teachers’ commitment and competence to the hand – on practical work or skills of the students in automotive, refrigeration and air – conditioning.

**Keywords:** vocational, technical skills, college students, Cotabato City.

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### **INTRODUCTION**

Human resources are decisive factors in the struggle for international competitiveness of our country for development and advancement. The emergence of New Industrialized Countries or the so – called “Tiger Economies” in Asia exemplifies the fact that even small and resource deficient countries can fully develop if its human resource are trained, capable and discipline.

The development of our human resource is always anchored on national and regional development thrust. In this respect, the value of technical education in terms of its relevance to national advancement is well recognized. The “blue collar” workers, technicians and entrepreneurs are the ones that fashion goods and services to consumption of both domestic and export markets. These technical men must be given the best trainings to be more productive and competitive.

The capability of our technical men or workers largely depends on the quality of training they received in school. The creation of the Technical Vocational Skills Development Authority (TESDA) was in response to the recommendation of the Congressional Education and Training (TVET) to be more responsive to the changing demands of the labor market within the context of world economy [1].

As stated in the Handbook of TESDA, 1999, TESDA seeks to: help the country attain global competitiveness through improved technical education and skills training and development in meeting the demands for quality middle manpower, enhance workers’ critical and creative thinking through the dissemination of the scientific and technical base of middle – level manpower development program and encouragement for the complementary roles of private

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and public institution in technical education and skills development.

Cotabato City is blessed with eight (8) well known TESDA supervised schools and one (1) Technical and Vocational Education and Training providers. Among the eight vocational – technical institutions are: Notre Dame University – Community College, University of Mindanao, Cotabato Branch, Cotabato City Central College, System Technology Institute (STI), Cotabato Technology (COTECHS), Computer Land (COLAND), AMA Computer College and Cotabato City State Polytechnic College. The Central Mindanao Training Center, the then NMYC in Cotabato City is a training provider. It prioritizes training courses in basic electronics, automotive, general electricity, refrigeration, and air-conditioning [2].

This TESDA supervised schools, require students to undergo training in industrial and commercial establishments in supplement to the occupational experience, technical knowledge, and desirable values that they have learned from the schools. In any institution, this program in vocational technical education is designed to enrich, strengthen and technical program of technical and vocational education and to benefit OJT students in vocational-technical school, the industry and the community in general [3].

This research study on the Vocational-Technical Education and Skills Development in Cotabato City is focused on the effects of selected variables on the vocational-technical skills development of the college students. This study tried to determine areas that require changes and improvement to meet the demands of the time.

### **Statement of the Problem**

Generally, the study sought to determine the effects of selected variables on the vocational-technical skills development of the college students in Cotabato City. Specifically, it aimed to find answers to the following questions:

- How do the teachers and school administrators perceive the administrative support on the vocational-technical skills development of the students?
- How do the teachers perceive their teaching in vocational-technical courses in terms of knowledge and skills on the subject and the teachers commitment to their job among selected colleges and universities in Cotabato City?
- What is the level of interest of the students in their vocational-technical skills development?

- To what extent is the involvement of parents in the vocational-technical education of their children?
- How adequate are the vocational-technical instruction materials equipment among selected colleges and universities in Cotabato City?
- At what level are the vocational-technical hands-on-practical work of the students among selected colleges and universities in Cotabato City?
- Do teachers and administrators differ in their perception on the administrative support?
- Do teachers and students differ in their perception on the adequacy of instructional materials?
- Do administrative support, teachers' competence, student' interests, parents' involvement, adequacy of instructional materials, influence students' skills development as perceived by the students, teachers and administrators among selected colleges and universities in Cotabato City?

### **RESEARCH METHODOLOGY**

This Chapter deals with the research design, determination of sample size, sampling design and techniques, the subjects, research instruments and its validation, data gathering procedures and method and statistical treatment used in the study.

#### Research Design

This research work employed the correlation analysis design particularly regression and analysis of variance – ANOVA to find out the effects of selected variables on the vocational technical skills development of the students in the four selected colleges and universities in Cotabato City offering automotive, electronics, refrigeration and air conditioning.

#### Subject of the Study

There were three groups of respondents in this study. The first group was composed of 141 students equally divided or distributed for the three courses: automotive, electronics, refrigeration and air – conditioning. The second group of respondents consisted of 23 teachers in the four selected vocational – technical schools in Cotabato City. The third group of respondents consisted of 17 administrators, from the four selected vocational technical schools in Cotabato City, School year 2000-2001.

