PRACTICAL ARTS PERFORMANCE OF SENIOR HIGH SCHOOL STUDENTS IN SAMAR: A BASIS FOR INSTRUCTIONAL REDIRECTION

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APPROVAL SHEET

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AAP

DEDICATION

To my dearest wife,

ALICE

And to our three children,

RUSSELL,

SEDFREY,

HAROLD

I dedicate this humble work.

TONY

ABSTRACT

This study attempted to assess the cognitive, psychomotor and affective abilities of fourth year students in Practical Arts in the seven secondary schools in Samar and their relationship with one another. The analytical-descriptive research method was employed in this study with validated achievement test questions of 90 items as the main instrument in gathering data. The respondents are composed of 140 students coming from the seven types of secondary schools in Samar, selected through systematic random sampling in Chapter 3. As to age, sex, and civil status of the seven teachers, teaching Practical Arts IV in the seven types of secondary schools in Samar, four are male teachers, one each with age ranging from 50 years old and above, 40-49 years old, 30-39 years old and 20-29 years old; and three are female two whom are 30-39 years old and one is 20-29 years of age. All of them are married. Since there are four male teachers and three female teachers teaching Practical Arts of the fourth year students in the seven types of secondary schools in Samar coupled with different fields of specialization, teaching experience, age, and educational qualifications, the performance of the students in Practical Arts could not be expected to reach the 75 percent mastery level. Involve more male teachers with majors in Practical Arts so that they can thoroughly teach the five areas of Practical Arts.

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Chapter 1

THE PROBLEM AND ITS BACKGROUND

Introduction

The 1973 Revised Secondary Education Curriculum[1] includes Practical Arts as a subject in all Secondary Schools in the Philippines. The current trends and interest in technology make it evident that the level of education in Practical Arts must be raised. This presents a challenge to all teachers in Practical Arts as early as elementary up to college level.

It is believed that students must understand the structure of the skills and the ways by which they operate in the performance or practice of a trade. To ensure understanding, the students should learn to perform different operations with intelligence and insights. They should also learn what contributions in terms of skills have been made to scientific and social progress. They should have experiences that will develop resourcefulness and ingenuity in perceiving and dealing with qualitative aspects of manual situations. They should participate in meaningful activities which would lead them to appreciate the importance of progress

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[1] MECS Order, unnumbered; series of 1973.

in life. Modern trends of Practical Arts program must be both theoretical and practical.

Current theories of learning emphasize the importance of helping students to discover skills. Learning is regarded as a gradual process. Not all students learn in the same way or at the same practice of their trade. Therefore, it is necessary to provide a wide variety of skills so that they can discover the goodness and fitness of skills suited to the scientific way of practicing the trade.

Most teachers in Practical Arts are at a lose as to the proper assessment of the abilities of their students to ascertain which domains of educational objectives should be given emphasis. It cannot be denied that most often there is no proper application in the construction of test questions. It also follows that there is disparity in the performance of the students on the three domains -- cognitive, psychomotor and affective. It is the observation of this researcher that most of the test items in Practical Arts do not follow the emphasis of psychomotor aspects. It is also observed by the researcher that some Practical Arts teachers do not know how to make a table of specification as a tool for determining the hierarchy of objectives. Is it because most Practical Arts teachers are not majors of that specific field of specialization? Or is it because

most teachers in the secondary schools in Samar teaching Practical Arts are not given an opportunity to attend trainings/seminars/workshops?

If the shop teachers are really teaching in line with their field of specialization, given an opportunity to attend trainings/seminars/workshops, there is a possibility that the performance of the senior high school students in the secondary schools in Samar will be at least from satisfactory to very satisfactory. But the problem is, are the Practical Arts teachers following the minimum requirements of the course in the implementation of the five areas in Practical Arts program. It is in this context that the researcher is motivated to conduct this study.

Hopefully the findings of this study will be beneficial to some Practical Arts teachers in determining whether psychomotor domain helps a lot to improve better skills associated with cognitive and affective domains. This might also give the senior high school students in the seven secondary schools in Samar some insights into their performance in terms of cognitive, psychomotor and affective abilities.

Theoretical Framework

Education planners or experts have created a threefold division of educational objectives: cognitive, psychomotor,

and affective.[2] They found out that most of the objectives stated by teachers could be placed rather easily in one of the three domains or classifications.

Cognitive objectives emphasize remembering or reproducing something which has presumably been learned, as well as objectives which involve the solving of some intellective task for which the individual has to determine the essential problem and then given material or combine it with ideas, methods or procedures previously learned.

Psychomotor objectives really emphasize muscular or motor skill, some manipulation of material and objects, some acts which require neuromuscular coordination which are found most frequently in activities related to handwriting and speeches and to physical education, trade and technical courses.

Affective objectives emphasize a feeling tone, an emotion, or a degree of acceptance or rejection. They vary from simple attention to selected phenomena to complex but internally consistent qualities of character and conscience. A large number of such objectives are found in literature expressed as interest, attitudes, appreciations, values, and emotional biases.

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[2] Benjamin S. Bloom, et. al., Taxonomy of Educational Objectives, (New York: David McKay Co., 1975), p. 6.

The reader will undoubtedly recognize that such a threefold division is as ancient as Greek Philosophy and the philosophers and psychologists have repeatedly used similar tripartite organizations: cognition, conation and feeling; thinking, willing, and acting; etc. Modern research on personal and learning raises serious questions about the value of these simple distinctions.

In spite of this, research on aptitude and interests does reveal quite small correlation between aptitudes and interest.

Conceptual Framework

The conceptual model in Figure 1 shows that the research environment covers the seven types of secondary schools in Samar. These schools have been implementing the 1973 Secondary Education Curriculum of which Practical Arts is among the subjects.

The arrows that connect the three domains show the relationships between the cognitive, psychomotor and affective abilities in Practical Arts among the fourth year students in the aforesaid schools. The result of these evaluation may provide feedback to the school administrators, school officials and curriculum planners to make improvements, modifications and instructional redirection so that eventually quality instruction will be achieved through the

Conceptual Model of the Study

The schema of the conceptual framework is drawn below:

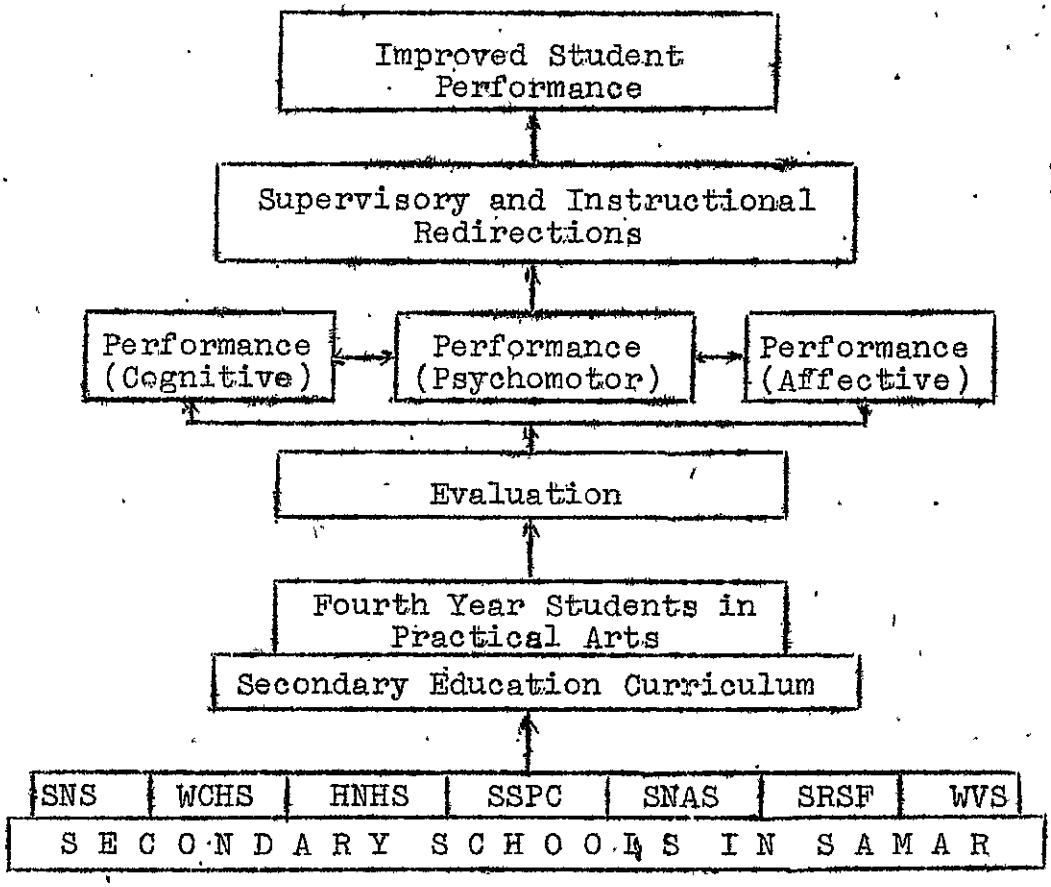


Figure 1. Schema of the Conceptual Framework, showing the research environment, the program or area represented, the subject of the study, the process of evaluation, the variables and their relationship, and the policy redirections towards the ultimate goal of the study.

efforts and initiative of the Practical Arts teachers.

The result of the evaluation in terms of the three domains may be used as basis for comparing the output of the 1973 Revised Secondary Education Curriculum and the New Secondary Education Curriculum in terms of the per-

formanee of the fourth year high school students in so far as the implementation of the five areas in Practical Arts is concerned.

Statement of the Problem

This study attempted to evaluate the Practical Arts performance of senior high school students in Samar as basis for instructional redirection. Specifically, it sought answers to the following questions:

1. What is the profile of teachers teaching Practical Arts with respect to:

1.1 age/sex/civil status?

1.2 educational qualifications/trainings?

1.3 field of specification?

1.4 teaching experience?

2. What are the mean performance scores and mastery levels of the fourth year students in Practical Arts in the seven types of secondary schools in Samar in terms of:

2.1 cognitive domain?

2.2 psychomotor domain?

2.3 affective domain?

3. Are the performances in Practical Arts of the fourth year students in terms of cognitive, psychomotor, and affective domains significantly related?

4. What are the implications of this study to in-

structional redirections?

Research Hypothesis

The performances in Practical Arts of the fourth year students in terms of cognitive, psychomotor and affective domains are not significantly related.

Importance of the Study

The total development of an individual is of paramount importance that should be considered when the teacher is preparing his lesson. The student should be taught not only to remember things which have been previously learned. He should also be taught how to react properly, develop skills, show interest, attitudes, appreciations, values and emotional biases. He should also know how to use his muscular or motor skills, to manipulate things, or some other acts which require neuromuscular abilities. In short, the kind of teaching that should be imparted to the student should make him develop into a well-rounded individual.

It is on this angle that this study was conducted. Its result may be useful to Practical Arts teachers and other school officials in determining if the students have thoroughly mastered the skills under each domain. The main performance scores in each skill may suggest which of these skills need emphasis in teaching. The extent of relation-

ship between the three domains may be of good basis for the administrators and curriculum planners to plan for improvements of teaching the subject focusing on the three domains, so that at least there will be no disparity among the three levels of learning. In addition, the school administrators and curriculum planners should take the balance of instruction, financial support, training of teachers teaching Practical Arts, and religiously implement the five areas in Practical Arts so that at least the student will be able to attain a satisfactory to very satisfactory performance under each domain.

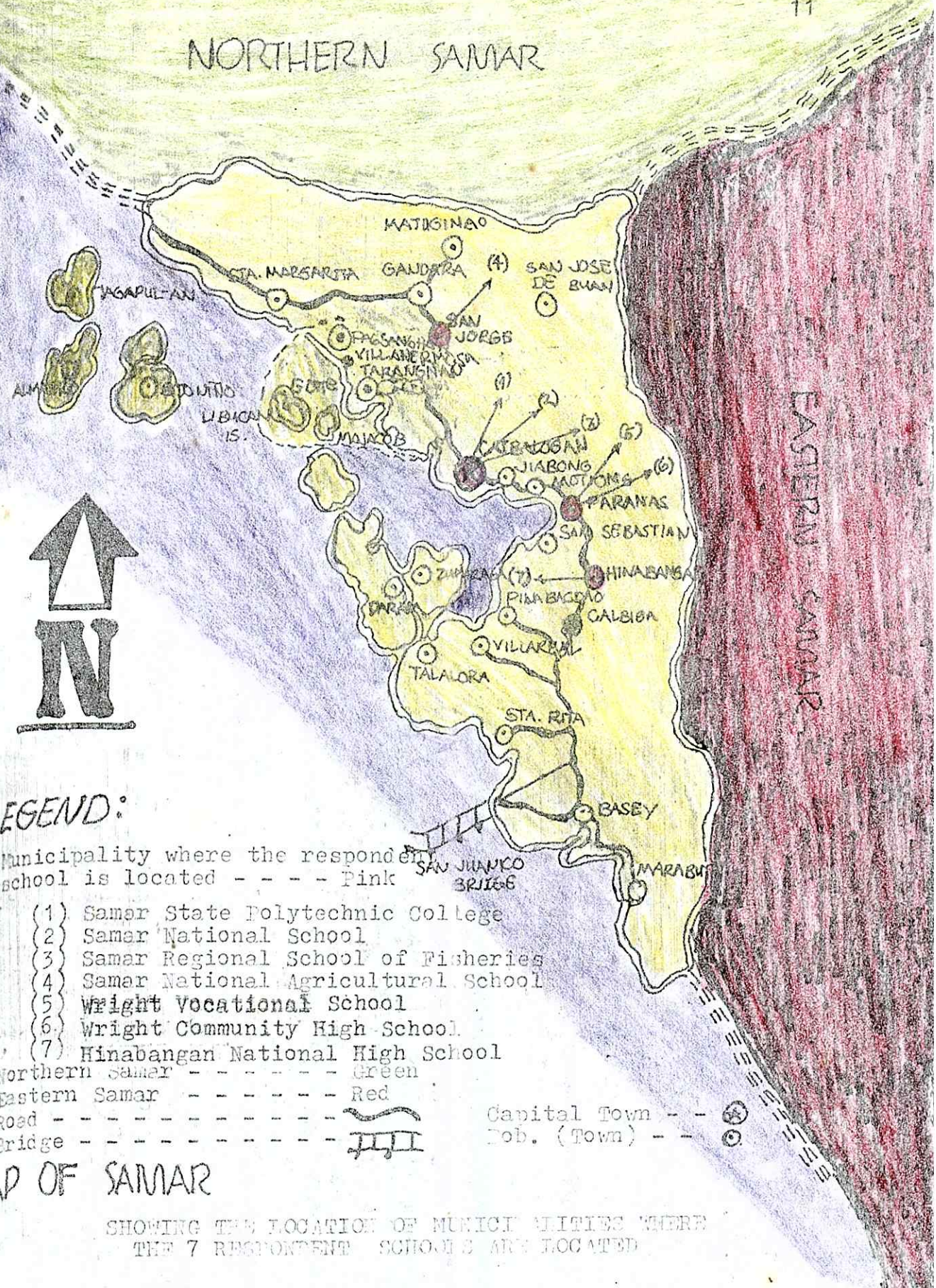
It is important to note also that there are findings in Practical Arts program under the 1973 Revised Secondary Education Curriculum that resulted to the ineffective teaching, inadequate facilities and instructional materials that contribute to unsatisfactory student performance as far as the three levels of learning are concerned.

However, with the implementation of Technology and Home Economics (THE) under the Secondary Education Development Program (SEDP) which aims at improving the quality of secondary graduates and the internal efficiency of the system; expanding access to quality secondary education and promoting equity in allocation of resources, especially at the local level, the above-mentioned findings will be a

good basis in determining which program is more effective in the teaching of practical arts.

Scope and Delimitation

This study is focused on the performance in Practical Arts of senior high school male and female students in the seven secondary schools in Samar in terms of cognitive, psychomotor and affective domains for the school year 1991-1992. The respondents included 140 students in Practical Arts, 70 female students and 70 male students selected through systematic random sampling in the seven types of secondary schools in Samar, broken down as follows: 20 in Samar National School, 10 male and 10 female; 20 in Wright Community High School, 10 male and 10 female; 20 in Hinabangan National High School, 10 male and 10 female; 20 in Samar State Polytechnic College, 10 male and 10 female; 20 in Samar National Agricultural School, 10 male and 10 female; 20 in Samar Regional School of Fisheries, 10 male and 10 female; and 20 students in Wright Vocational School with 10 male and 10 female students. The researcher was able to borrow a copy of the prepared and validated test questions in Practical Arts IV embracing the five (5) areas of Practical Arts from the DECS Regional Office, including the accompanying table of specification for the said test



LEGEND:

Municipality where the respondent school is located - - - - Pink

(1) Samar State Polytechnic College
(2) Samar National School
(3) Samar Regional School of Fisheries
(4) Samar National Agricultural School
(5) Wright Vocational School
(6) Wright Community High School
(7) Hinabangan National High School

Northern Samar - - - - - - - Green
Eastern Samar - - - - - - - Red
Road - - - - - - - - - - - - -
Bridge - - - - - - - - - - - -
Capital Town - -
Pob. (Town) - -

MAP OF SAMAR

SHOWING THE LOCATION OF MUNICIPALITIES WHERE THE 7 RESPONDENT SCHOOLS ARE LOCATED

questions, where it was classified into three domains. There were 90 selected test items. 30 items each from cognitive, psychomotor and affective skills; broken down as follows: Home Making Arts, six items each from cognitive, psychomotor and affective; Agricultural Arts, six items cognitive, six items psychomotor and six items affective; Industrial Arts, six items cognitive, six items psychomotor and 6 items affective; Fishery Arts, six items cognitive, six items psychomotor and six items affective; and another six items between domains in Business and Distributive Arts with a total of 90 items, which were answered by the respondents from the above-mentioned secondary schools in Samar.

Definition of Terms Used

To facilitate understanding of this study, the following terms are defined according to how they are used:

Administrators. As used in this particular study, they are district supervisors, the secondary school principals, the secondary school head teachers and curriculum planners.[3]

Affective domain. It is a field of activity in which [illegible]

[3] Carter V. Good, Dictionary of Education, (New York: McGraw-Hill Book Company, 1959), p. 18.

the behavior required involves the demonstration of feelings, attitudes and sensitivities toward other people, ideas, or things.[4]

Cognitive domain. It is a field of activity which gives emphasis on remembering something that has been previously learned; it may involve something of intellective task for which the individual has to determine the essential problem and the reorder is given materials that have presumably been learned before.[5]

Instructional redirection. This refers to the policy in a specific area in a certain institution to enrich, modify, abolish or maintain, as the case may be, towards achieving a common goal.

Mean performance scores. This term refers to the computed scores under each domain based on the correct responses of the respondent students.

Mean percentage scores. This term refers to the average computed from the scores of each domains for the respondents divided by number of cases.

Practical arts. This program includes Home-making Arts, Agricultural Arts, Industrial Arts, Business and

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[4]Gronlund, Loc. cit.

[5]Benjamin S. Bloom, et. al., Taxonomy of Educational Objectives, (New York: David McKay Co., 1975), p. 6.

Distributive Arts, and Fishery Arts. It is envisioned to expose the boys and girls to as many areas of Practical Arts as possible and to develop trainability through occupational orientation, occupational understanding, and to develop good work habits and ways of getting along with people in the occupation.[6]

Psychomotor domain. This term applies to the field of activity with objectives on the development of muscular or motor skills, manipulation of materials and objects.[7]

Respondents. They are the fourth year high school male and female students in Practical Arts in the seven types of secondary schools in Samar who were selected by systematic random sampling to answer the test questions used in this study.

Taxonomy of educational objectives. It is the classification of educational goals; i.e. cognitive, psychomotor and affective domains.[8]

Teachers. They are the ones who teach students or [illegible]

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[6]The Revised Secondary Education Curriculum, series of 1973, p. 3.

[7]Ibid.

[8]N. B. Gronlund, et. al., Stating Instructional Objectives for Classroom Instruction, (McMillan, 1970), p. 10.

pupils as a profession.[9] In this particular study, they are the ones who handle the Practical Arts classes in the seven types of secondary schools in Samar.

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[9] Philip Babcock Gove, Webster's Third New International Dictionary, (Springfield, Massachusettes: G and C Meriam Co., 1976), p. 761.

Chapter 2

REVIEW OF RELATED LITERATURE AND STUDIES

Conceptual and research literatures that relate to some aspects of this research have been surveyed and patiently reviewed to give insights into the content of this study. Some literature and previous researches that have implications and relevance to this particular study are presented in this chapter.

LITERATURE

Education for Creativity[10]

To train our youth for the country's economic survival and development we have gradually given emphasis to vocational education in the secondary and collegiate levels. During recent years we have opened more vocational schools in agriculture, trade, fisheries and industries. Congress has organized the Bureau of Vocational Education to give attention and power training to the manpower resources needed for our economic development.

Perhaps a fresh approach to the educative process

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[10] Antonio Isidro, Trends and Issues in Philippine Education, (Quezon City: Alemar-Phoenix Publishing House, 1967), p. 13.

should lay stress on creativity and self-employment in vocational training. The vocational curricula should give greater opportunities for training in creativity and self-employment. The students should be trained to discover for themselves the work in which they can be gainfully employed after graduation. The students should be trained in develop skills in various activities which would enable them upon their graduation to create job opportunities which may not yet exist in the community. Through their initiative and self-help they must be able to apply the general skills and techniques to similar or new jobs which may be available in the locality. The value of initiative and the training in self-employment will prevent the development of misfits in industry, reduce the unemployment problem and raise the standard of living of the population.

The solution of the problem of our youth who must be given a decent place in their communities must be found in an education that gives better opportunities for the development of the inquiring mind, and the ability to think that will come about only through a redirection in the academic fields both in the high schools and in college.

