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FACULTY OF SCIENCES AND HUMANITIES  
DEPARTMENT OF FOREIGN LANGUAGES

A SYLLABUS AND A WORKBOOK FOR THE SUBJECT  
"DIRECTED RESEARCH PROJECT"

UNDERGRADUATE THESIS PRESENTED IN ORDER  
TO OBTAIN THE DEGREE OF BACHELOR  
OF ARTS IN ENGLISH

BY

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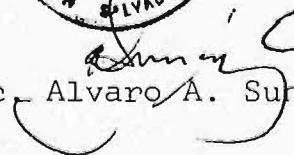
En el salón de sesiones del Departamento de Idiomas de la Facultad de Ciencias y Humanidades de la Universidad de El Salvador se reunió el jurado examinador del Trabajo de Graduación titulado A SYLLABUS AND WORKBOOK FOR THE SUBJECT DIRECT RESEARCH PROJECT presentado por las estudiantes Guadalupe Delurdy Linares Linares, Ana Patricia Lovato Hernández y Lillián Haydeé Carranza. Después de constatar que las observaciones y sugerencias hechas al documento anterior se habían tomado en cuenta y que se hizo las modificaciones necesarias, se acuerda aprobar el trabajo escrito con dos votos a favor, y fijar el día jueves veintisiete de septiembre a las nueve horas y treinta minutos en el local del Departamento de Idiomas para la defensa oral.

San Salvador a los diecinueve días del mes de septiembre de mil novecientos noventa.

  
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Lic. Rolando Labrador

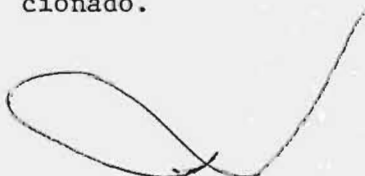
  
Lic. Alvaro A. Suncín



En el local del Departamento de Idiomas de la Facultad de Ciencias y Humanidades, Universidad de El Salvador, en la ciudad de San Salvador, a las nueve horas con treinta minutos del día veintisiete de septiembre de mil novecientos noventa, se instaló oficialmente el Jurado de Graduación compuesto por los Licenciados Rolando Labrador, Alvaro Alfredo Suncín Cordero y Jorge Homero Llanes Marquez, para someter a consideración la defensa oral de la tesis: A SYLLABUS AND A WORKBOOK FOR THE SUBJECT DIRECTED RESEARCH PROJECT, presentada por las Bachilleres Guadalupe Delurdy Linares Linares, Ana Patricia Lovato Hernández y Lillian Haydee Carranza.

Después de un período de exposición oral por parte de cada una de las estudiantes y de un período de preguntas de los Miembros del Jurado, se acordó por unanimidad: APROBAR el trabajo oral antes mencionado.

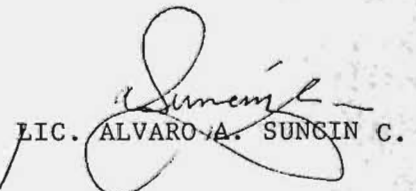
Y no habiendo más que hacer constar, se cierra la presente en la Ciudad de San Salvador, a las once horas con treinta minutos del día antes mencionado.



LIC. ROLANDO LABRADOR



LIC. JORGE HOMERO LLANES M.



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and to all my family.

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With special dedication to

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My Parents,

My brothers, and

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With love to

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## INTRODUCTION

This graduation work presents a syllabus and a workbook for the subject "Directed Research Project" as partial solution to one of the most acute problems of the students of the University of El Salvador in general and of the "Licenciatura en Idioma Inglés" specifically.

Every year, dozens of students finish their course load, receive the document that accredits them as undergraduates, and then stall. Less than half of these students find topics and strive to produce a graduation work. Soon, they realize they are expected to produce good conventional research, a job for which the Department of Foreign Languages has not trained them. Yet, there is one subject that should have done this task; this is "Directed Research Project."

Focusing on the Western Campus of the University of El Salvador, the students who have taken the subject "Directed Research Project" have not been provided with the necessary knowledge and practice to carry out research work. Thus, when they have to prepare their graduation work, they face a great number of limitations because they don't possess the necessary bases. As a result, there are more than fifteen Western Campus students who might have already graduated if they had been properly trained to write their theses.

Since the subject "Directed Research Project" should train the students of English to do research, the researchers considered it necessary to better the quality of this subject. For this purpose, they have redesigned a syllabus and prepared a workbook for both teachers and students of English.

The redesigned syllabus will contribute to achieve the objectives of this subject since a syllabus is a way by which the goals, means, and results of an educational program are identified, understood, and connected. If a course such as "Directed Research Project" is not based on a well-prepared and complete syllabus, it is certain that it will be a failure because it will take the teacher and the students nowhere.

The designed workbook will function as a complement of the redesigned syllabus to make the "Directed Research Project" course more accessible and challenging for the students. This workbook has been designed for both teachers and students as a guide that spells the specific activities to be developed.

This workbook includes exercises, games, out-of-classroom activities, pictures, and charts based on the redesigned syllabus. These will contribute to achieve the objectives for which the "Directed Research Project" course has been included in the "Licenciatura en Idioma Inglés."

This work contains five chapters, which have been

divided in the following way:

Chapter I deals with the Problematic situation as well as the reasons that justified the necessity to find some solutions to this Problem. It Presents a clear Picture of what has caused the Problem, who has been affected, and what limitations the researchers found through the Process. It also includes the objectives and hypotheses that have guided this work.

Chapter II Presents a review of the related literature. It points out different Principles that support a syllabus elaboration and the model that has been followed to redesign the "Directed Research Project" syllabus. Besides, it includes the different parts a workbook should contain.

Chapter III Gives a complete description of the methodology used to carry out all this work.

Chapter IV Presents the analysis and interpretation of the data.

Chapter V contains the final results of the work - conclusions reached at the end of the workshop. It is stated whether the hypotheses are rejected or approved and if the objectives have been achieved. It also includes a set of recommendations that the authors of this work consider useful for both teachers and students of the "Licenciatura en Idioma Inglés."

Finally, this work includes some appendices containing the core of this work - the redesigned



syllabus and the workbook. Furthermore, all the instruments that were used to carry out this investigation as well as the tables containing the results gathered through these instruments have been annexed.

Some bibliography for further information on the research Process has also been included at the end of this research work.

## CHAPTER I

### STATEMENT OF THE PROBLEM

The subject "Directed Research Project" as it has been taught in the "Licenciatura en Idioma Inglés" on the Western Campus of the University of El Salvador has not provided the undergraduate students of English with the necessary theoretical and practical knowledge to write their thesis. These students face many problems in designing and carrying out a research project successfully: They have no idea of how to state a problem, state an objective, form hypotheses, nor how to collect, process, and interpret the data.

The "Directed Research Project" course has been included in the curriculum of the "Licenciatura en Idioma Inglés" to train the students of English to carry out a research project. Thus, after taking this course, the students should be able to do research work successfully.

Every time this subject has been taught on the Western Campus, teachers have used only dictation and exposition, methods that tend to make students passive receptors of ideas. Thus, the development of the students' positive attitude toward research has not been stimulated.

Since 1977, the teachers in charge of this subject

have trained the undergraduate students of English on topics that should have been studied in English Composition II (APPendix C). Such topics are important, of course, but they do not give the students the necessary theoretical and Practical bases to write their thesis. Besides, the students have not had the appropriate Practice to carry out a research Project since the only work they have Prepared is to write a bibliographical report in which they just copy information from books. This is done after one month of classes. According to the teachers, this Period of time is enough to train the students to write what they consider a "research Project," but the experience of many students shows a different reality.

By analyzing how this subject has been taught on the Western Campus in the last six years, it has been found out that the syllabus used in the subject "Directed Research Project" is not appropriate to train the students to do research since it has been focused on English composition rather than on the knowledge the students need to do research. The "Directed Research Project" course, then, is unsatisfactory because it does not cater specifically enough to the needs of the students in terms of their Present needs, interests, neither does it fit in with the effective methodology.

In a study conducted on the Western Campus, six works Prepared by English students in the "Directed

Research Project" course were analyzed. None of the six works can be considered as research Project because they are just bibliographical reports. This happens because the students of the "Licenciatura en Idioma Inglés" have been taught wrong ideas of what research is when they have taken the subject "Directed Research Project."

In the aforementioned study conducted on the Western Campus of the University of El Salvador, of the sixteen surveyed students, four of them (25%) said they had been taught only to identify research Problems; two students (12%) said to have been trained on how to limit a topic. However, none said to possess theoretical and practical knowledge to carry out a research Project. Carrying out a research work requires not only identifying and limiting Problems but also following other steps and requirements of the scientific method.

If the researcher does not know how to plan and carry out a research Problem efficiently, s/he will not be able to do research properly. An unexperienced researcher might begin carrying out activities such as interviews, surveys, and questionnaires without having his/her objectives clearly stated, later realizing that s/he has just wasted time. Thus, a person who is going to carry out a research Project must have both theoretic-methodological means (concepts, categories, theories, and laws) and technical means (instruments and devices) related to the scientific Praxis

(systematic observation, experiments ) aimed at obtaining profound and complete knowledge of the subject matter (Rojas Soriano 1986, p.44 ). A student must be properly trained on clearly understanding the steps needed to do research since one of the major requirements for the Bachelor's Degree in English is to prepare a research work (thesis). Then, the "Directed Research Project" course plays a very important role in training the undergraduate students of English on designing and carrying out a research project successfully.

Therefore, the researchers considered it important to focus this research on raising the quality of the subject "Directed Research Project" so that the barriers that the undergraduate students of English face at the moment of preparing their thesis can be overcome to some extent. For this reason, the main target of this work was to redesign a syllabus, prepare a workbook to teach "Directed Research Project," and carry out a workshop to test both instruments. The product of this research - the redesigned syllabus (Appendix A) and the workbook (Appendix B) - will contribute to overcome the deficiencies that this course has on the Western Campus.

The relation between the variables of the previous hypothetical statements showed that the redesigned syllabus, through its redesigned objectives, contents, methodology, evaluation system, suggested bibliographical references would improve the students' command of

theories and capacity to do scientific research and that the workbook, through its different sections - review-on-topic section, directions, games, in-class and out-of-class activities - would also improve the quality of the students' everyday work. This last would become observable through the students' performance in class, preparation of topic proposals, and completion of tests.

It is worth mentioning that all this work has been carried out in spite of very strong limitations, such as irregularity in the number of students attending the workshop, November offensive, lack of bibliographical resources, and military intervention of the Main Campus.

## CHAPTER II

### A Syllabus - A Necessary Tool for Any Subject

Creativity is the central part of invention. This process is more than simple innovation. It is in close relation with an independent and critical individual able to plan and carry out his/her own projects, look for alternatives and make them come true.

Being creative is always necessary to design the plan that will guide any work or activity. When teaching a subject, the syllabus is the plan not for what the teacher wants learners to learn but for what he wants them to do (Savignon, 1987, p. 36).

For many years, the syllabus of "Directed Research Project," for example, has simply provided a list of contents to be developed in a course. The material outlined has not enabled students to acquire the ability to comprehend, apply, analyze, synthesize, and evaluate information; thus, they have not promoted the development of these students. Then, just providing an adequate list of contents is not sufficient. Since a syllabus is a guide for both teachers and students to find out "what?" "how?" "what for?" and "when?" to perform an activity, it can not be built on a simple equation between needs and

course contents. A syllabus must reflect the set of circumstances surrounding its development; that is, the syllabus is a direct product of the situation and viewpoint, rather than an ideal universally accepted syllabus (Benson, 1987, p. 2).

There is not a universally accepted syllabus model. Thus, each Planner needs to be creative and take into account the totality of factors that affect his/her learners specifically. In the same way that there is not a pre-established syllabus model, there are not specific parts that a syllabus must contain either. However, there are some parts that syllabi traditionally include, such as objectives, contents, methodology, activities, course materials, evaluation system, and bibliography.

a) Objectives are the spinal cord of any Plan. Terminal objectives are statements describing the more immediate knowledge and skills that the students should develop or possess as a result of instruction (Pierson, 1980, p. 31). They play a key role in any course. When properly stated, they serve as guides for both teaching and evaluating. A clear description of the intended objectives aids in selecting relevant materials and methods of instruction, in monitoring the pupil learning progress, in selecting or constructing appropriate evaluation procedures, and in conveying the instructional intent to others (Gronlund, 1985, p. 24). When stating objectives for a course, one must consider that the



objectives must include all important outcomes in the three domains: cognitive, affective, and psychomotor (Gronlund, 1985, p. 34). They must be in harmony with the general goals of the educational institution and with sound principles of learning. They must be realistic in terms of the pupil's abilities and the time and facilities available (Gronlund, 1985, p. 27).

b) Another important part of a syllabus is the contents of the course. Topics are selected according to the stated objectives. The contents, when properly chosen, help to achieve the objectives. The problem of what to teach can be resolved only after planners have determined what the goals and objectives of the syllabus are (Pierson, 1980, p. 30).

c) The methodology refers to how a course will be conducted. It must be chosen according to the objectives and the contents to be taught in a course. The methodology used in a certain course is determinant to achieve its objectives.

d) A syllabus must also outline specific activities to teach each content. These activities must be oriented to reach the objectives of the course. They must be flexible; in other words, any activity can be used with different purposes and not just for a specific one. The activities chosen will depend on the class, its composition, the stage reached, and the teacher himself (McNeil, 1985, p. 7). If activities are to be meaningful

and appropriate, they must be adjusted to suit both the students' intake capacity that his/her present competence allows and targets for the expansion that the course objectives specify (McNeil, 1985, p. 8).

e) Moreover, a syllabus should describe the materials to be used in the course, for example, audiovisual aids, workbooks, and other materials. Course material should be tailored to suit the age, interests, social class, financial means, lifestyle, and aspirations of the group of students. In addition, the cultural constraints imposed by the society and the context in which the course will be taught must be fully taken into account. By doing so, one can create courses of optimum interest, appropriacy, and relevance (Murdoch, 1986, p. 15).

f) A syllabus must also include some evaluation system to measure accurately and consistently whatever has (or has not) been learned. The teacher should come to know, as a result of evaluation, the relative achievement or level of his/her students during the whole learning process. The evaluation, broadly conceived, becomes an important part of the teaching-learning process since the main purpose of classroom instruction is to help pupils achieve a set of intended outcomes. These outcomes would typically include all desired pupil changes in the intellectual, emotional, and psychomotor spheres. The intended learning outcomes are established

by the instructional objectives; the desired changes in Pupils are brought about by the Planned learning activities, and the Pupil's learning Progress is Periodically evaluated by tests and other evaluation devices (Gronlund, 1985, p. 6). The evaluation Plays an important role in any course.

9) The last Part that all syllabi must contain is bibliography. This section will Provide the users of the syllabus with some further bibliographical references about what has been studied in the whole course.

#### Models of Syllabi

The Process by which a syllabus is constructed is called syllabus development. Syllabus development theory enters this Process in the form of models, of which the best known are Tyler's (1950) and Taba's (1962). Taba-Tyler's design is essentially a combination of Ralph Tyler's syllabus model and Taba's. The combination of these two models resulted in a more detailed version (APPendix D). Three more elements were introduced and the new design ended up with the following elements:

1. the diagnosis of the students' needs
2. formulation of objectives

3. selection of content
4. organization of content
5. selection of learning experiences
6. organization of learning experiences
7. determination of what to evaluate and the means of doing it.

A syllabus is a way by which the goals, means, and results of an educational program are identified, understood, and connected. If a course is not based on a well-prepared and complete syllabus, it is almost certain that it will be a failure because it will take the teacher and the students nowhere (Pierson, 1981, p.31).

#### The Importance of a Workbook

Having prepared a syllabus, an important material a teacher can use to make a course interesting for the students is a workbook. A workbook is important to teach a course because it is a student's and teacher's book based on a course of study containing a series of activities (problems and exercises) related with a determined field or course. In fact, it is a practical guide for both teachers and students. It is designed to reinforce what is covered in a textbook or in a class. On the one hand, a workbook lets the teacher know, to what extent, the students have internalized the contents

studied; on the other hand, it helps students Polish up concepts and theories through different activities.

Particularly when teaching research, a workbook is very useful since this field has always been a problem to both beginners and experts. It is not possible for anybody to learn to research just by being told how to research by others. A famous Chinese Proverb says, "Tell me and I forget; teach me and I remember; involve me and I learn." Then, one must combine enthusiasm with students' involvement, and this combination will lead to more interesting classes and more effective learning.

A person learning how to do research must perform each activity consciously so that s/he can experience it by himself/herself. Since, as stated, a person learns to do research only through active and constant practice-learning by doing- a workbook is an effective aid for him/her to have some experience in a specific field of knowledge. A workbook contributes to make the student discover the necessity to create. In the field of research, one learns, for example, that there is not a unique and specific way to carry out a research project, so s/he needs to adapt different methodologies and create tools, instruments according to the particular characteristics of his/her project.

Whether for the classroom or for out-of-the-classroom works, a workbook must contain activities that lead the students to greater learning. Learning to

research, particularly, is a complex task that should not be left to chance: careful use of activities included in a workbook contributes to effective learning of how to do research.

### The Role of Activities in Teaching Research

Many people consider the research activities boring and complex; however, activities play an important role to make the students understand the theoretical knowledge better and become interested in research.

Since humor, when properly used, helps to create the kind of relaxed friendly atmosphere that is necessary for learning to take place, a workbook must include activities that produce pleasant situations. They make the students feel less inhibited of carrying out activities about any topic. Besides, the activities promote intellectual curiosity and the desire to learn throughout life, and encourage creative thinking.

Another way of promoting intellectual curiosity and creativity in research is by setting problem-solving tasks, to be done individually or in groups. The problem should be neither trivial nor necessarily connected to sensational topics. They can stem from the students' own

environment and choice. Problem solving may take the form of individual or group projects (Cangelosi, 1988, p. 136).

When a teacher plans to use activities to teach how to research, s/he must know the answer to the following questions: Are the activities carried out for enjoyment rather than for instruction? One should like to think that all class activities properly conducted are enjoyable. Are they, then, introduced mainly to provide a welcome break in the class routine? Certainly they may have this function, and the teacher may with good reason wish to give the students a break from more intensive forms of practice if s/he sees their attention waning. But this is not their chief value. The maximum benefit can be obtained from activities only if they form an integral part of the program at both the practice and creation stages of learning. Used in this way, they provide new and interesting contexts for practicing knowledge already acquired and for learning new matters in the process. A teacher, besides, must keep in mind that an activity can be put to work in different ways. It all depends on what s/he wants his/her students to reinforce or learn.

## Using Games in Teaching Research

Can games be considered important and useful activities to teach research? Many teachers still feel that games should be used only for short time to give the class a break from monotony, and some teachers consider games a merely frivolous activity. What is frequently overlooked is that real learning takes place when the students, in a relaxed atmosphere, participate in activities that require them to use what they have been taught in theory. Classes should be planned so that there is a minimum of formal classes -theory- and a maximum of activities that make the students forget that they are in a classroom.

A teacher must not be too hasty to say that games are not suitable for adults. There is a child hidden in every adult, and bringing out this child undoubtedly facilitates learning (Adewusi Fawusi-Abalo, 1987, p. 46).

Games have three important advantages for classroom use:

1. They stimulate social interaction and hereby lessen inhibitions.
2. They permit all of the students to participate simultaneously, thus increasing the students' practicing time.
3. They provide practice of specific topics without boredom.



### Audio-visuals in Teaching Research

Besides activities, there is another device that a workbook may contain to make the students' learning process more effective and practical. This is the use of pictures in teaching.

Using pictures in teaching and learning to research is one of the most successful techniques. This technique is not only effective and interesting, but also practical and economical. The advantages of using pictures are indisputable. They add variety, providing a change of pace important in keeping a high level of interest. The possibility of using pictures when teaching research is practically unlimited, and success comes to the teacher with foresight, ingenuity, and imagination. Many of the advantages of using pictures in teaching are obvious. They foster a high degree of interest. They go beyond the limited classroom environment and make possible the discussion of a wide variety of situations and circumstances. They show that in the basic matters of life, most of the world shares similar experiences. Pictures can be used to develop, increase, and sustain students' motivation to produce a positive attitude toward the different activities the students have to perform and to reinforce theory. Moreover, pictures provide useful material as well as test material.

Activities, Games, assignments, and Pictures are quite important in teaching and in learning to do research. It is recognized that successful learning of how to research depends much on the learner's attitude, motivation, and interest, and that mastery of the steps needed to carry out a research project is achieved only through conscious practice.

## CHAPTER III

### RESEARCH METHODOLOGY

To carry out the present research work, the investigators revised the "Directed Research Project" syllabus used on the Western Campus of the University of El Salvador. For this purpose, it was necessary to conduct a careful study of its objectives, contents, methodology, and evaluation system to discover its assets and deficiencies.

Then, a questionnaire was given to students of English of the Western Campus to find out to what extent the "Directed Research Project" course had enabled them to do research (Appendix E). Furthermore, the investigators examined the research works prepared by the undergraduate students when they took this subject.

Later, the "Directed Research Project" syllabus used on the Main Campus was carefully studied to determine its assets and deficiencies, too. For the evaluation of the syllabus used on the Western Campus and the one used on the Main Campus, the researchers used a checklist (Appendix F).

Besides, the researchers interviewed five people with experience in the field of research. Based on the results of the syllabus analysis and the information gathered from bibliographical sources, the researchers

redesigned a syllabus for the "Directed Research Project" course.

With the redesigned syllabus as reference, the researchers prepared a workbook for "Directed Research Project." Afterwards, they planned and designed a six-week workshop to test the effectiveness of the redesigned syllabus and the workbook.