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### The Research Instrument

Three sets of questionnaires were used by the researcher in this study. The first set of questionnaire was designed for the vocational technical students.

It consisted of the socio – economic profile, their perceptions on the adequacy of instructional materials, interest of students, hand – on – practical work (skills), and involvement of parents.

The rating scale for the adequacy of instructional material was categorized as 5 – for very adequate, which means that the facilities, equipment, books, tools and the like are more than the needs of the students and are functioning well; 4 – for adequate, means that the facilities, and other instructional facilities are just enough for students needs and are serviceable; 3 – for fairly adequate means that the facilities and other instructional needs are fairly adequate, means that nearly one half of the class could not use the facilities and other instructional equipment; and finally 1 – for very inadequate, more than one – half of the class do not have one facility or equipment to use.

The rating scale for the interest of students was categorized as: 5 – for strongly agree, which means that the students consider the course as the best; 4 – for agree, the students are excited to finish the course; 3 – for fairly agree, the students moderately interested to finish their course; 2 – for less agree; which means that the students consider their course as second class; and 1 – disagree, meaning the students are not interested in learning the course.

As to the hands – on – practical work (skill) of students was categorized as: 5 – for very much agree, which means that the students are skilled in their course; 4 – for agree, meaning the students are almost versatile in handling all types of tools, equipment and the like; 3 - for fairly agree, means that the students are a little bit knowledgeable in handling machineries, tools, and equipment in their practicum; 2 – for less agree, means that the students do not learn to use all types of tools and equipment; and 1 – for disagree, which means that the students barely learn to use the tools and equipment during their practicum.

Regarding the scale for parents' involvement, was categorized as: 5 – for excellent, meaning their parents are extending their full support both financial and moral support; 4 – for very good, means that their parents are extending more than enough financial and moral support; 3 – for good, means that their parents are extending more financial and moral support; and finally, 1 – for poor, means their parents do not extend any help to their children.

The second set of questionnaires was designed for the vocational- technical teachers. It consisted of socio-economic profile, their perceptions on the administrative support, teachers' competence and commitment, and adequacy of instructional materials.

The third set of questionnaire was designed for the vocational – technical school administrators. It consisted of their socio-economic profile, and their perception of their administrative support. The rating scale was also the same as indicated under the teachers' evaluation of the same topic on administrative support.

### **Data Gathering Procedures**

Official permission both personal and written to conduct the study was sought from the authorities concerned, particularly from the school heads, presidents, Deans and Chief or Official after establishing the reliability and validity of the instruments.

Data collection was undertaken through interview schedule with the students, teachers and administrators of the four selected vocational-technical colleges and universities in Cotabato City. The questionnaires for the students, teachers and administrators, of CMTC – TESDA and CCCC were administered to them and retrieved on the same day. The questionnaire for students, teachers and administrators of NDU and UM Cotabato were administered to them and retrieved after two weeks.

Supplementary data gathering was likewise employees to get relevant information from several sources of publication related to the study. Data gathering was done from January to February 2001.

### Statistical Treatment

The data were analyzed in accordance with the research problem of the study using the following statistical treatments:

Descriptive statistics such as frequency, percentage, mean, standard deviations were employed in describing the variables of the study.

Regression and Analysis of Variance (ANOVA) were also used to find out the effect of selected variables on the vocational-technical skills development of the students.

## **RESULTS AND DISCUSSION**

### Administrative Support

The material and non-material administrative support as perceived by both the teachers and the administrators themselves are indicated in Table 1.

As can be gleaned from the said Table, all items indicating this administrative support were rated “very good” by both the teachers and the administrators

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of the targeted schools except one item which the school administrator's respondents rated "excellent" with the mean of 4.99. This is on the school administrators encouraging the students' participation in skills enhancement activities outside the school.

The rest of the items in the questionnaire which were rated "very good" by both teachers and the administrators-respondents were:

"Provide faculty development" with a mean of 4.09 from teachers respondents and 4.24 from the administrators-respondents; "Provide necessary equipment, tools and machinery for laboratory/practicum," 3.70 mean from teachers and 3.94 from the administrators; "Put much concern on students' Knowledge and skills development" 4.13 and 4.18 means from teachers and administrators, respectively.