Values of the Taxonomy

Education experts envisioned several major values

arising from the attempt to order desired outcomes. In the first place, the actual sharing in the process of classifying educational objectives would help them clarify and tighten the language of educational objectives as enunciated by Bloom[11]. They were aware that all too frequently educational objectives are stated in meaningless platitudes and cliches. Some view them as an opportunity to use a type of prose found frequently in the superlative employed by advertising men and the builders of political flatforms. If, however, educational objectives are to be given direction to the learning process and to determine the nature of the evidence to be used in appraising the effects of learning experiences, the terminology must become clear and meaningful.

It was hoped that the statement of an objectives in similar terms by different workers would make possible a definite classification of that objectives and will also permit exact inferences about the kinds of behaviors to be expected by the students. The ideal would be educational objectives stated so clearly that the authors of the objective will know exactly what they meant and the readers of the objectives will have equally clear idea of what is intended

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[11] Bloom loc. cit.

to be.

A second value to be derived from the creation of a classification scheme will provide a convenient system for describing and ordering test items, examination techniques, and evaluation instruments. Test materials will be classified as to content and objectives so that they will be determined quickly what is available and useful for a particular task in examination development.

An even more important value education experts is hope to secure from the classification scheme is that of comparing and studying educational progress of programs. If programs have similar objectives, do they involve similar or different learning experiences? The classification will be used as a tools in classifying and organizing educational research results.

Finally, experts are seeking something beyond a simple classification scheme. They will be envisioned to the possibility that they might select principles of classifying educational outcomes which would reveal a real order among these outcomes. If such order is confirmed by various types of observations and research findings, the order and principles and arrangement will be of value in the development of a theory of learning which will be relevant to the complex as well as simple types of human learning. At the

very least, the discovery of some of the principles of ordering human-learning outcomes will be define the types of findings that a useful theory must be able to explain.

Through a planned work sessions education experts finally created a threefold division of educational objectives: cognitive, psychomotor, and affective.

Vocational education in the Philippines antedates any of the other types of education. It is as old as mankind and civilization itself. It grew out of informal manual training.

> Fathers taught sons, mothers instructed daughters, and the elders of the tribe trained eager youth in arts and crafts long before agriculture became established and villages were built.[12]

This original unorganized form of education constitutes the very foundation of the present vocational programs in the schools.

Under the Spanish regime, the Spanish missionaries did not confine their attention to the spreading of Christianity through the teaching of moral and religious values but also found for the teaching of craftwork, arts and trades.

> A school of arts and trades was established in Bacoor, Pampanga for the trades occupations

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[12] F. Theodore Struct, Vocational Educational For A Changing World, (New York: John Wiley & Sons, Inc., 1946), pp.31-32.

> in 1861 and in 1898, the Escuela de Artes y Officios, the forerunner of the new Philippine School of Arts and Trades, was organized in Manila.[13]

These schools established by the Spaniards became the cornerstone upon which the United States laid the foundation of trade and industrial education in the Philippines.

The Revised Secondary Education Program[14]

The general functions of secondary education are: a) continuation of general education in the elementary school; b) preparation for a vocation; and c) preparation for college.

In the light of these functions, secondary education should enable the student to:

1. Develop a reasoned commitment to the goals of national development by cherishing, preserving, and developing moral and spiritual values and other aspects of the national heritgge desirable in the Philippine society;
2. Understand the wide possibilities of the arts and the science as permanent sources of pleasures and

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[13]Romulo Y. Mendoza, "Trade and Industrial Education", Vocational Education in the Philippines, Chapter IV (Manila: 1955), pp. 58-59.

[14]Revised Secondary Education Curriculum, 1973.

profit, and discover, broader, and heighten his abilities in and appreciation for them;

3. Acquire the basic occupational skills, knowledge and information essential for obtaining initial gainful employment, and for making intelligent choice of occupation and career;
4. Acquire further skills in thinking, speaking, and writing and develop the ability to react intelligently and creatively to mass media and other life situation;
5. Obtain experience and from desirable attitudes for understanding himself, his own people, and other races, places and times through opportunities for living vicariously with a wide variety of peoples, thereby promoting a keen sense of self and family and of national and international communities; and
6. Demonstrate understanding, acquisition, and application of the basic concepts and methodologies of the different branches of human knowledge in order to promote his physical, intellectual, emotional and social well. being.

Finally, series of vocational subjects to choose from which will give the students sufficient training for initial

gainful employment and/or preparation for the post secondary technical institutes. There should be as many series or sequences of vocational courses (agriculture, fishing, etc.) which the community demands and which the school can afford to offer.

The Philosophy of Practical Arts Program

This program includes Home-Making Arts, Agricultural Arts, Industrial Arts, Business and Distributive Arts, and Fishery Arts. It is envisioned to expose the boys and girls to as many areas of Practical Arts as possible and to develop trainability through occupational orientation, occupational understanding, and to develop good work habits and ways of getting along with people in the occupations. During the first and second years, the students will go through exploratory experiences in at least three areas depending on the resources and facilities of the high school and the economic needs of the community. At the end of the second year he/she shall have selected one area in which he/she is particularly interested and in which he/she will get further training during his/her third and fourth years to make him/her a useful member of his/her family and to gain initial employment after graduation.[15]

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[15]Ibid, p. 3.

In consonance with the educational reforms in the New Society, the Department of Education and Culture made a revision of the school curriculum. A very noticeable change in the curriculum is the emphasis on Practical Arts in all secondary schools, public and private. In a report made before a group of secondary school administrators and supervisors, Belen made the following statement:

> The revised secondary curriculum may yet provide us to the missing formula in our search for educational relevance and substantial adequacy, a renewed approach, an enriched program of practical arts and vocational studies, shall therefore be our answer to the call for drastic changes in our positive contribution to the fulfillment of the goals of the new society.[16]

Verily, the shifting of emphasis towards a work-oriented curriculum is the answer to the need of the New Society.

The Philippine Republic during the Revolutionary Period, although shot-lived, gave due emphasis to education by creating the Department of Public Instruction. One of the goals of the department was the establishment of an adequate vocational education.

Rizal, particularly advocated the opening of

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[16]Hermogenes Belen, "The Practical Arts/Vocational Program for the Revised Secondary Curriculum of 1973," A prepared report read before the Seminar of Secondary School Administrators and Supervisors in Lucena City, September 14, 1973.

> trade schools in all provincial capital's with more than 16,000 inhabitants. Other vocational schools authorized to be opened by President Emelio Aguinaldo of the Philippine Republic were the Burgos Institute of Malolos and the School of Fine Arts in the same place.[17]

Vocational education received greater emphasis than ever before during the American occupation. The first vocational schools established by the American authoritiss were the Philippine School of Arts and Trades. The Central Luzon Agricultural School, the Philippine School of Commerce and the Philippine Nautical Schools. After the passage of Vocational Education Act of 1927, Act No. 3377 more trade schools and agricultural schools were opened.

Under the Commonwealth government, vocational education was given impetus by the enactment of Commonwealth Act No. 313, authorizing the sstablishments of regional national vocational trade schools of the Philippine School of Arts and Trades type and regional national vocational agricultural schools like the Central Luzon Agricultural School. The trade schools opened in Cebu and Iloilo City, did not only operates the secondary curriculum but also a technical curriculum and a two-year teacher education course.

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[17] Romulo Y Mendoza, "History and Philosophy of Work Education and Practical Arts", A lecture delivered before teacher trainees of Vocational Schools, Philippine College of Arts and Trades, in Manila on March 30, 1976.

The vocational schools closed during the war. Immediately after the liberation, the reconstruction and rehabilitation of these vocational schools were jointly undertaken by the national government and the local government.

The creation of the Bureau of Vocational Education by Republic Act No. 3742, in June 1963, became a milestone in the country's urgent need for the development of a strong skilled labor force. The vocational schools, which were opened in strategic places in the archipelago, answered the call for strong and skilled labor force which was urgently needed by industry for the development of the country and its natural resources.

On Evaluation of Students Performance

In order to evaluate the students performance or skills, it is necessary to determine to what level or extent the objectives specified in the plan were anhieved by the students. It is desirable to determine whether any other important outcomes occured that were not expected. If the performance of the objectives requires that the students acquire new knowledge, develop new skills or modify their attitudes, the objectives must be defined in terms of the students performance at the end of the process.[18] Then the

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[18] Gregorio T. Amano, Fundamentals of Furniture and Cabinet Making, (Sta. Cruz, Manila: St. Mary's Publishing, 1986), p. 13.

objectives can be used to select or develop appropriate skills which are necessary to distinguished in activity the performance level of the students. The information derived from the training must provide sufficient evidence for competent curriculum planners and evaluators to judge whether the objectives and consequently the goals of the plan or program have been achieved.

Curriculum Reorientation and Redirection[19]

For more than two decades of the past regime where the philosophy of education revolved around the preservation and perpetuation of a totalitarian regime, the curriculum had been designed towards the attainment of such goals.

Now, under a representative democracy, the state policies on this matter call for reorientation and redirection, and implementation of a relevant and transformational education to liberate the Pilipino people from the shackles of poverty and its accompanying afflictions. All these, together with the fact that what is being taught and subsequently learned in many of our schools today are still very much Western in origin, Western in form, as well as Western in content and application.

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[19]Dr. Nemesio E. Prudente, President, Polytechnic University of the Philippines, 1987, p. 5.

Hence, the curriculum must be redirected so that this neocolonial, elitist, materialistic, poverty-stricken society will be transformed into one that is nationalistic and dignified, more democratic and people oriented, more spiritual and moral, more healthy and prosperous for every Pilipino. There is need for curriculum revision at all levels of the educational system, and this should be determined by local, regional and national considerations. This revision includes preparation of new textbooks and re-training of teachers.

Considering the out-of-school-youth problems, we must also seeks alternative ways of providing knowledge and learning experiences outsides of the school for the educationally disenfranchised. This means the restructuring of instruction at the lower levels in such a manner as to anticipate the dropout of students and to provide at these levels basic skills of literacy and of crafts. It also means the strengthening of the "extramural" program for academically credited non-formal education.

Furthermore, our educational system must be progressively nationalized, so that it will, as it should, creatively respond to Philippine political, economic and social realities. This underscores the logic behind the review, analysis, revision and redirection of the curricula to

relevantize them to the needs and problems of society.

Republic Act 6655[20]

In accordance with the policy of the state to provide for free public secondary education to all qualified citizens and the provisions of Section 9 of Republic Act No. 6655, the following rules and regulations on the implementation of Free Public Secondary Education starting school year 1988-1989 are hereby promulgated. Sub-section b, of Section 9, state that in order to upgrade the quality of education at the secondary level, the curriculum shall provide for the development of knowledge, value and skills, including skills that will give students gainful employment. As such the curriculum shall have the following features.

1. Cognitive, affective, manipulative based, e. humanities, science and technology shall form the cognitive dimensions; moral, spiritual, social, political, aesthetic and work values, the psychomotor dimensions.

The implication here is that the secondary school is the paramount in developing basic skills of students in order that he must be ready to apply it. The varying abilities, interests and aptitudes of the youths and offer courses in the different fields of productive endeavor

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[20]Republic Act No. 6655, series of 1988. "Implementation of Free Public Secondary Education Curriculum."

according to the talents of students and in the light of the community needs. The secondary schools will also initiate a program designed to develop community leadership taking into cinsideration the economic needs of the country.

SEDP[21]

Secondary Education Development Program is the response to the need to continue pupil development started by Program for Decentralized Education (PRODED); research findings indicating a need to improve student performance in science, math and communication arts; findings that ineffective teaching, inadequate facilities, and instructional materials contribute to unsatisfactory student performance and the need to improve policy making and increase the internal efficiency of the secondary education system.

This program aims also in improving the quality of secondary graduates and the internal efficiency of the system; expanding access to quality secondary education and promoting equity in allocation of resources especially at the local level.

The components of the program are curriculum development, staff development and physical facilities development

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[21] Secondary Education Development Program, 1990.

which focuses on curriculum reform, quality textbooks/teachers manual on 1:1 ratio, science and work education equipment, staff development either in short or long term basis, assistance to private secondary education, research studies on NCEE, barangay high schools, career guidance, teacher recruitment and other programs derived thereat.

Strengthen Vocational Education[22]

The Commission on Education proposed and read a set of legislative measures aimed to strengthen vocational and technical education in the Philippines. Angara said that the educational reforms were intended to develop a highly skilled workforce and to balance the supply of graduates with the needs of industry. They are also meant to lessen unemployment and in the long term, hasten the country's industrialization wherein the quality of vocational and technical education today is very low and even deteriorating.

> An industry, and our economy itself, can only run on an efficient manpower.

He deplored present policies that tend to favor certain professions that are already crowded and a persistent "cul-

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[22] Senator Edgardo J. Angara, Chairman of Commission on Education, Philippine Senate, "A Proposed Policies read before the hearing of members of the Commission on Education at the Session Hall of the Senate on October 8, 1991.

tural bias" against vocational and technical courses.

The proposed reforms which are based on findings made by EDCOM's review of public policies on education and manpower development are the following:

1. An act creating a Technical Education and Skills Development Authority to set up the mechanism needed to upgrade the quality of the educational system of this sector.

2. Longer apprenticeship program from six months to as long as four years, to give students adequate on-the-job experience.

3. A system of financial and other incentives to spread training opportunities to poor but deserving students especially in depressed communities and slums in the cities.

4. Curricular changes which will focus on production, actual job requirements, and the relationship between trade unions and managers of industry.

The implication here is that once the foregoing proposed policies be materialized there are possibilities that the percentage of unemployment problem be lowered and the system of education will address to the economic needs of the country.

STUDIES

The researcher came across only a few studies delving

into some aspects covered by the present study. Other studies mentioned students' performance only in passing. Somehow the dearth of studies on the subject inspired the researcher to continue with the present work.

In her study on the mathematics achievement, Cortez[23] was able to compare the mathematics achievement of 229 students enrolled in general secondary and secondary vocational agricultural curricula at Central Mindanao University High School for 1976-1977 with the view of improving mathematics instruction. The normative survey was employed using a teacher-made achievement test for gathering data. Pre-test and post-test were administered to determine how much the students performed significantly better in the post-test than in the pre-test.

The aforementioned studies are related to the present study in the sense that although the former were all comparative or performance in mathematics while the latter is dealt on the performance in practical arts or senior high school students in the seven secondary schools in Samar.

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[23]Purificacion Cortez, "A Comparative Study of the Freshmen Students Enrolled in General Secondary and Secondary Vocational Agricultural School at Central Mindanao University High School, 1976-1977" (unpublished master's thesis, Siliman University, Dumaguete City, 1978).

Azcarraga[24] conducted a study of 18 areas of administrative problems affecting teaching performance in Camarines Sur, using questionnaire and interview. His findings showed that all the teacher-respondents were affected in varying degrees by these administrative problems. Those which affected the majority of the teachers were:

1. inadequacy of textbooks
2. insufficiency of supplies
3. inadequacy of supplies
4. lack of reference books, and
5. lack of courses of study, manuals, teaching guides, and other instructional materials.

On the first problem, 99.56 percent of the teachers were affected; on the second, 99.54 percent; on the third 99.54 percent; on the fourth, 97.79 percent; and on the fifth, 96.09 percent.

The study of Azcarraga bear the similarities with the present study because the aforementioned teaching performance of teachers will also be the problems of the teachers teaching practical arts to the performance of the students in the present study due to lack of instructional materials.

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[24]Luis Noble Azcarraga, "A Study of Administrative Problems Affecting the Performance of Public Elementary Grades Teachers in Buhi, Camarines Sur", (unpublished master's thesis, University of Nueva Caceres, Naga City, 1972), pp. 74-76.

This has been proven because most schools at present do not have adequate instructional facilities to improve the performance of students in practical arts. That is why the teaching performance of practical arts teachers are also affected.

Tenefrancia[25] conducted a comparative study of the first year to fourth year mathematics grade of 123 senior students from a public high school in Manila who have chosen at least one elective in the fourth year. Likewise, a comparison was done first by taking the students as a whole, and then grouping them according to the mathematics elective they chose. The findings show that:

1. Grades of the students in mathematics course from first year to fourth year differed significantly.
2. As to curriculum years, significant differences noted between the first and fourth year, first and third year, second and fourth year, second and third year.

The study of Tenefrancia have some similarities as well as difference to the present study. In the first

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[25]Nenita Tenefrancia, "A Comparison of the First Year Through Fourth Year Mathematics Grades of the Senior Students in a Public High School in Manila" (unpublished master's thesis, Centro Escolar University, October, 1973).

place, Tenefrancia compared the grades in mathematics from first year to fourth year just to determine the performance level in mathematics while the present study is to evaluate the performance level in the practical arts of senior high school students in the seven secondary schools in Samar on the three levels of educational objectives/domains.

Another study was conducted by Cero[26] on the relationship of the teacher-given ratings to the different or rather district achievement test scores of the grade six pupils in arithmetic, english and social studies. He used the results of the district achievement test in the three subject areas and correlated them with the final ratings of pupils gathered from their permanent records. His findings showed that there was a very high degree of correlation between the paired variables. The implication was that the marks given by the teachers were reliable.

Andres made a study on the correlation between the pupils' performance in elementary mathematics achievement test and their final scholastic grades. The respondents in her study consisted of grade five pupils enrolled in the district of Angadanan, San Guillermo, during the school

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[26]Paterno Cero, "A Study on the Relationship of the Teacher's Ratings to the District Achievement Test Scores of the Grade Six Pupils of Jagna Central Elementary School Division of Bohol 1969-1970" (unpublished master's thesis, Rafael Palma College, City of Tagbilaran, 1970).

year 1978-1980. She used the correlation method in her study. The computed value of r which was 0.73 showed that there were a very high correlation between the final grades given by the teachers and the performance of the pupils in the achievement test. The study also found out the factors that affect the relationship between the pupils' test results in the achievement test in elementary mathematics and their final grades with the use of questionnaires and checklists which were presented to 16 teachers handling grade five mathematics classes in the district. Based from the answers drawn from the teachers, the main reason to explain the low performance of some pupils in the achievement test was the inavailability of and/or inadequacy of curriculum materials.[27]

The study of Andres have the similarities with the present study because if the performance of the grade six pupils in mathematics is affected due to inavailability or inadequacy of curriculum materials it may also happened in practical arts of senior high school students as far as their skills in the five areas in practical arts is con-

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[27]Lelina Andres, "Correlation Between Pupils Performance in Elementary Mathematics V Achievement Test and Their Final Scholastic Grades" (unpublished master's thesis, Baguio City Vocational Normal School, 1980).

cerned.

Another study was written by Nuez[28] on the relationship between reading achievement and modern mathematics achievement among the grades five and six pupils. It was found that there was very high correlation between reading and modern mathematics. This study also revealed that mathematics is dependent upon reading, meaning that those pupils who are good in reading are also good in mathematics. This is very specially true on problem solving and on the interpretation of mathematical sentences.

The study of Nuez has very significant bearing with the present study because reading mathematics problems and solving, reading of figures and numbers is also applied in the subject practical arts particularly the five areas because it also deals on reading of plans, understanding of the figures and numbers, operations and skills particularly do units, attitudes and values. The present study deals also with measurement, solving on the board foot of lumber and above all mastery skills on the three domains of educational objectives.

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[28]Victoria Nuez, "The Relationship Between Reading Achievement and Modern Mathematics Achievement Among the Grades Five and Six pupils of Guadalupe Elementary School in 1968-1969 and in 1969-1970" (unpublished master's thesis, Collegio de San Jose Recoleton, Cebu City, 1971).

Another study on relationship of pupils' performance was conducted by Perez.[29] Her study was about the relationship between the mathematical ability and language ability of grade six pupils in the three central schools of the three district in Catbalogan, Samar, during the school year 1984-1985.

Her study reveals that there is a moderate or substantial evidence of significant relationship between the achievement score and the scholastic achievement in elementary mathematics although there is a slight evidence of correlation between the achievement score and the scholastic achievement in communication arts English. It also show that there was slight evidence of significant relationship between the achievement scores in the two subjects and finally the study revealed a substantial evidence of significant relationship between the scholastic achievement in elementary mathematics and in communication arts English.

The study conducted by Perez has very significant bearing with the present study not only because incidentally both were conducted in the division of Samar but both are

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[29]Tomasa R. Perez, "Mathematical and Language Abilities of Grade Six Pupils of the Three Central Schools in Catbalogan, Samar" (unpublished master's thesis, Samar State Polytechnic College, Catbalogan, Samar, 1987).

studies on relationship of pupils/students' performance.

Mabesa[30] conducted a study on the relationship of the achievement in elementary mathematics of the grade six pupils in the three central school in Catbalogan, Samar in terms of cognitive, psychomotor and affective domain during the school year 1988-1989. This was made through a simple random sampling of 150 respondents grade VI pupils boys and girls coming from the three central schools. The result of his study confirmed that the performance in elementary mathematics of the grade six pupils in the three central schools in Catbalogan in terms of cognitive, psychomotor and affective domains are significantly related.

The study conducted by Mabesa has a significant bearing with the present study not only because both are concerned on the three levels of educational objectives but both are studies on students or pupils' performance.

Relationship with the Present Study

The foregoing literature and studies reviewed by the researcher have relevance to the present study in the sense that all studies herein mentioned are concerned with

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[30]Jaime M. Mabesa, "Cognitive, Psychomotor and Affective Abilities in Elementary Mathematics Among the Grade VI Pupils in the Three Central Schools in Catbalogan, Samar" (unpublished master's thesis, SSPC, Catbalogan, Samar, 1989).

students or pupils's performance. They differ in many aspects as the grade level of respondents, the place of study, the type of school they are enrolled, the instrumentation used, the methods of gathering data and interpretation of data, the statistical measures employed and the number of respondents, but purely they are all about the performance abilities of the respondents in different subject or components of the Practical Arts program.