#### The Workshop

A workshop was planned to be carried out from December to January. The researchers expected that most of the students who had finished the "Licenciatura en Idioma Inglés" on the Western Campus of the University of El Salvador would participate in the workshop. However, from the 21 students who had finished their course load, only nine began attending the workshop. The others didn't because of different reasons:

3 students had left the country because of the Salvadorean situation.

3 students said not to be interested in writing their thesis at all since they were already working as English teachers. In other words, they said that the Bachelor's Degree would not help them to improve their economical situation to a great extent.

3 students have been working on their topic proposals for the last two years. They are trying to carry out

a research Project on the Nahuatl language.

-----  
 9 students who did not take the workshop.

-----  
 3 students are the researchers of this work.

9 students who registered for the workshop.

-----  
 21 = Total of undergraduate students of English on the  
 Western Campus of the University of El Salvador.

In spite of the low registration, the researchers decided to carry out the workshop based on the redesigned syllabus. Yet, it was not carried out from December to January, as planned; instead, they moved it forward from November to December because they learned that five out of the nine students that were expected to attend the workshop were leaving to France on a scholarship.

All these obstacles made the researchers be afraid of the fact that if nobody attended the workshop, they would not have the opportunity to test the redesigned syllabus and the proposed workbook.

But finally, the workshop began by giving an entrance test (Appendix G) to the nine participants to detect the level of knowledge on research the students had before attending the course.

Following is a description of the methodology used

in the workshop and the work done during each week.

#### Methodology used during the Workshop

The methodology for the workshop was selected according to the kind of activities outlined in the redesigned syllabus. During the whole course, most of the work was carried out by the Participants:

- A Pretest was administered to the students at the very beginning.
- The students had the opportunity to evaluate their own work constantly.
- They were provided with some written material to reinforce the contents of each class.
- They were assigned in-class and out-of-class activities.
- Group work was promoted to encourage students' discussion.
- The students had the opportunity to observe different facts and to discern and differentiate facts from opinion.
- Individual work was also encouraged to stimulate the students' responsibility and self-sufficiency.

Some weekly quizzes and a Post-test were administered.

- The methodology used in the workshop stimulated the students' participation, the development of other intellectual processes, such as creativity and curiosity,

and the use of research techniques.

First Week of the Workshop (Nov. 7 - Nov. 10, 1989)

During the first week, nine students attended two-hour sessions from Tuesday to Friday from 4 to 6 P.M.

The Preliminary Phase of research was practiced during this period and the students carried out five activities included in the workbook:

- Practice on the different ways of knowing, pp. 78, 79
- Exercise on the characteristics of scientific knowledge, p. 81
- Practice on differentiating common from scientific knowledge, p. 82, 83
- Exercise on classifying what research is and what research is not, p. 88, 89
- Activity to identify the characteristics of research, p. 93

Second, Third, and Fourth Weeks

(Nov.20 - Nov.25, Nov.27 - Dec.1, Dec.4 - Dec.8, 1989)

The number of attendants to the workshop was reduced after the November offensive. During this week, only five students attended the workshop. The four who had the

French studies here had to start an intensive training on French culture, thus, they had to quit attending the session. This unexpected event drastically reduced the number of participants.

The theme to be studied was "The Heart of the Research Project" which took three weeks. In this phase, the students began working on their own topic proposals.

To develop this, discussions were carried out to determine whether or not the students' Problems met the characteristics of researchable Problems. During this second week, the students elaborated the statement of the problem they had chosen.

The activities from the workbook used to develop this topic were the following:

observation practice, pp. 97, 98, 99

Exercise on identification of researchable Problems,

p. 104

Practice on stating a researchable Problem and

subproblems, p. 114, 115

Checklist for evaluating the statement of the Problem,

p. 115

After the second week, the number of attendees to the workshop decreased even more. In spite of the student interest in the workshop, two other students had to quit attending the sessions in this week because of the change in the workshop schedule. This schedule



change was due to the curfew and it interfered with most of the participants' jobs, however, the workshop went on.

During the third week, after having written the statement of the Problem, the students learned to write the justification of a researchable Problem.

The activity taken from the workbook used to develop the justification was a brainstorming session, P. 122.

During the fourth week, the students studied a handout on formulation of objectives and hypotheses. They had the opportunity to practice in this phase. Then, they worked on the objectives and hypotheses of their own researchable Projects. The following exercises from the workbook were done by the students:

- Practice on stating objectives, P. 125
- Learning to classify objectives, P. 127
- Practice on formulation of objectives, P. 128
- Practice on formulation of hypotheses, P. 136
- Brainstorming exercise to formulate hypotheses, P. 137
- Practice on identification of variables, P. 144

Fifth Week ( Dec. 11 - Dec. 15, 1989 )

During the first two days of this week, the students read and discussed a handout about the theoretical framework of a research Project. The other

two days, the Participants learned about methodology for research design. The exercises selected from the workbook to develop this topic were:

- Exercise for Justifying the research methodology, P. 178
- Exercise on the selection of the appropriate method, P. 180

Sixth Week (Dec. 18 - Dec. 21)

The last week of the workshop was spent on revising the first drafts of the students' topic proposals. After the revision, the students were given a 15-day period to work on the observations made to their drafts.

Throughout the whole workshop, the students were provided with handouts to reinforce the material studied in class and printed sheets for the activities used to develop the different topics.

Some quizzes were given to test the students' progress in their learning process (Appendix H). At the end, the students took the same test they solved at the beginning of the workshop.

Furthermore, the students were asked to fill out weekly checklists to evaluate each workshop session and questionnaires to evaluate the workshop as a whole (Appendices C, I, and J).

Finally, five Professionals who had had the experience on designing syllabi, writing booklets, giving advisory in the elaboration of theses, and teaching research evaluated the designed syllabus and the workbook through some checklists (APPendices F and K).

The yield of the workshop was two topic PROposals. The one on the "Elaboration of a Syllabus to Teach Tecimical English at the Vocational School in Santa Ana" was Prepared by two students, and the other on "Methodology to Teach English at Senior High School" was Prepared by one student.

## Description of Instruments

### 1. Questionnaires

A questionnaire was used to find out to what extent the "Directed Research Project" course had enabled the undergraduate students of English of the Western Campus to do research (APPendix E).

## 2. Tests

A test was designed to find out the level of knowledge on research the undergraduate students of English on the Western Campus had before attending the workshop. This test was mainly focused on the steps of the scientific method, and it included both theory and Practice (APPendix G ).

The same test was used as a Post-test; that is, it was given to the students at the end of the workshop .

This was done to compare what the students knew at the beginning of the workshop and what they learned as a result of attending the workshop on research.

## 3. Quizzes

Furthermore, five quizzes were designed to test the students' Progress during the workshop. The first quiz was focused on the characteristics of researchable Problems. The second was on formulation of hypotheses. The third referred to the operationalization of hypotheses, the fourth, to the sections of a research Project and hypotheses; and the last one, to formulation

of objectives.

#### 4. Checklists

-To revise the research works Prepared by the undergraduate students of English when they took "Directed Research Project" on the Western Campus, A checklist was used. ( APPendix L ). The same checklist format was used to evaluate the topic Proposals Prepared by the students who took the workshoP on research.

-Later, Another checklist was used to evaluate the syllabus used on the Western Campus and that used on the Main Campus ( APPendix F ). This checklist helped to determine the assets and deficiencies of both syllabi. Besides, this checklist format was used to evaluate the redesigned syllabus for the "Directed Research Project" course.

-One more checklist was designed to find out the students' opinion about how the workshoP was being conducted. The same format was used to evaluate the work done during the six weeks (APPendix I).

-Another checklist format was used at the end of the workshop. This provided the researchers with a more complete and general idea of the students' viewpoint about the workshop. (Appendix J).

-Another checklist was prepared to evaluate the designed workbook. It was aimed at evaluating each of the sections included in this workbook. Basically, it covered the following aspects:

-review-on-topic section

-clarity of directions

-functionality, adaptability, and motivating power of games

-organization and objectives of the workbook (Appendix K).

## CHAPTER IV

### ANALYSIS AND INTERPRETATION OF THE DATA

APPendix M shows that the number of students taking the workshop varied significantly. In fact, just three students out of the nine who registered finished the workshop. Because of the sharp decrease in the number of Participants, it was impossible to correlate all the results of the Pre-test and the Post-test as it had been Proposed.

The statistical Procedures Proposed in the Project to analyze these data could not be used, for it is neither possible nor necessary to use statistical operations to Process such data.

As stated in the Chapter on Methodology, a Pre-test and a Post-test were administered to the Participants of the workshop to measure their theoretical and Practical knowledge about the research Process before and after they took the workshop. Two aspects were mainly measured: their theoretical background and their Practical knowledge on research. The theoretical level was indicated by the number of correct answers to the first, second, third, and fourth Parts of the tests structured as follows:

- Questions 1 to 3, origin of the scientific knowledge
- Questions 4 to 9, research methodology
- Questions 10 to 14, steps to carry out a research Project
- Questions 15 to 20, characteristics, objectives, and hypotheses

The level of Practical knowledge was explored through the fifth part of the test.

It is important to point out that since there were too many hardships that interfered with the development of this experimental study -the interruption, desertions, the curfew- it is difficult to tell whether the redesigned syllabus and the workbook are efficient or worthless. Just by looking at the number of final attendants to the workshop. Instead, attention will be focused on how these students solved both the theoretical and practical contents of the post-test.

Although nine students took the pre-test, for the purpose of correlating these results with those of the post-test, just the pre-test solved by the three final participants of the workshop have been considered.

The results of both the pre-test and the post-test solved by the three final attendants to the workshop are compared as shown in Table I.

A big difference between how the three students



answered on the Pre-test and the Post-test is Presented. On the Pre-test, the three students together got a total of fourteen correct answers (20.29%), and fifty-five wrong answers (79.71%); on the other hand, on the Post-test, they all got a total of fifty-eight correct answers (84.0%) and only eleven wrong answers (16.0%). Although all the students got some wrong answers on the Post-test, the difference in the results of the Post-test in relation to those of the Pre-test is still significant since the number of wrong answers was considerable reduced mainly in the Practical Part of the tests. This difference in the amount of wrong answers on the Pre-test and the Post-test throws light on the students' level of knowledge before and after the workshop. This contrast in the results can be interpreted as considerable improvement in the students' theoretical and Practical knowledge to do research after the workshop.

#### Results Obtained through the Weekly Quizzes

Another fact that strongly Proves the students' improvement was the results obtained through five quizzes administered to the Participants to evaluate the Practical and theoretical knowledge about the different steps of the scientific method they had acquired.

To evaluate the results of these quizzes, the researchers determined a Passing grade of "seven." The grades obtained are shown in Table II.

This table shows the grades the three students obtained on the five quizzes. To group these data, the arithmetic mean ( $\bar{X}$ ) of the students' grades of each quiz was calculated.

By correlating the results obtained with the previously established Passing grade, it can be seen that none of the students failed any of the quizzes since their grades ranged between 7.2 and 9.4. As shown in Table II, the lowest grades were obtained by the three students on the quiz on the operationalization of hypotheses. This descent is interpreted as a higher level of difficulty for the students on this step, and the inference is confirmed by observation during the workshop and by the results obtained on the item related to the operationalization of hypotheses of the Post-test. This might be due to the complexity of both activities, the difficulty to make these activities less complex and more practical, and also to the fact that most of the students had not had any contact or practice related to this step of the research activity when they took "Directed Research Project" on the Western Campus.

On the other hand, almost all the students succeeded on the part related to the selection of research methodology. It was in this phase of the workshop where

the students participated the most. This was because on this phase they were somehow free to work by themselves and create the research methodology for their own topic proposals. This can be interpreted as a good effect that the workshop had on the students since it stimulated their creativity.

The comparison of the results of both tests shows that the level of theoretical knowledge on research the undergraduate students of English on the Western Campus had before the workshop was very low. However, their practical and theoretical knowledge to do research improved significantly through the workshop.

#### Results Obtained through the Checklists for the Students' Evaluation of the Workshop

Weekly checklists were given to the participants of the workshop to find out their opinion on how the sessions were carried out. For the evaluation of each session, the following criteria were used: (SA) Strongly Agree (4), (A) Agree (3), (D) Disagree (2), (SD) Strongly Disagree (1) (Appendix I).

Since some students dropped out from the workshop (Appendix M), there is a variation in the number of answers in the first and the other five weeks. In the

first week, nine Persons filled out the checklists; in the second five did, and in the rest of the weeks only three students.

According to the results shown in Table III, a hundred Percent of the Participants was strongly in favor of how each session of the workshop was carried out since in each activity performed the students were encouraged to be creative and put all the theory into practice. At the same time, they were stimulated to do research. They stated that most of the activities used helped to achieve the objectives of the workshop and that they were satisfied with what they had learned.

Moreover, the results of the students' final evaluation of the workshop (Table IV) show that all the Participants approved of the way the objectives had been stated, and they said that the activities in the workshop were appropriate for the topics and their variety avoided boredom, thus raising their interest in research. They also expressed that the activities had been gradual and flexible and had let them express what they felt. Besides, they stated that through these activities they had learned the most relevant steps of the research process.

According to the students' statements, the development of creativity was encouraged through the illustrations, examples, and materials used. Moreover, they expressed that the work done in the workshop was

what they needed to be able to Prepare a topic Proposal. This last is Proved by the fact that the Participants did Prepare topic Proposals.

The results of this checklist also reveal that the assignments and the final test were focused on the most important aspects of the workshop. This statement is confirmed through the answers the students gave on the Post-test. The students declared, besides, that they put considerable effort into the workshop. They said they had always tried to be in class in spite of their work schedules and the situation the University of El Salvador was going through when the workshop was being carried out.

According to the data obtained through the checklist, none of the Participants disagreed on the items included. Although there was a variation in the answers because some strongly agreed and others simply agreed, there was still a Positive viewpoint about the sessions and the workshop itself.

These results indicate that the three students who finished the workshop considered both the redesigned syllabus and the workbook to be appropriate instruments to provide them with useful theoretical and practical knowledge to Prepare a research Proposal. The data also show that the workshop encouraged these students of English to be creative and to put all the theory into practice. At the same time, they were stimulated to

begin their graduation work. As a matter of fact, two of the students have already turned in their topic Proposal to the Research Commission on the Main Campus.

All the above means that the activities used helped to achieve the objectives of the workshop and that the Participants were satisfied with the knowledge on research they acquired in that course.

### Evaluation of the Redesigned Syllabus

A checklist was designed to evaluate the redesigned syllabus for the subject "Directed Research Project." This checklist was filled out by five Professionals with experience on research (See P. 30)

The items of this checklist evaluated the syllabus in the following way:

- 1 to 10 refer to objectives;
- 11 to 14, to course contents;
- 15 to 18, to course methodology;
- 19 to 21, to course activities;
- 22 to 25, to course materials;
- 26 to 28, to evaluation;
- 29 to time assigned to the course;
- 30 to 33, to characteristics, organization, and structure of the syllabus (APPendix F).

To give a clearer idea of this evaluation, the checklist has been sectioned according to what the terms refer, and the items have been summarized (Table V).

The results of box one in Table V show that most of the evaluators approved of the way the course objectives have been formulated. They stated that:

- a. The course objectives had been formulated on the bases of the students' needs and interests.
- b. The behavior and content or situation have been taken into account to formulate the specific objectives.
- c. They have been stated in proper terminology and contain all the necessary elements.
- d. They are attainable.
- e. They are in accordance with the objectives of the "Licenciatura en Idioma Inglés" and with the objectives of the University of El Salvador.
- f. They are based on consistent principles of learning (Permanent and transferrable results).
- g. They are sequentially organized.

The results in box two (Table V) show that a hundred Per cent of the Persons agreed on how the course contents of the redesigned syllabus have been formulated, related, organized, and adapted to the specific characteristics of the subject.

The results of the checklist for the evaluation of the redesigned syllabus also reveal that:

a. The course methodology was properly related with the course objectives and contents, adapted to the students' level of maturity and characteristics of the subject, and aimed at promoting the students' active participation and creativity.

b. The course activities were selected taking into account the students' needs and interests, the course contents, and the objectives of the subject.

c. The course materials were clearly described, aimed at achieving the course objectives, and adapted to the students' needs.

d. The evaluation system was properly selected, organized, and scheduled.

e. The redesigned syllabus met the requirements all syllabi must have; that is, the redesigned syllabus for "Directed Research Project" was flexible, sequentially organized, realistically structured, and unified.



## Evaluation of the Workbook

A checklist for the evaluation of the Proposed workbook was given to five Persons who had knowledge on the field of research (P. 30). To evaluate the different sections included in the workbook, four criteria were used: (SA) Strongly Agree, (A) Agree, (D) Disagree, (SD) Strongly Disagree (APPENDIX K).

To have a better interpretation of the data obtained through this checklist, the results to the items related to each section of the workbook have been grouped (Table VI). The results Presented in this table show that:

- a. The review-on-topic section Provides clear information, Points out the most important aspects of each topic, and helps the students remember about each content.
- b. The directions included in each exercise are clear and Precise enough for the students to Perform the activities without getting confused about what to do.
- c. The games included in the workbook help the students develop specific skills, contribute to achieve the class objectives, stimulate the students' curiosity, and

contribute to break down monotony in class.

d. Charts and Pictures are of great help for the students to get a better idea of the topics to be studied.

e. The activities promote the students' individual and group work, encourage students to do research, and give them the opportunity to think and create by themselves.

f. The workbook has been well organized, and it contains what the "Directed Research Project" students need to do research applying the steps of the scientific method.

g. The workbook has been designed to achieve the objectives of the "Directed Research Project" course; besides, it can be used not only in this subject but in others of the "Licenciatura en Idioma Ingles."

#### Results of Evaluation of Research Proposals

Due to the nature of the work, the researchers consider the completion of a research Proposal the real measure of failure or success. They decided to focus their attention on the quality of the works rather than on the quantity. A checklist was prepared for this evaluation considering the following aspects:

1. clarity of the statement of the Problem
2. organization of the Proposal
3. clarity and Precision of the objectives
4. relation of General and specific objectives
5. clarity and Precision in the formulation of hypotheses
6. clarity, consistence, and validity of the importante-of-the-study section
7. clarity and consistence between objectives, hypotheses, and the Principal Problem of the research work
8. clarity and functionality of the research methodology and structure

To evaluate these works, a checklist was filled out by the researchers and five Persons with experience on research (p.30)

The topic Proposals were carefully revised and analyzed to avoid subjectivity. The evaluation was done as objectively as Possible.

Although the quantity of works Prepared is low -two Proposals- they show objectively the Product of the workshop on research.

The first topic Proposal Prepared by two students was on "The Elaboration of a Syllabus for Teaching Technical English at the Vocational School in Santa Ana."

The second topic Proposal Prepared by one student

was on "Methodology for Teaching English in Senior High School."

To show the importance of these works, the students used some surveys and questionnaires, and for that reason, it took more than two months.

A comparison between these proposals and the works these same students prepared when they took the subject "Directed Research Project" was made. When compared, these works were clearly found to be differently designed. Those works prepared in the traditional "Directed Research Project" course were only bibliographical reports. It was self-evident that the scientific method had not been followed to prepare them. On the other hand, the works done during the seminar showed to have been prepared, following the requirements of the scientific method.

The evaluation of both works revealed that they possessed the following characteristics:

- a. The statement of the problem was clear and complete.
- b. The whole proposal was properly organized.
- c. The objectives were clear, precise, and realistic.
- d. Both specific and general objectives were closely related and had the same direction.
- e. The hypotheses were clear, precise, and complete.
- f. There was consistent relation among the objectives, the hypotheses, and the principal problem of the research work.

g. The justification was strong enough, valid, clear, and consistent.

h. The research methodology was clear, functional, and objective.

i. The whole proposals were properly phrased and structured.

## CHAPTER V

### CONCLUSIONS AND RECOMMENDATIONS

#### Conclusions

Based on the results of the workshop carried out to test the redesigned syllabus and the workbook, the researchers have drawn some conclusions. It is necessary to clear away that due to the extraneous variables (Page 9) that interfered with the development of the workshop, the number of students that finished it, and the yield of this workshop (two proposals) are not so significant as to state that the hypotheses were proven, yet the following conclusions have been reached:

1. Using the redesigned syllabus for "Directed Research Project" will help the undergraduate students of English to acquire theoretical and practical knowledge on research.

Through the workshop, the redesigned syllabus proved to be a useful instrument that helped students acquire the bases needed to prepare a topic proposal. As a matter of fact, the three students who went through this workshop prepared topic proposals.

2. A workbook on research is a useful and necessary instrument for both teachers and students of the "Licenciatura en Idioma Inglés."

Since the students taking the workshop needed a lot of practice not only in but also out of the classroom to develop researching skills, a workbook designed for both teachers and students was necessary.

The students' performance during the workshop showed that a workbook facilitates the students' learning because they could develop some activities outside the classroom without the teacher's help.

The workbook is also a guide for the teacher in evaluating the students' progress on research and in finding out the deficiencies on the teaching side.

3. The organization and structure of the designed workbook for the "Directed Research Project" course is appropriate for the students' gradual development of the researching skill.

The results of the checklists filled out by the students at the end of the workshop and the checklists filled out by five professionals show that the different sections of the workbook meet the students' needs to do

research.

4. The Process of research can be more interesting and fruitful if a workbook includes a variety of activities, Games, assignments, and visual aids.

The students' Performance and interest during the workshop showed that a variety of in-class and out-of-class activities help them have a different idea of what the research Process is.

The workbook activities contributed to a great extent to avoid the students' aversion toward research -a task they are usually afraid of; besides, it helped students grasp more easily the theory studied in class and put it into Practice by performing the different activities.