The school administrators "give assistance to students and teachers when there are untoward incidents" was also rated "very good" with a means of 3.91 and 4.29 by the teachers and the administrators, respectively.

Moreover, the school administrators "provide the students with updated instructional materials, reference and others in each line of their specialization, got a means of 4.0 from the teachers and 3.94 from the administrators. "Providing buildings and other facilities for the students practicum," 3.65 and 3.88 means respectively; "make linkages with other institutions, organizations and establishments for students" on-the-job trainings" means of 4.00 and 4.17 from teachers and administrators respectively.

"Giving (School Administrators) time in attending and in listening to students and teachers problems with 3.91 and 4.35 means "Give financial assistance to poor but deserving students" with 3.83 and 3.94 means from the teachers – respondents and the school administrator respondents respectively.

On the whole, the teacher and the administrators respondents overall means of 4.05 imply the indispensable task of the administrators to provide

all the materials and non-materials supports to the students and the teachers in order to achieve the goals for national development which is the goal of TESDA as well as of all vocational and technical schools such as: developing skilled middle manpower who can be globally competitive, with proper work ethics and desirable values.

#### Competence of Teachers in Automotive

Result of teachers competence in automotive is indicated in Table 2. The teaching competence of automotive teachers rated by the teachers themselves include the following: adequate knowledge in automotive technology was rated "competent" (4.36); Expertise in identifying causes of engine trouble was also rated "competent" (4.35); Imparting theories and practices in machine repair was "competent" (4.35); Imparting theories and practices in machine repair was "competent" (4.18); Knowledge in identifying difference parts of Automobile was rated "very competent" (4.64); Ability in using machine tools and equipment was rated "very competent" (4.64); Safe handling of shop tools and equipment was rated "very competent" (4.82); Knowledge in overhauling and assembling automobile parts, "competent" (4.45); Ability in cleaning and oiling automobile machine parts, "very competent" (4.91); Skill in driving automobile was "competent" (4.00); Knowledge in conditioning the automobile machine was rated "very competent" (4.55); Installation of electrical wires, lights and signals was rated "competent" (4.00); and Specialized trouble shooting techniques of vehicles was rated "very competent" (4.55).

The result show that generally, the automotive teachers rated themselves as "competent" (4.48) in teaching automotive technology. These may imply that the automotive teachers need more trainings or upgrading their competencies to enable them to become effective teachers in developing the students skills in automotive and to motivate students to want to learn the skills because they could perceived the competence of those who are imparting the knowledge and skills in this particular area of specialization. In other words, the nature of those competencies determines whether the teachers are able to teach affectively and whether the students are willing to learn the skills.

**Table 1. Administrative Support as Perceived by the Teacher and Administrators in the Vocation- Technical Schools of Cotabato City**

	TEACHERS		Interpretation	SCHOOL ADMINISTRATORS		Interpretation	Overall Mean	Interpretation
	Mean	SD		Mean	SD			
1.Provided faculty development.	4.09	0.67	Very good	4.24	.75	Very good	4.16	Very good
2.Provide necessary Equipment, tools, and machinery for laboratory/practicum.	3.70	.97	Very good	3.94	.75	Very good	3.82	Very good
3.Put much concern on the students' knowledge and skills development.	4.13	.87	Very good	4.18	.81	Very good	4.15	Very good
4.Give assistance to students and teachers on untoward incidents.	3.91	.85	Very good	4.29	.77	Very good	4.10	Very good
5.Encourage students participation in skills enhancement activities outside the school.	3.87	1.01	Very good	4.99	.69	Very good	4.43	Very good
6.Provide update instruction materials, reference and others in each line of specialization.	4.00	.85	Very good	3.94	.66	Very good	3.97	Very good
7.Provide building and other facilities for the students practicum.	3.65	.83	Very good	3.88	.78	Very good	3.75	Very good
8.Makes linkages with other institution, organization and establishment for students on-the-Job training.	4.17	.89	Very good	4.47	.72	Very good	4.32	Very good
9.Give his time in attending and in listening to students' and teachers' problem.	3.91	1.00	Very good	4.35	.49	Very good	3.92	Very good
10.Give financial assistance to poor but deserving students.	3.83	1.11	Very good	3.94	.66	Very good	3.88	Very good