The only difference here is that the mathematics subject was used as the anchor in comparing the performance of the respondents while in the present study the components of the Practical Arts Program were made as the basis.

Chapter 3

METHODS AND PROCEDURES

This chapter presents the methods and procedures used in the conduct of this study, including the research design, the statistical instruments used in gathering the necessary data, the sampling procedure of respondents, the data gathering process and the statistical measures used in hypothesis testing with their respective formulas.

Research Design

This study on the performance in Practical Arts of senior high school male and female students in the seven secondary schools in Samar in terms of cognitive, psychomotor, and affective abilities employed the analytical type of descriptive research method.

Research instrument. The main instrument used by the researcher in gathering data is a validated test questions composed of 90 items equitably prorated in accordance with the three domains - 30 items covering cognitive, 30 items psychomotor, and 30 items affective. Of these 90 items, 18 items for Home Making Arts, 18 items for Agricultural Arts, 18 items for Industrial Arts, 18 items for Fishery Arts and 18 items for Business and Distributive Arts con-

sisting of 6 items each for every level. The validated test questions of 90 items previously discussed in this Chapter were shown to his adviser, to the members of the panel during the pre-oral defense, and to the Dean of Instruction and Related Services, Samar State Polytechnic College for their comments, suggestions, recommendations and approval.

The researcher also consulted and asked the help of some Regional Supervisors who were responsible in the construction of the validated achievement test questions, together with the table of specification to include the answers based on the skills specified in the minimum learning competencies of the Secondary Learning Continuum (Yellow Book) under the 1973 Revised Secondary Education Curriculum. It was noted that the format of the test is a multiple choice items with four options from psychomotor domain and five options from cognitive and affective domains, wherein this is the format usually used in school term examinations. The length of the test was agreed to be about 90 items to be administered in one hour.

A trial test consisting of equal items for each skill to include the do units, know units, attitudes and values of the learning continuum was made. It was subjected to determine the length of time to answer for each level as

the basis for fielding the questionnaires to the student respondent from the seven types of secondary school in Samar.

The scores from the trial test served as basis for administration of the achievement test. It was originally administered to 20 students of average mental ability who were not respondents to the present study. Raw scores from the trial test were recorded after marking the answer sheets. They were ranked into high and low group. The freqnency of options and the percentage of correct options selected by both the high and low group were entered. The index of facility or difficulty was computed by adding the correct responses of the upper group and the correct responses of the lower group, divided by the total number of students used in the analysis.

The index of discrimination was also computed by subtracting the number of students in the lower group responding to the correct options, from the students in the lower group responding to the correct option, and dividing by one half of the total number of students used in the analysis.

Procedure

Sampling procedure. This study covered a representative population of the senior high school male and female

students coming from the seven secondary schools in Samar. Since this utilized systematic random sampling, the researcher picked out 140 students from the seven secondary schools through the use of the advisers' class records. Of the 140 students, 20 came from Samar National School, 20 from Wright Community High School, 20 from Hinabangan National High School, 20 from Samar State Polytechnic College, 20 from Samar National Agricultural School, 20 from Samar Regional School of Fisheries, and 20 from Wright Vocational School. Out of the 20 students from each school, 10 were male and 10 were female picked out according to their numbers in the class records. They were selected systematically wherein first 10 even numbers among the list of male students from the higher sections were the ones selected while the first 10 odd numbers among the list of female students were made respondents of this study.

Gathering Data. After randomly selecting the students who were made respondents to this study, the researcher requested the teachers involved, through the principals, administrators, and teacher-in-charge of the seven secondary schools, for the conduct of examination within the third grading period, school year 1991-1992.

As suggested during the pre-oral defense, the validated

test questions had to be subjected to a trial run before it was finally administered to the respondent students to determine the suitability of scores of each domain of educational objectives and the length of time in answering the said test.

A trial run of the validated test questions was conducted to a class of the highest section in Tarangnan National High School, Tarangnan, Samar not necessarily for items analysis but on certain aspects such as the final determination of the length of time and proper grouping of scores according to domains. It was found out that the test questions were answered in one hour.

After the final determination of the scores and the length of time of the test questions, the researcher, with due permission by the Schools Division Superintendent for Samar, personally went to the respondents' schools to administer the final test to insure a 100 percent retrieval of the test questions and to closely supervise the respondents while taking the unannounced test in order to have valid, honest and unbiased result.

Treatment of data. The responses to the test questions were personally checked by the researcher immediately after the test had been administered. The data gathered in response to the questions were carefully tallied in a separate

master sheets and tabulated, separating the results of each of the three ability levels, by school. They were analyzed statistically in accordance with the most appropriate measure.

Statistical measure. The result of the test questions administered to the seven types of secondary schools in Samar was tallied separately, then the researcher solved for the means of each of the three ability levels to find out the performance of the students in terms of the three domains.

After the means of each of the three ability levels have been solved, the Pearson r[31] was used to test the hypothesis that the performance in Practical Arts of the senior high school students in terms of cognitive, psychomotor, and affective abilities whether these are not significantly related. However, since there are three variables involved, the researcher resorted to treating two variables at a time, such as: r_1 for X and Y variables, r_2 for Y and Z variables, and r_3 for Y and Z variables, as shown in the following formula:

$$r_1 = \frac{\qquad\qquad}{\qquad\qquad}$$

[31] L.R. Gay, Common Statistics for Educational Research, (New York: McGraw-Hill Publishing Company, 1981), pp. 237-239.

$$r_1 = \frac{EXY - \frac{(EX)(EY)}{N}}{\sqrt{EX^2 - \frac{(EX)^2}{N} \; EY^2 - \frac{(EY)^2}{N}}}$$

Where:

X = the mean of cognitive abilities

Y = the mean of psychomotor abilities

EXY = the summation of X and Y

N = number of cases

r_1 = the obtained correlation coefficient of X and Y

$$r_2 = \frac{EXZ - \frac{(EX)(EZ)}{N}}{\sqrt{EX^2 - \frac{(EX)^2}{N} \; EZ^2 - \frac{(EZ)^2}{N}}}$$

Where:

X = mean of cognitive abilities

Z = mean of affective abilities

EXZ = summation of X and Z

N = number of cases

r_2 = correlation coefficient of X and Z

$$r_3 = \frac{EYZ - \frac{(EY)(EZ)}{N}}{\sqrt{EY^2 - \frac{(EY)^2}{N} \; EZ^2 - \frac{(EZ)^2}{N}}}$$

Where:

Y = mean of psychomotor abilities

Z = mean of affective abilities

EYZ = the summation of Y and Z

N = number of cases

r_3 = correlation coefficient of Y and Z

The following scale was used in interpreting the obtained correlation coefficient per computation.

Coefficient (r)	Relationship
± .00 to ± .20	= negligible correlation
± .20 to ± .40	= low correlation
± .70 to ± .70	= substantial or moderate
± .70 to ± 1.00	= high to very high correlation

The significance of the value of r was determined by referring to the table of significance of r value in Appendix R. The level of significance was set at .05 level and df equal to N-2 or 5.

Descriptive Level of Ratings for Mastery Levels

96 - 100	Excellent	75 - 79	Satisfactory
91 - 95	Superior	70 below	Unsatisfactory
86 - 90	Outstanding		
80 - 85	Very Satisfactory		

Chapter 4

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

This chapter presents a detailed discussion on the presentation, analysis and interpretation of data. These data herein presented are taken from the questionnaires to seven teachers teaching Practical Arts and the regional validated achievement test borrowed by the researcher and administered to 140 respondent students of the seven types of secondary schools in Samar as discussed earlier. For easy means of analysis and interpretation, the data are hereby presented in textual and tabular forms.

Profile of the Practical Arts Teachers as to Age, Sex, Civil Status, Educational Qualification, Field of Specialization, and Teaching Experience

Age, Sex, and Civil Status. Table 1-A shows that four out of seven teachers teaching Practical Arts IV are male and three are female. As gleaned from the table under the age group; for male teachers, one each belong to 50 years old and above, 40-49 years old, 30-39 years old and 20-29 years old. For female teachers, two of them belong to 30-39 years and one to 20-29 years old.

As regards the civil status of the 7 teachers teaching practical arts in the seven types of secondary schools in

Table 1

Profile of the Practical Arts Teachers as to Age, Sex, Civil Status, Educational Qualification, Field of Specialization, and Teaching Experience

A. Age, Sex, and Civil Status

Age Group	Sex			Civil Status				
	Male	Female	Total	Si	M	W	Se	Total
50-up	1	0	1	0	1	0	0	1
40-49	1	0	1	0	1	0	0	1
30-39	1	2	3	0	3	0	0	3
20-29	1	1	2	0	2	0	0	2
Total	4	3	7	0	7	0	0	7

Samar are all married, three out of whom belong to the ages between 30-39 years old, two from 20-29 years old, and one each fall between 40-49 years old and 50 years and above.

Table 1-A herein presented conform that there is an inconsistency between the number of male and female teachers teaching Practical Arts in the seven types of secondary schools in Samar. Besides all of them are married, their ages lies differently as stipulated in the above data.

Educational Qualification. The educational qualification of the seven male and female teachers teaching practical arts IV in the seven types of secondary schools in Samar

is shown in Table 1-B. The seven teachers are as follows:

B. Educational Qualification

Educational Qualification	Male	Female	Total
Doctorate	0	0	0
Ph. D. (CAR)	0	0	0
M.A. with Ph. D.	0	0	0
M. A.	0	0	0
M. A. (CAR)	1	0	1
B. S. with M. A. Units	1	1	2
B. S.	2	2	4
Total	4	3	7

(1) M.A. with CAR, one male teacher; (2) B.S. with M.A. units, one male teacher and one female teacher which totals of two out of seven teachers; and majority of them met the qualification standard of B.S. degree of which 2 male teachers and 2 female teachers, this registering a total of four. This means that out of the 7 teachers teaching practical arts IV only one male teacher has obtained the highest educational qualification of Master of Arts with Certificate of Academic Requirements and most of them achieved the B.S. degree. Furthermore, as presented in Table 1-B, most of the seven teachers with B.S. degree, against three of

them with M.A. units and with CAR respectively. Therefore, the educational qualification of the seven teachers affect the performance of the students that those teacher who have highest educational qualification can teach more than enough, than those with standard qualification of education.

Field of Specialization. Table 1-C indicates that under the field of specialization, the seven fourth year teachers teaching Practical Arts in the seven types of secondary schools in Samar obtained varied major fields of specialization in their B.S. degree. As reflected in the table, 2 male teachers were specialized in Practical Arts, 2 female teachers with Home Economics major, one male teacher specialized in Agriculture, one female teacher with fishery major and another male teacher out of seven with academic major of Social Studies but he is actually teaching Practical Arts to the fourth year students. This means that majority of the teachers teaching practical arts are vocationally trained wherein 3 were male and 3 were female with vocational preparation, respectively; while one out of four male teachers had academic trainings.

As further gleaned in table 1-C, Practical Arts and Home Economics among the listed field of specialization of the seven teachers, wherein 2 male teachers with that major field of specialization, and 2 female teachers with major

C. Field of Specialization

Specialization	Male	Female	Total
Practical Arts	2	0	2
Industrial Arts	0	0	0
Home Economics	0	2	2
Agriculture	1	0	1
Fishery	0	1	1
English	0	0	0
Filipino	0	0	0
Math	0	0	0
Science	0	0	0
Social Studies	1	0	1
Physical Education	0	0	0
Total	4	3	7

in Home Economics while the rest have Agriculture and Fishery trainings, whereas 1 out of seven with academic preparation, but he is designated to teach Practical Arts subject in a certain school. It therefore connotes that those teachers with vocational trainings can impart more skills and knowledge than those with academic trainings have a limited skills and knowledge to be imparted to the students, that is why most of the seven types of secondary

schools in Samar did not met the standard performance ability.

Teaching Experience. Table 1-D reveals that under the teaching experience of each teacher teaching Practical Arts of the fourth year students in the seven types of secondary schools in Samar were tallied according to the number of years they have rendered in teaching. As shown in this table, one out of four male teachers with an experience of 15-19 years, 2 with 10-14 years and one male teacher with one year or below of teaching experience. Out of the three female teachers one with 10-14 years, one have already gone teaching for 5-9 years and one out of three female teachers with one year or below of teaching experience. As a whole majority or 3 out of 7 teachers have already gone teaching for almost 10-14 years and two teachers with one year or below of teaching experience. Furtherly, the highers and longest experience rendered by the seven teachers teaching practical arts is between 15-19 years of one male teacher, two male teachers with 10-14 years experience, one female teacher with the same years of experience and one female teacher with 5-9 years of teaching experience, while two out of seven teachers with one or less of teaching experience. Therefore, the data presented in Table 1-D revealed that those teacher with 15-19 years of teaching experience can bridge the gap between the imbalance of instruction

D. Teaching Experience

Experience	Male	Female	Total
35 - 40	0	0	0
30 - 34	0	0	0
25 - 29	0	0	0
20 - 24	0	0	0
15 - 19	1	0	0
10 - 14	2	1	3
5 - 9	0	1	1
1 or below	1	1	2
Total	4	3	7

as far as practical arts performance of the fourth year students is concerned. Whereas, those teachers with one or less than a year of teaching experience cannot actually shows better performance and could hardly improve the performance level of the students.

As a whole, the age, sex, civil status, educational qualification, field of specialization and teaching experience has something to do with the performance of teaching as far as instructional redirection is concerned.

Students' Mean Scores in Practical Arts in Terms of Cognitive, Psychomotor and Affective Domains

Table 2 shows the rundown of mean scores under the three domains. Ranking number one is SSPC which obtained the following mean scores by domain: (1) cognitive, 20.50; (2) psychomotor, 22.70; (3) affective, 24.80, thus yielding a total mean score or 68.00 and a grand mean score of 22.67. Following the same rank order, SNS ranks number two with mean scores 16.40, 17.30, and 21.80, respectively, thereby garnering a total mean score of 55.50 and a grand mean of 18.50. Ranking number three is SRSF, showing the following means scores by domain: (1) cognitive, 15.20; (2) psychomotor, 18.00; (3) affective, 21.30, thus yielding a total mean score of 54.50 and a grand mean score of 18.17. Fourth in the ranking is SNAS, having obtained a mean scores of 15.00, 16.60, 21.50, which totals to 53.10 this registering a grand mean of 17.70. Rank number five is WVS with mean scores 12.65, 17.20 and 22.60, respectively, which obtained a total mean score of 52.45 and a grand mean of 17.48. Number six in the rank is WCHS which obtained the following mean scores by domain: (1) cognitive, 14.30; (2) psychomotor, 16.10; (3) affective, 21.60, as shown in the table, this school obtained a total mean score of 52.00 and a grand mean of 17.33. Seventh in the ranking is HNHS, having

Table 2

Students' Mean Scores in Practical Arts IV in Terms of Cognitive, Psychomotor and Affective Domains by Schools

Schools	Means Scores by Domains			Total	Mean	Rank
	Cognitive (X)	Psychomotor (Y)	Affective (Z)			
SSPC	20.50	22.70	24.80	68.00	22.67	1
SNS	16.40	17.60	21.80	55.50	18.50	2
SRSF	15.20	18.00	21.30	54.50	18.17	3
SNAS	15.00	16.60	21.50	53.10	17.70	4
WVS	12.65	17.20	22.60	52.45	17.48	5
WCHS	14.30	16.10	21.60	52.00	17.33	6
HNHS	12.95	15.00	21.20	49.95	16.65	7
Total	107.00	123.70	154.80	385.50	128.50	
Grand Mean	15.29	17.67	22.11	55.07	18.36	

obtained a mean scores of 12.95, 15.80, 21.20, which totals to 49.95 this registering a grand mean score of 16.65.

The aggregate mean score in the seven types of secondary schools under cognitive domain is 107.00, where 15.29 is the grand mean. In psychomotor domain, the summation of the mean scores in the seven types of secondary schools is 123.70 and the grand mean is 17.67. Under the affective domain, the seven types of secondary schools in Samar ob-

tained a grand mean total of 154.80 and a grand mean of 22.11.

As a whole the grand total of the mean scores and grand mean scores in the seven types of secondary schools in Samar is 385.50 and 128.50 as reflected in the table, thus yielding a grand mean of 55.07 and 18.36 respectively.

The data presented in Table 2 obtained a grand mean total scores and grand mean scores in the seven types of secondary schools in Samar is 385.50 and 128.50, thus yielding a grand mean of 55.07 and 18.36 respectively. Therefore, it connotes that the performance of the 140 respondent students in the seven types of secondary schools in Samar does not met the 75 standard performance level and it further connotes an unsatisfactory performance.

Performance and Mastery Levels in Practical Arts IV by Schools

Table 3 presents the performance and mastery levels in Practical Arts by schools as indicated under sub-tables A, B, C, D, E, F, G, each of which reflects the domain, number of items, number of students tested, number of students who got 75 percent and above, mean score, mean percentage score, mastery level, and evaluation.

Samar State Polytechnic College. As shown in Table 3-A the fourth year Practical Arts students of Samar State

Table 3

Performance and Mastery Levels in Practical Arts IV by Schools

A. Samar State Polytechnic College

Domain	No. of Items	No. Tested	No. Who Got 75% & Above	Mean Score	Mean % Score	Mastery Level	Evaluation
Cognitive	30	20	14	20.50	68.33%	70%	Unsatisfactory Performance
Psychomotor	30	20	17	22.70	75.67%	85%	Very satisfactory Performance
[illegible]	30	20	15	24.30	82.57%	80%	
Affective	30	20	16	24.80	82.67%	80%	Very Satisfactory Performance
Total Average	90	20	14	68.00	75.55%	78.33%	Satisfactory Performance

Polytechnic College achieved a mean score of 20.50 or 68.33 percent with mastery level of seventy (70) percent under the cognitive domain. This connotes an unsatisfactory performance. It means that based on the computation found in Appendix P-1, 70 percent or 14 outcof 20 students achieved above the standard score of 75 percent, which is 22.50. Of the 30 items under the cognitive domain only 20.50 or 68.33 percent were mastered by the students tested.

As regards the psychomotor domain, 17 out of 20

students got the standard score of 22.50 which is equivalent to 85 percent mastery level. Only 22.70 or 75.67 percent of the 30 test items were mastered by the students under this skill. The result is satisfactory.

Out of the same number of students tested under the affective objectives, 16 or 80 percent obtained the standard score of 22.50 or 75 percent and above. This means that 24.80 or 82.67 percent of the 30 items were answered correctly by the students. This result is above the 75 percent average.

As a whole only fourteen or 70 percent out of 20 male and female students got 75 percent of 90 items or 67.50 which is the standard score, based on the actual count of the raw scores found in Appendix P-1. As a whole, 68.00 or 75.55 percent of the whole 90-item test was mastered by the fourth year Practical Arts students in Samar State Polytechnic College, thus yielding a mastery level of 78.33 percent. This result is above the standard 75 percent mastery level.

Samar National School. As shown in Table 3-B the fourth year Practical Arts students of Samar National School achieved a mean score of 16.40 or 54.67 percent with mastery level of 35 percent under the cognitive domain. This connotes an unsatisfactory performance. It

B. Samar National School

Domain	No. of Items	No. Tested	No. Who Got 75% & Above	Mean Score	Mean % Score	Mastery Level	Evaluation
Cognitive	30	20	7	16.40	54.67%	35%	Unsatisfactory Performance
Psychomotor	30	20	6	17.30	57.67%	30%	Unsatisfactory Performance
Affective	30	20	7	21.80	72.67%	35%	Unsatisfactory Performance
Total Average	90	20	6	55.60	61.67%	33.33%	Unsatisfactory Performance

means that based on the computation found in Appendix P-2, 35 percent or seven out of 20 students achieved above the standard score or 75 percent, which is 22.50, of the 30 items under the cognitive domain, only 16.40 or 54.67 percent were mastered by the students.

As regards the psychomotor domain, 6 out of 20 students got the standard score of 22.50 which is equivalent to 30 percent mastery level. Only 17.30 or 57.67 percent of the 30 items were mastered by the students under this skill.

The result is unsatisfactory; hence, reteaching of this skill is necessary.

Out of the same number of students tested under the affective skill, 7 or 35 percent obtained the standard score of 22.50 or 75 percent and above. This means that 21.80 or 72.67 percent of the 30 items were answered correctly by the students. This result is still below the 75 percent average.

As a whole only six students or 30 percent out of 20 students got 75 percent of 90 items or 67.50 which is the standard score, based on the actual count of the raw scores found in Appendix P-1. Only 55.50 or 61.67 percent of the whole 90-item test was mastered by the fourth year Practical Arts students in Samar National School, thereby giving a mastery level of 33.33 percent. This result is very much lower than the standard 75 percent mastery level and therefore unsatisfactory. So, there is a need to reteach the lessons under the three domains.

Samar Regional School of Fisheries. Table 3-C reveals that under the cognitive domain the fourth year Practical Arts students of Samar Regional School of Fisheries obtained a mean percentage score of 50.67 percent with 35 percent mastery level. This connotes that only seven

C. Samar Regional School of Fisheries

Domain	No. of Items	No. Tested	No. Who Got 75% & Above	Mean Score	Mean % Score	Mastery Level	Evaluation
Cognitive	30	20	7	15.20	50.67%	35%	Unsatisfactory Performance
Psychomotor	30	20	8	18.00	60.00%	40%	Unsatisfactory Performance
Affective	30	20	10	21.30	71.00%	50%	Unsatisfactory Performance
Total/Ave.	90	20	7	54.50	60.55%	41.67%	Unsatisfactory Performance

out of 20 respondent students achieved the standard score of 22.50. The mean performance score of 15.20 denotes that only 50.67 percent of the 30 items was mastered by the students. This result is unsatisfactory.