Through the workshop, the researchers observed that the variety of activities included in the workbook stimulated the students' interest, made classes more challenging, helped to program activities according to the students' progress, and gave the students the opportunity to think by themselves.

5. Students encouraged to be creative can work more successfully in a subject such as "Directed Research Project."



Students' creativity must always be encouraged and especially in the "Directed Research Project" course since it is focused on the research process. The students doing research need to create because the research process is dialectic, and there are no general rules that fit into all research situations. There is a moment in which the persons involved in the research process feel the necessity to create, mainly when they begin outlining the research methodology and designing instruments to collect data.

6. The postulation and operationalization of hypotheses is one of the steps in the preparation of the topic proposals that causes more problems to the students.

The students who took the workshop scored lower in the part related to the postulation and operationalization of hypotheses both in the quizzes and the post-test. In the pre-test, none of the nine participants even tried to solve the items related to this activity. They expressed that they did not have an idea about that step of the research process.

## Recommendations

1. Since the workshop carried out to test the workbook was so irregular and too few students finished it, this workbook should be tested with a twenty or twenty-five student class to check its effectiveness with a large group. This could also help to decide whether this workbook should be translated into Spanish to be used in other areas.

2. The syllabus for "Directed Research Project" should be revised each semester to be improved, and the teacher of the subject should make changes s/he considers appropriate. However, care should be taken to avoid mixing up steps.

3. Reading the books in the bibliography will be essential to the full utilization of the workbook and achieving optimum results in the "Directed Research Project" course.

4. The teachers can adjust some of the activities presented in the workbook to different situations and topics. It all depends on the teacher's or instructor's expectations, skill, creativity, and requirements.

5. Material on the elaboration of the theoretical framework has been annexed. This could be used if the teacher in charge of the "Directed Research Project" course has enough time.

6. When teaching "Directed Research Project," the teacher should check the students' progress daily or weekly. In this way, s/he will know to what extent the activities used and the knowledge provided are really appropriate and useful to the students.

7. The teacher in charge of "Directed Research Project" should give more emphasis to the step on formulation of hypotheses since through the workshop, it was found out that it causes a lot of trouble to the students.

8. The teacher in charge of the "Directed Research Project" course should not devote his/her time to teaching the students how to write. Instead, s/he must focus his/her attention on teaching them how to do research and prepare them to write their graduation work, which is the main purpose of the subject.

9. The subject "English Composition I," "English Composition II," and "Directed Research Project" should

be Planned in such a way that each one should be a follow-up on the Previous course. In this way, repetition of contents would be avoided, and consequently time would be more wisely spent.

10. One or two courses on mathematics and statistics should be included in the curriculum of the "Licenciatura en Idioma Inglés" to Provide the students with solid bases on this field.

11. From the fourth semester on, the students of the subjects of the "Licenciatura en Idioma Inglés" should do some research work. This research might be related to the specific field of each subject following the steps of the scientific method.

12. The Research Committee should encourage and assist the teachers of the "Licenciatura en Idioma Inglés" to Promote research in the subjects of this major.

13. The teachers in charge of the "Directed Research Project" course, specifically those from the Eastern and Western Campuses of the University of El Salvador, should be in close contact with the members of the Research Committee at the Department of Foreign Languages on the Main Campus of the University of El Salvador. This would

help them guide their students properly in the "Directed Research Project" course, and the latter would be better trained to prepare their theses.

A P P E N D I C E S

## APPENDIX A

### SYLLABUS FOR DIRECTED RESEARCH PROJECT

#### I. General Information

Time 5 hours weekly

Prerequisite

Schedule

#### II. Course Description

This course is designed to develop the students understanding of the research process. Through reading, discussing and carrying out a research project, the students will be encouraged to discover by themselves the way to use the scientific method to find solutions to different problems.

It will include activities that will promote interaction among the students to develop understanding of concepts and principles in the field of research. The students will learn how to face and treat the pros and cons in the process of carrying out their research project.

The students will have the opportunity to confront

theory with practice. This will lead them to further reflection and enable them to find solutions to Problems.

This course is divided into three units to provide the students with theoretical and Practical knowledge they need to do research.

### III. General Objective

-After finishing this course, the students of the "Licenciatura en Idioma Inglés" will have acquired theoretical knowledge and Practical skills useful to work on their graduate work.

### IV. Specific Objective

-At the end of this course, the students will have Prepared a research Project following the steps of the scientific method.

### V. Contents

#### Unit I - The Preliminary Phase of Research

#### Specific Objectives of Unit I



At the end of this unit, the students will be able to:

1. differentiate common from scientific knowledge.
2. differentiate between what research is and what it is not.

## Contents

### A. Ways of knowledge

1. Common knowledge
  - a. Method of tenacity
  - b. Method of authority
  - c. A Priori method
2. Scientific Method

### B. What is research?

1. What research is not
2. What research is
3. Characteristics of research

## Activities

- Discussion of handout about science
- Presentation of drawings to exemplify scientific and common knowledge
- Students' dramatization of what science is
- Students' interpretation of the drama

(Students draw inferences and reach conclusions.)

- Students' own exemplification of ways of knowledge
- Presentation of slides about the theory of knowledge
- Puppet show to explain what research is and what it is not
- The students' discussion to reach conclusions, and draw inferences about the show.
- The students work in couples to identify from a list of examples (10) only those that can be considered as good research
- Panel to know the results of the groups' work to reach conclusions
- Students order the steps of the scientific method in a Pocket chart.
- Students' solution of the workbook activities related to this unit

## Unit II - The Problem - The Heart of the Research Project

At the end of this unit, the students will be able to

1. identify relevant problems for a research project.
2. limit problems for a research work appropriately.
3. formulate appropriate general and specific objectives for a research project.

4. formulate hypotheses for a research work efficiently.
5. define hypotheses in operational terms.
6. outline the importance-of-the-study section for a research Project appropriately.

## Contents

### A. The Research Problem

1. Identification of researchable Problems
  - Characteristics of researchable Problems
2. Limitation of Problems
3. Statement of the Problem
4. Justification

### B. Objectives for a Research Work

1. Formulation of general objectives
2. Formulation of specific objectives

### C. Hypotheses

1. Types of hypotheses
2. Formulation of hypotheses
3. Formulation of subhypotheses
4. Operationalization of hypotheses

## Activities

- Discussion of the handout about researchable Problems
- Students' visits to different Places to discover Problems for research
- Round table to discuss the students' Previous activity
- Students' individual work to make a statement of the Problem
- Brainstorming activity for the formulation of objectives
- Presentation of different Pictures for the Postulation of hypotheses
- Group work to define the previously Postulated hypotheses in operational terms
- Students' brainstorming activity about a Problem to find out reasons to justify a research work.

## Unit III - Methodology of a Research Design

### Specific Objectives of Unit III

At the end of this unit, the students will be able to

1. apply the historical method appropriately.

2. use the descriptive-survey method appropriately.
3. apply the analytical survey method appropriately.
4. differentiate the experiment from the experimental method.
5. select the most appropriate method of research according to the nature of the data.

## Contents

- A. Historical Method
- B. Descriptive Survey Method
- C. Analytical Method
- D. Experimental Method

## Activities

- Discussion of handout about methods of research.
- Students Prepare note card and bibliographical cards
- Students classify the cards chronologically.
- Have the students use the historical method in different ways. Some of them will classify the data in order of events and others chronologically from Present to Past or from Past to Present.

- Students design a study case to apply the experimental method.
- Students design instruments used to collect data in the descriptive survey method.
- The teacher gives the students different types of research work. They must select the most appropriate method to carry out that work.
- Students gather data to use the analytical method.

#### VI- Methodology

The methodology for this course will be selected according to the kind of activities outlined in this syllabus. During the whole course, most of the work will be carried out by the students; the teacher will be just their guide.

- The students will have the opportunity to evaluate their own work constantly; of course, the teacher will help them to carry out this activity.
- They will be provided with some written material to reinforce the contents of each class.
- They will be assigned in class and out of class

activities.

- Group work will be promoted to encourage students' discussion.

- The students will have the opportunity to observe different facts and to discern and differentiate facts from opinion.

- Individual work will also be encouraged to stimulate students' responsibility and self-sufficiency.

- The methodology to be used in this course will stimulate the students' participation, the development of other intellectual processes such as creativity and curiosity, and the use of research techniques.

## VII. Resources

- |                           |                           |
|---------------------------|---------------------------|
| - Handouts                | - Bond letter-sized paper |
| - Cards (different sizes) | - Textbooks               |
| - Workbooks               | - Puppets                 |
| - Pictures                | - Chalkboard              |
| - Charts                  | Flash cards               |
| - Cardboard               | Pocket chart              |

## VIII. Evaluation

Besides the teacher's evaluation, the students should be given the opportunity to make an auto-evaluation through checklists.

### Accreditation

A. Five quizzes	20%
B. Class Participation	5%
C. Research Project Graded in the following way:	75%
- Statement of the Problem	10%
- Justification of the Problem	10%
- Objectives	15%
- Hypotheses	10%
- Methodology	10%
- Analysis and Interpretation of Data	10%
- Conclusions and Recommendations	10%



## IX. Bibliography

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A P P E N D I X B

THE WORKBOOK

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## INTRODUCTION

This workbook gives a general overview about the research process. It has been designed in such a way that the students, before beginning to perform the activities presented, have the opportunity to review briefly the topic at issue. This workbook is aimed at stimulating the students' interest in researching, an activity they usually feel afraid to tackle and consider a difficult and tiresome task.

This manual presents a selection of activities that, with a little planning, will help the teacher to create dynamic, motivating classes. Of course, s/he is free to select the activities that better suit his/her teaching situation, students' interests and necessities, and the class objectives.

Some activities require out-of-class preparation on the part of the teacher in terms of materials (pictures, charts, handouts, etc.) and in terms of class readiness (the students' ability to handle certain knowledge).

Through different types of exercises, students will have the opportunity to develop the special skills needed for research and to learn how to face some problems during the process. Besides, this workbook will help the teacher facilitate the students' acquisition of theoretical and practical knowledge about research.

Most of the activities included in this workbook have been designed according to the students' environment, and necessities. Pictures, charts, diagrams, articles, and bibliographical sources have been provided; thus, the students will face no problem in understanding and carrying out these activities.

At the beginning the workbook includes some specific activities on the Preliminary Phase of a research. It presents a series of exercises for the students to get a general understanding of the nature of the research process: what research is, and what the characteristics of real research are. Besides, it presents appropriate activities to discuss where research problems are found, how they are stated, their division into more manageable subproblems, the postulation of a hypothesis, the importance of the study -justification.

This workbook contains, moreover, some practice on the different types of methodology that can be used when doing research. As this work does not purport to give an in-depth analysis on statistics, it just provides some simple exercises on sampling. It also suggests some useful bibliography on this field. Besides, an appendix containing some specific activities on how to carry out a review of the related literature has been included.

At the end, some bibliography is given; thus, both teachers and students have some reference guides to consult if necessary.

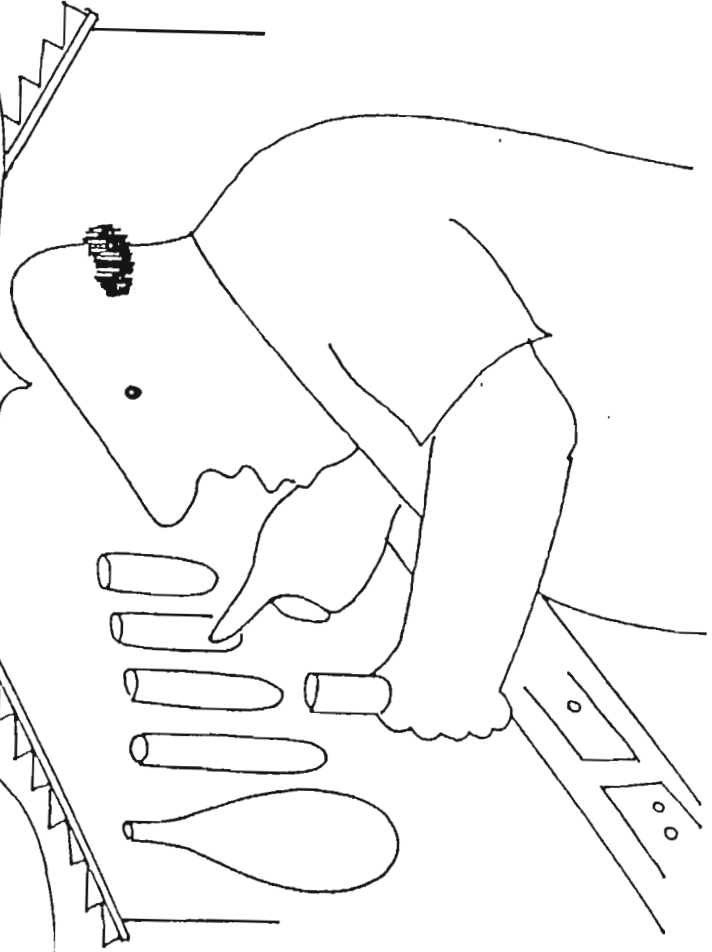
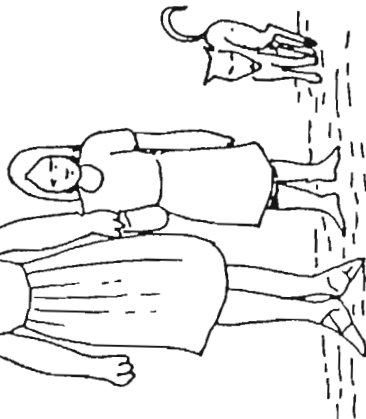
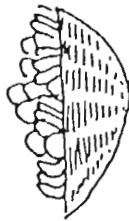
Readers or users of this workbook are encouraged to approach learning its content with rigor and with confidence. As Albert Einstein commented: The whole of science is nothing more than a refinement of everyday thinking. In the same spirit, the authors of this work believe that understanding the research process is an extension of the use of common sense. Informed readers whose common sense has thus extended will be more critical readers and more effective research producers. It is toward the accomplishment of this goal that this work, to a great extent, has been conceived and produced.

# Common Knowledge

# Scientific Knowledge

People must not eat eggs when they have the flu.

It will demonstrate that vitamin "C" prevents the flu.





## FOUR METHODS OF KNOWING

### 1. Method of Tenacity

This is the method in which one assures that something is true just because it has always been considered to be so. If one holds tenaciously to one's beliefs, even in the face of evidence that casts doubt on their validity, one seems to strengthen the beliefs.

### 2. Method of Authority

This is the method of established belief. This is when something is considered to be true just because a noted person or an important source says it. If an idea has the weight of tradition and public sanction behind it, it is so.

### 3. A Priori Method

It is also called the method of intuition. It is based on the assumption that the propositions accepted by the "a priorist" are "agreeable to reason" and self-evident. The idea seems to be that men, by free communication and intercourse, can reach the truth because their natural inclinations tend toward truth.

### 4. The Scientific Method

It is empirical and uses observation. The cycle goes through a) observation, b) induction, c) deduction, d)

verification or test of hypotheses, e) evaluation .

## 1. Practice on the Different Ways of Knowing

Classify the following ways of knowing as "method of tenacity," "a Priori method," "method of authority," or "scientific method."

a. Many People think that walking under a ladder brings bad luck.

---

b. Modern education is soft and bad because the most Prominent Professor of El Salvador says it.

---

c. It is true that God exists because the most noted Physicist of the United States thinks so.

---

d. Everybody knows that learning hard subjects trains mind and builds moral character.

---

e. American education is inferior to European education because my father thinks so.

---

f. It is self-evident that women are poor drivers.

---

2. Practice on the Different Ways of Knowing

Write two examples of each way of knowledge.

a. Method of Tenacity

(1)

(2)

b. Method of Authority

(1)

(2)

c. A Priori Method

(1)

(2)

## SCIENTIFIC METHOD

The scientific method represented an entirely new way of thinking -an entirely new approach to an unsolved Problem. Its basis was a way of thinking known as Inductive Reasoning. Inductive reasoning begins with an observation. This method has one characteristic that no other method has: self-correction.

The scientific method is a means whereby insight into an undiscovered truth is sought by (1) identifying the Problem that defines the goal of the quest, (2) gathering data with the hope of resolving the Problem, (3) positing a tentative hypothesis both as a logical means of locating the data and as an aid to solving the Problem, (4) then empirically testing the hypothesis by processing and interpreting the data to see if the data interpretation will answer the primary question which initiated the research in the first place.

From the various ways of knowing, the scientific method evolved as the best procedure for generating reliable knowledge. It relies heavily on evidence rather than intuition or reliance on authority.

### 3.Exercise on the Characteristics of Scientific Knowledge

Below are Presented some characteristics. Identify whether or not they belong to the scientific knowledge. Write T if true, and F if false.

The Scientific Knowledge is:

- a.Superficial(It doesn't study Phenomena deeply) \_\_\_\_\_
- b.Sensitive (It refers to sensations - senses)...\_\_\_\_\_
- c.Objective (It studies the essence of Phenomena)\_\_\_\_\_
- d.Subjective (The Persons organizes the experiences according to his/her viewpoints) .....\_\_\_\_\_
- e.Methodical (It is acquired through organized steps) .....\_\_\_\_\_
- f.Dogmatic (It never changes, and it does not accept discussion) .....\_\_\_\_\_
- g.Deep (It takes into account the very essence of Phenomena) .....\_\_\_\_\_
- h.Dialectic (It is constantly changing) .....\_\_\_\_\_
- i.Accidental (It is a Product of circumstances) .\_\_\_\_\_
- j.Rational (It is based on reasoning) .....\_\_\_\_\_
- k.Systematic. (It follows a Procedure) .....\_\_\_\_\_
- l.Progressive (It is acquired little by little, and it can be changed) .....\_\_\_\_\_

#### 4. Practice on Differentiating Common from Scientific Knowledge

Classify the following as common or scientific knowledge. Be ready to give reasons to support your answers.

- a. One must not swim after eating. S/he must wait for at least two hours. \_\_\_\_\_
- b. There are people who make children sick only by looking at them. \_\_\_\_\_
- c. It is not good to have a haircut when there is a full moon. \_\_\_\_\_
- d. Plants expel Carbon Dioxide at night; for that reason, they must not be placed in bedrooms. \_\_\_\_\_
- e. Pregnant women must wear or be near metal objects when there is a thunder storm for her baby not to be harmed. \_\_\_\_\_
- f. Exercising is good for health. \_\_\_\_\_
- g. People must not eat eggs when they have the flu. \_\_\_\_\_
- h. Overworking and emotional pressure cause stress. \_\_\_\_\_
- i. One must not wash his/her hands after ironing. \_\_\_\_\_
- j. It is harmful to read after eating. \_\_\_\_\_

k. Everybody learns by doing. \_\_\_\_\_

l. When a rainbow appears, it means Virgin Mary still loves us. \_\_\_\_\_

j. Exercise on the Characteristics of Common and Scientific Knowledge

Mention five characteristics of common knowledge and five of scientific knowledge. Be ready to give reasons to support your answers.

Common Knowledge	Scientific Knowledge
------------------	----------------------

a. _____	a. _____
----------	----------

b. _____	b. _____
----------	----------

c. _____	c. _____
----------	----------

d. _____	d. _____
----------	----------

e. _____	d. _____
----------	----------



## 6. Activity to Identify Characteristics Shared by Common and Scientific Knowledge

Identify the characteristics shared by both scientific and common knowledge in the following crossword.

O	B	J	E	C	T	I	V	E	O	U	B	H	W	A
T	H	Y	P	O	T	H	E	S	I	S	C	M	N	B
K	U	R	A	T	I	O	N	A	L	N	H	O	D	S
I	S	Y	N	T	H	E	S	I	S	P	E	R	F	T
O	R	D	E	R	E	D	T	I	V	I	M	S	A	R
A	N	A	L	Y	S	I	S	M	U	S	I	C	O	A
N	T	E	N	F	U	L	L	Y	L	I	S	T	U	C
A	M	E	M	P	L	A	C	E	C	R	O	W	I	T
L	O	B	J	E	C	T	I	V	E	B	E	S	T	I
G	Y	M	P	R	O	G	R	E	S	S	I	V	E	O
Q	G	E	N	E	R	A	L	I	Z	A	T	I	O	N
M	C	C	I	R	C	U	L	A	R	A	N	Y	K	Y

## 7. Discussion Exercise

Do the following in groups of three students.

1. What kind of research would you consider "unethical"?

Why

2. The major tools of the researcher are theory and empirical research. What will happen if researchers ignore one of these tools? How do they complement each other?

## WHAT IS RESEARCH?

### 1. What Research Is Not.

The word research has been so loosely employed in everyday use that few of us have some idea of its real meaning or operative implications.

No matter how elaborate a collection of data, the mere accumulation of fact is not research. It is, rather, an exercise in information - gathering, in library-orientation, in finding out relevant bits of factual data, in self-enlightment - but it is not research.

Unfortunately, many students have labored under the delusion that looking up a number of facts and writing them down in a documented paper constitutes research. Such an activity is, of course, nothing more than fact finding and fact transcribing.

Transfer of information, transportation of fact from one place to another are simply what their activities suggest, nothing more! Yet the strange misconception persists that fact-transferral is research.

## 2. What Research Is

Having looked at what research is not, let us look at what research indeed is.

Research is a systematic effort to solve Problems or to confirm the validity of the solutions to Problems others have Presumably resolved. It is a Process that uses the scientific method in solving PerPlexin9 Problems and resolving unanswered Questions.

The Purpose of research is to generate reliable knowledge which can be used as the basis for understanding Phenomena and ultimately for making decisions.