Analysis: 1.0 – 1.49 – Poor

2.5 – 3.49 – Good

4.5 – 5.00 – Excellent

1.5 – 2.49 – Fair

3.5 – 4.49 – Very Good

**Table 2. Level of Competence of Automotive Teacher**

Items	Means	SD	Interpretation
1. Posses adequate knowledge in automotive technology.	4.36	.50	Competent
2. Expertise in identifying causes of engine troubles.	4.35	.52	Competent
3. Imparting theories and practices in machine repair.	4.18	.40	Competent
4. Knowledge in identifying different parts of automobile.	4.64	.50	Very Competent
5. Ability in using machine tools and equipment.	4.64	.50	Very Competent
6. Safe handling of shop tools and equipment.	4.82	.40	Very Competent
7. Knowledge in overhauling and assembling automobile parts.	4.45	.52	Competent
8. Ability in cleaning and oiling automobile machine parts.	4.91	.30	Very Competent
9. Skill in driving aytomobi9le.	4.00	1.34	Competent
10. Knowledge in conditioning the automobile Machine.	4.55	.52	Very Competent
11. Installation of wiring, lights, and signals.	4.00	.77	Competent
12. Specialization trouble shooting techniques of vehicles.	4.55	.52	Very Competent
13. Maintenance of under-chassis, brakes, axles, steering wheels.	4.18	.40	Competent
Weighted Mean	4.48	.25	Competent

Analysis:

- 1.0-1.49-Not Competent
- 1.5-2.49-Less Competent
- 2.5-3.49-Fairly Competent
- 3.5-4.49-Competent
- 4.5-5.00-Very Competent

#### Competence of Teachers in Electronics

The results of teaching competence of electronic teachers are known in Table 3. The teachers competence rated by the teachers themselves include the following items: emphasis on shop safety rules and regulations considered by the teachers themselves as “very competent” (4.89); as to their expertise in transformer rewinding they declared that they were “competent” (4.00)

The teachers claimed that they were “very competent” (4.78) as to their expertise in handling tools and equipment; however, they were “competent” (4.44) when it comes to knowledge of printed circuit board designing; on the other hand, the teachers were “very competent” (4.67) in assembling AM-FM radio.

Moreover, they were also “very competent: in following: their ability in wire connections of radio television and the like (4.56); in their skills in amplifier

designing (4.56); in their skills in making booster (4.67); in their knowledge in designing and making antenna of radio and television (4.67).

As regard to their ability to classify types of fires as class A, B, C considered themselves to be “competent” (4.00); and ability in designing microphone circuit also “competent” (4.22). Finally, expertise in the use of resistors, capacitors, diodes, transistors, and integrated circuit considered themselves “very competent” (4.67)

On the whole, the electronic teachers were “very competent” (4.53) in imparting knowledge and skills in electronic. This means they are expert, knowledgeable, and skilled and can be relied in the area of electronic technology. Hence, it is expected that students will learn better in this particular area of specialization.

**Table 3. Level of Competence of Electronic Teachers**

Items	Mean	SD	Interpretation
1.Emphasis on shop safety rules and guidance.	4.89	.33	Very Competent
2. Expertise in transformer residing.	4.00	.87	Competent
Expertise in handling tools and equipment.	4.78	.44	Very Competent
4. Knowledge of printed circuit board designing.	4.44	.53	Competent
5.Assembling Am-Fm radio.	4.67	.71	Very Competent
6.Ability in wire connect6ng of radio television and others.	4.56	.88	Very Competent
7.Skills in amplifier designing.	4.56	.73	Very Competent
8.Skills in making booster.	4.67	.71	Very Competent
9.Knowledge in designing and making antenna of radio and television.	4.67	.71	Very Competent
10.Ability to classify types of fire as class A, B, and C.	4.22	.83	Competent
11.Ability in designing microphone circuit.	4.22	.97	Competent
12.Expertise in the use of resistors, capacitors, diodes, transistors, and integrated circuit.	4.67	.50	Very Competent
Weighted Mean	4.53	.50	Very Competent

Analysis:

- 1.0-1.49-Not Competent
- 1.5-2.49-Less Competent
- 2.5-3.49-Fairly Competent
- 3.5-4.-49-Competent
- 4.5-5.00-Very Competent

Competence of Teachers in Refrigeration and Air-Conditioning (RAC)

Table 4 presents the result of the teacher’s competencies in refrigeration and air conditioning. The teaching competencies of the teachers in refrigeration and air-conditioning include: dexterity in repairing refrigerators, and air-conditioning units was considered by the teachers-respondents to be “very competent” (5.00); they also claimed they were “very competent” (5.00) when it comes to expertise in assembling and disassembling spare parts of refrigerators and air-conditioning.