The mean percentage score of 60.00 percent with 40 percent mastery level under the psychomotor domain is also below the standard percentage of 75 percent. It shows that out of the 20 students tested, only eight got the standard correct responses of 22.50 with 18 or 60.00 percent of the 30 items correctly answered as found in :-

Appendix P - 3. This is also an unsatisfactory performance.

Under the affective level of performance, 21.30 or 71.00 percent of the 30 items were mastered by the 20 students. The 50 percent mastery level under this skill indicates that 10 out of 20 students obtained the 75 percent standard score of the 30-item test. This performance is also below the average of 75 percent.

The main percentage score for the three domains which is 60.55 percent and the mastery level of 41.67 percent is far below the standard performance level of 75 percent.

With this unsatisfactory performance, there is a great need to reteach the lesson under the three domains, and the five areas in Practical Arts must be covered.

Samar National Agricultural School. Table 3-D indicates that under the cognitive domain the fourth year Practical Arts students of Samar National Agricultural School obtained a mastery level of 25 percent, as shown by the mean percentage score of 50.00. It shows that only five out of 20 students were able to obtain a standard correct answer of 22.50 and above. Only 50.00 percent of the number of items were mastered by the students. This is still below the standard performance level of 75 percent.

D. Somar National Agricultural School

Domain	No. of Items	No. Tested	No. Who Got 75% & Above	Mean Score	Mean % Score	Mastery Level	Evaluation
Cognitive	30	20	5	15.00	50.00%	25%	Unsatisfactory Performance
Psychomotor	30	20	6	16.60	55.33	30%	Unsatisfactory Performance
Affective	30	20	7	21.50	71.67	35%	Unsatisfactory Performance
Total/Ave.	90	20	7	53.10	59.00%	30%	Unsatisfactory Performance

Under the psychomotor items the mean percentage score of 55.90 percent with 30 percent mastery level is also unsatisfactory. The connotation here is that only six out of 20 students got the standard score of 22.50, and only 55.33 percent of the test items were correctly answered by the students.

The percentage score of 71.67 percent with mastery level of 35 percent under the affective test items is still below par. It shows only that only 21.50 or

71.67 percent of the 30 items were correctly answered and only seven out of 20 students were able to master the skills under this domain.

Out of the 20 students from Samar National Agricultural School who took the 90-item test only seven got 75 percent and above the standard score of 67.50 as shown in Appendix P - 4. Only 53.10 or 59.00 percent of the 90-items were correctly answered. The mastery level of 30 percent and the mean percentage score of 59.00 percent is below average. This means that the skills tested need reteaching to improve the performance of the students.

Wright Vocational School. As shown in Table 3-E the fourth year Practical Arts students of Wright Vocational School achieved a mean score of 12.65 or 42.17 percent with mastery level of fifteen percent under the cognitive domain. This connotes an unsatisfactory performance. It means that based on the computation found in Appendix P - 5, 15 percent or three out of 20 students achieved above the standard score of 75 percent, which is 22.50 of the 30 items under the cognitive domain only 12.65 or 42.17 percent were mastered by the students tested.

As regards the psychomotor domain, five out of 20 students got the standard score of 22.50 which is equivalent

E. Wright Vocational School

Domain	No. of Items	No. Tested	No. Who Got 75% & Above	Mean Score	Mean % Score	Mastery Level	Evaluation
Cognitive	30	20	3	12.65	42.17%	15%	Unsatisfactory Performance
Psychomotor	30	20	5	17.20	57.33%	25%	Unsatisfactory Performance
Affective	30	20	13	22.60	75.33%	65%	Unsatisfactory Performance
Total/Ave.	90	20	4	52.45	58.28%	35%	Unsatisfactory Performance

to twenty five percent mastery level. Only 17.20 or 57.33 percent of the 30 items were mastered by the students under this skill. The result is unsatisfactory, hence, re-teaching of this skill is necessary.

Out of the same number of student tested under the affective objectives, thirteen or sixty five percent obtained the standard score of 22.50 or 75 percent and above. This means that 22.60 or 75.33 percent of the 30 items were answered correctly by the students. This

result is within the 75 percent average.

As a whole only four students or 20 percent out of 20 students got 75 percent of 90 or 67.50 which is the standard score, based on the actual count of the raw scores found in Appendix F - 5. Only 52.45 or 58.28 percent of the whole 90-item test was mastered by the fourth year Practical Arts in Wright Vocational School. Hence, a mastery level of 55 percent. This result is lower than the standard 75 percent mastery level. There is therefore a need to reteach the lessons under the three domains, and the five areas in Practical Arts must be taught.

Wright Community High School. Table 3-F indicates that under the cognitive domain the fourth year Practical Arts students of Wright Community High School obtained a mastery level of 30 percent, as shown by the mean percentage score of 47.67. It shows that only 6 out of 20 students were able to obtained a standard correct answer of 22.50 and above. Only 47.67 percent of the number of items were mastered by the students. This is still below the standard performance level of 75 percent.

Under the psychomotor items the mean percentage score of 53.67 percent with 35 percent mastery level is also unsatisfactory. The connotation here is that only seven out of 20 students got the standard score of 22.50, and

F. Wright Community High School

Domain	No. of Items	No. Tested	No. Who Got 75% & Above	Mean Score	Mean % Score	Mastery Level	Evaluation
Cognitive	30	20	6	14.30	47.67%	30%	Unsatisfactory Performance
Psychomotor	30	20	7	16.10	53.67%	35%	Unsatisfactory Performance
Affective	30	20	9	21.60	72.00%	45%	Unsatisfactory Performance
Total/Ave.	90	20	6	52.00	57.78%	36.67	Unsatisfactory Performance

only 53.67 percent of the test items were correctly answered by the students.

The percentage score of 72.00 percent with mastery level of 45 percent under the affective test items is still below par. It shows that only 21.60 or 72.00 percent of the 30 items were correctly answered and only 9 out of 20 students were able to master the skills under this domain.

Out of the 20 students from Wright Community High School who took the 90-item test only six got 75 percent

and above the standard score of 67.50 as shown in Appendix P-6. Only 52.00 or 57.78 percent of the 90 items were correctly answered. The mastery level of 36.67 percent and the mean percentage score of 57.78 percent is below average. This means that the skills tested need re-teaching to improve the percentage of the students.

Hinabangan National High School. Table 3-G reveals that under the cognitive domain the fourth year Practical Arts students of Hinabangan National High School obtained a mean percentage score of 43.17 percent with fifteen percent mastery level. This connotes that only three out of 20 respondent students achieved the standard score of 22.50. The mean performance score of 12.95 denotes that only 43.17 percent of the 30 items was mastered by the students. This result is unsatisfactory.

The mean percentage score of 52.67 percent with 20 percent mastery level under the psychomotor domain is also below the standard percentage of 75 percent. It shows that out of the 20 students tested only four got the standard correct responses of 22.50 with 15.80 or 52.67 percent of the 30 items correctly answered as found in Appendix P - 7. This is also an unsatisfactory performance.

Under the affective level of performance, 21.20 or

G. Hinabangan National High School

Domain	No of Items	No. Tested	No. Who Got 75% & Above	Mean Score	Mean % Scofe	Mastery Level	Evaluation
Cognitive	30	20	3	12.95	43.17%	15%	Unsatisfactory Performance
Psychomotor	30	20	4	15.80	52.67%	20%	Unsatisfactory Performance
Affective T	30	20	7	21.20	70.67%	35%	Unsatisfactory Performance
Total/Ave.	90	20	6	52/00	57.78%	36.67	Unsatisfactory Performance

70.67 percent of the 30 items were mastered by the 20 students. The 35 percent mastery level under this skill indicates that 7 out of 20 students obtained the 75 percent standard score of the 30-item test. This performance is also below the average of 75 percent.

The total mean percentage score for the three domains which is 55.50 percent with mastery level of 23.33 percent is far below the standard performance level of 75 percent. This means that based on the actual count from the raw data as found in Appendix P - 7, with a grand mean score of

49.95, only 55.50 percent of the 90 items were correctly answered by the 20 respondent students from Hinabangan National High School. Out of this number of students only four of them are twenty percent got the standard score of 67.50 which is the 75 percent of the 90-item test.

With this unsatisfactory performance, there is a great need to reteach the lessons under the three domains.

Summarized Students' Mean Performance and Mastery Levels by Domains

The summarized performance and mastery levels of the students of the seven secondary schools in Samar in terms of cognitive, psychomotor and affective skills are shown in Table 4. It reveals that under the cognitive skill with the mean performance score of 15.29, the 140 respondents got a mean percentage score of 50.97 percent. There were 45 students out of 140 students or 32.14 percent who obtained the standard score of 22.50. This result connotes an unsatisfactory performance.

Under the psychomotor domain with 17.67 mean performance score, 58.90 percent of the 30 items was mastered by 53 out of 140 respondent students or 37.86 percent obtained the standard score of 22.50. This performance level is also far from satisfactory.

As regards the affective abilities of the students

Table 4

Summarized Students' Mean Performance and Mastery Levels by Domains

Domain	No. of Items	No. Tested	No. Who Got 75% & Above	Mean Score	Mean % Score	Mastery Level	Evaluation
Cognitive	30	140	45	15.29	50.97%	32.14%	Unsatisfactory Performance
Psychomotor	30	140	53	17.67	58.90%	37.86%	Unsatisfactory Performance
Affective	30	140	69	22.11	73.70%	49.29%	Unsatisfactory Performance
Total/Ave.	90	140	48	55.07	61.19%	39.76%	Unsatisfactory Performance

tested only 73.70 percent of the 30 items was correctly answered by the respondents and 69 out of 140 students or 49.29 percent achieved a standard score of 22.50. This result also connotes an unsatisfactory performance on this skill.

As a whole, the grand mean percentage score of the seven types of secondary schools in Samar which is 61.19 percent with mastery level of 39.76 percent indicates that the performance level of the students is below average, and

it means that only 61.19 percent of the 90 test items was mastered which is below the standard performance of 75 percent. Out of the 140 respondent students only 48 got the standard 75 percent of 90 items which is 67.50, as show in Appendices I to O and based on the result found in Appendix P.

As shown by the foregoing results of the performance and mastery levels of the students in general, there is a great need to reteach the skills under all the three domains if only to improve the performance abilities of the students in the seven types of secondary schools in Samar.

Relationship Between the Mean Scores in Cognitive Abilities and Psychomotor Abilities of the Fourth Year Practical Arts Students (X and Y)

The degree of relationship between the mean performance scores in cognitive abilities and psychomotor abilities in Practical Arts among the fourth year students in the seven types of secondary schools in Samar is shown in Table 5 based on the computation found in Appendix Q - 1.

Table 5 discloses that the mean score of cognitive abilities represented by X which is 107.00 and the mean score under psychomotor abilities represented by Y which is 123.70 obtained a correlation of .90. The obtained correlation of .90 connotes a very high correlation as

Table 5

Relationship Between the Mean Scores in Cognitive Abilities and Psychomotor Abilities of the Fourth Year Practical Arts Students

School	Mean Scores by Pairs of Variables		Obtained Correlation Between X and Y
	Cognitive (X)	Psychomotor (Y)	
SSPC	20.50	20.70	
SNS	16.40	17.30	
SRSF	15.20	18.00	
SNAS	15.00	16.60	
WVS	12.65	17.20	
WCHS	14.30	16.10	
HNHS	12.95	15.80	
Total	107.00	123.70	
Grand Mean	15.29	17.67	

shown by the legend of interpretation of results found in Chapter 3. This means that students who are good in cognitive skills are also as good in psychomotor skills.

Relationship Between the Mean Scores in Cognitive Abilities and Affective Abilities of Practical Arts Students (X and Y)

Table 6 reveals the extent of correlation between the mean scores in cognitive abilities and affective abilities

Table 6

Relationship Between the Mean Scores in Cognitive Abilities and Affective Abilities of the Fourth Year Practical Arts Students

School	Mean Scores by Pairs of Variables		Obtained Correlation Between X and Z
	Cognitive (X)	Affective (Z)	
SSPC	20.50	24.80	
SNS	16.40	21.80	
SRSF	15.20	21.30	
SNAS	15.00	21.50	r_{2z} = .76
WVS	12.65	22.60	
WCHS	14.30	21.60	
HNHS	12.95	21.20	
Total	107.00	154.80	
Grand Mean	15.29	22.11	

of the students in the seven types of secondary schools in Samar. It shows that the obtained correlation of the two variables based on the computation found in Appendix Q - 2 is .76. As shown by the legend of interpretation of the obtained correlation, .76 indicates high correlation. This means that students who are good in cognitive skills are also good in affective skills.

Relationship Between the Mean Scores in Psychomotor Abilities and Affective Abilities of Practical Arts Students (X and Z)

The obtained correlation between the mean scores in psychomotor abilities and affective abilities of the students from the seven types of secondary schools in Samar is revealed in Table 7. It discloses that based on the computed value of r_3 found in Appendix Q - 3 which is .91, there is a very high correlation between the psychomotor abilities and affective abilities of the students from the seven types of secondary schools in Samar. This interpretation is obtained from the same scale provided for in Chapter 3. This means that those students who are good in psychomotor skills are also good in affective skills.

As a whole, Table 5, 6, and 7 reveal that the performance of the students under the three domains have very high correlation. These findings therefore, accepts the hypothesis that the performance in Practical Arts of the fourth year students in the seven types of secondary schools in Samar in terms of cognitive, psychomotor and affective domains are significantly related. This is an indication that the three domains are supplementary with one another.

Table 7

Relationship Between the Mean Scores in Psychomotor Abilities and Affective Abilities of the Fourth Year Practical Arts Students

School	Mean Scores by Pairs of Variables: Psychomotor (Y)	Affective (Z)	Obtained Correlation Between Y and Z
SSPC	22.70	24.80	
SNS	17.30	21.80	
SRSF	18.00	21.30	
SNAS	16.60	21.50	
WVS	17.20	22.60	
WCHS	16.10	21.60	
HNHS	15.80	21.20	
Total	123.70	154.80	
Grand Mean	17.67	22.11	

Summarized Correlation Coefficient Among the Three Variables namely: Cognitive, Psychomotor and Affective

Table 8 reflects the summary of the correlation coefficient between the three independent variables for cognitive, psychomotor and affective. For cognitive versus affective the computed r_2 is .76 while for psychomotor versus affective the computed r_3 is .91.

These three r values as much higher than the critical

value of r for .05 level of significance and 5 degrees of freedom, thus the research hypothesis of this study is accepted. For higher scores of cognitive aspect correspondingly will have higher scores on the psychomotor and affective aspects.

Table 8

Summary of the Correlation Coefficients Among The Three Variables Namely: Cognitive, Psychomotor and Affective

Paired Variables	Computed Value of r	Critical Value of r	Significance
Cog. (X) vs. Psycho.(Y) (r_1)	.90	.7545	Significant
Cog. (X) vs. Affect. (Z) (r_2)	.76	.7545	Significant
Psycho.(Y) vs. Affect.(Z) (r_3)	.91	.7545	Significant

S - Significant at L = .05 and degrees of freedom = 5

Chapter 5

SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter deals with the summary, findings, conclusions and recommendations of the study.

Summary

This study was conducted to evaluate the cognitive, psychomotor and affective abilities of the fourth year students in Practical Arts in the seven types of secondary schools in Samar, by using the validated Regional test. Specifically, it sought answers to the following questions:

1. What is the profile of teachers teaching Practical Arts with respect to:

    1.1 age/sex/civil status?

    1.2 educational qualifications/trainings?

    1.3 field of specialization?

    1.4 teaching experience?

2. What are the mean performance scores and mastery levels of the fourth year students in Practical Arts in the seven types of secondary schools in Samar in terms of:

    2.1 cognitive domain?

    2.2 psychomotor domain?

2.3 affective domain?

3. Are the performances in Practical Arts of the fourth year students in terms of cognitive, psychomotor, and affective domains significantly related?

4. What are the implications of this study to instructional redirections?

The primary focus of this study is to test the following hypothesis: the performance in Practical Arts of the fourth year students in the seven types of secondary schools in Samar in terms of cognitive, psychomotor and affective domains are not significantly related.

The analytical-descriptive research method was employed in this study with a validated regional achievement test questions as the main instrument used by the researcher in gathering data.

The result of this study is of importance to both teachers and administrators. These may serve as basis in determining whether or not the students have thoroughly mastered the skills under each domain. This may serve as basis of comparison with the performance under the Secondary Education Development Program (SEDP) which is now in effect. They may also provide feedback for the administrators and other school officials to make supervisory and instructional redirections in order to attain

quality instruction.

The important terms used in this study were properly defined for the convenience of those who may use or read this research work.

To give insights into the content of this study, significant literature and studies relevant to this study were patiently reviewed. He consulted some Supervisors in Practical Arts in the Division and in the Region particularly in constructing and validating the test questions.

Systematic random sampling was adopted in selecting the respondents in this study where the researcher picked out the male and female respondents according to their number in the class records under the custody of their respective advisers.

The responses to the test questions were personally checked by the researcher, carefully tallied, tabulated, and analyzed statistically in accordance with the most appropriate measure. Pearson r was used to test the hypothesis. A scale was also provided as guide for the interpretation of the obtained correlation coefficient.

Findings. The findings of this study based on the specific questions found in Chapter 2 and the computations found in Appendix I and series, J and series, K and

and series, L and series, M and series, N and series, O and series, P and series, Q and series are as follows:

1. As to the age, sex, and civil status of the seven teachers teaching Practical Arts IV of the fourth year students in the seven types of secondary schools in Samar, four were male teachers one each belonging to age groups from 50 years old and above, 40-49 years old, 30-39 years old and 20-29 years old respectively; and three were female teachers two of whom were from 30-39 years old and one of them from 20-29 years of age. Three out of seven teachers were from 30-39 years old and two were between 20-29 years as far as the age is concerned. All of them were already married.

Under the educational qualification, of the seven teachers, one male teacher obtained the highest educational qualification of Master of Arts with Certificate of Academic Requirements. While the rest, one male and one female teacher with B.S. degree and were able to earn units in Master of Arts. Four of seven teachers were B.S. degree holders two of whom were male and 2 were female.

As regards the field of specialization of the same number of male and female teachers teaching the subject, two male teachers with major in Practical Arts, one with

major in Agriculture, while one with major in Social Studies; and two and one for Home Economics and Fishery Arts, respectively. Six of the seven teachers were vocationally prepared while one was academically prepared.

In terms of teaching experience, one of the male teachers has 15-19 experience; two have 10-14 years; and only one has one year or below. For female teachers, one has 10-14 years, one with 5-9 years and one with one year or below. This means that most of the practical arts teachers are new in the service.

2. The mean performance scores of the fourth year students in Practical Arts in the seven types of secondary schools in Samar in terms of the three domains are: Samar State Polytechnic College, 20.50 under cognitive; 22.70, under psychomotor domain, and for affective domain, 24.80 which totals to 68.00 and a grand mean of 22.67; Samar National School, 16.40 for cognitive domain; 17.30 under psychomotor and under the affective domain, 21.80 thus yielding a total mean score of 55.50 and a grand mean score of 18.50; Samar Regional School of Fisheries, 15.50, 18.00, 21.30 for cognitive, psychomotor and affective domain, respectively, with a total mean score of 54.50 and a grand mean score of 18.17; Samar National Agricultural School, 16.00 under cognitive domain, 16.60 under

psychomotor domain and 21.50 under affective domain, thereby garnering a total mean score of 53.10 and a grand mean score of 17.70; Wright Vocational School, with mean scores of 12.65, 17.20, 22.60, respectively, thus yielding a total mean scores of 52.45 and a grand mean of 17.48; Wright Community High School, having obtained a mean scores of 14.30, 16.10, 21.60 which totals to 58 00 this registering a grand mean of 17.33 while the mean scores obtained by the students from Hinabangan National High School is 12.95 under cognitive, 15.80 under psychomotor domain and 21.20 under affective domain which totals to 49.95 and a grand mean score of 16.65.

As a summary the seven types of secondary schools in Samar got an aggregate mean score of 107.00 thus yielding a grand mean of 15.29 under the cognitive domain. Under the psychomotor domain the seven types of secondary schools obtained a summation of the mean scores of 123.70 and the grand mean of 17.67. In terms of affective domain the same schools had a total mean scores of 154.80 thus giving a grand mean of 22.11.

3. As regards the mastery levels of the students tested under the three domains the result revealed the following:

Samar State Polytechnic College achieved a mean

percentage score of 68.33 percent with a mastery level of 70 percent under the cognitive domain. This connotes an unsatisfactory performance. Under the psychomotor domain the students of this school achieved a mean percentage score of 75.67 percent with mastery level of 85 percent. This is a very satisfactory performance. In terms of affective domain the same students got a mean percentage score of 82.67 percent with 80 percent mastery level. This is also a very satisfactory performance.

As a whole 68.00 or 75.55 percent of the whole 90-item test was mastered by the fourth year students in Samar State Polytechnic College thus yielding mastery level of 78.33. This result is above the standard 75 percent mastery level and therefore the only school with satisfactory performance.

In Samar National School the cognitive domain obtained a mastery level of 35 percent with mean percentage score of 54.67 percent. This is below the standard performance level of 75 percent. Under the psychomotor items, the mean percentage score of 57.67 percent with 30 percent mastery level achieved by the same number of students of Samar National School, is also unsatisfactory. Under the affective test items these students got a percentage score of 72.67 percent mastery level of 35 percent. This is also

below par.

Out of the 20 students from Samar National School who took the 90-item test only six got 75 percent standard score. Only 55.50 or 61.67 percent of the 90 items were correctly answered. The mastery level of 33.33 percent and the mean percentage score of 61.67 percent is below average.

Students from Samar Regional School of Fisheries obtained a mean percentage score of 50.67 percent with thirty five percent mastery level under cognitive domain; 40 percent mastery level with mean percentage score of 60.00 percent under psychomotor; and 50 percent mastery level with mean percentage score of 71.00 percent under the affective domain. These mastery levels under the three domains obtained by the students in Samar Regional School of Fisheries are all unsatisfactory, as indicated by the 41.67 percent mastery level.