Good research differs from Poor research in several ways. It generates evidence from the best Possible sources rather than from the most convenient and/or inExpensive sources. Its Procedures for gathering evidence are systematic rather than haphazard. The measurements used by Good research are appropriate to the research Question and have sufficient Precision to be relied upon. Good research recognizes biases and seeks to control them: this yields a level of objectivity necessary for accuracy. It is well Planned, carefully executed and unhurried, and finally it is reported in its totality so the research consumer has all the needed information upon which to base a Judgement.

8. Activity for the Students to Discuss the Term  
"Research"

a. The students Prepared a PUPPET show to talk about  
"what research is" and "what research is not."

9. Classify the following and say if it is research or  
not.

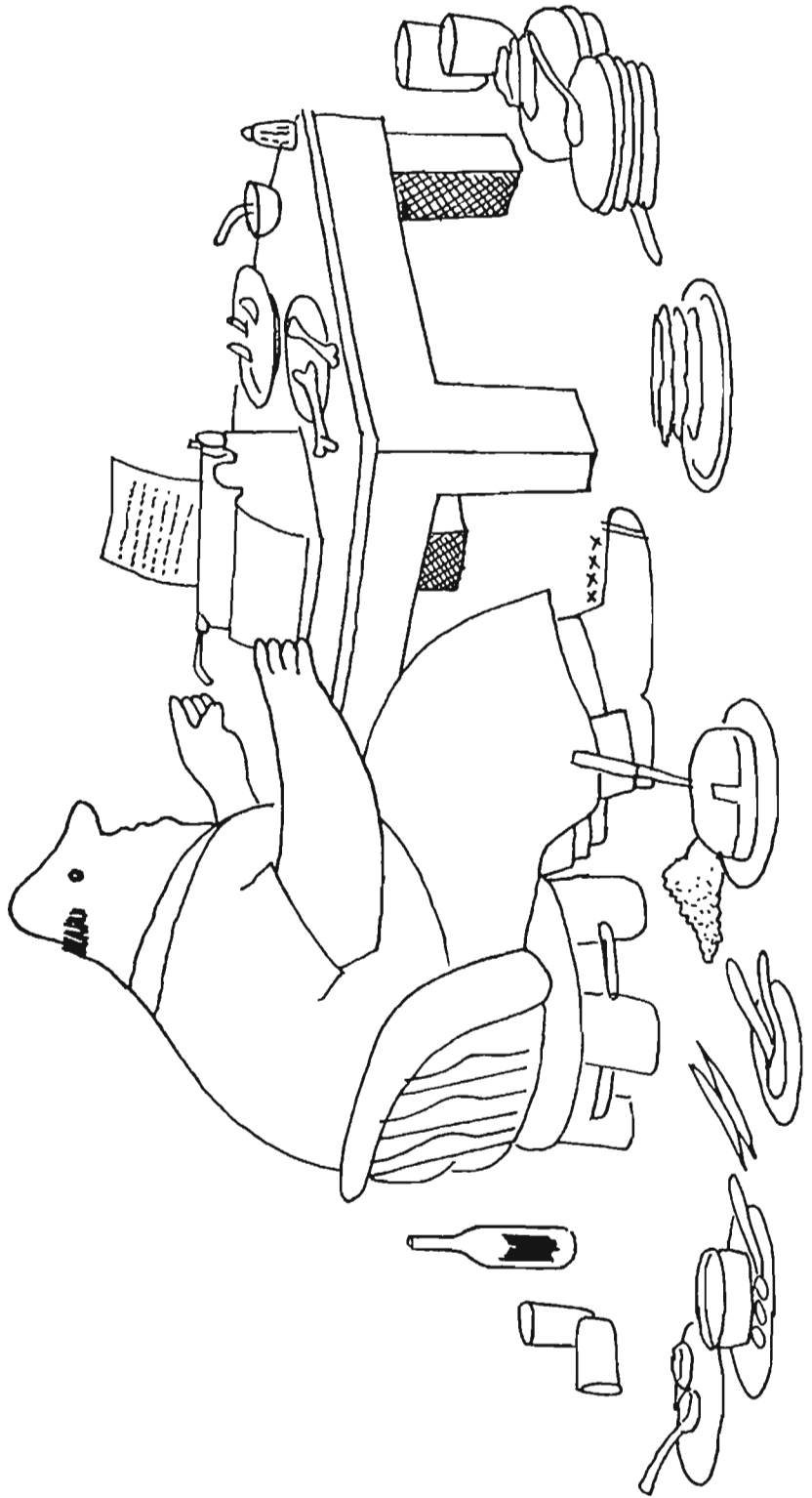
a) You open an envelope in the morning's mail. As  
you pull out its content, a statement greets you this  
way: Because of "years of research" a new product has  
been developed to clean your car with a miracle shine.

b) You are asked to do research on the different  
causes of abortion. You go to the library and get as much  
information as you can on that topic. You copy fragments,  
then present a report.

c) After many observations and experiments, Louis Pasteur discovered a vaccine to prevent rabies.

d) After many studies and experiments, a team of students of the University of El Salvador discovered that the 70% of water in the Panchimalco Valley is polluted.

Do you think a researcher works in this way?  
Research must be organized and planned, so a  
researcher cannot work as this man does.



## CHARACTERISTICS OF RESEARCH

1. Research demands the identification of a Problem, stated in clear, unambiguous terms.
2. Research requires a Plan.
3. Good research generates evidence from the best possible sources. Good research uses techniques and sources which can yield pertinent information to use in answering a research question.
4. Good research is systematic; that is, the procedures for gathering evidence are carefully formulated. Competent researchers think through the procedures they will use.
5. Good research uses measurements or descriptions that are both appropriate and precise. Competent researchers seek out measuring instruments which yield exactly the kind of measurement needed to answer the research question.
6. Good research is objective. The biases of the researcher are identified and controlled.
7. Good research is rigorous and unhurried. All procedures, measurements/descriptions, and analyses are thought through, tested, and employed carefully and thoroughly.



8. Good research is reported in its totality. Consumers of research, whether they be other researchers, Professionals, lay People or whatever, need to be informed of all Pertinent facts so they can evaluate the findings in light of what transpired in the study.

9. Research is circular.

## 10. Activity to Identify the Characteristics of Research.

Find the characteristics of research in the following crossword.

P	U	N	O	F	H	S	T	O	E	W	A	P	F	U
L	N	P	E	G	O	Y	O	D	H	O	W	R	G	R
A	H	T	A	Z	X	S	R	T	N	B	I	E	T	P
N	U	I	T	R	O	T	U	G	H	P	H	C	O	N
N	R	S	O	B	J	E	C	T	I	V	E	I	M	J
E	R	T	H	E	A	M	R	I	N	G	Y	S	B	O
D	I	U	V	A	D	A	I	A	L	E	C	E	T	I
P	E	D	L	A	C	T	K	A	M	O	U	M	T	L
A	D	W	C	L	O	I	C	K	I	C	K	O	R	O
T	T	I	G	E	N	C	,	R	A	L	I	M	A	T
I	E	N	M	E	T	H	O	D	O	L	O	E	M	R
M	P	D	C	I	R	C	U	L	A	R	S	N	A	R
E	H	O	R	I	G	O	R	O	U	S	L	T	W	Z
L	I	M	E	A	S	U	R	E	D	A	B	S	T	R
Y	N	S	A	C	L	E	A	R	O	U	E	U	L	K



The research  
problem

## THE PROBLEM: THE HEART OF THE RESEARCH PROJECT

### IDENTIFICATION OF RESEARCHABLE PROBLEMS

At the very heart of every research Project is the Problem. If there is no Problem, there is no research.

Where are researchable Problems found?

Problems for research are everywhere. Take a good look at the world around you. It teems with researchable Problems. Whatever arouses your interest, tweaks your curiosity, and raises questions for which as yet there are no answers, or where answers exist but where dispute arises as to their validity - there is fertile ground for the discovery of a researchable Problem; what you need is to observe.

It is extremely important that you distinguish between two basic types of Problems: Personal Problems and researchable Problems. You may have a Problem: how to get along with your mother-in-law, how to ask the boss for a raise, how to make a success of your life. And these are real, but they are not researchable. Researchable Problems fit the requirements of the scientific method.

Inspect any segment of life, any Phenomenon happening at this moment in your field of study, any of the events that swim before your eyes. In all of these

situations lie innumerable Problems that claim the attention of the researcher.

## 11. Observation Practice A

- a. Observe a blank page carefully (2 minutes).
- b. Write down what you have observed on this page.
- c. Now let's classify your observations in the following way:

1. Write number 1 to those observations in which you use your eyes.

2. Write number 2 to those observations in which you have to touch the page.

3. Write number 3 to those observations in which you use your hearing.

4. Write number 4 to those observations that involve the use of tasting.

5. Write number 5 to those observations that involve the use of smelling.

### Questions

-What kind of observations did you make?

-Did you make observations that involve your hearing, tasting, or smelling?

-Have you observed sensations that you feel when you hold a PaGe on the tiP of your fingers (texture or weight)?

-Are you observinG somethinG stable?

Most researchers use only their sight, but this Process requires the use of all the senses.

Add your own comment about this observation Practice.

## 12. Observation Practice B

Set a sheet of PaPer on fire and observe it carefully.

Now that the PaGe is extinguished, write what you have observed during the whole Process.

Are you observing something changeable?

As you may have realized through the previous exercises, you can observe in different ways.

In Observation Practice B, you needed just one of your senses -sight- to observe. Using only one sense is the simplest way to observe.

Most of us think that we can observe by using only our sight, but the observation process involves more than that.

Real observation involves the use of all the senses, as you should have done in observation Practices A and B.

Add comments about this type of change.

### 13. Observation Practice C

Now that you know what observation involves, do the following:



## Lookout Spots

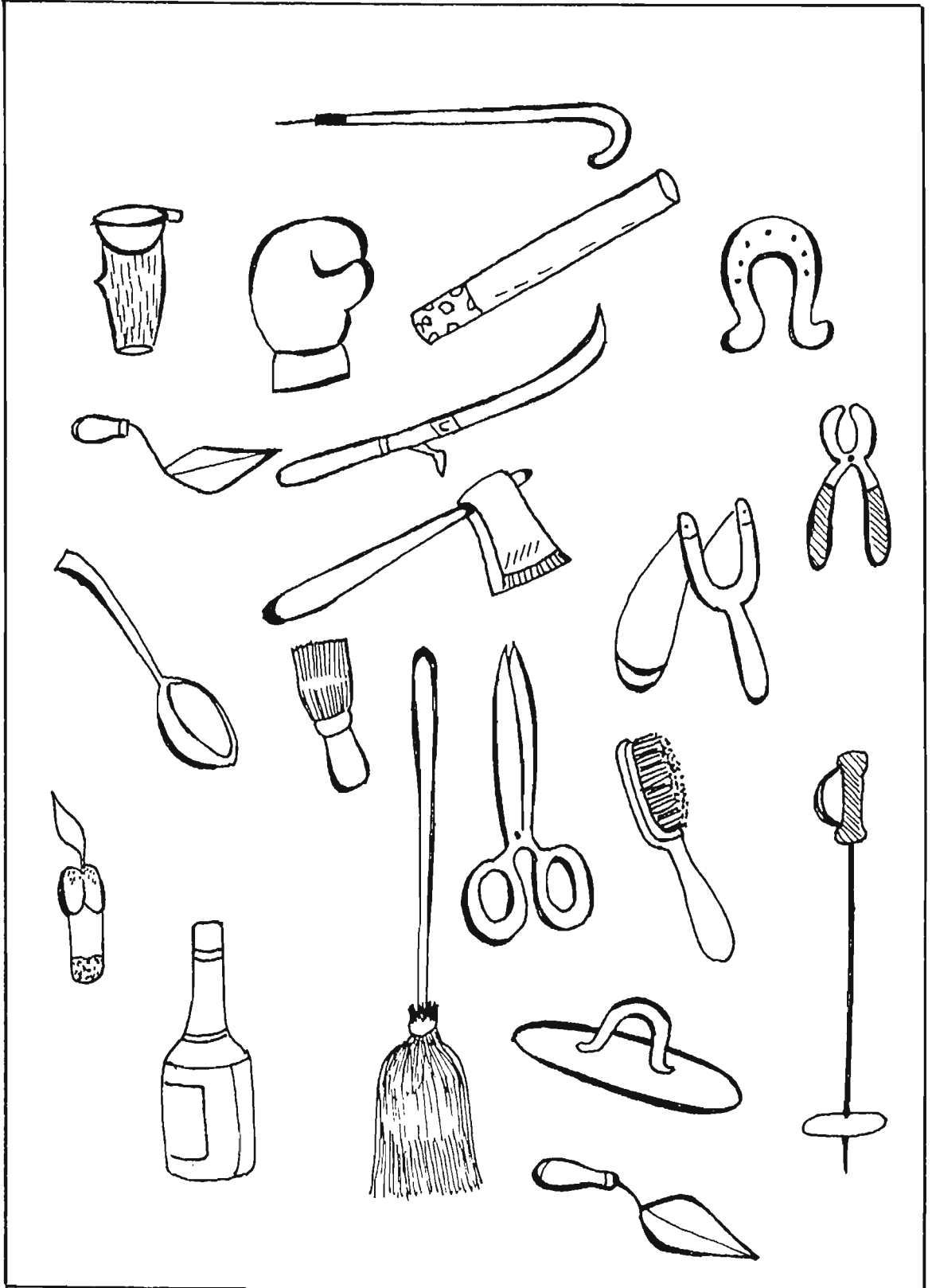
Go to a special Place (Park, statue, touristic Place, building, office, etc.) and find lookout spots that will help you scan, frame, center, and catalogue the scene you want to observe. In any scene, there are dozens of possible lookout spots or details, any of which will enable you to see something from a slightly different perspective. Write everything you observe.

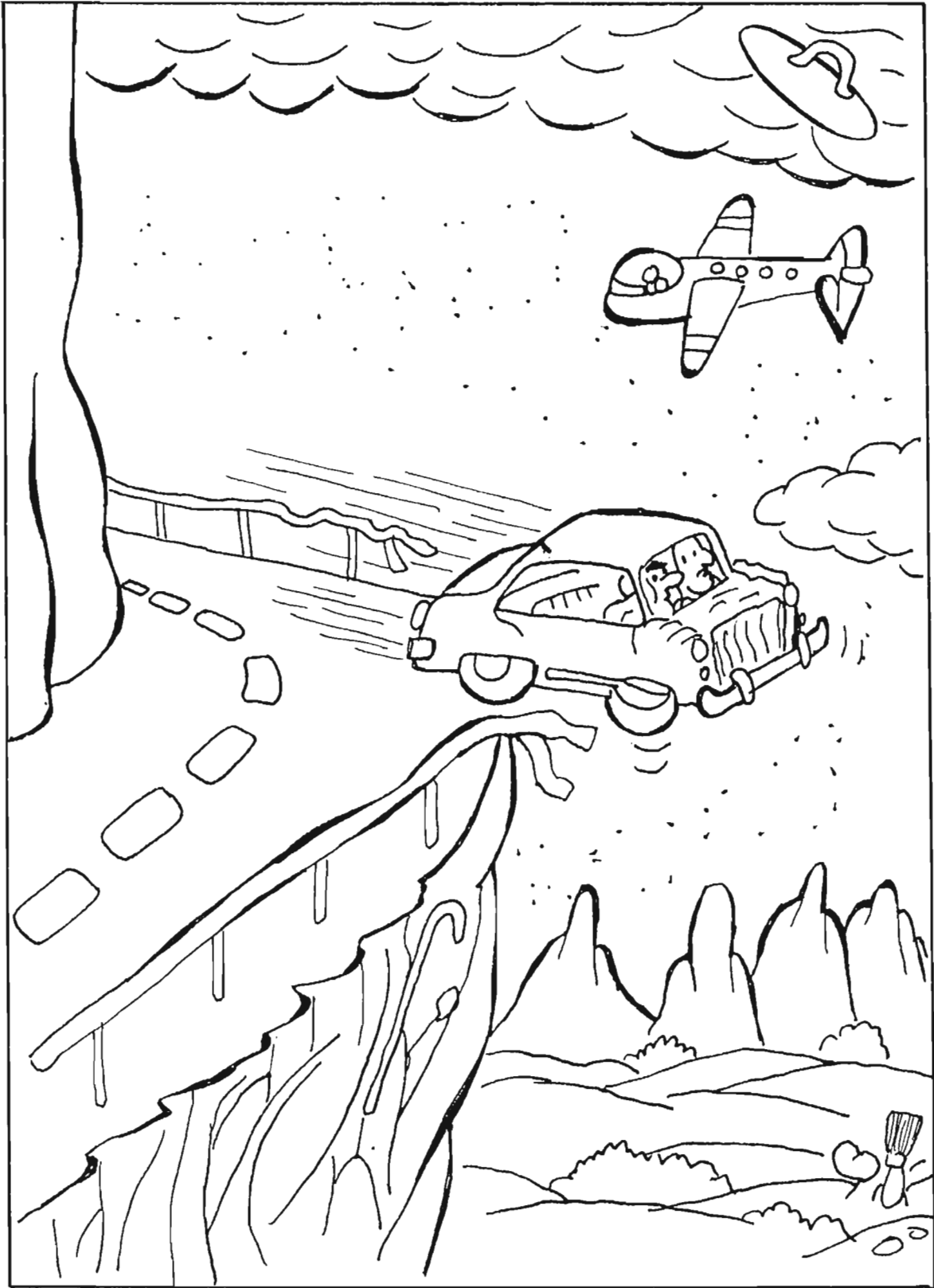
Order your information, and compare it with that your classmates got from the same Place or lookout spot.

In the following two pages, you will find two pictures. The first page contains a set of objects. Look at them carefully and try to find them in the following page.

Not all of the objects on the first page are contained in the second picture, but just six. When you find them, circle them.

This observation practice will help you learn to observe better and more accurately.





#### 14. Exercise on Identification of Researchable Problems

- Write a list of problems you consider relevant to be researched.

Choose Problems related to your field of study. Don't classify the Problems. Just write them down.

Problems:

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_
- d. \_\_\_\_\_
- e. \_\_\_\_\_
- f. \_\_\_\_\_
- g. \_\_\_\_\_

- Then, order the Problems you wrote above from the most important to the least important. Eliminate those Problems that, due to their nature, can not be carried out.

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_
- d. \_\_\_\_\_
- e. \_\_\_\_\_
- f. \_\_\_\_\_
- g. \_\_\_\_\_

- After ordering the Problems and inspecting them carefully, classify them in the columns "cause" or "effect" according to your own Point of view. Some of them could not be linked by a cause-effect relationship.

CAUSE

EFFECT

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

- Below, complete the cause-effect blanks. Write the "causes" of the Problems you consider as "effects" and those "effects" of the Problems you considered to be "causes."

CAUSE

EFFECT

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

- Finally, after analyzing the Problems according to their "causes" and "effects," choose and write the one you consider most relevant to carry out a research Project.

## CHARACTERISTICS OF RESEARCHABLE PROBLEMS

Many students have difficulty in understanding the nature of the Problem which qualifies to be considered as suitable for research.

The following characteristics that all research Problems must possess will help the researcher to determine if his/her Problem is adequate to carry out an investigation.

-Relevant: The Problem must be the most outstanding area of a specific field according to the magnitude of the needs that will try to solve.

-Important: The researcher must be careful when selecting the Problem to be searched since the results will benefit a majority of people involved in a determined field.

-Practical: The results of the investigation will contribute to solve concrete Problems.

-Interesting: The Problem must be selected according to the researcher's interest in giving it a solution.

-Feasible: There must exist a possible solution to the Problem.

-Original: The Problem must cover areas that have not been searched before.



## 16. Exercise on the Characteristics of Researchable Problems

Find out some characteristics of a researchable Problem. You will find eight of them in the following crossword.

L	T	A	L	L	R	O	P	O	A	T	F	C	H	I	J	K	L	
L	I	M	I	T	E	D	I	R	C	H	E	R	M	N	O	A	E	
A	U	M	P	A	S	W	L	I	L	A	A	T	T	S	W	I	A	
B	S	N	I	D	E	N	I	G	E	M	S	L	W	A	I	N	T	
C	E	B	A	T	A	I	A	I	A	N	I	N	X	R	Y	P	S	
A	F	A	S	R	E	C	T	N	R	O	B	A	W	Q	P	M	D	
S	U	B	P	S	F	N	N	A	A	C	L	I	B	T	Z	Y	O	
U	I	G	E	L	A	P	Y	L	I	K	E	P	P	M	Q	U	C	
C	T	O	C	V	C	O	R	I	G	I	A	T	T	B	A	Z	L	
C	A	T	E	E	A	T	E	N	D	U	G	I	W	C	E	O	S	
E	D	L	D	O	U	T	R	E	A	L	Y	O	V	F	F	J	R	
S	E	P	A	S	A	D	I	R	E	C	T	T	H	D	Z	P	Q	
R	A	N	P	L	L	E	J	U	S	T	I	F	I	D	T	Q	X	O
R	E	S	E	A	R	C	H	A	B	L	E	S	U	Q	A	R	I	

## LIMITING PROBLEMS

What are the limits of the Problem area?

It is important to know what limits of the Problem the researcher will not include.

Where does the Problem end and the Periphery of the Problem begin? The Problem should be as carefully bounded for research activities.

An investigator can not investigate all the aspects of any Problem. This does not suggest that these aspects are unimportant; they are simply Peripheral to the stated goal of the research. The motto of the research is:

This one thing I do.

This one area I investigate.

This one question I aim to solve.

In every research endeavor, it is important that the researcher understands exactly what s/he intends to do and, conversely, what s/he does not intend to do.