Other items on competencies that the teacher-respondents claimed they were “very competent” are the following: Knowledge in identifying symbols of the different parts of air-conditioning unit, refrigerators, and the like (5.00); Knowledge in cleaning and oiling the spare parts of refrigerators, air-conditioning units and the like (5.00); skills in installing electrical wires of

electric appliances (5.00); Expertise in making connections of magnetic relay (5.00).

However, the teacher-respondents claimed they were “excellent” (4.67) in classifying motors and compressors. As to their knowledge in reading and regulating temperature control system they stated that they were “very competent” (5.00); moreover, they also claimed they were “very competent” in their knowledge in plumbing installations in bigger buildings for air-conditioners (5.00), but “competent” in their skills in different conditioning machinery (4.33).

Generally, the refrigeration and air-conditioning teachers rated themselves as “very competent” (4.88). This implies that they are expert, knowledgeable, skilled and competent in teaching refrigeration and air-conditioning technology. Perhaps the teachers teaching these particular subjects are major in air conditioning and refrigeration and have had enough training and experiences.

**Table 4. Level of Competence of Automotive, Electricity, Refrigeration, and Air-Conditioning**

Items	Mean	SD	Interpretation
1. Dedicated to the teaching job.	4.61	.50	Strongly Agree
2. Work beyond scheduled time when needed.	4.65	.50	Strongly Agree
3. Feel happy when students learn much.	4.83	.39	Strongly Agree
4. Resourceful, creative and innovative in teaching.	4.61	.58	Strongly Agree
5. Facilitate the learning and skill development of students through demonstration.	4.74	.45	Strongly Agree
6. Develop students' self-confidents.	4.52	.67	Strongly Agree
7. Evaluate the students fairly.	4.57	.51	Strongly Agree
8. Integrate positive work values in teaching.	4.61	.50	Strongly Agree
9. Have sense of humor.	4.43	.59	Agree
10. Always ready to give a helping hand an advice or listen to students' problem.	4.61	.58	Strongly Agree
11. Encourage students to develop self-discipline in a positive way.	4.83	.39	Strongly Agree
12. Coordinates with parents when needed.	4.30	.63	Agree
13. Diligent and punctual in teaching.	4.57	.51	Strongly Agree
14. Give much concern on students' skills development.	4.78	.42	Strongly Agree
15. Motivate students effectively.	4.65	.49	Strongly Agree
<b>Weighted Mean</b>	<b>4.62</b>	<b>.27</b>	<b>Strongly Agree</b>

Analysis:

- 1.0-1.49-Disagree
- 1.5-2.49-Less Agree
- 2.5-3.49-Fairly Agree
- 3.5-4.49-Agree
- 4.5-5.00-Strongly Agree

#### Level of Commitment of Teachers Teaching Vocational and Technical Education

The automotive, electronic, refrigeration, air-conditioning teachers were asked fifteen questions to find out their teaching commitment as one of the indicators of their competence. The teacher-responded themselves "strongly agree" on their commitment in imparting their knowledge and skills to their students. This implies that the vocational – technical education teachers in the four selected colleges and universities in Cotabato City really are dedicated in their role as teachers it further shows love and commitment to their profession.

#### Level of Interest of Students in Automotive Electrical, Refrigeration and Air-Conditioning

As shown in Table 5, the students' interest in their line of specialization in their vocational-technical education are revealed.

Vocational interest of students is the most important factor being considered in learning and acquiring knowledge and skills in all courses.

#### Level of Interest of Automotive Students

The student-respondents strongly agree (4.60) that this course is their favorite. However, they only agree on the following: (4.32) that they are enthusiastic in learning the course (4.32). They also "agree" (4.40)

as to their excitement to finish the course; the respondents also "agree" that they try their best to learn the skills (4.32); and ready to spend more time in order to develop their skills (4.23).