Samar National Agricultural School achieved a mean percentage score of 50.00 percent with a mastery level of 25 percent under the cognitive domain. This connotes an unsatisfactory performance. Under the psychomotor domain the students of this school achieved a mean percentage score of 55.33 percent with mastery level of 30 percent. This is also unsatisfactory performance. In terms

of affective objectives the same students got a mean percentage score of 71.67 percent with mastery level of 35 percent. This result is also unsatisfactory.

As a whole only 53.10 or 59.00 percent of the whole 90-item test was mastered by the fourth year students in Samar National Agricultural School. This resulted in an overall mastery level of 30 percent which connotes an unsatisfactory performance.

Wright Vocational School obtained a mastery level of 15 percent under cognitive with mean percentage score of 42.17 percent. This is below the standard performance level of 75 percent. Under the psychomotor items the mean percentage score of 57.33 percent with 25 percent mastery level achieved by the same students of Wright Vocational School is also unsatisfactory. Under the affective test items these students got a percentage score or 75.33 percent with mastery level of 65 percent.

Out of the 20 students from Wright Vocational School who took the 90-item test only four got 75 percent standard score. Only 52.45 or 58.28 percent of the 90-item test were correctly answered. The mastery level of 35 percent and the mean percentage score of 58.28 percent is below average.

Students from Wright Community High School obtained

a mean percentage score of 47.67 percent with 30 percent mastery level under cognitive domain; 35 percent mastery level with mean percentage score of 53.67 percent under psychomotor; and 45 percent mastery level with mean percentage score of 72.00 percent under the affective domain. The mastery level of 36.67 for the three domains obtained by the students of Upright Community High School is also unsatisfactory.

The students of Hinabangan National High School achieved a mean percentage score of 43.17 percent with a mastery level of 15 percent under the cognitive domain. This connotes an unsatisfactory performance. Under the psychomotor domain the students of this school achieved a mean percentage score of 52.67 percent with mastery level of 20 percent. This is also unsatisfactory. In terms of affective objectives the students got a mean percentage score of 70.67 percent with 35 percent mastery level. This result is also unsatisfactory.

As a whole only 49.95 or 55.50 percent of the whole 90-item test was mastered by the fourth year students in Hinabangan National High School. The overall mastery level of 23.33 percent is lower than the standard 75 percent mastery level and therefore connotes an unsatisfactory performance.

As a summary of the mean percentage and mastery levels of the 140 students from the seven types of secondary schools in Samar, it was found that under the cognitive skill the mean percentage score is 50.97 percent with mastery level of 32.14 percent. In terms of psychomotor domain the students obtained a mean percentage score of 58.90 percent with mastery level of 37.86. As regards the affective abilities these 140 students achieved a mean percentage score of 73.70 percent with 49.29 percent mastery level. As a whole, the grand mean percentage score of the seven types of secondary schools in terms of the three domains is 61.19 percent with mastery level of 39,76. This connotes an unsatisfactory practical ability of the students in the seven types of secondary schools in Samar.

4. The degree of relationship between the mean scores obtained by the students in the seven types of secondary schools in Samar in terms of the three domains revealed that:

The mean score under the cognitive abilities of the students which is represented by X is 15.29; while the mean score under the psychomotor domain which is represented by Y is 17.67. The obtained correlation between these two variables represented by r_1 is .90. This obtained

correlation connotes a very high correlation based on the legend for interpretation of results.

The 15.29 mean score under the cognitive domain when paired with the mean score under the affective domain represented by Z which is 22.11 yielded correlation coefficient of .76 which represents r_2. The .76 correlation coefficient reveals a very high correlation between the performance abilities of the students in terms of cognitive and affective domains.

The mean score of Y which is 17.67 when paired with Z which is 22.11 obtained on r_3 of .91. This means that there is a very high correlation between the performance abilities of the students in terms of psychomotor domains and affective domains.

The findings, therefore, rejects the hypothesis that the performance in Practical Arts of the fourth year students in the seven types of secondary schools in Samar in terms of cognitive, psychomotor and affective domains are not significantly related.

5. This implies that the students who are deficient in cognitive ability are equally deficient in psychomotor and affective abilities.

Conclusions

In consonance with the foregoing findings the following

conclusions are hereby presented:

1. Since there were four male teachers and three female teachers teaching Practical Arts of the fourth year students in the seven types of secondary schools in Samar coupled with different field of specialization, teaching experience, ages and educational qualifications, the performance of the students in Practical Arts could not be expected to reached the 75 percent mastery level.

2. Since there is a very high correlation among the three domains, it may be concluded and generalized that those who are deficient in cognitive ability, are equally deficient in the psychomotor and the affective abilities and those who are relatively higher in one domain are also higher in other domains.

3. Since the performance and mastery level of the students are unsatisfactory, it follows that the instruction in Practical Arts for the fourth year in the seven types of secondary schools in Samar has not met the established standard of 75 percent.

Recommendations

In view of the foregoing conclusions the following recommendations are made:

1. Involve more male teachers with major in Practical

Arts so that they can thoroughly teach the five areas of Practical Arts.

2. More studies and researches should be conducted to find out the causes of low performance levels of the students in Practical Arts.

3. Practical Arts teachers should continue giving equal emphasis not only in the teaching of the three domains but also when evaluating their performance. Construction of test questions must emphasize equally these skills.

4. Teachers, administrators, curriculum planners and other school officials should collectively make provisions to improve the ability levels of the students in Practical Arts through instructional redirection.

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A P P E N D I C E S

APPENDIX A

Republic of the Philippines
SAMAR STATE POLYTECHNIC COLLEGE
Catbalogan, Samar

September 7, 1990

The Dean of Instruction & Related Services
Samar State Polytechnic College
Catbalogan, Samar

S i r :

In my desire to start writing my thesis proposal, I have the honor to submit for approval one of the following research problems, preferably number 1.

1. PRACTICAL ARTS PERFORMANCE OF SENIOR HIGH SCHOOL STUDENTS IN SAMAR: A BASIS FOR INSTRUCTIONAL REDIRECTION

2. ENGLISH AND PILIPINO AS MEDIUM OF TESTING FOURTH YEAR PRACTICAL ARTS STUDENTS IN SECONDARY SCHOOLS IN SAMAR: A COMPARISON

3. THE RELATIONSHIP OF LEADERSHIP BEHAVIOR OF ADMINISTRATORS OF THE SECONDARY GENERAL HIGH SCHOOL AND THE ACHIEVEMENT/PERFORMANCE RATING OF THE TEACHERS IN THE DIVISION OF SAMAR

I fervently hope for your early and favorable action.

Very truly yours,

(SGD.) ANTONIO A. PINO
Researcher

Recommending Approval:

(SGD.) TEOFISTO A. ALIBOSA, Ph.D.
Dean, Research/Extension/Publication

APPROVED:

(SGD.) SENECIO D. AYONG, DPA/Ed. D.
Dean of Instruction and Related Services

APPENDIX B

Republic of the Philippines
SAMAR STATE POLYTECHNIC COLLEGE
Catbalogan, Samar

SCHOOL OF GRADUATE STUDIES

APPLICATION FOR ASSIGNMENT OF ADVISER

NAME: PINO (Surname) ANTONIO (First Name) ABALOS (Middle Name)

CANDIDATE FOR DEGREE: MASTER OF ARTS IN EDUCATION (MAEd.)

AREA OF SPECIALIZATION: ADMINISTRATION AND SUPERVISION

TITLE OF PROPOSED THESIS: PRACTICAL ARTS PERFORMANCE OF SENIOR HIGH SCHOOL STUDENTS IN SAMAR: A BASIS FOR INSTRUCTIONAL REDIRECTIONS

(SGD.) ANTONIO A. PINO
Applicant

MR. AUGUSTO D. CAIRO
Name of Designated Adviser

APPROVED:

(SGD.) SENECIO D. AYONG, DPA/Ed.D.
Dean

CONFORME:

(SGD.) AUGUSTO D. CAIRO
Adviser

Date: September 14, 1990

APPENDIX C

Republic of the Philippines
SAMAR STATE POLYTECHNIC COLLEGE
Catbalogan, Samar

June 04, 1991

The Dean of Instruction & Related Services
Samar State Polytechnic College
Catbalogan, Samar

S i r :

I have the honor to request that I be scheduled on June 21, 1991 to defend my thesis proposal entitled "PRACTICAL ARTS PERFORMANCE OF SENIOR HIGH SCHOOL STUDENTS IN SAMAR: A BASIS FOR INSTRUCTIONAL REDIRECTION".

In this connection, I am submitting herewith five copies of my thesis proposal for distribution to the Dean and the panel members.

I hope for your favorable action on this matter.

Very truly yours,

(SGD.) ANTONIO A. PINO
Researcher

Recommending Approval:

(SGD.) AUGUSTO D. CAIRO
Adviser

APPROVED:

(SGD.) SENECIO D. AYONG, DPA/Ed.D.
Dean, Instruction and Related Services

APPENDIX D

Republic of the Philippines
Department of Education, Culture and Sports
Regional Office No. VIII
Schools Division of Samar
TARANGNAN NATIONAL HIGH SCHOOL
Tarangnan, Samar

June 17, 1991

The Principal
Tarangnan National High School
Tarangnan, Samar

S i r :

In my desire to start writing my thesis proposal, I have the honor to request permission from your good office that I be given an official time on June 20 and 21, 1991 (Thursday and Friday) for the reason that I will be able to defend my thesis proposal (Pre-Oral Defense) entitled "PRACTICAL ARTS PERFORMANCE OF SENIOR HIGH SCHOOL STUDENTS IN SAMAR: A BASIS FOR INSTRUCTIONAL REDIRECTION, on June 21, 1991 (Friday) at 1:00 o'clock in the afternoon; Samar State Polytechnic College, Guest House.

Attached herewith is the approved request from the Dean, Instruction and Related Services regarding my schedule on the Pre-oral defense as stated on the date requested.

I hope for your favorable action on this matter.

Very truly yours,

(SGD.) ANTONIO A. PINO
Researcher

APPROVED:

(SGD.) LEOVEGILDO N. MANTE
Principal

APPENDIX E

Republic of the Philippines
SAMAR STATE POLYTECHNIC COLLEGE
Catbalogan, Samar

December 15, 1991

The Schools Division Superintendent
Division of Samar
Catbalogan, Samar

M a d a m :

I have the honor to request permission and approval from your good office to administer my achievement test for the study entitled "PRACTICAL ARTS PERFORMANCE OF SENIOR HIGH SCHOOL STUDENTS IN SAMAR: A BASIS FOR INSTRUCTIONAL REDIRECTIONS, starting December 16, 1991 up to January 1992 to the following secondary school in Samar:

1. Samar National School - Catbalogan, Samar
2. Wright Community High School - Paranas, Samar
3. Hinabangan National High School -Hinabangan, Samar
4. Samar State Polytechnic College - Catbalogan, Samar
5. Samar National Agricultural School - San Jorge, Samar
6. Samar Regional School of Fisheries - Catbalogan, Samar
7. Wright Vocational School - Paranas, Samar

Anticipating favorable action on this matter.

Very truly yours,

(SGD.) ANTONIO A. PINO
Graduate Student

A P P R O V E D :

(SGD.) LYDIA MIRAS-LOPEZ
Schools Division Superintendent

APPENDIX F

SAMAR STATE POLYTECHNIC COLLEGE
Catbalogan, Samar

February 14, 1992

The Dean of Instruction & Related Services
Samar State Polytechnic College
Catbalogan, Samar

S i r :

I have the honor to request that I be scheduled on February 24, 1992 to defend my thesis entitled "PRACTICAL ARTS PERFORMANCE OF SENIOR HIGH SCHOOL STUDENTS IN SAMAR: A BASIS FOR INSTRUCTIONAL REDIRECTIONS.

In this connection, I am submitting herewith six (6) copies of my thesis for distribution to my adviser, the chairman and the members of the panel of examiners.

Anticipating favorable action on this matter.

Very truly yours,

(SGD.) ANTONIO A. PINO
Graduate Student

Recommending Approval:

(SGD.) AUGUSTO D. CAIRO
Adviser

APPROVED:

(SGD.) SENECIO D. AYONG, DPA/Ed.D.
Dean of Instruction and Related Services

APPENDIX G

THE QUESTIONNAIRE

THE SCHOOL PRACTICAL ARTS PROGRAM IN THE DIVISION OF SAMAR

Sir/Madam:

You have been chosen as a respondent to the study on the evaluation of the Performance in Practical Arts of Senior High School Students in the Division of Samar. Please give your honest and sincere answer to the questions to this study a reliable one.

Thank you very much,

(SGD.) ANTONIO A. PINO
Researcher

Direction: Please write the information asked of you in the space provided for and a checkmark (/) where it is necessary.

PART I. Profile of Respondent

A. Personal Information

1. Name: _____ (Optional) Age: _____

Sex: _____ Civil Status: _____

2. Position: _____

3. School/District: _____

4. Highest Educational Qualification: _____

_____

5. Field of Specialization: _____

_____

6. Number of years in teaching Practical Arts Subjects? _____

_____

7. In-service Trainings/Seminars/Workshops Attended: _____

_____

_____

_____

_____

_____

_____

_____

8. Tools/Equipment/Teaching aids and Devices used in teaching: _____

_____

_____

_____

_____

_____

_____

_____

APPENDIX H-1

Table of Specification

Content	Skills			No. of Items
	Cognitive	Psychomotor	Affective	
Agriculture				
Soil and Plant	1	31	61	3
Crop Production	2	32	62	3
Vegetables	3	33	63	3
Rice	4	34	64	3
Root Crops	5	35	65	3
Intercropping & Catchcropping	6	36	66	3
Home Making				
Energy Foods	7	37	67	3
Vitamins as Body Regulators	8	38	68	3
Minerals as Body Regulators	9	39	69	3
Appetite, Allergy and Wrong Beliefs About Food	10	40	70	3
Nutrition in Infancy	11	41	71	3
Nutrition for Pre-schoolers	12	42	72	3

APPENDIX H-1
(Cont'd.)

Content	SKILLS			No. of Items
	Cognitive	Psychomotor	Affective	
Fishery Arts				
Fish	13	43	73	3
How Fish Swim	14	44	74	3
Fish Culture	15	45	75	3
Forms of Commercial Fishing	16	46	76	3
Fishing	17	47	77	3
Fishing Method	18	48	78	3
Business and Distributive Arts				
Retail Business	19	49	79	3
Purchasing	20	50	80	3
Store Salesmanship	21	51	81	3
Sales Promotion	22	52	82	3
Merchandise Display	23	53	83	3
The Store System	24	54	84	3
Industrial Arts				
Woodfinishing	25	55	85	3
Soldering	26	56	86	3
Basic Principles of Electricity	27	57	87	3

APPENDIX H-1
(Cont'd.)

Content	SKILLS			No. of Items
	Cognitive	Psychomotor	Affective	
Linoleum Block Printing	28	58	88	3
Caning and Upholstering	29	59	89	3
Mold Making	30	60	90	3
Total No. of Items	30	30	30	30

APPENDIX H-2

Achievement Test in
Practical Arts IV

Test I. Direction. Read the sentences carefully and write the letter of the correct answer on the blank before each number.

_____1. The soil helps plant growth by acting as a medium through which:

I Plant roots can penetrate
II plant roots can anchor themselves
III plant roots can get water and food
IV plant roots can famify or grow into a netwerk
V plant roots can suffocate

a) I, II, III and V
b) I, II, and IV
c) I, II, III and IV
d) I and V
e) all five

_____2. Perennial crops last for at least:

a) one year
b) half a year
c) a quarter of a year
d) a three quarters of a year
e) two years

_____3. All of the following vegetables are legumes except

a) peas
b) lettuce
c) beans
d) peanuts
e) soya beans

_____4. The phases of rice processing from the early stages up to the time it is sent for sale are as follows:

a) sowing, winnowing, harvesting, husking, threshing, transplanting
b) sowing, transplanting, harvesting, winnowing, threshing, husking
c) transplanting, sowing, winnowing, threshing, harvesting, husking
d) transplanting, sowing, threshing, winnowing, harvesting, husking
e) sowing, transplanting, harvesting, threshing, winnowing, husking

_____5. The following are root crops except

a) sweet potato
b) yarn
c) cassava
d) tomatoes
e) ginger

_____6. The intercrop should:

I be of the same size as the main crop
II be smaller than the main crop
III have root system that do not compete with the main crop
IV tolerate shade
V not act as a ground cover

a) I, II, and V
b) II, III, IV and V
c) III, III, and IV
d) al five
e) I, II and V

_____7. Anything which when taken into our body, makes us grow, regulates body processes and maintain body functions is known as

a) health
b) wealth
c) nutrition
d) food
e) all of these

_____8. It prevents beriberi and helps maintain healthy nerves, good mental disposition and digestion.

a) pellagra
b) thiamin
c) tocopherol
d) rickets
e) vitamin

_____9. Lack of calcium in the body has been known to cause.

a) hypertension
b) acidosis
c) hyperthyroidism
d) retarded growth and rickets
e) all of these

_____10. Allergy is a condition of over sensitiveness of the body to

a) vegetables
b) protein foods
c) fat-rich foods
d) carbohydrate-rich foods
e) none of these

_____11. Combination of bottlefeeding and breastfeeding.

a) full-term feeding
b) bottlefeeding
c) weaning
d) mixed feeding
c) breastfeeding

_____12. The preschool age range is from

a) 2-6 years old
b) 1-2 years old
c) 3-6 years old
d) 7-11years old
e) 11-15 years old

_____13. Any animal that lives in water is usually called

a) fish
b) bird
c) snake
d) frog
d) all of these

_____14. Fish swim chiefly by muscular movements of the body and sweeps of the tail. The fins are used for:

a) balancing, and steering
b) balancing and braking
c) balancing, braking, steering and blowing
d) balancing, steering and braking
e) all of the above

_____15. The process of raising desirable species of fishes in captivity and managing them and their environment to improve growth and reproduction.

a) farming
b) capturing
c) braiding
d) fish culture
e) fish capture

_____16. Cod, flounder, haddock, pollock, sole, ocean perch and shrimp are the typical species caught by trawling. This form of commercial fishing is called:

a) beam and other trawls
b) seine, or haul seine
c) purse seine
d) gill nets
e) none of these

_____17. This method of fishing refers to the techniques of catching fish without moving from spot on an anchored boat, a bridge, a dock or a bank.

a) bait casting
b) trawl fishing
c) still fishing
d) surf casting
e) fly fishing

_____18. A very popular fishing technique used to catch variety of fresh and salt water fish.

a) bait casting
b) surf casting
c) still fishing
d) fly fishing
e) none of these

_____19. The exchange of excess products of one clan or tribe with one another is called:

a) barter
BO buying
c) trading
d) advertising
e) all of these

_____20. This refers to the quantity of commodity that buyers are willing, and can afford, to purchase at a certain price, at a certain time, and a certain place.

a) demand
b) purchasing
c) supply
d) value
e) none of thede

_____21. Type of salesman is always busy looking for contacts, for prospects and everywhere he goes, he spreads confidence and win friends, and he is an ambassador of good will.

_____22. An activity may be understood to mean all planned and coordinated activities of a business intended to facilitate the sales of goods.

a) store organization
b) merchandising
c) sales promotion
d) wholesale
e) all of these

_____23. The arrangement of goods inside and outside the store for the purpose of attracting attention to them refers to

a) display
b) promotion
c) advertising
d) announcement
e) commercial

_____24. This refers to well-defined plan of store activities intended to insure the orderly functioning of the store organization.

a) display system
b) retail store system
c) sari-sari store system
d) wholesale store system
e) all of these

_____25. The process of applying substances in liquid or in paste form on the surface of wood for the purpose of preserving and beautifying it:

a) caning c) woodfinishing e) sanding
b) upholstering d) woodsurfing

_____26. This is heated in an open flame until it is red hot.

(a) soldering copper c) welding rod
b) soldering rod d) rod breaker
e) all of these

_____27. In electrical circuit the time rate of doing work is expressed in _____.

a) amperes c) ohms e) volts
b) kilo d) watts

_____28. The word "linoleum" is derived from the two latin words, linum, meaning flax (plant from whose seeds linseed oil is taken) and oleum, meaning _____.

a) ash c) oil e) smoke
b) gas d) smog

_____29. The process of weaving rattan strips called cane on a seat or bed frame:

a) caning c) upholstering e) none of
b) stripping d) weaving these

_____30. The process of making a hallow pattern out of plaster and other similar materials in which a form may be cast.

a) glazing c) mold making e) all of
b) hand formingd) slip casting these

Test II. Direction. Answer the following problems and write the latter of the correct answer on the blank before each number.