## 17. Practice on Limiting Problems

Read the following topics carefully. Mark the one you consider as being appropriately limited to carry out a research work.

- a. - English literature
  - Literature
  - Great Figures of English Literature in the 20th Century
  - A famous English writer of the 20th Century
  
- b. - Problems caused by garbage disposals in Santa Ana
  - Pollution in El Salvador
  - Health Problems caused by Pollution in El Salvador
  - Health Problems caused by Pollution in Santa Ana
  
- c. - Problems caused by drug addiction
  - Health Problems caused by drug addiction
  - Drug addiction
  
- d. - Illiteracy in El Salvador
  - Consequences of illiteracy in El Salvador
  - Illiteracy in Central America

## 18. Practice on Limiting Problems

Following you will find a list of topics. They are too general for a research work. Limit them without leaving out important details about them.

a. Malnutrition in El Salvador

b. Early Pregnancy

c. Analysis of the curriculum of the "Licenciatura en Idioma Inglés"

d. Problems in teaching foreign languages

e. Alcoholism in Central America

## STATEMENT OF THE PROBLEM

The heart of any research study is the statement of the Problem upon which the entire study is based. Depending upon the author's style, the research Problem could take the form of a question or could be expressed by giving a complete description of the problematic situation, mentioning all its causes and consequences. In either case, it should be stated very directly, and fairly close to the beginning of the study.

So, if you really know exactly what your Problem is, state it clearly. Each word of the Problem should be expressive, sharp, indispensable, definite. It should be clear and unambiguous by avoiding jargon on the one hand, and words with multiple meanings on the other.

Since research has no place for evasion, equivocation, or mental reservation, you must avoid the following Problems:

1. fragmentary and meaningless splutter
2. irresponsible and extravagant wording
3. Generalized discussion that ends in foggy focus.

## 19. Exercise on Identification and Limitation of Problems

Write two Problems for a research work.

STEP 1: Identify Problems.

STEP 2: Limit the Problems appropriately.

Problem A: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Limitation of the Problem: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Problem B: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Limitation of the Problem: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## 20. Exercise on Statement of Problems

State the Problematic situation for each of the topics you wrote in the Previous exercise.

Problem # 1            Statement of the Problem

Problem # 2            Statement of the Problem

## 21. Practice on Stating a Researchable Problem and SubProblems

Write a clear statement of a Problem you consider relevant for a research Project.

22. After stating the Previous Problem and inspecting it carefully, do the following:

1. Circle within the Problem those areas that need to be treated in depth.

2. Enclose those specific words within the statement of your Problem which indicate your intention to interpret the data.

3. Finally, write the appropriate subProblems for your research study.



## Checklist for Evaluating the Statement of the Problem

The following checklist will assist you in evaluating your Problem. It may indicate to you those aspects of your Problem that need further refinement. In using the following checklist, be realistic. Read the Problem as you have it written; read the checklist statement; then, to the best of your ability, try to decide whether the checklist item is applicable. There is no value at this point in wishful thinking. Either the item is applicable or it is not. Check the appropriate column.

### Faults Resulting from Lack of Understanding of the Nature of Research

	YES	NO
1. Problem seems to be merely an exercise in gathering data on a particular subject (I don't know anything about the subject; I'd like to learn more by "researching it")	_____	_____
2. Problem seems to be little more than a		

- simple comparison . \_\_\_ \_\_\_
3. Problem can be resolved finally with a  
YES or NO answer. \_\_\_ \_\_\_
4. Problem seems to indicate that all you  
will have ultimately is a list of items. \_\_\_ \_\_\_
5. Problem seems to indicate that your  
study will be little more than an exer-  
cise in finding a correlation coefficient-  
the discovery that there is a relationship  
between various data. \_\_\_ \_\_\_
6. Problem has no identifiable word within  
it which indicates the need for inter-  
pretation of the data. \_\_\_ \_\_\_

Diagnosis of your Difficulty. If you have checked any items in the YES column, you need to go back and revise your notes on identification of research Problems.

#### Faults Relating to PseudoProblems

7. Your Problem does not focus on one re-  
search aim or goal but rather difuses

into several Problems. \_\_\_\_\_

8. The Problem is too broad, it attempts to research too much, too large a Geographical area, too great a Population. \_\_\_\_\_

9. The Problem seems to suggest that you wish to learn more about the Particular area you Propose to "research" and that you are using the research Project as a means of gathering such information. \_\_\_\_\_

Diagnosis of your Difficulties: If you have checked any items in the YES column in the preceding section, you need to go back and revise your lecture notes.

Faults Relating to the Language or Manner in Which You State the Problem

10. Problem statement is a meaningless Paragraph, it is incomplete. \_\_\_\_\_

11. Read your Problem literally, Phrase by Phrase. Are there any areas in the wording where the words do not say precisely

what you mean? Is there any foreignness in the statement? \_\_\_\_\_

12. Problem is stated in clichés or in other inexact or involved language which does not communicate clearly. \_\_\_\_\_

13. You use reference words which have no thing which they refer: Pronouns without antecedent. \_\_\_\_\_

14. You have additional discussion: a Preamble, apology, why you have an interest in the Problem area. You have written more than simply the statement of the Problem. \_\_\_\_\_

Diagnosis of your Difficulty: If you checked any items in the YES column in the preceding section, you have trouble in an area which is corollary to the domain of this workbook. You need to learn some matters pertaining to written English. Many people have difficulty in putting their thoughts in written form.

## JUSTIFICATION OF THE PROBLEM

Within the research Proposal and the research Project, the researcher needs to set forth the reason or reasons for undertaking the study. In the Proposal, this section is very important.

The justification of a problem must be supported by convincing arguments; that is, it must point out the reasons for carrying out an investigation as well as the possible solutions that would contribute to the progress of any theory or practice in a specific field of study.

Some studies seem to go far out into the strange atmosphere beyond contact with everyday reality and beyond any relationship to the practical world. Of such research efforts one inwardly, if not audibly, asks "OF WHAT USE IS IT? WHAT PRACTICAL VALUE DOES THE STUDY HAVE?"

During the space exploration flights to the moon, one of the most frequent questions asked by the average citizen was "WHAT IS IT GOOD FOR? WHAT'S THE USE OF IT AT ALL? HOW WILL ALL THIS EXPENDITURE OF MONEY IN SPACE FLIGHTS BENEFIT ANYONE DOWN HERE?" Perhaps those engaged in space research did not set forth clearly and succinctly enough the reasons why the missions were undertaken. Only now are we beginning to appreciate the PRACTICAL VALUE of those early missions.

## 23. Practice on the Justification of Problems

Write as many ideas as possible from the following topic:

"Children's exploitation"

### Step A

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

### Step B

With the ideas written in Step A, state the importance or justification of researching on this topic.

## 24. Brainstorming to Justify a Researchable Problem

Make a list containing specific ideas, details and supporting reasons you consider relevant to justify one of the Problems stated before (Choose one Problem).

## 25. Practice on Identification and Justification of Problems

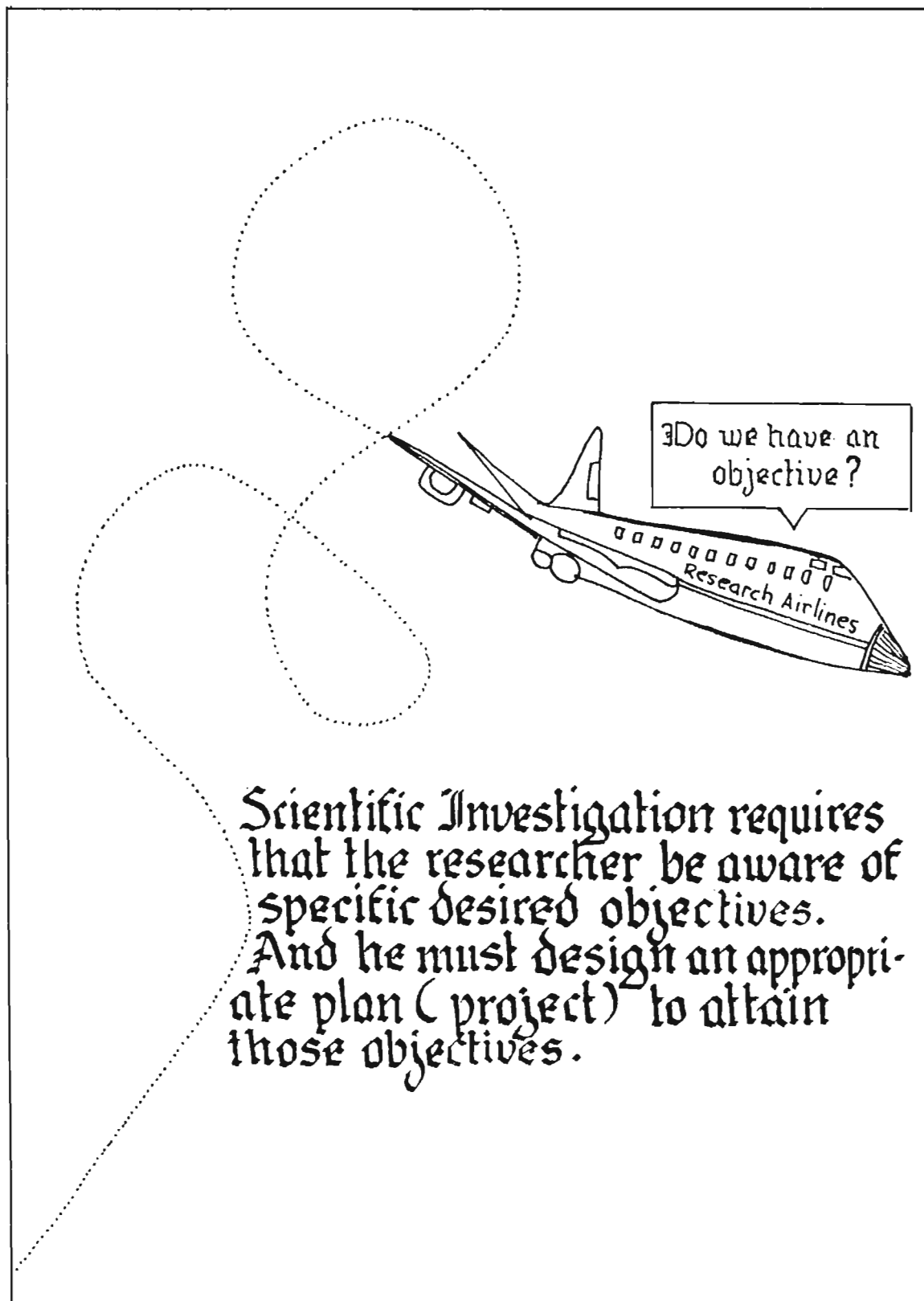
Students visit Parks. The teacher must ask them to identify the most acute Problem they find where they go.

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Then, the students must justify the importance of the Problem.



Do we have an objective?

Scientific Investigation requires that the researcher be aware of specific desired objectives. And he must design an appropriate plan (project) to attain those objectives.



## FORMULATION OF OBJECTIVES FOR A RESEARCH WORK

As in any kind of work, the researcher must establish the objectives that s/he attempts to reach at the end of the research Process.

Objectives are aims, goals, or ends of actions toward which effort is directed. They are an important section within the research Process since they guide the researcher's activities as well as their development.

It is convenient for the researcher to know in detail what s/he intends to achieve at the end of his/her research work. In that way, s/he will base the Project upon well-stated objectives.

Objectives must be attainable, that is, they must be Practical rather than literary; they must be clearly stated to avoid any deviation or confusion in the research Process. Also, they must not be in contradiction with the Justification of the Problem.

Objectives can be classified as:

- General objectives
- Specific objectives

The general objectives refer to the universal goal of the complete research work; on the other hand, the specific objectives refer to the particular aspects of the work (subProblems). The specific objectives are not only derived from the general ones but also they are the

means to achieve them.

## 26. Practice on Stating Objectives

Suppose you and your classmates are organizing an English conversation club. Think about the reasons you would have to organize this club.

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Now, write them in the form of objectives

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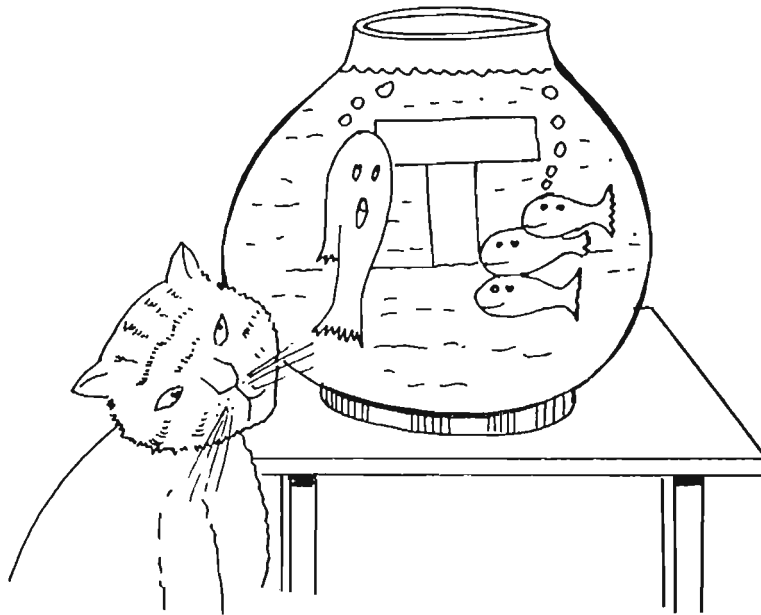
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## 27. Formulating Objectives

As many other situations, research needs planning. Look at the situation presented below and say what the cat's objective is:



Having your objective clear, what methodology would you use to achieve your goal if you were the cat?

## 28. Learning to Classify Objectives

Classify the following objectives as general or specific:

- a. To find out the main Problems students of English have when reading in the English language.
- b. To improve the students' reading skill in the English language.
- c. To change the methodology for teaching the students of English how to read in English.
- d. To develop the students' reading skill through intensive Practice in the classroom and out of it.
- e. To find out the barriers the students of English have when reading in a foreign language.

## 29. Practice on Formulation of Objectives

Formulate two general objectives for a research work on each of the following topics:

- Consequences of lack of Parental orientation about sex in El Salvador

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- Child abuse in El Salvador

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- Causes of violence in the Salvadorean society.

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- Health Problems Produced by the Present Salvadorean situation.

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- Main Problems caused by Public means of transportation in El Salvador

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## 30. Practice on Derivation of Specific Objectives

- To improve the Salvadorean educational system

a. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

b. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- To improve the English teaching-learning process in high school in El Salvador.

a. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

b. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- To Prepare an English textbook for Junior high school students.

a. \_\_\_\_\_

\_\_\_\_\_

.....  
 b. ....  
 .....  
 .....

- To identify social Problems in Santa Ana

a. ....  
 .....  
 .....

b. ....  
 .....  
 .....

- To find out the causes of delinquency in El Salvador

a. ....  
 .....  
 .....

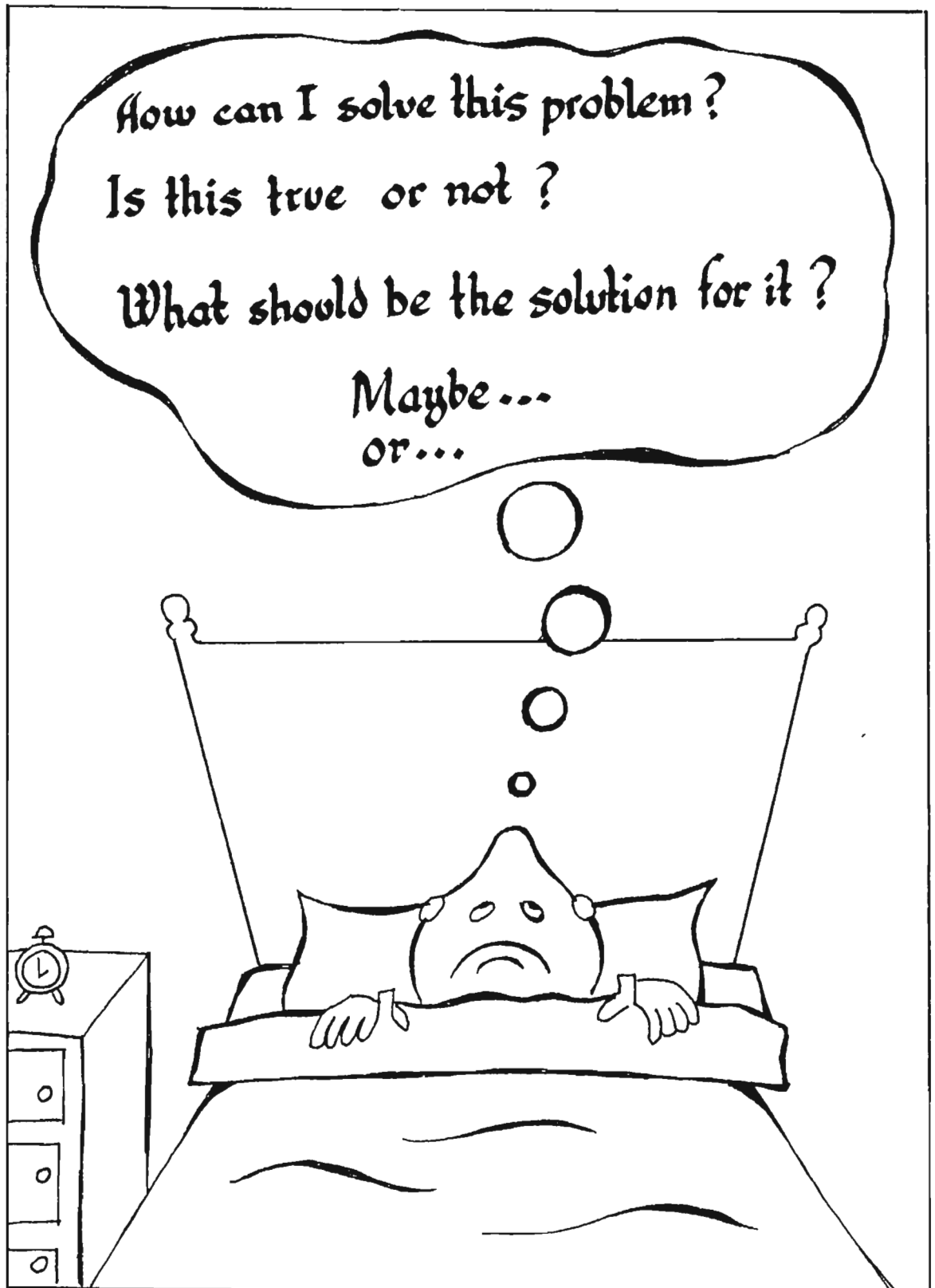
b. ....  
 .....  
 .....

- To improve English teaching methodology at university level in El Salvador

a. ....  
 .....  
 .....

b. ....  
 .....  
 .....





**Hypotheses**

## HYPOTHESES

A hypothesis is a logical supposition, a reasonable guess which may give direction to your thinking with respect to the problem and thus aid in solving it.

Hypotheses are tentative, intelligent guesses that assist the researcher in directing his/her thinking toward the solution of the problem. Hypotheses are part of everyday life. They represent the natural working of human mind.

Hypotheses are necessary since any researcher needs to have some point around which the research may be oriented in searching for relevant data and in establishing a tentative goal against which to project the facts.

They may originate in the subproblems. A one-to-one correspondence might well exist between the subproblems and their correspondent hypotheses. A researcher has as many hypotheses as s/he has subproblems.

## COMMON TYPES OF HYPOTHESES

Several types of hypotheses are recognized; however, the following are the most common:

a. Researchable hypotheses: They answer the questions originated from the Problems.

b. Operational hypotheses: They express the researchable hypothesis in terms of the objectives of the work. Besides, they represent the different instruments that will measure and/or control the variables of the research Project.

c. Statistical hypotheses: They express the operational hypothesis in the form of mathematical equations.

d. Null hypotheses: They are posited so that the researcher will have a standard against which to test the data statistically.

**Direction:** Look at the picture carefully and try to formulate a hypothesis about what happens to this man, what has caused him to be so.



### 32. Formulating Hypotheses

From the following situations, Postulate two possible researchable hypotheses for each.

- Research carried out on the Western Campus
  
- Unemployment in El Salvador
  
- Disposals of solid waste
  
- Increase of Narcotraffic in Central America
  
- English students' Poor vocabulary

### 33. Activity to Practice Formulation of Hypotheses

Students visit Places such as "El Cerro Verde," "Monte Cristo," "Parque Botanico," etc. They must hypothesize about the possible causes of the flora and

fauna Problems in these Places.

#### 34. Brainstorming Exercise to Formulate Hypotheses

Pick key details about a Problem and brainstorm on possible solutions to it for ten or fifteen minutes. When you have finished, examine your information and identify all the Potential solutions you see in it.

Based on these Potential solutions you consider, formulate hypotheses to solve your Problem.

#### 35. Discussion Problem

Some of the following statements would make acceptable hypotheses; others, because they lack restriction, unity, or Precision, would not. Reject those that are unacceptable and explain why you do so.

- The increasing cost of college education in El Salvador is reducing enrollment in Private universities.

- The major cause of violence today is the influence of television and the fact that the laws are too indulgent.
  
- The Twentieth Century is an exciting time in which to live.