They also stated that they "agree"(4.38) that they were proud to be a vocational and technology graduate. They also declared that they "agree" (4.34) on the stamen that they were interested in hsharing their technical skills to their siblings. They also "agree" (4.28) on their willingness to spend more time learning the skills.

Moreover they "agree" (4.45) on looking forward to using their technical skills in actual job. Finally, the respondents "agree" (4.47) in considering their course as the best.

Generally, the automotive students "agree" (4.38) regarding their level of interest of their chosen course. The results imply that even if automotive is their favorite, yet they are not absolutely sold out to this course. It could be perhaps because they still considered this course as a "blue collar job" which they might have considered a low profession compared to a "white collar job"



Hence, the need to re-orient them on the dignity of their chosen career should be enhanced and encouraged that they can be globally competitive should also be focused in their orientation.

*Level of Interest of Students in Electronics*

The responses of the student in their level of interest of the course in electronics show that they “agree” (4.49) that this course is their favorite.

They also affirmed that they “agree” (4.30) on their enthusiasm in learning the course. However, the respondents “strongly agree” (4.68) that they are excited to finish the course.

The respondents “agree” (4.45) that they always try their best to learn the skills. As to their readiness to spend more time in order to develop their skills, the student – respondents “strongly agree” (4.60). The respondents also “strongly agree” (4.53) that they are proud to be technology graduate. They also “strongly agree” (4.55) that they are interested in sharing their technical skills to their siblings.

However, they “agree” (4.36) that they are willing to spend more time learning the skills the respondents “strongly agree” (4.51) that they look forward to using their technical skills in actual job. Finally, they “agree” (4.47) in considering their course as the best.

On the whole, the electronics students in the four selected colleges and universities in Cotabato City moderately like and want their course in electronics.

Again this implies that they are not so confident in taking the electronic course. This may be because this course is considered a “blue collar job”

*Overall Mean of the Level of Interest of Students of Automotive, electronics, Refrigeration and Air – Conditioning*

The responses of these three groups of student – respondents in their level of interest show that they “agree” (4.38) that this course is their favorite.

They also affirmed that they “agree” (4.11) on their enthusiasm in learning the course. They “agree” (4.41) that they are excited to finish the course.

They also “agree” (4.20) on the statement that they always try their best to learn the skills.

The respondents “agree” (4.28) to spend more in order to develop their skills. The respondents also “agree (4.29) that they are proud to be a vocational technology graduate. They also “agree” (4.34) that they look forward to using their technical skills in actual job. Finally, they “agree” (4.38) that they consider their course as the best.

The overall result, a mean of 4.29 “agree generally imply that the student of automotive, electronics and refrigeration and air – conditioning similarly believe that their course is a second class.

**Table 5. Level of Interest of Automotive, Electronics, Refrigeration and Air-conditioning Students**

Item	Automotive Student		Interpretation	Electronics Students		Interpretation	RAC Students		Interpretation	Overall	
	X	SD		X	SD		X	SD		X	Interpretation
1. This course is my favorite	4.60	.68	Moderately Agree	4.49	.83	Moderately Agree	4.06	.67	Moderately Agree	4.38	Moderately Agree
2. I am enthusiastic in learning this course	4.32	.81	Moderately Agree	4.30	.81	Moderately Agree	3.72	.95	Moderately Agree	4.11	Moderately Agree
3. I am excited to finish the course	4.40	.80	Moderately Agree	4.68	.69	Strongly Agree	4.15	.81	Moderately Agree	4.41	Moderately Agree
4. I always try my best to	4.32	.41	Moderately Agree	4.45	.83	Moderately Agree	3.83	.73	Moderately Agree	4.20	Moderately Agree



*Level of Interest of Students In Refrigeration And Air – Conditioning*

This study evaluated the level of interest of refrigeration and air – conditioning students in four selected colleges and universities in Cotabato City. As revealed in Table 5 under RAC, all the items in the questionnaire were given a rating of “agree” by the RAC students which are as follows:

The course is their favorite with a mean of 4.06; they are enthusiastic in learning the course, 3.72; they are excited to finish the course, 4.15; they try their best to learn the skills, 3.83; they are ready to spend more in order to develop their skills, 4.02; they are proud to be a vocational and technology graduates, 3.96; they are willing to spend more time learning the skills, 4.02; they look forward using their technical skills in actual job 4.00; finally, they consider this course as the best, 4.21

The overall results, a mean of 4.01 “agree” once more imply that the students in these vocational – technical schools do not see much the importance and dignity of acquiring this course. Perhaps they prefer more a “white collar job”.