_____31. In what particular operation can the acidity or alkalinity of soil be determined?

a) by measuring with the use of indicator peper

b) by freaking with the use of indicator paper
c) by foraging with the use of indicator paper
d) all of these

_____32. In planting crops, what are the consideration to be followed?

a) select the right variety of seeds to be planted
b) select the area for planting
c) prepare the area for cultivation
d) all of the above

_____33. What do you think is the best way to grow vegetables?

a) we must know the various requirement and type of beds needed for their growth
b) we must know the acidity or alkalinity of soil
c) we must know the measurement or dimensions of each yield
d) we should determine the spacing between plants

_____34. How will you prepare the land for rice cultivation?

a) do it by either dry-land or wet-land preparation
b) see to it that the field is thoroughly drained
c) prepare the land with the use of heavy harrows, chisels or stubble mulch equipment to stir the soil without inverting or covering the trash
d) all of the above

_____35. In planting any variety of root crops, it is very necessary that the area must be:

a) expose to sunlight
b) free from harmful insects
c) the soil must be well-drained
d) all of these

_____36. In choosing an intercrop, what possible observation must be followed?

a) the intercrop should be smaller than the main crop
b) root system should not compete and should not damage the main crop roots
c) the intercrop should tolerate shade
d) all of these

____37. In attempting to measure the energy value of foods, one must be able to

a) know how to use the prescribed measuring tools
b) know how to locate the place for the value of energy foods
c) know how the energy foods helps in maintaining health
d) all of these

____38. What will you do in order to enrich meals with vitamin A?

a. include green, leafy vegetables, like malunggay, kangkong, sili leaves in your soup dishes
b) include green and leafy vegetables in your main dishes especially in one-dish meal like sinigang, putcero and nilaga
c) use margarine or butter in preserving other kinds of food for better absorption and utilization
d) all of the above

____39. What are the things to do in order that the minerals regulate in the body?

a) Keep a record on your food intake for 24 hours and evaluate the intake foods that are rich sources of iron, calcium, phosphorous and iodine
b) plan a whole day menu for yourself and check those rich in minerals
c) keep a record of your food and check the inadequacy of minerals in the menu
d) both a and b

____40. To solve allergy, the first step is

a) find the cause of allergy
b) find out which foods cause allergy to the patient
c) not to give the patient food that he is allergic to
d) both a and b

_____41. What is the best way of serving food to infant?

a) feed the infant food in small quantities only
b) feed the infant food more than enough
c) feed the infant food as long as he likes
d) all of these

_____42. In observing pre-schoolers at home or in the community, one must be able to:

a) make a narrative report about the usual activities they do at home
b) plan a day's menu for schoolers
c) interview mothers about some ways to make a child enjoy drinking his milk and juice
d) all of the above

_____43. What do you think is the best remedy in preserving fish?

a) by storing
b) by using chemicals
c) using ice
d) both a and b

_____44. All fishes swim chiefly by

a) sideway muscular movements of the body and sweeps of the tail
b) onward muscular movements of the body and sweeps of the tail
c) backward muscular movements of the body and sweeps of the tail
d) all of the above

_____45. In culturing fishes one must be able to

a) manage them and their environment to improve growth and reproduction
b) protect the fishes from predators, parasites and diseases
c) feed the fishes and control water quality to prevent pollution
d) all of these

_____46. Commercial fishing requires

a) designed net and capital in order to catch more fishes
b) designed net, capital, labor and other means in order to catch more fishes
c) both a and b
d) none of these

_____47. When a fisherman engages in still fishing method, he should have

a) more patience as required in this technique than in any other
b) more opportunity to enjoy the outdoor scene around him.
c) more expectation to catch fishes
d) all of the above

_____48. How does the fisherman cast the bait in the bait casting method of fishing?

a) the fisherman should turn the wrist so that the reel handle is on top and aim the rod at target
b) the fisherman should hold the thumb lightly on the spool
c) both a and b
d) none of these

_____49. In planning retail business, one must be able to

a) come up with a small capital to start with
b) determine the area accessible to transportation
c) supervise the operation of his business
d) all of these

_____50. What do you think is the first factor in determining demand?

a) the seasonal changes
b) the methods of selling
c) the utility value of the commodity
d) the buyers

____51. In order that a salesman will be able to maintain his health, he must

a) sleep at least eight hours a day
b) have a technical knowledge that is necessary for the performance of the functions of salesmanship
c) have an admirable character
d) have the knowledge of the different types of customers

____52. Sales promotion requires

a) promotional activities that are intended to facilitate the sale of good
b) promotional activities that are planned
c) promotional activities that are coordinated
d) all of the above

____53. What will you do in order that the display may become attractive?

a) use motion, color combination, proper illumination and proper merchandise arrangement
b) use aisle table displays
c) use of tints and shades
d) all of these

____54. In preparing a store, one of these should be considered by the store management in formulating store rules and regulations:

a) they should aid in promoting the efficiency of employees
b) they should aid in promoting time and effort of the employees
c) they should aid in augmenting the livelihood of the employees
d) none of these

____55. In applying point or finishing materials the quality of the finish of an article depends on

a) preparation of the surface on which the finishing materials are applied
b) preparation of time and effort

c) disregarding the materials
d) classes of materials to the users

____56. What is the first step in soldering?

a) place the pieces to be soldered in position ready for soldering
b) get the flux suited to the metal to be soldered and apply it to the seams
c) hold the pieces to be soldered in position
d) melt a few drops of solder with the hot iron

____57. In wiring installation, one must be able to

a) make and interpret wiring installation and housing diagrams
b) make a house plan
c) use wiring materials and tools needed in wiring
d) make a cost analysis for the labor cost and the material cost

____58. The quality of designs in making facsimile on which depends on

a) preparation on the rubber and block on which the designs are cut
b) preparation of time and effort
c) disregarding the material
d) classes of the materials and designs to the users

____59. In caning, lay out the holes are

a) gauge the distance of the holes from the inner edge of the frame for weaving
b) lay it on two saw horses if drilling is to be done vertically as on bed frames
c) use a sliding T-bevel square to mark the lines on the frame in a vise
d) hold the frame in a vise

____60. Before the projects are made in mold making, the first thing to do is

a) collect samples of clay from different localities

b) collect information from different localities
c) prepare the clay using varied techniques
d) a and c

Test III. Direction: Read the following sentences and select the letter of the answer which you think is most suited to your interest and decision.

____61. To cultivate the soil is easier when a certain plant is already planted.

a) fully agree c) agree e) fully dis-
b) strongly agree d) dis-agree agree

____62) I like to plant perennial crops ____ than any other types/kinds of crops.

a) a lot more c) more e) a lot less
b) a little more d) less

____63. Watering vegetables beds using watering cans is a/an _____tasked.

a) very difficult c) easy e) boring
b) difficult d) very easy

____64. It is easier to plant rice under wet condition than under dry land conditions.

a) fully agree c) agree e) fully dis-
b) strongly agree d) disagree agree

____65. Do you plant root crops during rainy season?

a) never c) often times e) always
b) sometimes d) almost always

____66. Intercropping and catch cropping are often practiced especially for coconut, oil palm and rubber plantations.

a) strongly agree c) disagree e) fully
b) agree d) strongly agree
dis-agree

____67. Children need ____ energy than adults in relation to body weight.

a) a lot more c) more e) a lot less
b) a little more d) less

____68. Vitamins are essential to the body for specific metabolic reactions necessary for the promotiom of growth and maintenance of life.

a) strongly agree c) disagree e) fully
b) agree d) strongly agree
disagree

____69) It is good to eat food rich in minerals like sodium and potassium that helps to maintain and muscle tone.

a) very often c) sometimes e) never
b) often d) less

____70. I enjoy eating palatable foods that can induce appetite.

a) a lot more c) more e) a little
b) a little more d) less less

____71. Feedling the infant through breastfeeding is ___ than bottlefeeding.

a) very much easier c) easier e) very much
b) less easier d) harder harder

____72. A preschool child who is given proper nutrition is interested in what is happening around him.

a) fully agree c) agree e) fully
b) strongly agree d) disagree disagree

____73. Fish is a staple food of man than meat.

a) fully agree c) agree e) fully
b) strongly agree d) disagree disagree

____74. It is more enjoyable to see a fish swimming inside the aquarium than in the sea.

a) fully agree c) agree e) fully
b) strongly agree d) disagree disagree

____75. I like to catch fishes in the open sea using commercial fishing technique ___ than ordinary one.

a) a lot more c) more e) a lot less
b) a little more d) less

____76. Fishing is a/an ____ job.

a) very difficult c) easy e) boring
b) difficult d) very easy

____77. Fish culturing is a/an ____ operation.

a) very laborious c) easy e) boring
b) laborious d) very easy

____78. Catching fishes using still fishing is a/an ___ method.

a) very laborious c) easy e) boring
b) laborious d) very easy

____79. I like retail business ____ than any other types of business.

a) a lot more c) more e) a lot less
b) a little more d) less

____80. Do you make a list of items/goods before purchasing?

a) never c) often times e) always
b) sometimes d) almost always

____81. At one time or another, one finds to be a salesman because he has something to sell.

a) strongly agree c) disagree e) fully
b) agree d) strongly disagree agree.

____82. Promotion through advertising is a/an ____ method of promotion on sales.

a) very difficult c) very easy e) boring
b) difficult d) easy

____83. Merchandise display is the arrangement of goods inside and outside the store for the purpose of attracting customers.

a) strongly agree
b) agree
c) disagree
d) strongly dis-agree
e) fully agree

____84. I demand sales slip from the owner/proprietor of the store after buying an items or goods.

a) very often
b) quite often
c) often
d) sometimes
e) never

____85. Sending the surfaces of wood should also be done during wood finishing.

a) strongly agree
b) agree
c) disagree
d) strongly disagree
e) fully agree

____86. Soldering pieces of metal is a/an ____ operation.

a) very laborious
b) laborious
c) easy
d) very easy
e) boring

____87. What is the most time you have ever spent working in making western-union splices until you become disinterested?

a) about twenty minutes
b) about thirty minutes
c) about one hour
d) about one day
e) of and on for days

____88. I use varied techniques in linoleum block printing involving in making facsimile for names, initials, and signatures.

a) very often
b) often
c) sometimes
d) hardly ever
e) never

____89. Weaving rattan strips in hexagonal seats are ____ than in weaving trapezoidal seats.

aa) verymmuch easier
b) less easier
c) easier
d) harder
e) Very much harder

____90. How many of the given skills and operations in mold making have you performed since the start of the course?

a) 100%
b) about 90 to 95%
c) about 80 to 85%
d) about 70 to 75%
e) below 70%

== e n d ==

APPENDIX H-3

ANSWERS KEY

Test I

1.	c	11.	d	21.	d
2.	e	12.	a	22.	c
3.	c	13.	a	23.	a
4.	e	14.	c	24.	b
5.	d	15.	d	25.	c
6.	b	16.	a	26.	a
7.	d	17.	c	27.	d
8.	e	18.	a	28.	c
9.	d	19.	a	29.	a
10.	b	20.	a	30.	c

Test II

31.	a	41.	c	51.	a
32.	d	42.	d	52.	d
33.	a	43.	d	53.	a
34.	d	44.	[illegible]	54.	a
35.	d	45.	d	55.	a
36.	d	46.	c	56.	a
37.	a	47.	a	57.	a
38.	d	48.	[illegible]	58.	a
39.	d	49.	[illegible]	59.	a
40.	d	50.	[illegible]	60.	d

Test III

61.	a.	.2	63.	a.	.8	65.	a. .8
	b.	.4		b.	.6		b. 1.0
	c.	.6		c.	.4		c. .66
	d.	.8		d.	1.0		d. .4
	e.	1.0		e.	.2		e. .2
62.	a.	.6	64.	a.	.2	66.	a. 1.0
	b.	.8		b.	.4		b. .6
	c.	1.0		c.	.6		c. .4
	d.	.4		d.	1.0		d. .2
	e.	.2		e.	.8		e. .8

67.	a.	1.0
	b.	.6
	c.	.8
	d.	.4
	e.	.2
68.	a.	1.0
	b.	.6
	c.	.4
	d.	.2
	e.	.8
69.	a.	.8
	b.	1.0
	c.	.6
	d.	.4
	e.	.2
70.	a.	1.0
	b.	.6
	c.	.8
	d.	.4
	e.	.2
71.	a.	1.0
	b.	.6
	c.	.8
	d.	.4
	e.	.2
72.	a.	.8
	b.	1.0
	c.	.6
	d.	.4
	e.	.2
73.	a.	.8
	b.	1.0
	c.	.6
	d.	.4
	e.	.2
74.	a.	.8
	b.	1.0
	c.	.6
	d.	.4
	e.	.2
75.	a.	.8
	b.	.6
	c.	1.0
	d.	.4
	e.	.2
76.	a.	.8
	b.	1.0
	c.	.6
	d.	.4
	e.	.2
77.	a.	.8
	b.	1.0
	c.	.6
	d.	.4
	e.	.2
78.	a.	.2
	b.	.6
	c.	1.0
	d.	.8
	e.	.4
79.	a.	.6
	b.	1.0
	c.	.8
	d.	.4
	e.	.2
80.	a.	.8
	b.	1.0
	c.	.6
	d.	.2
	e.	.4
81.	a.	1.0
	b.	.6
	c.	.4
	d.	.2
	e.	.8
82.	a.	.4
	b.	.6
	c.	1.0
	d.	.8
	e.	.2
83.	a.	1.0
	b.	.6
	c.	.4
	d.	.2
	e.	.8
84.	a.	.4
	b.	1.0
	c.	.6
	d.	.8
	e.	.2
85.	a.	1.0
	b.	.6
	c.	.4
	d.	.2
	e.	.8
86.	a.	1.0
	b.	.8
	c.	.6
	d.	.4
	e.	.2
87.	a.	.6
	b.	1.0
	c.	.8
	d.	.4
	e.	.2
88.	a.	.6
	b.	1.0
	c.	.8
	d.	.4
	e.	.2
89.	a.	.4
	b.	.6
	c.	.8
	d.	1.0
	e.	.2
90.	a.	.2
	b.	.6
	c.	1.0
	d.	.8
	e.	.4

APPENDIX I

RAW SCORES OF THE ACHIEVEMENT TEST COLLECTED FROM 20 STUDENTS OF SAMAR STATE POLYTECHNIC COLLEGE

Respondents	Cognitive	Psychomotor	Affective	Total
1	28	28	29.4	85.4
2	23	29	28.4	80.4
3	24	26	28.2	78.2
4	23	25	29.0	77.0
5	24	27	25.6	76.6
6	25	26	27.2	76.2
7	24	25	26.0	75.0
8	25	25	24.4	74.4
9	26	26	20.4	72.4
10	23	25	23.4	71.4
11	25	22	23.6	70.6
12	25	24	20.8	69.8
13	25	25	19.2	69.2
14	18	23	27.0	68.0
15	10	26	27.8	63.8
16	26	9	26.0	61.0
17	8	24	28.0	60.0
18	13	23	18.4	54.4
19	8	9	25.2	42.2
20	8	8	24.2	40.2

APPENDIX I-1

COMPUTATION FOR MEAN SCORE UNDER COGNITIVE DOMAIN OF SAMAR STATE POLYTECHNIC COLLEGE

Score	f	d	fd
28-29	1	5	5
26-27	2	4	8
24-25	7	3	21
22-23	4	2	8
20-21	0	1	0
18-19	1	0	0
16-17	0	-1	0
14-15	0	-2	0
12-13	1	-3	-3
10-11	1	-4	-4
8- 9	3	-5	-15
	N=20		Efd=20

$$M = AM + \frac{Efd}{N} \times i$$

$$= 18.5 + \frac{20}{20} \times 2$$

$$= 18.5 + 1 \times 2$$

$$= 18.5 + 2$$

$$M = 20.5$$

APPENDIX I-2

COMPUTATION FOR MEAN SCORE UNDER PSYCHOMOTOR DOMAIN OF SAMAR STATE POLYTECHNIC COLLEGE

Score	f	d	fd
28-29	2	5	10
26-27	5	4	20
24-25	7	3	21
22-23	3	2	6
20-21	0	1	0
18-19	0	0	0
16-17	0	-1	0
14-15	0	-2	0
12-13	0	-3	0
10-11	0	-4	0
8- 9	3	-5	-15
	N=20		Efd= 42

$$M = AM + \frac{Efd}{N} \times i$$

$$= 18.5 + \frac{42}{20} \times 2$$

$$= 18.5 + 2.1 \times 2$$

$$= 18.5 + 4.2$$

$$M = 22.7$$

APPENDIX I-3

COMPUTATION FOR MEAN SCORE UNDER AFFECTIVE DOMAIN OF SAMAR STATE POLYTECHNIC COLLEGE

Score	f	d	fd
29-30	2	3	6
27-28	6	2	12
25-26	4	1	4
23-24	4	0	0
21-22	0	-1	0
19-20	3	-2	-6
17-18	1	-3	-3
	N=20		Efd=13

$$M = AM + \frac{Efd}{N} \times i$$

$$= 23.5 + \frac{13}{20} \times 2$$

$$= 23.5 + 0.65 \times 2$$

$$= 23.5 + 1.3$$

$$M = 24.8$$

APPENDIX J

RAW SCORES OF THE ACHIEVEMENT TEST COLLECTED FROM 20 STUDENTS OF SAMAR NATIONAL SCHOOL

Respondents	Cognitive	Psychomotor	Affective	Total
1	27	28	28.2	83.2
2	28	26	28.8	82.8
3	24	27	25.0	76.0
4	25	24	26.2	75.2
5	24	25	26.0	75.0
6	24	23	27.2	75.2
7	25	16	16.4	57.4
8	16	15	19.6	50.6
9	14	15	21.0	50.0
10	12	13	24.8	49.8
11	15	16	17.6	48.6
12	14	14	20.0	48.0
13	13	15	18.6	46.6
14	14	11	21.2	46.2
15	10	15	19.8	44.8
16	7	17	20.4	44.4
17	10	14	19.6	43.6
18	8	14	21.4	43.4
19	10	12	20.8	42.8
20	11	6	20.0	37.0

APPENDIX J-1

COMPUTATION FOR MEAN SCORE UNDER COGNITIVE DOMAIN OF SAMAR NATIONAL SCHOOL

Score	f	d	fd
27-28	2	5	10
25-26	2	4	8
23-24	3	3	9
21-22	0	2	0
19-20	0	1	0
17-18	0	0	0
15-16	2	-1	-2
13-14	4	-2	-8
11-12	2	-3	-6
9-10	3	-4	-12
7-8	2	-5	-10
	N=20		Efd=-11

$$M = AM + \frac{Efd}{N} \times i$$

$$= 17.5 + \frac{-11}{20} \times 2$$

$$= 17.5 - 0.55 \times 2$$

$$= 17.5 - 1.1$$

$$M = 16.4$$

APPENDIX J-2

COMPUTATION FOR MEAN SCORE UNDER PSYCHOMOTOR DOMAIN OF SAMAR NATIONAL SCHOOL

Score	f	d	fd
29-30	0	6	0
27-28	2	5	10
25-26	2	4	8
23-24	2	3	6
21-22	0	2	0
19-20	0	1	0
17-18	1	0	0
15-16	6	-1	-6
13-14	4	-2	-8
11-12	2	-3	-6
9-10	0	-4	0
7-8	0	-5	0
5-6	1	-6	-6
	N=20		Efd=-2

$$M = AM + \frac{Efd}{N} \times i$$

$$= 17.5 + \frac{-2}{20} \times 2$$

$$= 17.5 - 0.1 \times 2$$

$$= 17.5 - 0.2$$

$$M = 17.3$$

APPENDIX J-3

COMPUTATION FOR MEAN SCORE UNDER AFFECTIVE DOMAIN OF SAMAR NATIONAL SCHOOL

Score	f	d	fd
28-29	2	3	6
26-27	3	2	6
24-25	2	1	2
22-23	0	0	0
20-21	7	-1	-7
18-19	4	-2	-8
16-17	2	-3	-6
	N=20		Efd=-7

$$M = AM + \frac{Efd}{N} \times i$$

$$= 22.5 + \frac{-7}{20} \times 2$$

$$= 22.5 - 0.35 \times 2$$

$$= 22.5 - 0.7$$

$$M = 21.8$$

APPENDIX K

RAW SCORES OF THE ACHIEVEMENT TEST COLLECTED FROM 20 STUDENTS OF SAMAR REGIONAL SCHOOL OF FISHERIES

Respondents	Cognitive	Psychomotor	Affective	Total
1	25	26	25.8	76.8
2	24	28	23.8	75.8
3	23	26	26.6	75.6
4	24	25	26.2	75.2
5	23	27	24.8	74.8
6	22	23	26.8	71.8
7	25	22	23.0	70.0
8	15	18	21.4	54.4
9	7	25	19.2	51.2
10	14	15	22.2	51.2
11	12	19	17.4	48.4
12	13	14	20.8	47.8
13	12	11	23.8	46.8
14	9	13	24.4	46.4
15	10	15	18.2	43.2
16	13	9	18.6	40.6
17	11	12	20.8	40.2
18	6	13	21.2	40.2
19	10	8	19.8	37.8
20	5	13	19.8	37.8

APPENDIX K-1

COMPUTATION FOR MEAN SCORE UNDER COGNITIVE DOMAIN OF SAMAR REGIONAL SCHOOL OF FISHERIES

Score	f	&	fd
25-26	2	5	10
23-24	4	4	16
21-22	1	3	3
19-20	0	2	0
17-18	0	1	0
15-16	1	0	0
13-14	3	-1	-3
11-12	3	-2	-6
9-10	3	-3	-9
7-8	1	-4	-4
5-6	2	-5	-10
	N=20		Efd=-3

$$M = AM + \frac{Efd}{N} \times i$$

$$= 15.5 + \frac{-3}{20} \times 2$$

$$= 15.5 - 0.15 \times 2$$

$$= 15.5 - 0.3$$

$$M = 15.2$$

APPENDIX K-2

COMPUTATION FOR MEAN SCORE UNDER PSYCHOMOTOR DOMAIN OF SAMAR REGIONAL SCHOOL OF FISHERIES

Score	f	d	fd
28-29	1	5	5
26-27	3	4	12
24-25	2	3	6
22-23	2	2	4
20-21	0	1	0
18-19	2	0	0
16-17	0	-1	0
14-15	3	-2	-6
12-13	4	-3	-12
10-11	1	-4	- 5
8-9	2	-5	-10
	N=20		Efd=-5

$$M = AM + \frac{Efd}{N} \times i$$

$$= 18.5 + \frac{-5}{20} \times 2$$

$$= 18.5 - 0.25 \times 2$$

$$= 18.5 - 0.5$$

$$M = 18.0$$

APPENDIX K-3

COMPUTATION FOR MEAN SCORE UNDER AFFECTIVE DOMAIN
OF SAMAR REGIONAL SCHOOL OF FISHERIES

Score	f	d	fd
25-26	4	2	8
23-24	5	1	5
21-22	3	0	0
19-20	5	-1	-5
17-18	3	-2	-6
	N=20		Efd=-2