### 36. Activity to Formulate Hypotheses

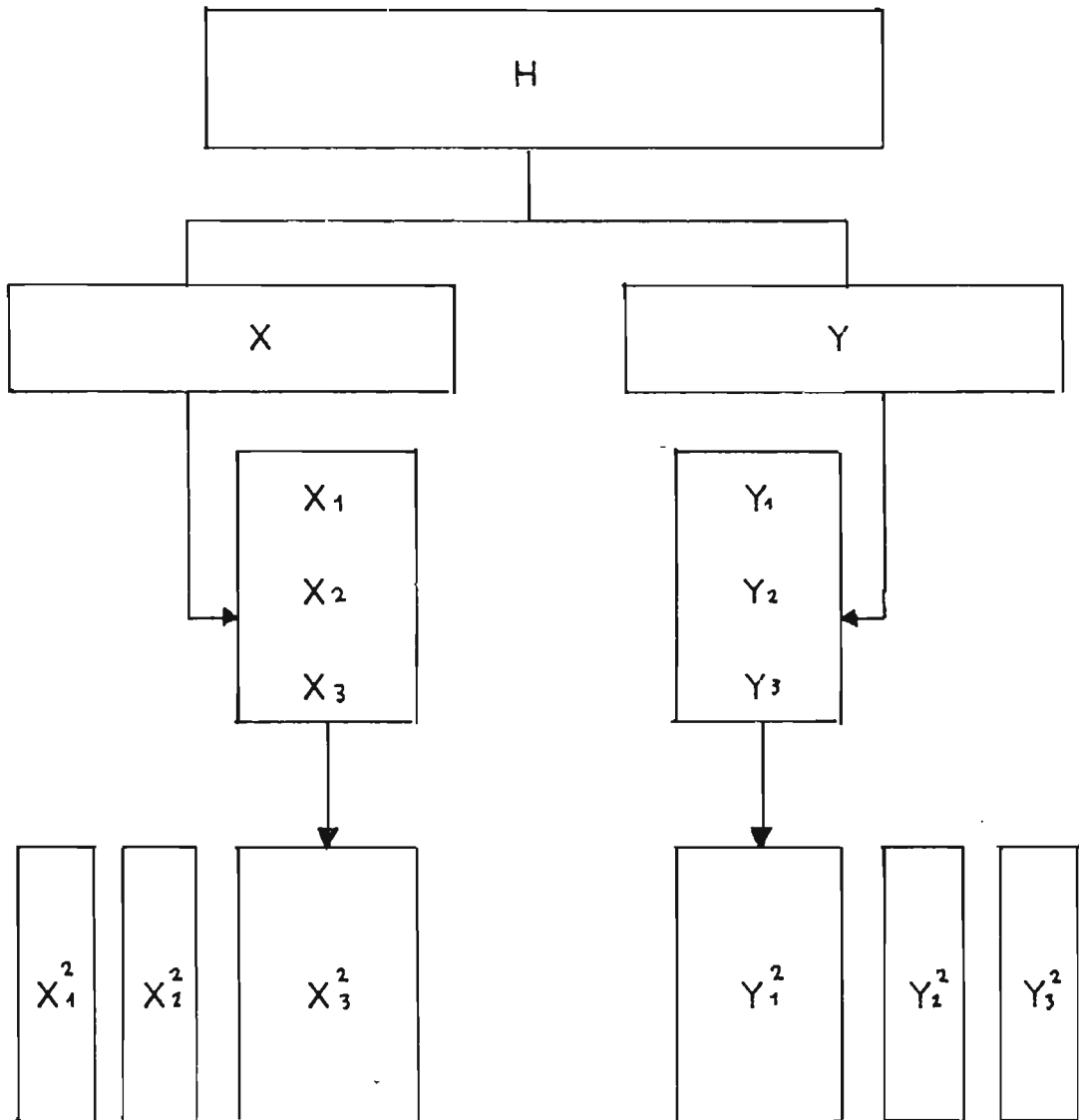
The teacher must prepare little packages with different contents, for example: flour, ground charcoal, ground aspirin, etc.

Each student is given a package to write a hypothesis.

Before beginning to hypothesize, s/he must use all the senses: smelling, hearing, touching, tasting, seeing, and other procedures they consider convenient.

Then, each student must write a hypothesis about the content of the package they were given.

# OPERATIONALIZATION OF HYPOTHESES ( DIAGRAM )



X = INDEPENDENT VARIABLE

Y = DEPENDENT VARIABLE

X<sub>i</sub> = INDICATORS OF THE INDEPENDENT VARIABLE

Y<sub>i</sub> = INDICATORS OF THE DEPENDENT VARIABLE

X<sub>i</sub><sup>2</sup> = SUBINDICATORS OF THE INDEPENDENT VARIABLE

Y<sub>i</sub><sup>2</sup> = SUBINDICATORS OF THE DEPENDENT VARIABLE



## OPERATIONALIZATION OF HYPOTHESES

The operationalization of hypotheses consists on breaking the hypotheses down through a logical and deductive process. The purpose of such a process is to make the variables abstract and to manage them empirically. Each of the variables will be broken into indicators. These can be searched through items or questions that will be included in the different instruments (questionnaires, surveys, etc.) used to gather data.

When a study is being planned, researchers identify important elements of the study by labeling them as variables. In its generalized meaning, a variable is anything that is changeable: the weather, the time of day, an attitude, the skills of a group.

Variables can be classified according to their function within the research work.

-Dependent variable: They refer to the effects studied in the investigation.

-Independent variable: They refer to the characteristics or properties that are supposed to be the cause of the phenomenon studied in the research work.

-Extraneous variables: These are variables which may be known or unknown, important or unimportant, but which in any case vary freely and may have an effect upon the

dependent variable.

## 37. Exercise on Formulation of Hypotheses

Below you are giving a brief description of subjects (X), an independent variable (Y), and a dependent variable (Z), write a directional research hypothesis.

a. X= Salvadorean Problems

Y= unemployment

Z= emigration

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b. X= learning English as a foreign language

Y= methodology used to teach English

Z= aversion toward the English language

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c. X=Salvadorean educational system

Y=traditional methodology

Z=students as passive agents

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d. X=students of English on the Western Campus of the  
University of El Salvador

Y=existing syllabus of "Directed Research Project"

Z=students' lack of knowledge to do research

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e. X=overpopulation

Y=ignorance

Z=no family planning

38. Write a null hypothesis for each of the directional  
research hypotheses you wrote in the previous exercise.

a. \_\_\_\_\_

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---



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b. \_\_\_\_\_

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---



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c. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

d. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

e. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### 39. Identifying Variables

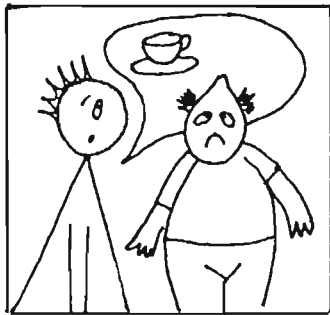
Identify the independent and dependent variables of the following hypotheses. Then, find out the indicators of each variable.

- Heavy smoking Produces lung cancer

- Deafness Prevents learning of a foreign language

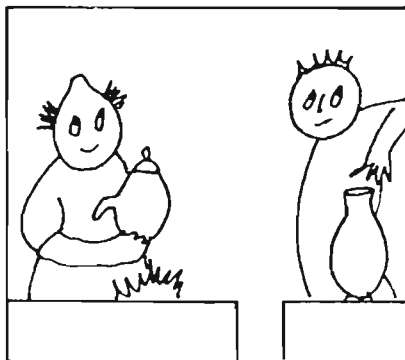
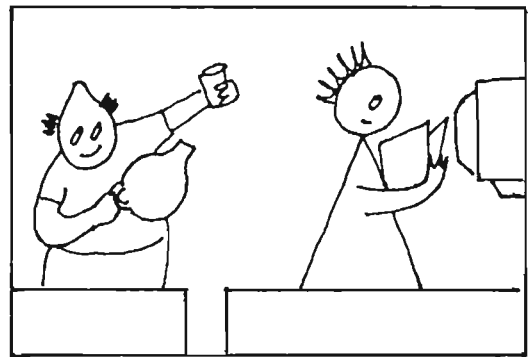
- Individuals' lack of moral causes delinquency.
  
- Free oral Practice contributes to the development of the speaking skill.
  
- The teachers' Physical appearance influences the learning Process.

# In What Way?



How?

This is how



Methodology

## RESEARCH METHODOLOGY

Every time a researcher is going to carry out a research Project, s/he must choose the methodology for his/her work taking into account the kind of data s/he will have in the work. No researcher will succeed in researching if the methodology used is not in accordance with the data. Every researcher, then, must be original when selecting the methodology to carry out his/her Project.

The most common research methods a researcher must know are:

- Historical method
- Descriptive survey method
- Analytical method
- Experimental method.



## THE HISTORICAL METHOD

The historical method is the means by which the researcher deals with the latent meaning of history. For the historical researcher, every event is meaningful and important, but not in isolation, for then it becomes mere chronology, but in association with other events. The object of the historical method is to provide means through which a researcher may deal with problems that arise from events happened in times past, and to interpret what might otherwise be considered just as the result of blind fortune.

The historical researcher generally relies upon documentary sources. In the search for historical truth, therefore, the researcher relies, if possible, upon only primary data. And these consist of portraits painted of the human events, record of the words written, records that they have left behind, and any other important events in their times and significant in their lives.

40. Exercise to Practice How to Use the Historical Method.

Historical research evidences broad variations, depending on the historian and his/her style of writing. The research writing needs not to be dull. This statement is certainly obvious when reading some historians. Their pages are as varied and interesting as life itself.

To appreciate how various historical scholars have handled the same subject matter, take one significant event in history. The Peloponnesian war, the Sacking of Rome by Alaric in 410 A.D., the Battle of Tours, the march of Hannibal across the Alps, or any other important event - and compare the treatment of the event by various historical writers. Compare the various historical accounts from the basis of the following criteria.

Name of the Event \_\_\_\_\_

Criterion of Evaluative Standard	YES	NO	Your Comment based on your observations

-Fine accounts essentially the

same? If not, what is the  
 difference between them? \_\_\_\_\_

-The accounts reveal some at-  
 tempt at textual criticism  
 of sources. \_\_\_\_\_

-The accounts show an aware-  
 ness of historical space. \_\_\_\_\_

---

General critical reactions:

---

Author: \_\_\_\_\_ Author: \_\_\_\_\_

Title: \_\_\_\_\_ Title: \_\_\_\_\_

Source 1: \_\_\_\_\_ Source 2: \_\_\_\_\_

---

## THE DESCRIPTIVE SURVEY METHOD

This method is employed to process the data that come to the researcher through observation.

The descriptive survey is the method of research that simply looks with intense accuracy at the phenomena of the moment and then describes precisely what the researcher sees.

The survey studies can be conducted by means of questionnaires, interviews, and other recording of facts (survey inventory) resulting from observations presented in the form of tables, charts, graphs.

### Characteristics of the Descriptive Survey Method

1. It deals with a situation that demands the technique of observation as the principal means of collecting the data.
2. The population for the study must be carefully chosen, clearly defined, and specifically delimited to set precise parameters for ensuring discreteness to the population.
3. Particular attention should be given to safeguard the data from the influence of bias.

4. The data must be organized and Presented systematically so that valid and accurate conclusions may be drawn from them.

#### 41. Exercise on How to Use the Descriptive Survey Method

If your research methodology falls within the area of the descriptive survey and you intend to gather some or all of your data by means of a questionnaire, you should duplicate as many of the forms for the construction of a questionnaire as you will need to accommodate all your questions. Beginning in the left-hand column with the statement of the question which you should write out clearly and completely, you should then proceed to analyze that question in terms of the following channels, moving toward the right. With an analysis of each question in this manner, there will be much less chance that you will produce a questionnaire that may be grossly faulty or that may have in it major defects that might impair your study and cast a shadow of credibility upon you as a researcher.

#### GUIDE FOR THE CONSTRUCTION OF A QUESTIONNAIRE

Write the question clearly and completely in the space below.	What is the basic assumption underlying the reason for this question? How does the question relate to the research problem?	Type of question				How do you expect to relate this question to the research effort?
		Multiple Choice	Yes/No Answer	Completion	Countercheck	

## QUALITY OF MEASURING INSTRUMENTS

Any instrument used in a study must possess two characteristics that are useful in a research enterprise; it must be valid and it must be reliable.

Validity. An instrument ought to measure what it purports to measure. A ruler purports to measure the attribute length. The validity of an instrument is not a yes/no question. It is a matter of degree and a matter of judgement, depending upon the accuracy of the measurement, the nature of attribute measured, and the intended use of the measurement.

At this point we should be aware that an instrument itself can not be said to be valid or invalid.

If an instrument is accurate and furthermore is used in a situation appropriate to its intent, then we may judge it to be valid. The three major uses of a measurement instrument are: 1) to establish a relationship between two variables; this is called predictive validity (and also empirical or statistical validity); 2) to represent a specific universe of content; this is called content validity (and also face, intrinsic or circular validity); and 3) to measure a psychological trait; this is called construct validity (and also factorial validity).

## RELIABILITY

Reliability deals with accuracy. It asks such questions as:

How accurate is the instrument that is used in making the measurement?

Reliability asks one question above all others: with what accuracy does the instrument, inventory, or questionnaire measure what it is intended to measure?

The reliability of an instrument is a more simple, straight-forward concept than validity.

Reliable things or people are dependable, consistent and predictable. Measuring instruments are also said to be reliable when they exhibit these traits.

A measuring instrument should have the quality of stability over a period of time. There are two ways in which the stability of a test may be estimated. In one way, the test-retest method, a test is administered to a group on two occasions and a correlation of the test scores is computed. In the second way, the equivalent-forms method, two equivalent or near-equivalent forms of the test are administered to a group on two occasions. In this method, too, a correlation of the tests is computed.

Stability is an important aspect of reliability, but in some cases it is difficult to estimate, and internal



consistency is estimated instead. There are two ways of estimating the internal consistency of a test. In one method, the split-half technique, the test is administered to a group on one occasion and the test is divided into two halves, usually odd times and even times. Then a correlation between the two halves is computed. Other methods developed by Kuder and Richardson correlate each test item with each other test item and the test as a whole (Walpert 50, 1981).

Which type of reliability-stability or internal consistency is better depends in large part upon the type of measurement instrument involved.

## 42. Exercise to Differentiate Different Methods of Reliability

Mention what method of reliability is being described.

- a. A test is administered to a GROUP on two occasions, a correlation of the test scores is computed. - Split half
- b. Two similar forms of the two tests are administered to a GROUP on two occasions, and a correlation of the two tests is computed. - Concurrent
- c. The test is administered to a GROUP on one occasion and the test is divided into two halves. - Content
- Equivalent forms
- Test-retest

## THE ANALYTICAL SURVEY METHOD

The analytical survey study takes data that are essentially quantitative in nature and analyzes these data by means of appropriate statistical tools. The purpose is to organize those data by means of statistics so that we may infer certain meanings which lie hidden within the data or, if not that, to discern the presence of certain potentialities and dynamic forces which may be a clue to areas that warrant further information. In analytical survey, we are concerned primarily with "Problems of estimation and the testing of statistically based hypotheses."

There are four basic scalar categories for classifying analytical-survey data:

1. The nominal scale. It merely expresses categorical classification, example: boys - girls.

2. The ordinal scale is the scale next in refinement, indicating a measurement of degree of difference, example: more boys, more girls; twice as many boys as girls.

3. The interval scale for which a unit of measurement has been established. Example: Tom is 3 inches (indicating three standard measurement units) taller than Kathy.

4. The ratio scale in which the values are measured from an absolute or arbitrary designated Zero Point. The ratio scale measures multiples of one value over another.

In the analytical-survey methodology, the data reach the researcher as mathematical or statistical concepts.

This section does not purport to give an in-depth understanding of statistical analysis but merely will indicate how data may be treated by using the statistical assistance available to the researcher.

## Statistics

Quantitative data are analyzed through the use of a body of Procedures called statistics. Statistics are Procedures which allow data to be reduced, described, and perhaps Generalized in such a way as to allow application to the research question.

Statistics Provides a way for researchers to treat data in a systematic way. It helps them answer questions about data in a concise manner. Specifically, statistics helps them describe and infer and these two activities lend their names to the major kinds of statistics: descriptive and inferential.

There are five attributes of a set of data which can be described by statistical procedures:

1. How are data distributed over the data source? Frequency distribution, histograms, and Polygons are used for this purpose.

2. Where do the data tend to gather? The mean, median, and mode are indices of the central tendency of a set of data. The most appropriate use of each of these statistics depends upon the number of elements in a set of data and the characteristics of its distribution.

3. How are the data spread out? The range and standard deviation are the two most prominent indices of the dispersion of elements in a set of data. In order to describe more accurately a set of data, an indication of its dispersion should accompany an indication of its central tendency.

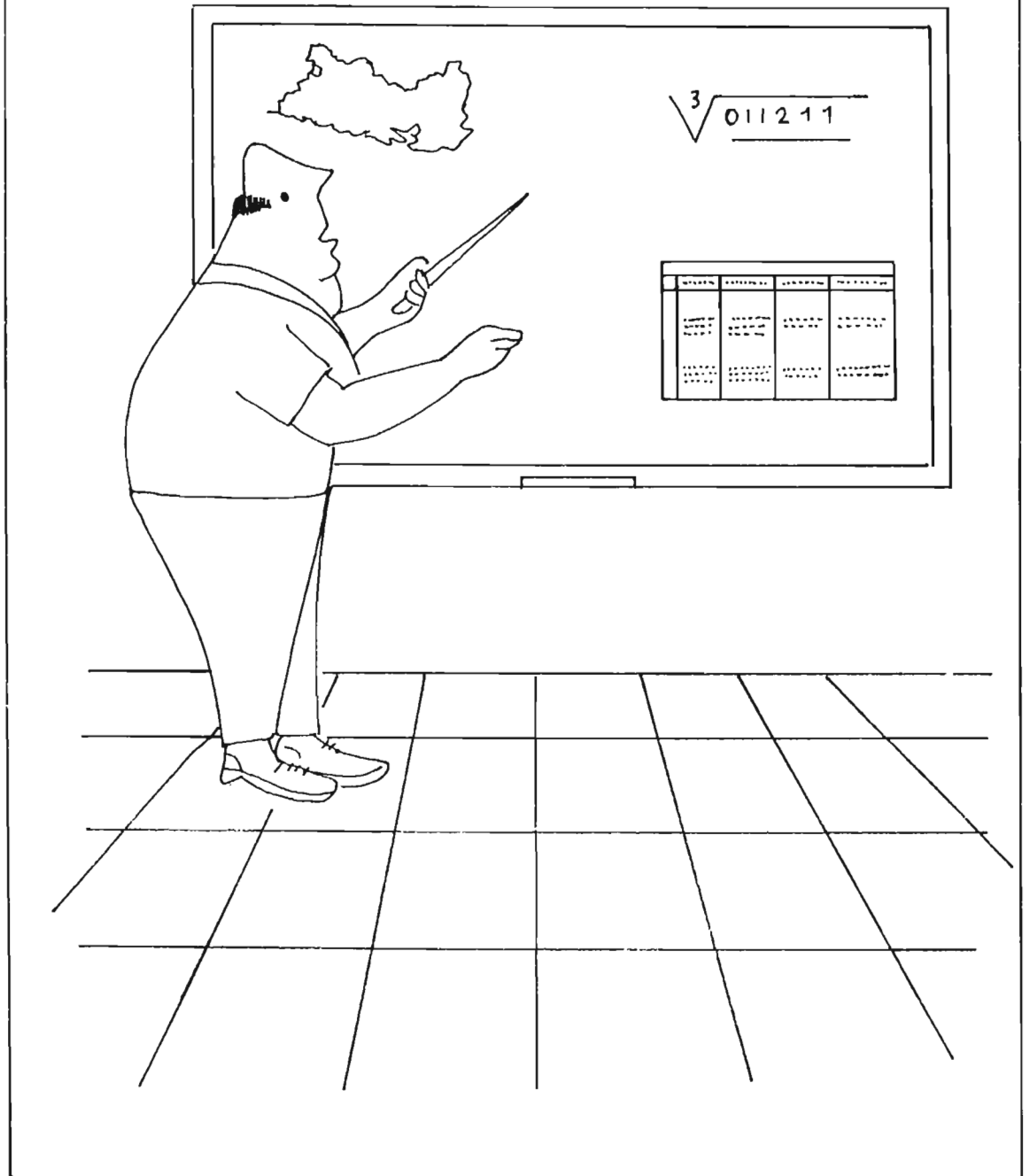
4. How do the data compare to one another? Comparisons between the elements in a set of data often need to be made; the conversion of raw scores into standard scores facilitates such a comparison. Z and T scores, stanines and Percentiles ranks are some techniques used.

5. How do these data compare with other data from the same data sources? The correlation Procedure enables researchers to express quantitatively relationships between two or more variables. The resultant correlation coefficient reveals the nature and the magnitude of the relationship. Partial correlation removes the effect of a third variable from the correlation of two other

variables. Multiple correlation allows a criterion variable to be predicted by several Predictor variables.

For those who need further help in meeting specific research situations, the work presents an extensive bibliography on statistical approaches particularly suited to discrete research areas.

# Sampling a Necessary tool of Research



## SAMPLING

When a large Population (universe data sources) is available and the research strategy to be utilized requires the use of a group of subjects or objects, researchers select a portion of the Population to serve as data sources. This portion of the Population which will serve as data sources is called a sample.

Researchers are primarily concerned with two characteristics of a sample: 1) how many are needed for an adequate explanation and 2) how representative is the sample of the Population.

The second concern of researchers is the method by which a sample is selected. The most common methods for sample selection are:

- a) Random sampling
- b) Stratified sampling
- c) Systematic sampling
- d) Cluster sampling

a) Random sampling: This procedure allows for equal probability of selection among the elements. The selection procedure itself rather than being random in the sense of haphazard is quite specific. The random selection procedure is based upon the idea that the laws of chance will operate if allowed to, and a sample drawn randomly from a Population will be unbiased.