*Parents’ Involvement in the Knowledge and Skill Development of the Technical – Vocational Education of the Students as Perceived by them*

It can be gleaned from Table 6 that the involvement of parents of the automotive students, were all “very good” as revealed by the computed mean value enumerated below:

That their parents give their all – out financial support, got a mean of 4.04; provide material needed for their projects at all times, 3.79; cooperate with the teachers for a better learning of their children, 3.96; coordinate with school officials in matters concerning their children’s skills enhancement, 3.85; give high moral support in boosting their children’s interest in skills training, 4.13; express love and concern in the on – the – job training of their children away from home, 3.96 give advice to their children regarding the importance of dedication and responsibility on their job, 4.16; take time in knowing their children’s progress in their technical and vocational skills 4.06; and finally, appreciate and take pride of their children’s achievement, 4.15.

**Table 6. Involvement of Parents**

Item	Automotive N=47		Inter pretation	Electronics N=47		Inter pretation	RAC N=47		Inter pretation	Overall	
	X	SD		X	SD		X	SD		X	Inter pretation
1. Give all-out financial support.	4.04	.95	Very Good	4.49	.83	Very Good	4.06	.67	Very Good	4.19	
2. Provide materials needed for projects at all times.	3.79	.95	Very Good	4.30	.81	Very Good	3.72	.95	Very Good	3.93	Very Good
3. Cooperate with teachers for better learning of their children.	3.96	.95	Very Good	4.68	.69	Excellent	4.15	.81	Very Good	4.26	Very Good
4. Attend school meeting and school activities when invited.	3.68	1.02	Very Good	4.45	.83	Very Good	3.83	.79	Very Good	3.98	Very Good
5. Coordinate with school officials in matter concerning their children.	3.85	.90	Very Good	4.60	.58	Excellent	4.02	.77	Very Good	4.15	Very Good
6. Give high moral support in boosting	4.13	.92	Very Good	4.53	.75	Excellent	3.96	1.04	Very Good	4.20	Very Good

their children's interest in skills training.											
7. Express love and concern in the on-job training of children away from home.	3.96	.83	Very Good	4.55	.75	Excellent	4.15	.69	Very Good	4.22	Very Good
8. Give advices to children on the importance of being dedicated and responsible on their job.	4.16	.98	Very Good	4.63	.99	Excellent	4.02	.77	Very Good	4.27	Very Good
9. Take time in knowing children's progress in their technical and vocational skills.	4.06	1.01	Very Good	4.51	.80	Excellent	4.00	.83	Very Good	4.19	Very Good
10. Appreciate and take pride of their children's achievement.	4.15	.86	Very Good	4.47	.91	Very Good	4.21	.83	Very Good	4.27	Very Good
<b>Total Mean</b>	<b>3.98</b>	<b>.58</b>	<b>Very Good</b>	<b>4.49</b>	<b>.48</b>	<b>Very Good</b>	<b>4.01</b>	<b>.57</b>	<b>Very Good</b>	<b>X<sub>g</sub>4.16</b>	<b>Very Good</b>

Analysis: 1.0 – 1.49 Poor 3.5 – 4.49 Very Good  
1.5 – 2.49 Fair 4.5 – 5.00 Excellent  
2.5 – 3.49 Good

## CONCLUSION

From the findings of the study, the herein stated conclusion has been drawn:

Adequacy of instructional materials and involvement of parents emerged as the predictors among the variables specifically among electronics students. Therefore, these two factors have great influence on the skills development of the students in electronics.

There was also an encouraging effect of the administrative support, adequacy of instructional materials, involvement of parents and interest of students and teachers commitment and competence to the hand – on practical work or skills of the students in automotive, refrigeration and air – conditioning.

## Recommendations

1. Evaluative study of the vocational – technical graduates as to the extent of their employability.
2. There is a need to conduct a wider scope of study on the effect of other selected variables

on the vocational – technical skills development of students in Region XII.

3. Evaluation of the overall performance of Technical –Vocational School in Region 12.

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