M = AM + $\frac{Efd}{N}$ x i

= 21.5 + $\frac{-2}{20}$ x 2

= 21.5 + (-)

= 21.5 -

M = 21.3

APPENDIX L

RAW SCORES OF THE ACHIEVEMENT TEST COLLECTED FROM 20 STUDENTS OF SAMAR NATIONAL AGRICULTURAL SCHOOL

Respondents	Cognitive	Psychomotor	Affective	Total
1	27	29	25.6	81.6
2	24	26	26.0	76.0
3	26	24	25.2	75.2
4	25	23	26.2	74.2
5	18	26	24.8	68.8
6	13	26	29.2	68.2
7	29	14	24.0	67.0
8	12	19	19.6	50.6
9	12	17	19.6	48.6
10	12	15	21.2	48.2
11	14	14	18.8	46.8
12	10	17	18.0	45.0
13	11	11	21.8	43.8
14	10	16	17.8	43.8
15	14	9	19.2	42.2
16	12	8	21.2	41.2
17	12	9	19.6	40.6
18	7	13	20.4	40.4
19	8	10	18.0	36.0
20	7	6	20.0	33.0

APPENDIX L-1

COMPUTATION FOR MEAN SCORE UNDER COGNITIVE DOMAIN OF SAMAR NATIONAL AGRICULTURAL SCHOOL

Score	f	d	fd
29-30	1	6	6
27-28	1	5	5
25-26	2	4	8
23-24	1	3	3
21-22	0	2	0
19-20	0	1	0
17-18	1	0	0
15-16	0	-1	0
13-14	3	-2	-6
11-12	6	-3	-18
9-10	2	-4	- 8
7-8	3	-5	-15
5-6	0	-6	0
	N=20		Efd=-25

$$M = AM + \frac{Efd}{N} \times i$$

$$= 17.5 + \frac{-25}{20} \times 2$$

$$= 17.5 - 1.25 \times 2$$

$$= 17.5 - 2.5$$

$$M = 15$$

APPENDIX L-2

COMPUTATION FOR MEAN SCORE UNDER PSYCHOMOTOR DOMAIN OF SAMAR NATIONAL AGRICULTURAL SCHOOL

Score	f	d	fd
29-30	1	6	6
27-28	0	5	0
25-26	3	4	12
23-24	2	3	6
21-22	0	2	0
19-20	1	1	1
17-18	2	0	0
15-16	2	-1	-2
13-14	3	-2	-6
11-12	1	-3	-3
9-10	3	-4	-12
7-8	1	-5	- 5
5-6	1	-6	- 6
	N=20		Efd=- 9

$$M = AM + \frac{Efd}{N} \times i$$

$$= 17.5 + \frac{-0}{20} \times 2$$

$$= 17.5 - 0.45 \times 2$$

$$= 17.5 - 0.45 \times 2$$

$$= 17.5 - 0.9$$

$$M = 16.6$$

APPENDIX L-3

COMPUTATION FOR MEAN SCORE UNDER AFFECTIVE DOMAIN OF SAMAR NATIONAL AGRICULTURAL SCHOOL

Score	f	d	fd
29-30	1	3	3
27-28	0	2	0
25-26	4	1	4
23-24	2	0	0
21-22	3	-1	-3
19-20	6	-2	-12
17-18	4	-3	-12
	N=20		Efd=-20

$$M = AM + \frac{Efd}{N} \times i$$

$$= 23.5 + \frac{-20}{20} \times 2$$

$$= 23.5 - 1 \times 2$$

$$= 23.5 - 2$$

$$M = 21.5$$

APPENDIX M

RAW SCORES OF THE ACHIEVEMENT TEST COLLECTED FROM 20 STUDENTS OF WRIGHT VOCATIONAL SCHOOL

Respondents	Cognitive	Psychomotor	Affective	Total
1	23	26	27.8	76.8
2	23	24	26.6	73.6
3	19	23	25.0	67.0
4	20	23	23.0	66.2
5	22	20	23.2	65.2
6	13	23	24.2	60.2
7	12	18	26.8	56.8
8	14	17	21.2	52.2
9	13	15	24.2	52.2
10	15	17	19.8	51.8
11	11	14	23.0	48.0
12	7	19	20.8	46.8
13	10	15	21.0	46.0
14	8	15	22.8	45.8
15	6	15	24.8	45.2
16	11	13	20.8	44.8
17	6	15	23.0	44.0
18	11	12	18.0	41.0
19	9	11	21.0	41.0
20	5	13	22.2	40.2

APPENDIX M-1

COMPUTATION FOR MEAN SCORE UNDER COGNITIVE DOMAIN OF WRIGHT VOCATIONAL SCHOOL

Score	f	d	fd
23	2	9	18
22	1	8	8
21	0	7	0
20	1	6	6
19	0	5	0
18	0	4	0
17	0	3	0
16	0	2	0
15	1	1	1
14	1	0	0.
13	2	-1	-2
12	1	-2	-2
11	3	-3	-9
10	1	-4	-4
9	1	-5	-5
8	1	-6	-6
7	1	-7	-7
6	2	-8	-16
5	1	-9	- 9
	N =20		Efd=-27

$$M = AM + \frac{Efd}{N} \times i$$

$$= 14 + \frac{-27}{20} \times 1$$

$$= 14 - 1.35 \times 1$$

$$M = 12.65$$

APPENDIX M-2

COMPUTATION FOR MEAN SCORE UNDER PSYCHOMOTOR DOMAINS OF WRIGHT VOCATIONALSSCHOOL

Score	f	d	fd
26-27	1	4	4
24-25	1	3	3
22-23	3	2	6
20-21	1	1	1
18-19	2	0	0
16-17	2	-1	-2
14-15	6	-2	-12
12-13	3	-3	- 9
10-11	1	-4	- 4
	N =20		Efd=-13

$$M = AM + \frac{Efd}{N} \times 1$$

$$= 18.5 + \frac{-13}{20} \times 2.$$

$$= 18.5 - 0.65 \times 2$$

$$= 18.5 - 1.3$$

$$M = 17.2$$

APPENDIX M-3

COMPUTATION FOR MEAN SCORE UNDER AFFECTIVE DOMAIN OF WRIGHT VOCATIONAL SCHOOL

Score	f	d	fd
26-27	3	2	6
24-25	4	1	4
22-23	6	0	0
20-21	5	-1	-5
18-19	2	-2	-4
	N =20		Efd= 1

$$M = AM + \frac{Efd}{N} \times i$$

$$= 22.5 + \frac{1}{20} \times 2$$

$$= 22.5 + 0.1$$

$$M = 22.6$$

APPENDIX N

RAW SCORES OF THE ACHIEVEMENT TEST COLLECTED FROM 20 STUDENTS OF WRIGHT COMMUNITY HIGH SCHOOL

Respondents	Cognitive	Psychomotor	Affective	Total
1	25	26	27.2	78.2
2	23	26	25.8	74.8
3	24	24	25.8	73.8
4	23	24	26.8	73.8
5	25	23	23.0	71.0
6	22	24	24.8	70.8
7	10	25	18.2	53.2
8	7	18	22.6	47.6
9	11	14	22.2	47.2
10	15	15	17.0	47.0
11	12	14	20.0	46.0
12	10	10	24.2	44.2
13	10	12	21.0	43.0
14	10	12	19.0	41.0
15	8	12	20.0	40.0
16	9	9	20.6	38.6
17	14	6	18.0	38.0
18	10	8	20.0	38.0
19	9	8	20.8	37.8
20	9	6	21.2	36.2

APPENDIX N-1

COMPUTATION FOR MEAN SCORE UNDER COGNITIVE DOMAIN OF WRIGHT COMMUNITY HIGH SCHOOL

Score	f	d	fd
25	2	9	18
24	1	8	8
23	2	7	14
22	1	6	6
21	0	5	0
20	0	4	0
19	0	3	0
18	0	2	0
17	0	1	0
16	0	0	0
15	1	-1	-1
14	1	-2	-2
13	0	-3	0
12	1	-4	-4
11	1	-5	-5
10	5	-6	-30
9	3	-7	-21
8	1	-8	- 8
7	1	-9	- 9
	N=20		Efd=-34

$$M = AM + \frac{Efd}{N} \times i$$

$$= 16 + \frac{-4}{20} \times 1$$

$$= 16 - 1.7 \times 2$$

$$= 16 - 1.7$$

$$M = 14.3$$

APPENDIX N-2

COMPUTATION FOR MEAN SCORE UNDER PSYCHOMOTOR DOMAIN OF WRIGHT COMMUNITY HIGH SCHOOL

Score	f	d	fd
26-27	2	5	10
24-25	4	4	16
22-23	1	3	3
20-21	0	2	0
18-19	1	1	1
16-17	0	0	0
14-15	3	-1	-3
12-13	3	-2	-6
10-11	1	-3	-3
8-9	3	-4	-12
6-7	2	-5	-10
	N=20		Efd=-4

$$M = AM + \frac{Efd}{N} \times i$$

$$= 16.5 + \frac{-4}{20} \times 2$$

$$= 16.5 - 0.2 \times 2$$

$$= 16.5 - 0.4$$

$$M = 16.1$$

APPENDIX N-3

COMPUTATION FOR MEAN SCORE UNDER AFFECTIVE DOMAIN OF WRIGHT COMMUNITY HIGH SCHOOL

Score	f	d	fd
27	1	5	5
26	1	4	4
25	2	3	6
24	2	2	4
23	1	1	1
22	2	0	0
21	2	-1	-2
20	5	-2	-10
19	1	-3	- 3
18	2	-4	- 8
17	1	-5	- 5
	N=20		Efd=-8

$$M = AM + \frac{Efd}{N} \times i$$

$$= 22 + \frac{-8}{20} \times 1$$

$$= 22 - 0.4 \times 1$$

$$= 22 - 0.4$$

$$M = 21.6$$

APPENDIX O

RAW SCORES OF THE ACHIEVEMENT TEST COLLECTED FROM 20 STUDENTS OF HINABANGAN NATIONAL HIGH SCHOOL

Respondents	Cognitive	Psychomotor	Affective	Total
1	25	26	29.8	80.8
2	24	27	28.2	79.2
3	24	25	25.2	74.2
4	18	25	26.0	69.0
5	14	18	22.6	54.6
6	14	18	21.2	53.2
7	11	17	23.0	51.0
8	12	19	19.4	50.4
9	10	17	19.2	46.2
10	11	15	20.0	46.0
11	9	20	17.0	46.0
12	11	13	20.8	44.8
13	10	14	20.6	44.6
14	7	13	22.6	42.6
15	13	9	19.8	41.8
16	10	10	20.4	40.4
17	8	11	20.0	39.0
18	7	11	18.8	36.8
19	10	6	20.2	36.2
20	11	5	18.6	34.6

APPENDIX Q-1

COMPUTATION FOR MEAN SCORE UNDER COGNITIVE DOMAIN OF HINABANGAN NATIONAL HIGH SCHOOL

Score	f	d	fd
25	1	9	9
24	2	8	16
23	0	7	0
22	0	6	0
21	0	5	0
20	0	4	0
19	0	3	0
18	1	2	2
17	0	1	0
16	0	0	0
15	0	-1	0
14	2	-2	-4
13	1	-3	-3
12	1	-4	-4
11	4	-5	-20
10	4	-6	-24
9	1	-7	- 7
8	1	-8	- 8
7	2	-9	-18
	N=20		Efd=-61

$$M = AM + \frac{Efd}{N} \times i$$

$$= 16 + \frac{-61}{20} \times 1$$

$$= 16 - 3.5 \times 1$$

$$= 16 - 3.5$$

$$M = 12.95$$

APPENDIX O-2

COMPUTATION FOR MEAN SCORE UNDER PSYCHOMOTOR DOMAIN OF HINABANGAN NATIONAL HIGH SCHOOL

Score	f	d	fd
28-29	0	6	0
26-27	2	5	10
24-25	2	4	8
22-23	0	3	0
20-21	1	2	2
18-19	3	1	3
16-17	2	0	0
14-15	2	-1	-2
12-13	2	-2	-4
10-11	3	-3	-9
8-9	1	-4	-4
6-7	1	-5	-5
4-5	1	-6	-6
	N=20		Efd=-7

$$M = AM + \frac{Efd}{N} \times i$$

$$= 16.5 + \frac{-7}{20} \times 2$$

$$= 16.5 - 0.35 \times 2$$

$$= 16.5 - 0.7$$

$$M = 15.8$$

APPENDIX O-3

COMPUTATION FOR MEAN SCORE UNDER AFFECTIVE DOMAIN OF HINABANGAN NATIONAL HIGH SCHOOL

Score	f	d	fd
29-30	1	3	3
27-28	1	2	2
25-26	2	1	2
23-24	1	0	0
21-22	3	-1	-3
19-20	9	-2	-18
17-18	3	-3	- 9
	N=20		Efd=-23

$$M = AM + \frac{Efd}{N} \times i$$

$$= 23.5 + \frac{-23}{20} \times 2$$

$$= 23.5 - 1.15 \times 2$$

$$= 23.5 - 2.3$$

$$M = 21.2$$

APPENDIX P-1

COMPUTATION FOR MEAN PERCENTAGE SCORE AND MASTERY LEVEL OF SAMAR STATE POLYTECHNIC COLLEGE

$$\text{Mean Percentage Score} = \frac{\text{Mean}}{\text{Total No. of Test Items}} \times 100$$

$$MPS_{(\text{Cognitive})} = \frac{20.5}{30} \times 100$$

$$= .6833 \times 100$$

$$MPS_c = 68.33\% \text{ Below Average}$$

$$\text{Mastery Level} = \frac{\text{No. of Students who obtained the standard score of 22.5}}{\text{No. of students who took the test}} \times 100$$

$$M.L._{(\text{cognitive})} = \frac{14}{20} \times 100$$

$$= .7 \times 100$$

$$M.L._c = 70\% \text{ Unsatisfactory cognitive performance}$$

$$MPS_{(\text{psychomotor})} = \frac{22.7}{30} \times 100$$

$$MPS_p = 75.67\% \text{ Average}$$

$$M.L._{(\text{psychomotor})} = \frac{17}{20} \times 100$$

$$= .85\% \times 100$$

$$M.L._p = 85\% \text{ Very satisfactory performance}$$

$MPS_{(affective)} = \frac{24.8}{30} \times 100$

$= .82666 \times 100$

$MPS_a = 82.67\%$ Above Average

$M.L._{(Affective)} = \frac{16}{20} \times 100$

$= .8 \times 100$

$M.L._a = 80\%$ Very satisfactory affective performance

$MPS_{(cog., psycho., affect.)} = \frac{68}{90} \times 100$

$= .7555 \times 100$

$MPS_{cpa} = 75.55\%$ average

$M.L._{(cog., psycho., affect.)} = \frac{70\% + 85\% + 80\%}{3}$

$= \frac{235}{3}$

$M.L._{cpa} = 78.33\%$ Satisfactory performance

APPENDIX P-2

COMPUTATION FOR MEAN PERCENTAGE SCORE AND MASTERY LEVEL OF SAMAR NATIONALL SCHOOL UNDER EACH DOMAIN

$$\text{Mean Percentage Score} = \frac{\text{Mean}}{\text{Total No. of Test Items}} \times 100$$

$$MPS_{(\text{cognitive})} = \frac{16.40}{30} \times 100$$

$$= .54666 \times 100$$

MPS_a = 54.67% Below average

$$\text{Mastery Level} = \frac{\text{No. of Students who obtained the standard score of 22.5}}{\text{No. of Students who took the test}} \times 100$$

$$M.L._{(\text{cognitive})} = \frac{7}{20} \times 100$$

$$= .35 \times 100$$

$M.L._c$ = 35% Unsatisfactory cognitive performance

$$MPS_{(\text{psychomotor})} = \frac{17.30}{30} \times 100$$

$$= .57666 \times 100$$

MPS_p = 57.67% Below average

$$M.L._{(\text{psychomotor})} = \frac{6}{20} \times 100$$

$$= .3 \times 100$$

$M.L._p$ = 30% Unsatisfactory psychomotor performance

$MPS_{(affective)} = \frac{21.80}{30} \times 100$

$= .72666 \times 100$

$MPS_a = 72.67\%$ Below average

$M.L._{(affective)} = \frac{7}{20} \times 100$

$= .35 \times 100$

$M.L._a = 35\%$ Unsatisfactory affective performance

$MPS_{(cog., psycho., affect.)} = \frac{55.50}{90} \times 100$

$= .61666 \times 100$

$MPS_{cpa} = 61.67\%$ Below average

$M.L._{(cog.+psycho.+affect.)} = \frac{35\% + 30\% + 35\%}{30}$

$= \frac{100}{3}$

$M.L._{cpa} = 33.33\%$ Unsatisfactory performance

APPENDIX P-3

COMPUTATION FOR MEAN PERCENTAGE SCORE AND MASTERY LEVEL OF SAMAR REGIONAL SCHOOL OF FISHERIES UNDER EACH DOMAIN

$$\text{Mean Percentage Score} = \frac{\text{Mean}}{\text{Total No. of Test Items}} \times 100$$

$$MPS_{(\text{cognitive})} = \frac{15.20}{30} \times 100$$

$$= .50666 \times 100$$

$$MPS_c = 50.67\% \text{ Below Average}$$

$$\text{Mastery Level} = \frac{\text{No. of Student who obtained the standard score of 22.5}}{\text{No. of students who took the test}} \times 100$$

$$M.L._{(\text{cognitive})} = \frac{7}{20} \times 100$$

$$= .35 \times 100$$

$$M.L._c = 35\% \text{ Unsatisfactory cognitive performance}$$

$$MPS_{(\text{psychomotor})} = \frac{18.00}{30} \times 100$$

$$= .6 \times 100$$

$$MPS_p = 60\% \text{ Below Average}$$

$$M.L._{(\text{psychomotor})} = \frac{8}{20} \times 100$$

$$= .4 \times 100$$

$$M.L._p = 40\% \text{ Unsatisfactory psychomotor performance}$$

$MPS_{(affective)} = \frac{21.30}{30} \times 100$

$= .71 \times 100$

$MPS_a = 71\%$ Below Average

$M.L._{(affective)} = \frac{10}{20} \times 100$

$= .5 \times 100$

$M.L._a = 50\%$ Unsatisfactory affective performance

$MPS_{(cog.,psycho.,affect.)} = \frac{54.50}{90} \times 100$

$= .6055 \times 100$

$MPS_{cpa} = 60.55\%$ Below Average

$M.L._{(cog.+psycho.+affect.)} = \frac{35\% + 40\% + 50\%}{3}$

$= \frac{125}{3}$

$M.L._{cpa} = 41.67\%$ Unsatisfactory performance

APPENDIX P-4

COMPUTATION FOR MEAN PERCENTAGE SCORE AND MASTERY LEVEL OF SAMAR NATIONAL AGRICULTURAL SCHOOL UNDER EACH DOMAIN

$$\text{Mean Percentage Score} = \frac{\text{Mean}}{\text{Total No. of Test Items}} \times 100$$

$$MPS_{(\text{cognitive})} = \frac{15.00}{30} \times 100$$

$$= .5 \times 100$$

MPS_c = 50% Below Average

$$\text{Mastery Level} = \frac{\text{No. of Students who obtained the standard score of 22.5}}{\text{No. students who took the test}} \times 100$$

$$M.L._{(\text{cognitive})} = \frac{5}{20} \times 100$$

$$= .25 \times 100$$

$M.L._c$ = 25% Unsatisfactory cognitive performance

$$MPS_{(\text{psychomotor})} = \frac{16.60}{30} \times 100$$

$$= .5533 \times 100$$

MPS_p = 55.33% Below Average

$$M.L._{(\text{psychomotor})} = \frac{6}{20} \times 100$$

$$= .3 \times 100$$

$M.L._p$ = 30% Unsatisfactory psychomotor performance

$MPS_{(affective)} = \frac{21.50}{30} \times 100$

$= .71666 \times 100$

$MPS_a = 71.67\%$ Below average

$M.L._{(affective)} = \frac{7}{20} \times 100$

$= .35 \times 100$

$M.L._a = 35\%$ Unsatisfactory affective performance.