Proportionate, and will be similar in characteristics to the Population.

b) Stratified sampling: In this technique, the subgroups identified are considered strata of the Population.

c) Systematic sampling: This is a procedure in which the elements of a Population are systematically selected by choosing every, say, 10th person from a list. If the list from which the selection is made is ordered randomly, then there is probably no bias in this procedure. But if the list is not ordered randomly, such as in an alphabetical listing, there may be a subtle but present bias of which the researchers may not be aware.

d) Cluster sampling: Here the sampling unit is made up by groups of units or elements. The groups of a Population can be natural or artificial.

### 43. Exercise on How to Select Sampling

Having selected a Problem, and having formulated one or more testable hypotheses or answerable questions, describe a sample appropriate for evaluating your hypotheses or answering your questions. This description will include

a) a definition of the Population from which the sample would be drawn;

b) the Procedural technique for selecting the sample and forming the groups,

c) sample sizes; and

d) Possible sources of sampling bias.

44. Exercise for Selecting Samples

List the Procedures for using a table of random numbers to select a sample, given the following situations (Idea taken from Student Guide for Educational Research, L.R. Gagné).

- There are 150 teachers participating in a seminar and you want a random sample of 60 teachers.

a. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

b. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

c. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

d. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

e. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

f. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- There are 220 students studying "Bachillerato Académico in the Instituto Nacional de Santa Ana" and you want a random sample of 40 students.

a. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

b. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

c. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

d. \_\_\_\_\_

---

---

e. ....

---

---

f. ....

---

---

- There are 320 gifted students on the "Western Campus of the University of El Salvador" and you want a random sample of 50 gifted students.

a. ....

---

---

b. ....

---

---

c. ....

---

---

d. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

e. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

f. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

#### 46. Activity for Selecting Stratified Samples

List the Procedures for selecting a stratified sample, given the following situations (Idea taken from Student Guide for Educational Research, L.R. Gay).

- There are 500 Intensive Basic English students in the population, you want a sample of 50 students, and you want to stratify on three levels of students' accomplishment (excellent, average, poor) in order to ensure equal representation.

a. \_\_\_\_\_

---

---

b.

---

---

- There are 95 teachers at the Western of the University of El Salvador, you want a sample of 30 teachers, and you want to stratify on sex in order to ensure equal representation of males and females.

a.

---

---

b.

---

---

- There are 240 Principals in the school system, you want a sample of 45 Principals, and you want to stratify by level, i.e., elementary versus secondary, in order to ensure Proportional representation. You know that there are approximately twice as many secondary Principals as elementary Principals.

a. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

b. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

#### 47. Exercise for Selecting Cluster Samples

List the procedures for cluster sampling, given the following situations.

(Idea taken from Student Guide for Educational Research, L.R. Gay)

- There are 80 English Composition classes in the population, each class has an average of 30 students, and you want a sample of 180.

a. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

b. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



c. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

-There are 75 Private universities in El Salvador, each university has an average of 50 teachers, and you want a sample of 350 teachers.

a. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

b. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

c. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

-There are 100 Basic English classes on the Western Campus of the University of El Salvador, each class has an average of 20 students, and you want a sample of 200 students.

a. \_\_\_\_\_

b.

c.

48. Exercise for Selecting Systematic Samples

List the Procedures for selecting a systematic sample, given the following situations.

(Idea taken from Student Guide for Educational Research, L.R. Gass)

- You have a list of 2000 high school students, and you want a sample of 200 students.

a.

---

b.

c.

- You have a file which contains the names and addresses of 12,000 children and you want a sample of 2,500 children.

a.

b.

c.

- You have a list of 1,500 failed students, and you want a sample of 100 students.

a. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

b. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

c. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## EXPERIMENTAL METHOD

The experimental method, the cause and effect method, the Pretest-Posttest control design, the laboratory method, by whatever name, the basic idea behind the experimental method is to attempt to account for the influence of a factor or, as in the case of complex designs, of multiple factors conditioning a given situation.

In its simplest form, the experimental method attempts to control the entire research situation, except for certain input variables which then become suspect as the cause and of whatever change has taken place within the investigative design.

The experimental method deals with the phenomenon of cause and effect. We assess the cause dynamics within a closed system of controlled conditions. Essentially, the basic structure of this methodology is simple. We have two situations. We assess each to establish comparability, then, we attempt to alter one of these by introducing a second agent. We reevaluate each situation after this attempt of alteration. Whatever change noticed is presumed to have been caused by the introduced variable.

#### 49. Practicum with Respect to the Experimental Method

- Researchers talk so much about the importance of the Pretest-Posttest design experiment. Name some instances where life Phenomena do not lend themselves to Pretesting techniques.

- In such instances as those cited above, indicate how you would employ the experimental method of research to resolve Problems associated with them.

- You have two types of material (conventional textbook and Programmed textbook). You wish to test experimentally the effectiveness of the use of the one type of material as against that of the other type. Indicate what experimental research design you would employ and give the Procedure.

## 50. Practice on How to Use the Experimental Method

Indicate how you would employ the experimental method of research to solve problems associated with an specific learning situation.

-There are two possible syllabi for the subject "Introduction to Linguistics," the one used on Main Campus and the other used on the Western Campus. You want to test experimentally the effectiveness of both syllabi to teach this subject. Indicate what research design you would employ and explain it.

## 51. Exercise for Justifying the Research Methodology

- Describe the characteristics that the data in your research project will exhibit.

- Indicate with those data that you have just described, the methodology that would be most appropriate for processing such data. Justify your choice.

## 52. Exercise on Selecting the Instruments

Having stated a Problem, formulating one or more hypotheses or questions, and described a sample, describe three instruments appropriate for collection of data pertinent to the hypotheses or questions. For each instrument selected, the description will include:

- a) the name;
- b) a description of the instrument;
- c) validity and reliability;
- d) the type of subjects for whom the instrument is appropriate;
- e) instrument administration requirements;
- f) training requirements for scoring



### 53. Exercise on the Selection of the Appropriate Method to Different Research Studies

Mention what method you would use to carry out the following research studies:

- An in-migration and out-migration study
  
- A curriculum coordinator wants to Plan an effective in-service Program for the corporation's teachers. She conducts a survey to determine what the teachers Perceive as their greatest needs and base the in-service on the findings.
  
- A curriculum coordinator wants to Plan an effective in-service Program for her corporation's teachers. She, in conjunction with other researcher workers, systematically observes classrooms and uses the Perceptions of the observers as the basis for the in-service.
  
- Some researchers want to find out if the boys tend to

be better students in those cultures in which a large ProPortion of men are kindergarten and Primary grade teachers.

- A researcher might want to investigate the effect of a film Presentation vs. a text Presentation on a social studies achievement. The researcher would devise a situation in which two groups of students who were as identical as possible in every respect were Presented a social studies curriculum which was identical in every respect except that one group had a film Presentation and the other group had a text Presentation.

- Some researchers want to investigate the extent to which a child's self-concept might be influenced by the teacher's exPectancy of his/her achievement. A class of thirty children might be identified and their self-concepts measured. Then ten children might be randomly selected to receive the designed condition.

The designed condition involves a researcher telling the teacher that these ten children are extremely bright and caPable and should be encouraged to do suPerior work; this information although not true develoPs an exPectancy and a suggested behavior Pattern on the Part of the

teacher. Six months later, the self-concepts of all thirty children are measured.

- A study of demographics of a school district

- A researcher conducts a study of methods of teaching mathematics in El Salvador. The researcher locates a variety of primary and secondary sources: the actual books used for mathematics instruction, curriculum guide, the writings of educators concerned with mathematics, accounts of learning mathematics (found in literature, textbooks, testimony of senior citizens, and other sources as well). Then, the researcher pieces together a chronology of attitudes, events, and outcomes which give the reader a broad perspective on mathematics instruction today.

#### 54. Game to Review Methods of Research

-Introduce the Purpose of this class.

-Have the group form five or six teams of three people each. Assign each team a name, number, or letter.

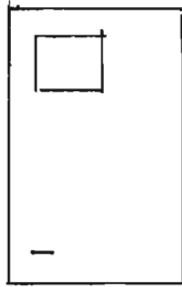
a. One player from each team plays a round. Team members who are not playing in a round sit in the middle of the room. If there are six players, there should be only five cards containing some questions.

b. Play some music. While the music plays, the players walk around the room, maintaining roughly equal distance among themselves.

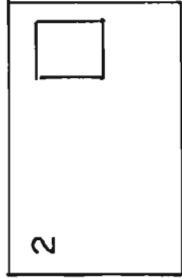
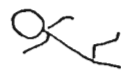
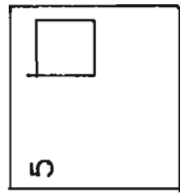
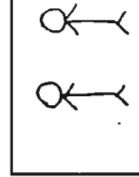
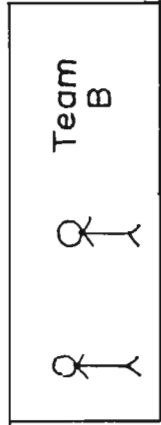
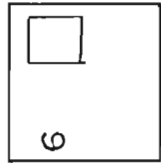
c. When the music stops, each player rushes forward to the card on the nearest wall.

d. The player without a card sits down.

e. The player from the first team picks a card from the nearest wall and reads it to his/her team. The team mates (without the player's help) report the answers or perform the task.



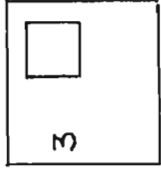
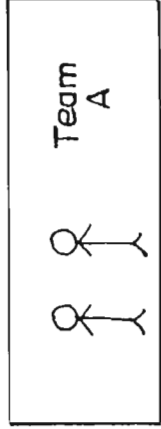
Pocket cards



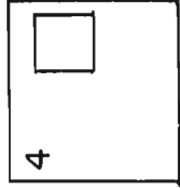
Player C



Team



Player B



-Sample questions-

- When do we use the descriptive survey method?
- When do we use the historical method?
- When do we use the experimental method?
- When do we use the analytical survey method?

f. Decide if the response is correct. Give a correct response the number of points written on the card on the wall. Give an incorrect response no points.

9. Have Players from the other teams read their cards following the same Procedure. Play other rounds: (Remove another card each time.)

## ANALYSIS AND INTERPRETATION OF THE DATA

Researchers conduct studies in order to find answers to questions they pose. They set up procedures for the collection of information which is relevant to their research questions; these procedures are called the designs of their study. The information they collect is referred to as data. Data come in many forms: test scores, opinions, ratings, frequencies and the like. But in whatever form the data are originally generated, typically they have little value to the researchers until they have been organized, summarized, and analyzed so as to yield information in a form appropriate to the specific research problem being dealt with. The techniques involved in the analysis of data range from very simple to very complex. Researchers try to select the most powerful techniques suited to the type of data they have obtained and which will provide them with information they need to answer the research questions.

Data come in two basic forms: qualitative and quantitative. Qualitative data are usually verbal; they may be expressions of opinions, beliefs, or feelings. Quantitative data are usually in numerical form such as test scores, frequency counts, ratings, etc. Many people have tendency to give no importance to qualitative data. This is unfortunate because increasingly nowadays the value of qualitative data is being recognized as being

more appropriate than quantitative data for some research questions.

The analysis of small amounts of qualitative data is straightforward and requires little in the way of sophisticated techniques. Usually, these data are presented in their original form perhaps with comment by the researchers. However, when the amount of these data becomes quite large then the data need to be grouped somehow in order to be presented effectively to the reader. When this happens the techniques associated with quantitative analysis are used. The grouping has in effect transformed the data from qualitative to quantitative. This transformation caused the data to lose some of its flavor but simplicity of presentation is gained.

As a general rule, data have many more meanings than most researchers discover. This is because having processed the data by one means only, many researchers are unaware that other processes applied to the same data may refine additional meanings from those same data.

Researchers are sometimes so intent on "providing their point" that their enthusiasm takes control of their better judgement. In the last analysis, the facts must speak for themselves. The researcher is only the mouthpiece. You may not like what the facts say. They may not confirm your fondest hopes or support your preconceived opinions, but the researcher is the servant



of the scientific method and that method looks at facts without subjective prejudice; and it reports precisely what the impersonal facts affirm.

All too frequently, however, researchers feel that having once presented the facts and figures, they have done all that needs to be done. This is self-delusion and a misunderstanding of the research process. To do only that is to have done nothing more than a grand exercise in compiling information. To display the data is certainly important, but it is the interpretation of the data which is the "sine qua non" of research.

## Interpretation of the Data

-After you have treated the data statistically to analyze its characteristics, what will then have? (Explain clearly)

-What will your interpretation of the data from a research stand point consist of? What has the statistical analysis done in terms of solving any part of your research problem? (Explain precisely)

-What yet remains to be done before your problem (or any one of its subproblems) can be resolved? In other words, what further needs to be done so that the data will result in a resolution of the problem or any of its integral parts?

-What is your plan of procedure for further carrying out this interpretation of the data? (Explain clearly)

### Practice on Research

Now it is time for you to make a survey of various types of existing research studies and to evaluate them against a checklist of the criteria discussed before.

Select five studies which purpose to be researched, theses, articles, or research works. By using the following checklist, which contains those features which should generally appear somewhere in the study, evaluate each of the studies you in fact to determine how closely each approximates the criteria for basic research.

#### CHECKLIST FOR EVALUATION OF RESEARCH

Student's or Researcher's Name: \_\_\_\_\_

Title of Research Work: \_\_\_\_\_

Direction: Place a check in the appropriate column after carefully inspecting the research report to see if it contains the items designated.

F A C T O R

YES NO

1. Is the central problem of research clearly stated?
2. Does the research evidence plan and organization?

3. Are the general objectives clearly stated?
4. Are the specific objectives in accordance with the general objectives of the study?
5. Has the researcher stated his/her hypotheses well?
6. Is there a clear and consistent connection between the specific objectives of the study and the hypotheses?
7. Are the hypotheses related to the Principal Problem of the research?
8. Is the importance of the study section of the Project clearly enough set forth?
9. Is the methodology clearly stated, that is, is an explanation of exactly how the research will be conducted specifically delineated?
10. Is the whole proposal phrased in specific terms, clear and exact phraseology?

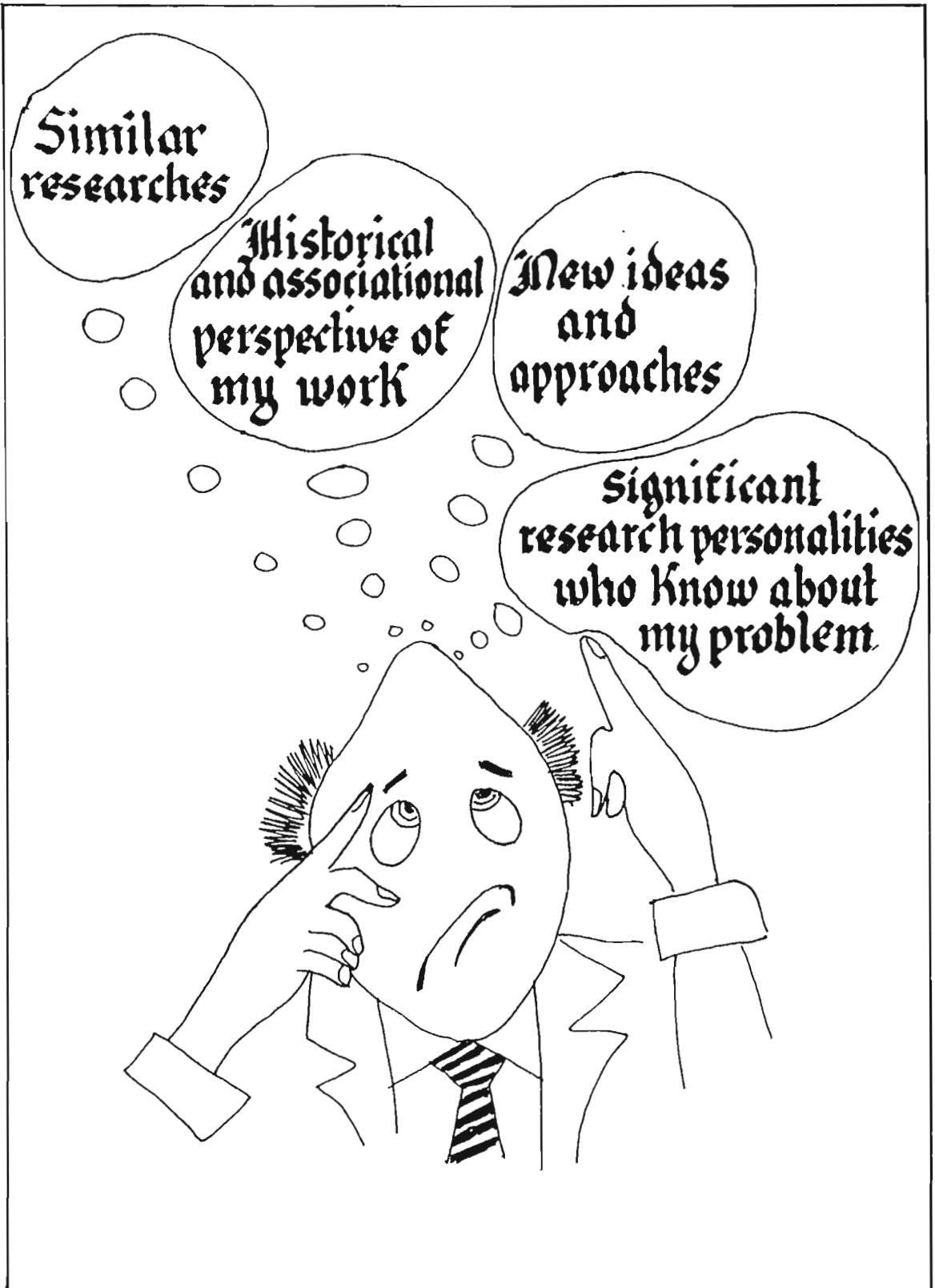
Number of tally marks in each column

(Enter these here).....

Multiply the total of each column as follows,

Total Score (Column 1 only).....

A P P E N D I X



## THE PURPOSE OF THE REVIEW OF LITERATURE

The function of the review of the related literature section is to look again in view at the "literature" (the reports of what others have done) in a related area or an area not necessarily identical with, but collateral to your own Problem of study.

This section - review of related literature - has several purposes. Primarily, it is to assist you in attacking your problem for research. When you know what others have done, you are better prepared to attack with deeper insight and more complete knowledge the Problem you have chosen to investigate. This is the principal reason of this section; however, it can provide you with the following benefits:

1. It can reveal investigations similar to your own, and it can show you how other researchers handled the situation.
2. It can suggest you a method or a technique of dealing with a problematic situation.
3. It can reveal to you sources of data which you may not have known existed.
4. It can help you see your own study in historical association and in relation to earlier and more primitive attacks on the same Problem.
5. It can provide you with new ideas and approaches which

may not have occurred to you.

6. It can assist you in evaluating your own research effort done by others.

Every Proposal or complete Project includes this section. The study of related literature is, therefore, extremely important.

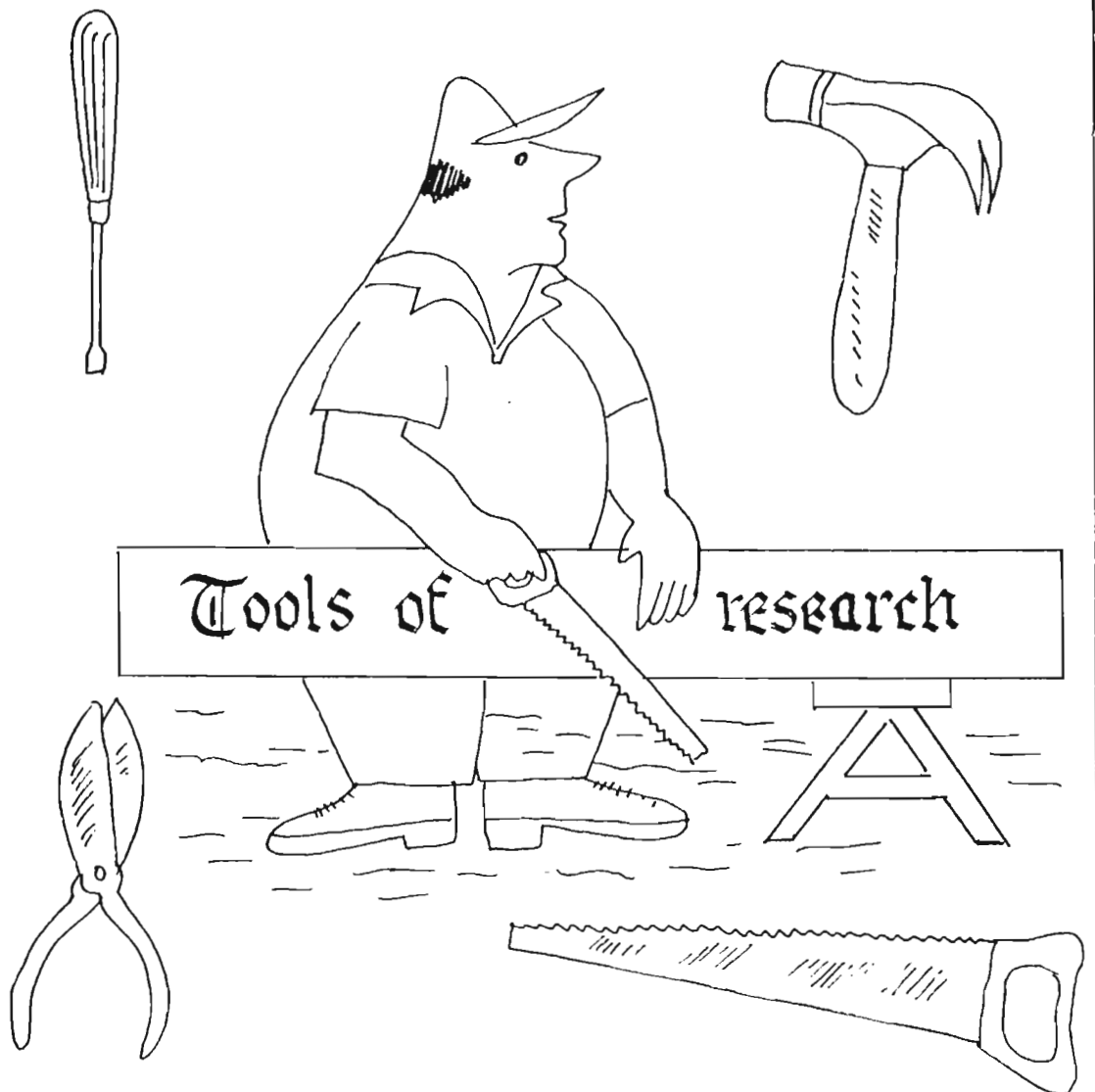
#### THE RELATION OF THE LITERATURE TO THE PROBLEM

The researcher must always keep in mind his/her research Problem-oriented. When gathering bibliography, s/he must ask him/herself: How does this item of literature relate to my Problem? S/he must discover a nexus between the Problem and the literature. This will be a safeguard against the temptation of merely building a haphazard bibliographic collection. Don't consider that the more sources you are able to cite, the more impressive the fact is that you have made a literature search. Irrelevant literature soon becomes apparent and a little will ruin a lot of conscientious work.