$M.L._{(cog.+psycho.+affect.)} = \frac{25\% + 30\% + 35\%}{3}$

$= \frac{90}{3}$

$M.L. = 30\%$ Unsatisfactory performance

APPENDIX P-5

COMPUTATION FOR MEAN PERCENTAGE SCORE AND MASTERY LEVEL OF WRIGHT VOCATIONAL SCHOOL UNDER EACH DOMAIN

Mean Percentage Score = $\frac{\text{Mean}}{\text{Total No. of Test Items}} \times 100$

$MPS_{(cognitive)} = \frac{12.65}{30} \times 100$

$= .42166 \times 100$

$MPS_c = 42.17\%$ Below Average

$\frac{\text{No. of Students who obtained standard score of 22.5}}{\text{No. of students who took the test}} \times 100$

$M.L._{(cognitive)} = \frac{3}{20} \times 100$

$= .15 \times 100$

$M.L._c = 15\%$ Unsatisfactory cognitive performance

$MPS_{psychomotor} = \frac{17.20}{30} \times 100$

$= .5733 \times 100$

$MPS_p = 57.33\%$ Below average

$M.L._{(psychomotor)} = \frac{5}{20} \times 100$

$= .25 \times 100$

$M.L._p = 25\%$ Unsatisfactory psychomotor performance

$MPS_{(affective)} = \frac{22.60}{30} \times 100$

$= .7533 \times 100$

$MPS_a = 75.33\%$ Average performance

$M.L._{(affective)} = \frac{13}{20} \times 100$

$= .65 \times 100$

$M.L._a = 65\%$ Unsatisfactory affective performance

$MPS_{(cog.,psycho.,affect.)} = \frac{52.45}{90} \times 100$

$= .58277 \times 100$

$MPS_{cpa} = 58.28\%$ Below average

$M.L._{(cog.+psycho.+affect.)} = \frac{15\% + 25\% + 65\%}{3}$

$= \frac{105}{3}$

$M.L. = 35\%$ Unsatisfactory performance

APPENDIX P-6

COMPUTATION FOR MEAN PERCENTAGE SCORE AND MASTERY LEVEL OF WRIGHT COMMUNITY HIGH SCHOOL UNDER EACH DOMAIN

$$\text{Mean Percentage Score} = \frac{\text{Mean}}{\text{Total No. of Test Items}} \times 100$$

$$MPS_{(\text{cognitive})} = \frac{14.30}{30} \times 100$$

$$= .47666 \times 100$$

$$MPS_c = 47.67\% \text{ Below Average}$$

$$\frac{\text{No. of Students who obtained the standard score of 22.5}}{\text{No. of students who took the test}} \times 100$$

$$M.L._{(\text{cognitive})} = \frac{6}{20} \times 100$$

$$= .3 \times 100$$

$$M.L._c = 30\% \text{ Unsatisfactory cognitive performance}$$

$$MPS_{(\text{psychomotor})} = \frac{16.10}{30} \times 100$$

$$= .53666 \times 100$$

$$MPS_p = 53.67\% \text{ Below average}$$

$$M.L._{(\text{psychomotor})} = \frac{7}{20} \times 100$$

$$= .35 \times 100$$

$$M.L._p = 35\% \text{ Unsatisfactory psychomotor performance}$$

$MPS_{(affective)} = \frac{21.60}{30} \times 100$

$= .72 \times 100$

$MPS_a = 72\%$ Below average

$M.L._{(affective)} = \frac{9}{20} \times 100$

$= .45 \times 100$

$M.L._a = 45\%$ Unsatisfactory affective performance

$MPS_{(cog.,psycho.,affect.)} = \frac{52.00}{90} \times 100$

$= .57777 \times 100$

$MPS_{cpa} = 57.78\%$ Below average

$M.L._{(cog.+psycho.+affect.)} = \frac{30\% + 35\% + 45\%}{3}$

$= \frac{110}{3}$

$M.L._{cpa} = 36.67\%$ Unsatisfactory performance

APPENDIX P-7

COMPUTATION FOR MEAN PERCENTAGE SCORE AND MASTERY LEVEL OF HINABANGAN NATIONAL HIGH SCHOOL UNDER EACH DOMAIN

$$\text{Mean Percentage Score} = \frac{\text{Mean}}{\text{Total No. of Test Items}} \times 100$$

$$MPS_{(\text{cognitive})} = \frac{12.95}{30} \times 100$$

$$= .43166 \times 100$$

$$MPS_c = 43.17\% \text{ Below Average}$$

$$\text{Mastery Level} = \frac{\text{No. of students who obtained the standard score of 22.5}}{\text{No. of students who took the test}} \times 100$$

$$M.L._{(\text{cognitive})} = \frac{3}{20} \times 100$$

$$= .15 \times 100$$

$$M.L._c = 15\% \text{ Unsatisfactory cognitive performance}$$

$$MPS_{(\text{psychomotor})} = \frac{15.80}{30} \times 100$$

$$= .52666 \times 100$$

$$MPS_p = 52.67\% \text{ Below Average}$$

$$M.L._{(\text{psychomotor})} = \frac{4}{20} \times 100$$

$$= .2 \times 100$$

$$M.L._p = 20\% \text{ Unsatisfactory psychomotor performance}$$

$MPS_{(affective)} = \frac{21.20}{30} \times 100$

$= .70666 \times 100$

$MPS_a = 70.67\%$ Below average

$M.L._{(affective)} = \frac{7}{20} \times 100$

$= .35 \times 100$

$M.L._a = 35\%$ Unsatisfactory affective performance

$MPS_{(cog.,psycho.,affect.)} = \frac{49.95}{90} \times 100$

$= .555 \times 100$

$MPS_{cpa} = 55.50\%$ Below average

$M.L._{(cog.+psycho.+affect.)} = \frac{15\% + 20\% + 35\%}{3}$

$= \frac{70}{3}$

M.L. = 23.33% Unsatisfactory Performance

APPENDIX P-8

SUMMARY OF MEAN PERCENTAGE SCORE AND MASTERY LEVEL OF THE SEVEN SECONDARY SCHOOLS IN SAMAR UNDER EACH DOMAIN

$$MPS_{(\text{cognitive } 1\text{-}7)} = \frac{\text{Mean}}{\text{No. of Items}} \times 100$$

$$= \frac{15.29}{30} \times 100$$

$$MPS_{c1\text{-}7} = 50.07\% \text{ Below Average}$$

$$M.L._{(\text{cognitive } 1\text{-}7)} = \frac{\text{No. of students who obtained the standard score of } 22.5}{\text{No. of students who took the test}} \times 100$$

$$= \frac{45}{140} \times 100$$

$$= .3214 \times 100$$

$$M.L._{c\ 1\text{-}7} = 32.14\%$$

$$MPS_{(\text{psychomotor } 1\text{-}7)} = \frac{17.67}{30} \times 100$$

$$= .589 \times 100$$

$$MPS_{p\ 1\text{-}7} = 58.90\% \text{ Below average}$$

$$M.L._{(\text{psychomotor } 1\text{-}7)} = \frac{53}{140} \times 100$$

$$= .37857 \times 100$$

$$M.L._{p\ 1\text{-}7} = 37.86\%$$

$MPS_{(affective\ 1-7)} = \frac{22.11}{30} \times 100$

$= .737 \times 100$

$MPS_{a\ 1-7} = 73.70\%$ Below Average

$M.L._{(affective\ 1-7)} = \frac{69}{140} \times 100$

$= .492857 \times 100$

$M.L._{a\ 1-7} = 49.29\%$

Grand Mean $= \frac{\text{Grand Mean}}{\text{Total No. of Items}} \times 100$

$= \frac{55.07}{90} \times 100$

$= .61188 \times 100$

Grand MPS $= 61.19\%$ Below Average

Grand M.L. $= \frac{\text{cog.+psycho.+affect.}}{3}$

$= \frac{32.14 + 37.86 + 49.29}{3}$

$= \frac{119.29}{3}$

$M.L. = 39.76$

APPENDIX Q-1

COMPUTATION OF RELATIONSHIP BETWEEN COGNITIVE (X) AND PSYCHOMOTOR (Y) ABILITIES
(r_1)

	X	Y	X^2	Y^2	XY
SSPC	20.50	22.70	420.2500	515.2900	465.3500
SNS	16.40	17.30	268.9600	299.2900	283.7200
SRSF	15.20	18.00	231.0400	324.0000	273.6000
SNAS	15.00	16.60	225.0000	275.5600	249.0000
WVS	12.65	17.20	160.0225	295.8400	217.5800
WCHS	14.30	16.10	204.4900	259.2100	230.2300
HNHS	12.95	15.80	167.7025	249.6400	204.6100
	EX =107.00	EY=123.70	EX^2=1677.4650	EY^2=2218.8300	EXY=1924.0900

$$r_1 = \frac{EXY - \frac{(EX)(EY)}{N}}{\sqrt{EX^2 - \frac{(EX)^2}{N}\ EY - \frac{(EY)^2}{N}}}$$

$$= \frac{1,924.09 - \frac{(107)(123.70)}{7}}{\sqrt{1,677.4650 - \frac{(107)^2}{7}\ 2,218.8300 - \frac{(123.70)^2}{7}}}$$

$$= \frac{1,924.09 - \frac{12,235.9}{7}}{\sqrt{1,677.4650 - \frac{(11,449)}{7}\ 2,218.8300 - \frac{(15,301.69)}{7}}}$$

$$= \frac{1,924.09 - 1,890.8428}{\sqrt{1,677.4650 - 1,635.5714\ \ 2,218.8300 - 2,185.9557}}$$

APPENDIX Q-1
(Cont'd.)

$$= \frac{33.2472}{\sqrt{41.8936 \cdot 32.8743}}$$

$$= \frac{33.2472}{\sqrt{1,377.2227}}$$

$$= \frac{33.2472}{37.1109}$$

r_1 = .90 Very high correlation

APPENDIX Q-2.

COMMUTATION OF RELATIONSHIP BETWEEN COGNITIVE (X) AND AFFECTIVE (Z) ABILITIES (r_2)

SSPC	20.50	24.80	420.2500	615.0400	508.4000
SNS	16.40	21.80	268.9600	475.2400	357.5200
SRSF	15.20	21.30	231.0400	453.6900	323.7600
SNAS	15.00	21.50	225.0000	462.2500	322.5000
WVS	12.65	22.60	160.0225	510.7600	285.8900
WCHS	14.30	21.60	204.4900	466.5600	308.8800
HNHS	12.95	21.20	167.7025	449.4400	274.5400

$EX=107.00 \quad EZ=154.80 \quad EX^2=1677.4650 \quad EZ^2=3432.9800 \quad EXZ=2381.4900$

$$r_2 = \frac{EXZ - \frac{(EX)(EZ)}{N}}{\sqrt{EX^2 - \frac{(EX)^2}{N} \; EZ^2 - \frac{(EZ)^2}{N}}}$$

$$= \frac{2{,}381.49 - \frac{(107)(154.80)}{7}}{\sqrt{1{,}677.4650 - \frac{(107)^2}{7} \; 3{,}432.9800 - \frac{(154.80)^2}{7}}}$$

$$= \frac{2{,}381.49 - \frac{(16{,}563.6)}{7}}{\sqrt{1{,}677.4650 - \frac{11.449}{7} \; 3{,}432.9800 - \frac{(23{,}963.04)}{7}}}$$

APPENDIX Q-2
(Cont'd.)

$$= \frac{2{,}381.49 - 2{,}366.2285}{\sqrt{1{,}677.4650-1{,}635.5714 \quad 3{,}432.9800-3{,}423.2914}}$$

$$= \frac{15.2615}{\sqrt{41{,}8936 \quad 9.6886}}$$

$$= \frac{15.2615}{\sqrt{405.89033}}$$

$$= \frac{15.2615}{20.14672}$$

$r_2 = .76$ Very High correlation

APPENDIX Q-3

COMPUTATION OF RELATIONSHIP BETWEEN PSYCHOMOTOR (Y) AND AFFECTIVE (Z) ABILITIES (r_3)

	Y	Z	Y^2	Z^2	YZ
SSPC	22.70	24.80	515.2900	615.0400	562.9600
SNS	17.30	21.80	299.2900	475.2400	377.1400
SRSF	18.00	21.30	324.0000	453.6900	383.4000
SNAS	16.60	21.50	275.5600	462.2500	356.9000
WVS	17.20	22.60	295.8400	510.7600	388.7200
WCHS	16.10	21.60	259.2100	466.5600	347.7600
HNHS	15.80	21.20	249.6400	449.4400	334.9600
	EY=123.70	EZ=154.80	EY^2=2218.8300	EZ^2=3432.9800	EYZ=2751.8400

$$r_3 = \frac{EYZ - \frac{(EY)(EZ)}{N}}{\sqrt{EY^2 - \frac{(EY)^2}{N} \quad EZ^2 - \frac{(EZ)^2}{N}}}$$

$$= \frac{2,751.84 - \frac{(123.70)(154.80)}{7}}{\sqrt{2,218.8300 - \frac{(123.70)^2}{7} \quad 3,432.9800 - \frac{(154.80)^2}{7}}}$$

$$= \frac{2,751.84 - \frac{19,148.76}{7}}{\sqrt{2,218.8300 - \frac{(15,301.69)}{7} \quad 3,432.9800 - \frac{(23,963.04)}{7}}}$$

APPENDIX Q-3
(Cont'd.)

$$= \frac{2,751.84 - 2,735.5371}{\sqrt{2,218.8300-2,185.9557 \quad 3,432.9800-3423.2914}}$$

$$= \frac{16.3209}{\sqrt{32,8743 \quad 9\ 6886}}$$

$$= \frac{16.3229}{\sqrt{318.50594}}$$

$$= \frac{16.3029}{17.846734}$$

r_3 = .91 Very high correlation

AAPPENDIX R

TABLE OF CRITICAL VALUE

df	a levels (two-tailed test) .1	.05	.02	.01	.001
1	.98769	.99692	.999507	.999877	.9999988
2	.90000	.95000	.98000	.990000	.99900
3	.8054	.8783	.93433	.958773	.99116
4	.7293	.8114	.8822	.91720	.97406
5	.6694	.7545	.8329	.8745	.95074
6	.6215	.7067	.7887	.8343	.92493
7	.5822	.6664	.7498	.7977	.8982
8	.5494	.6319	.7155	.7646	.8721
9	.5214	.6021	.6851	.7348	.8371
10	.4973	.5760	.6581	.7079	.8233
11	.4762	.5529	.6339	.6835	.8010
12	.4575	.5324	.6120	.6614	.7800
13	.4409	.5139	.5923	.6411	.7603
14	.4259	.4973	.5743	.6276	.7420
15	.4124	.4821	.5577	.6055	.7246
16	.4333	.4683	.5425	.5896	.7084
17	.3887	.4555	.5285	.5751	.6932
18	.3783	.4438	.5155	.5614	.6787
19	.3687	.4329	.5054	.5487	.6652
20	.3598	.4227	.4921	.5368	.6525
25	.3233	.3809	.4451	.4869	.5974
30	.2960	.3494	.4093	.4487	.5541
35	.2746	.3246	.3810	.4182	.5189
40	.2573	.3044	.3578	.3932	.4896
45	.2428	.2875	.3384	.3721	.4648
50	.2306	.2732	.3218	.3541	.4433
60	.2108	.2500	.2948	.3248	.4078
70	.1954	.2319	.2737	.3017	.3799
80	.1889	.2172	.2565	.2830	.3568
90	.1726	.2050	.2422	.2673	.3375
100	.1638	.1946	.2301	.2540	.3211
	.05	.025	.01	.005	.0005
	a Levels (One-Tailed Test)				

Source: Basic Statistics 3rd Edition
By: Chris Spatz and James O. Johnston

CURRICULUM VITAE

NAME	:	ANTONIO ABALOS PIÑO
PLACE OF BIRTH	:	Cebu City
DATE OF BIRTH	:	June 13, 1963
PRESENT POSITION	:	Secondary School Teacher I
DESIGNATION	:	Acting Head, Vocational Subjects Unit
	:	CAT-1 Commandant
STATION	:	Tarangnan National High School, Tarangnan, Samar
CIVIL STATUS	:	Married

EDUCATIONAL BACKGROUND

Elementary	Motiong Central School Motiong, Samar 1970-1976
Secondary	Samar National School Catbalogan, Samar 1977-1981
College	Samar State Polytechnic College, Catbalogan, Samar 1981-1985 Bachelor of Science in Industrial Education (BSIE) Major in Industrial Arts
Curriculum Pursued	Master of Arts in Education Samar State Polytechnic College, Catbalogan, Samar
Major	Administration and Supervision

CIVIL SERVICE ELIGIBILITY

Philippine Board Examination for Teacher (PBET) November 24, 1985

HONORS AND AWARDS RECEIVED

Salutatoriam	Grade VI Class; 1976 Motiong Central School Motiong, Samar
Outstanding Student	High School Class; 1981 Samar National School Catbalogan, Samar
Outstanding	YCAP 1980-1981
Outstanding Trainee	NACIDA Training Sponsored by NACIDA Provincial Office Catbalogan, Samar 1978-1979
Outstanding	YDT, First Year to third year class, 1977 to 1980 Samar National School Catbalogan, Samar
Outstanding	Woodworking, First year to third year class, Samar National School Catbalogan, Samar 1977-1980
Outstanding	Handicraft, First year to third year class, Samar National School Catbalogan, Samar 1977-1980
Fourth Honors	Third Year College Samar State Polytechnic College, Catbalogan, Samar 1984

Leadership Awards	Honor Cadet of the Year Basic Course CMT Samar College CMTU; SY 1982-1983
Awarded	Leadership Medal Efficiency Medal and as Outstanding Midshipman of the Year; Samar State Polytechnic College Naval Citizen Military Training on Advance and Basic Midshipman Officers Candidate Course 1983-1985
Academic/Speeches/Oratorical Contest Awards . .	Second Place General Information Contest '82 (Talents Unlimited) FFP/FAHP/FFPCC Local Convention
	Second Place General Information Contest '83 (Talents Unlimited) FFP/FFPCC/FAHP Local Convention
	Sixth Place LEYTE-SAMAR TIMPALAK '82 Sponsored by Eastern Command (EASCOM) People's Center Library Tacloban City
	Fifth Place Inter-Oratorical Contest '83 Sponsored by TASK GROUP 8th Command Camp Downes, Ormoc City

EXTRA AND INTRA CURRICULAR ACTIVITIES

Two-time Corps Commander . . .	Naval Citizen Military Training Unit, (NCMTU) 1983-1984 to 1984-1985 respectively

President	Scholar Grantee Association of the Philippines Samar Chapter SY 1983-1984 1984-1985 respectively
President	Student Crime Prevention Council SSPC Chapter SY 1984-1985
President	Student Assistance Committee Youth Community Service Club School Year 1983-1984 to 1984-1985 respectively
President	Class Organization Naval Citizen Military Training Unit SY 1983-1984 to 1984-1985 respectively
National President	Second National Workshop Seminar 1984 on SAC-YCSC; Commission Groupings, Senior Mess Teachers Camp, Baguio City SY 1984-1985
National Vice-President . .	National Congress of the College Students (Eight National Congress) Baguio City; Senior Mess Teachers Camp, SY 1982-1983
National Vice-President . .	Association of Corps Commander of the Philippines Organized in Cebu City Philippines SY 1983-1984
Provincial Vice-President .	Provincial Council on Youth Community Service Club-Student Assistance Committee; SY 1983-1984
Public Information Officer.	Student Teachers Club SSPC Chapter SY 1984-1985

Board of Director	Provincial Council on Student Assistance Committee - Youth Community Service Club (SAC-YCSC) SY 1984-1985
Sentinel	Future Farmers of the Philippines College Chapter (FFPCC) SY 1984-1985
College Official Organ/ Paper Membership . . .	Associate Editor "College Tradesman" SY 1983-1984
	Feature Editor "College Tradesman" SY 1982-1983
	Filipino Editor "College Tradesman" SY 1981-1982
Executive Vice*President . .	People's Economic Council Department of Trade & Industry Tarangnan Chapter Tarangnan, Samar SY 1987-1988
Chairman Allied Sector . . .	People's Economic Council Department of Trade & Industry Tarangnan Chapter Tarangnan, Samar SY 1987-198
Barangay Development Council Member	Barangay E. Poblacion Tarangnan, Samar 1989 to present
Business Manager	Second Batch for SEDP Mass Trainings for Public Secondary School Teachers on P.E., Health and Music; RLS-Eastern Samar National Comprehensive High School, Borongan, Eastern Samar Summer 1990

Auditor . . . . . Commandant League of the Philippines
Samar Province
SY 1992-1993

SEMINARS/WORKSHOPS/TRAININGS ATTENDED

2nd Provincial Echo Seminar Workshop on Student Assistance Committee-Youth Community Service Club; March 12-13, 1982, Department of Agriculture, Catbalogan, Samar

5th Provincial Echo Seminar Workshop on Student Assistance Committee-Youth Community Service Club (SAC-YCSC; March 12-13, 1984, SSPC, Catbalogan, Samar

43rd Regional Seminar Workshop on Youth Community Service Student Assistance Committee (SAC-YCSC) St. Louis School of Mandaue, Mandaue City, School year 1982- April 23-30.

48th Regional Seminar Workshop on Youth Community Service-Student Assistance Committee (SAC-YCSC) Leyte State College, HRPC Hall, Tacloban City, April 28-31, 1983

Senior Students Teachers Education Seminar, PAFTE Region VIII, Leyte State College, Tacloban City, March 20, 1985

Regional Representative of the Association of Corps Commander of the Philippines, Induction of Crrps Commander of the Philippines held in Cebu City, Philippines, school year 1983-1984

Summer Camp Training on Advance Midshipman Officers Candidate Course, Naval Science 33 (AMOCC-NS-33) Leyte Institute of Technology, Tacloban City, summer 1984

21st National Rizal Youth Leadership Institute, Junior Mess Teachers Camp, Baguio City, December 23-30, 1982.

8th National Congress of the College Students (NCCS) Senior Mess Teachers Camp, Baguio City, school year 1982, December 17-23

2nd National Seminar Workshop on Youth Community Service-Student Assistance Committee-Youth Community Service (SAC-YCSC) Senior Mess Teachers Camp, Baguio City, December 23-30, 1984

Commandant/Instructors Seminar Workshop at the RUC 8 Training Center, Camp Lukban, Maulong, Catbalogan, Samar, August 7-9, 1986

Regional Seminar Workshop in Coaching Athletics, Swimming, and Softball at the SRSF Social Hall, Catbalogan, Samar, August 22-26, 1988

Regional Convention on Philippine Association of Graduate Education of Region VIII at the Leyte Institute/State College, HRPC Hall, Tacloban City, February 18, 1989

Summer Camp Training on Military Science 43 on Probationary Second Lieutenant Officers Training at Camp Downes, Ormoc City, April 1 to May 31, 1989

Secondary Education Development Program (SEDP) on P.E., Health and Music (PEHM II) for Second Year Level, Mass Trainings for Secondary Public School Teachers, Eastern Samar National Comprehensive High School, Borongan, Eastern Samar, May 15 to June 2, 1990

Regional Seminar Workshop on the Promotion of Philippine Culture Through Physical Education and School Sports; Samar National School, Catbalogan, Samar, November 18-22, 1991

Regional Seminar for CAT Commandants of Public and Private Secondary Schools; Samar National School, Catbalogan, Samar, February 6-7, 1992

LIST OF FIGURE AND TABLES

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