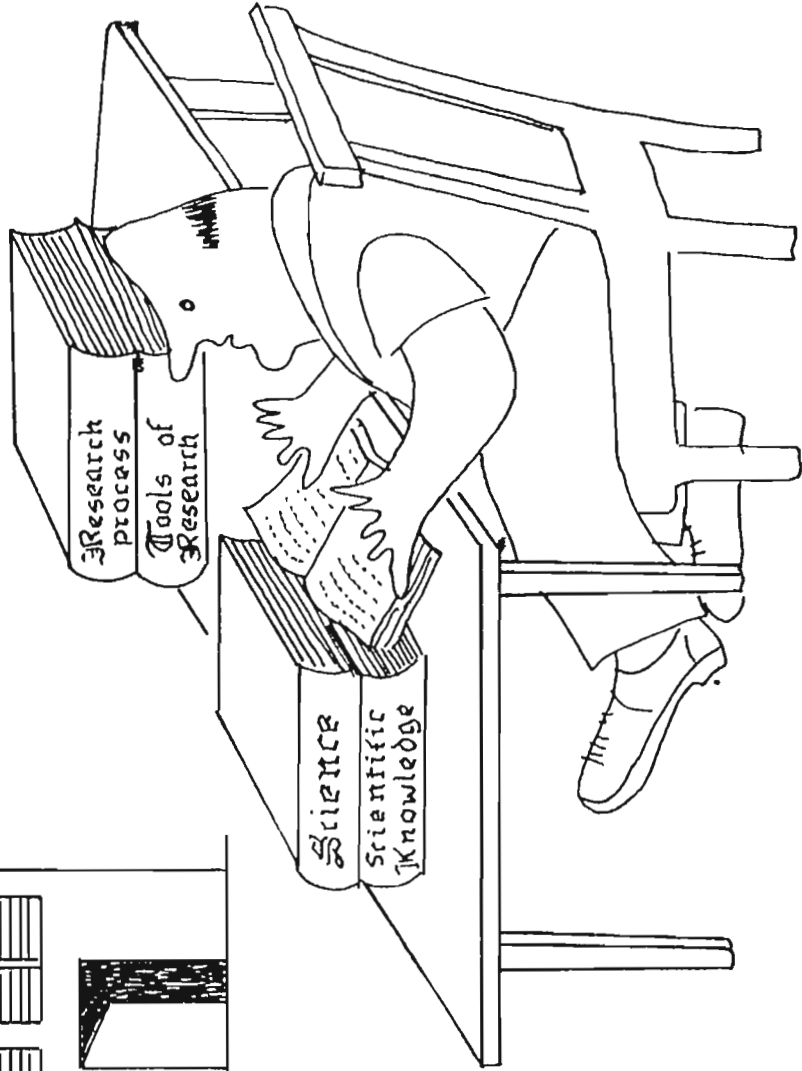
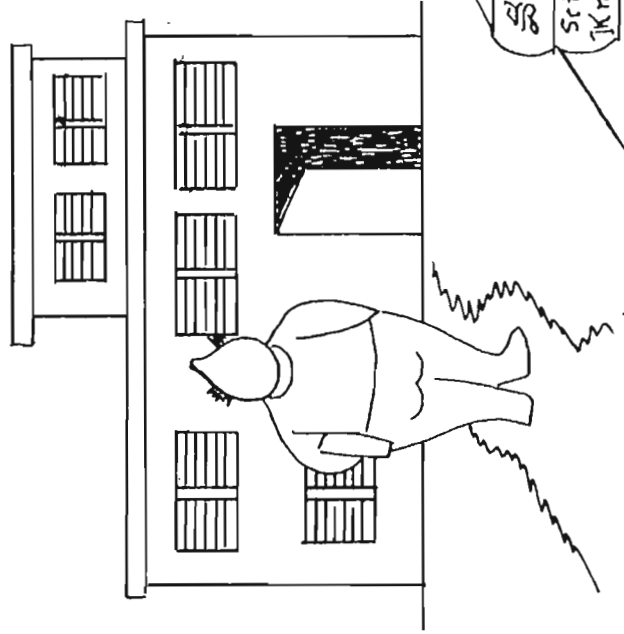
To avoid being accused of irrelevancy, on each bibliographical source card indicate precisely how the particular item that you are recording relates to your Problem. The competent researcher never forgets that everything that is done serves only one purpose: to contribute to the solution of the Problem.



In the same way a carpenter needs a hammer, a handsaw, pliers, screw drivers to do his work; a researcher needs ancillary tools- library, books, cards, and others to research.



# The library: The first tool of Research



## INSTRUMENTS USED TO CARRY OUT THE REVIEW OF LITERATURE

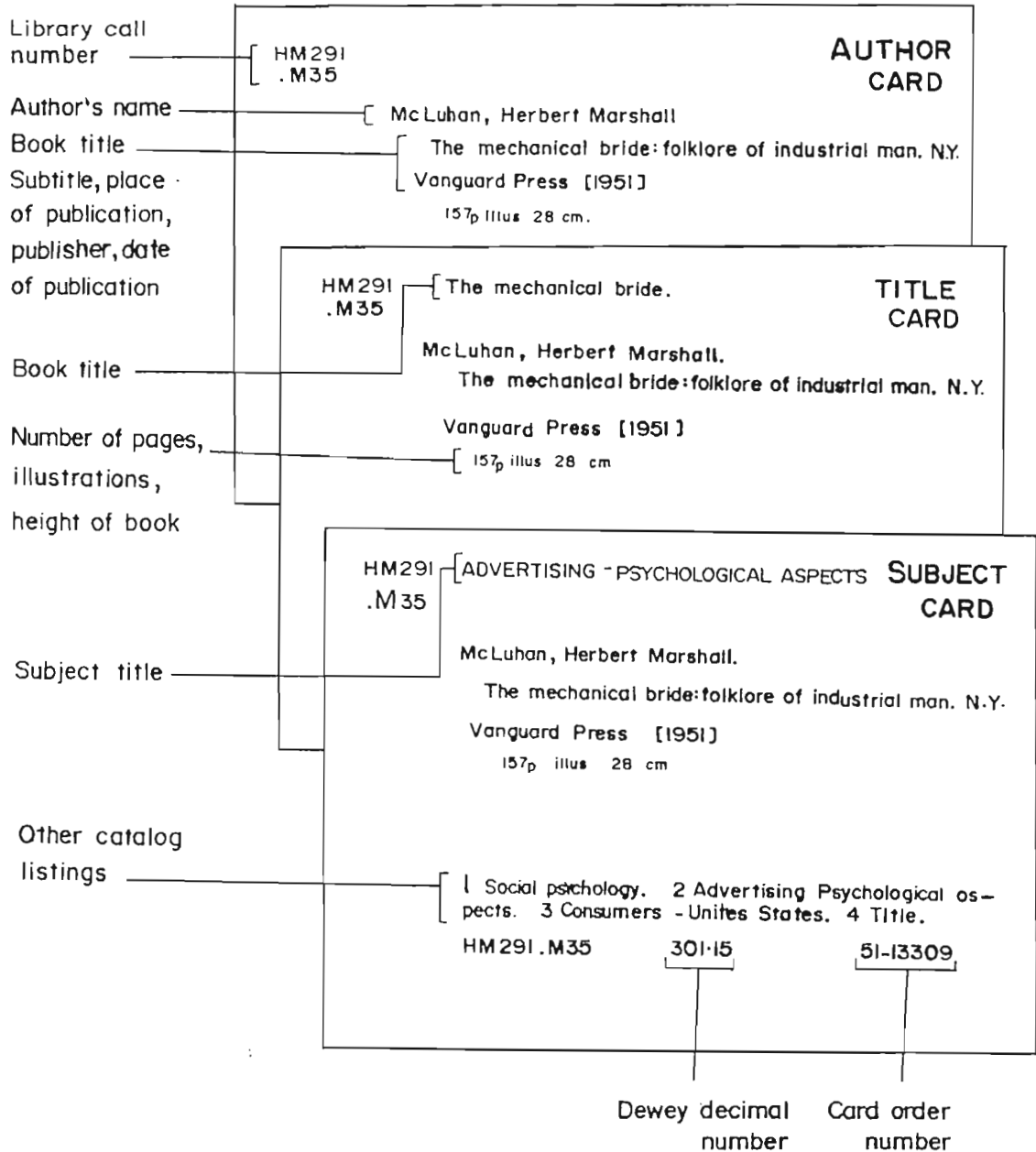
### CARDS

Go to the library armed with data-gathering tools. You will need bibliographical cards to collect data. Bibliographical cards are valuable not only for gathering and recording the information but also for locating it again at a future date without continual return trips to the library.

The convenient size of the cards is 3 x 5 inches. You should make at least two copies of every bibliographical item and set up two files. One should have the cards arranged by author's last name, alphabetically; the other should have the cards arranged serially, by number.

If you are starting to research on a subject you do not know very well, begin by looking for subject cards. If you know of an expert in the field and you want to find his/her books, use the author's cards. If you know the title of a relevant book but not the author's name, use the title cards. Here are samples of each type of card.

# CARD EXAMPLES



## 1. Exercise on Card Making

The following Passage is from Alvin Toffler's *The Third Wave*. From New York: William Morrow and Company, 1983; page 248. Read it carefully and then, following the Procedures discussed, make out three notecards: (1) select a few important sentences to quote; (2) summarize the major points of the Passage; (3) Paraphrase Toffler's thesis. Remember to write a comment at the bottom of each card stating what you think of the note and how you might use it on a Paper.

Today, as the Third Wave strikes, the corporate manager finds all his old assumptions challenged. The mass society itself, for which the corporation was designed, is beginning to de-massify. Not merely information, production, and family life, but the marketplace and the labor market as well are beginning to break into smaller, more varied pieces.

The mass market has split into ever-multiplying, ever-changing sets of mini-markets that demand a continually expanding range of options, models, types, sizes, colors, and customization. Bell

telephone, which once hoped to put the same black telephone in every American home - and very nearly succeeded - now manufactures some one thousand combinations or permutations of telephone equipment from Pink, Green, or white Phones to Phones for the blind, Phones for People who have lost the use of their larynx, and explosion-Proof Phones for construction sites. Department stores, originally designed to massify the market, now sprout "boutiques" under their roofs, and Phyllis Sewell, a vice President of Federated stores, predicts that "we will be going into greater specialization... with more different departments."

The fast-increasing variety of goods and services in the high-technology nations is often explained away as an attempt by the corporation to manipulate the consumer, to invent false needs, and to inflate profits by charging a lot of trivial options. No doubt, there is truth to these charges. Yet something deeper is at work. For the growing differentiation of goods or services also reflects the growing diversity of actual needs, values, and life-styles in a de-massified Third Wave society.

## 2. Practice on Paraphrasing

Summarize the major points of the following articles. Paraphrase the author's thesis or main idea.

## Note-Taking

U. N. O. Nwokoreze  
*College of Education, Eha-Amufu*

When students are confronted with the need to take notes for the first time, they often discover that note-taking is a skill that requires forethought and practice. They have no idea how or where to begin. Since it is not unusual for a student to be expected to take notes, it is important that they develop their skill at note-taking. It is probably during the note-taking stage that they reach the highest level of comprehension.

In this article, I will present some ideas about note-taking that will help the student to understand and implement this important aid to learning.

### Why we take notes

You take notes for two main purposes: examinations and research. For future examinations, you seek to understand and retain the main points of the subjects you are studying. When you are gathering data for a research paper, you write down information in the form of notes. You take notes from two main sources: books and lectures.



## Using an Overhead Projector in Teaching English

Janina Skrzypczyńska

It is surely not necessary to explain why audiovisual aids should be used in foreign-language teaching. It is obvious that one good picture can tell more than many words; when words cannot explain, pictures can. Visual aids not only help us to understand but also to remember; the memory of a picture lasts much longer than that of a word. Two of the most important reasons for using audiovisual aids, therefore, are *comprehension* and *retention*.

One of the most useful and flexible aids in foreign-language teaching is an overhead projector (OHP). It can support any presentation where clear, bold, and effective visuals are needed. The main advantages of using an OHP are:

1. You can prepare your own transparencies (foils) easily and at low cost.
2. You face your listeners and keep them under full control whilst the bright image attracts and holds their attention.
3. You can project in a well-lit room without switching off lights or drawing curtains.
4. Your transparencies will serve you as lecture notes.
5. With simple techniques—overlays, progressive uncovering, movement, and animation—you can enhance your presentation, making it more interesting and therefore more effective; using effective visuals heightens audience motivation.
6. Transparencies can be filed and used again.
7. The overhead projector is easy to use and is always under your complete control.
8. It saves a great deal of time, because if the notes (e.g., questions or drawings) are previously written or drawn on a transparency, the teacher needs only put the transparency on the overhead projector, covering with a sheet of paper those parts of the notes or pictures not required at the moment, with the result that full teaching time is available; no time is spent on writing or drawing on the blackboard or projector whilst the class waits.
9. It helps to conduct many communication exercises.

### 3. Exercises on Card Making

Given the following Passages, write three bibliographical cards of the following types: author card, title card, subject card.

1) "A research Paper is a composition for which you assemble information from sources usually found in a library, arrange the information to support a thesis or answer a question, and document your sources using footnotes and bibliographies."

The Little, Brown Handbook

H. Ramsey Fowler

Memphis State University

Page 403

Little, Brown and Company Inc.

1980

Toronto, Canada

2) "When teaching reading skills, then, the instructor would do well to remember that the students' comprehension will be greater if he has background knowledge of the various rhetorical modes of the English language and is equipped to identify and use those various structures."

Reading is Good for Language Acquisition

Julia Williamson

Page 8

English Teaching Forum

Volume XXVI

Number 1

January 1988

#### 4. Exercises on Defining the Scope and Indicating the Sources of the Related Literature

The Purpose of this Project is to help you Plan in a systematic and organized manner the research Project of the related literature with respect to the Problem that you have already chosen.

Remember: The literature that you will review is related only to your Problem and to nothing else.

Step No.1 In order to deep that fact foremost in your mind, write your Problem in the following space:

Step No.2 Now read the Problem analytically and insert 1, 2, 3, 4, and so on, before each space separate subarea of the Problem, thus isolating the several subareas of your Problem into topics under which you might look in indexes, abstracts, bibliographies and similar references, works in order to find specific items related to your Problem. List the key words or phrases which will guide you in your research in the following spaces:

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Step No.3 Begin your search of the related literature by consulting reference materials, noting in each instance the library where the book was consulted, the edition, the pages on which relevant material was found, and any comments that you may wish to make.

Title	Library	Edition	Pages	Comments

STEP No 4: On the basis of the references suggested to you in the several master reference works, represented in the preceding chart, make up a bibliographical reference card similar to the following and duplicate it in sufficient quantities for your use. This is the first step in locating specific items: to go to the indexes, abstracts, bibliographies, and similar works to find the particular bibliographic item in the literature. A suggested 3 x 5-inch bibliographic reference card might contain the following information:

Title	Type of Reference
Volume	Abstract (check) [ ]
Categories Consulted	Bibliography [ ]
	Index [ ]
Library	Book Call Number
Use other side for additional notes	

STEP No 5: Finally, using the suggested bibliography card given before, copy down the specific references in the literature as given in abstract, bibliography, or index. Use one card for each item. Fill in the author's name,

the title of the article of the journal in which the article is to be found, together with the volume of the journal, the pages, and the month and year of publication, and finally the source of your information (the bibliographic reference that you are using). You are now ready to go to the library to begin reading.

A reduced copy of the bibliography card follows

Author (s) _____	Serial No _____
Title of Article _____	
Journal Title _____	
Volume _____	Pages _____ Month _____ Year _____
Edition _____	
Source of Bibliographic Information _____	
Library Where Information Is Located _____	
Call Number of Book _____	
How the Item relates to problem _____	
Use reverse side for additional comment.	

## HOW TO WRITE THE SECTION ON THE RELATED LITERATURE

After many students have amassed bibliography, they do not know what to do with it. They have their cards arranged in order, while at the same time they are lost because they do not know how to Present their findings in the document they are Preparing.

The following guidelines can help you:

-Get the Proper Psychological orientation. You must know exactly and precisely what you are attempting to do. The review-of-the-related-literature section is a discussion of those others - studies, research reports, scholarly writings that bear directly upon your own effort.

-Have a Plan. Too many discussions of related literature are unplanned and disorganized. Thus, the researcher's entire effort lacks structure, unity, and coherence. Before writing this section, one of the best Guides for the researcher is the Problem itself. A careful consideration of the Problem should suggest relevant areas for the discussion of the related literature.

-Begin your discussion of the related literature from a comprehensive Perspective. Then you can deal with more and more specific or more localized studies which focus closer and closer on your specific Problem.

-Emphasize relatedness. Keep your reader constantly

aware of the manner in which the literature you are discussing is related to your problem. Point out precisely what the relationship is.

-Review the literature, don't reproduce it. The review-of-the-related-literature section for a research work or a proposal is perhaps one of the most challenging to write.

Many students think they have the opportunity in this section - to quote long passages or to cite at length the words or ideas of others. More important is what you say about the study than what the author of the study says in the study.

Take into account the following:

1. Present your own discussion.
2. Paraphrase (Give synopsis, resume).
3. Use short direct quotations, if necessary.
4. Use long quotations just for a very good reason.



## SOLUTIONS TO EXERCISES

12. a) method of tenacity, b) method of authority,  
 c) method of authority, d) a priori method,  
 e) a priori method, f) a priori method
- 3) a) F, b) F, c) T, d) F, e) T, f) F, g) T, h) T,  
 i) F, j) T, k) T, l) T
- 4) a) scientific knowledge      b) common knowledge  
 c) common knowledge      d) scientific knowledge  
 e) common knowledge      f) scientific knowledge  
 g) common knowledge      h) scientific knowledge  
 i) scientific knowledge      j) scientific knowledge  
 k) scientific knowledge      l) common knowledge
9. a) research, b) no research, c) research, d) research
17. a) d, b) d, c) b, d) b
28. a) general, b) general, c) specific, d) specific,  
 e) general

35. a) acceptable, b) not acceptable, c) not acceptable

53. descriptive, descriptive, descriptive (observation),  
 experimental, experimental, experimental, historical,  
 historical

Solution to Crossword II 6

O	B	J	E	C	T	I	V	E	Q	U	B	H	M	A
T	H	V	P	O	T	H	E	S	I	S	C	H	H	B
K	U	R	A	T	I	O	N	A	L	N	N	O	D	S
I	S	Y	N	T	H	E	S	I	S	P	E	R	F	F
O	R	D	E	R	E	D	I	V	I	T	N	S	A	R
N	H	A	L	Y	S	I	S	H	U	S	I	C	O	A
W	T	E	N	F	U	L	L	Y	L	I	S	T	U	C
A	M	E	M	P	L	R	C	E	C	R	O	N	D	T
L	O	B	J	E	C	T	I	V	E	B	E	S	T	I
G	V	H	P	R	O	G	P	E	S	S	I	V	E	O
O	G	E	N	E	R	A	L	I	Z	A	T	I	G	H
H	L	C	T	R	C	U	L	A	R	A	H	Y	F	Y

## Solution to Crossword # 10

P	U	N	O	F	H	S	T	O	E	W	A	P	F	U
L	N	P	E	G	O	Y	O	D	H	O	W	P	G	R
A	H	T	A	Z	X	S	R	T	N	B	I	E	T	P
N	U	I	T	R	O	T	U	G	H	P	H	C	D	N
H	R	S	O	V	T	F	C	I	J	V	E	I	N	T
E	R	T	H	E	A	H	R	I	N	D	Y	S	B	O
D	I	U	V	A	D	A	I	A	L	E	C	E	T	F
P	E	D	L	A	C	T	F	R	M	O	U	H	T	L
A	J	W	C	L	O	T	C	K	I	C	K	O	R	A
T	T	I	G	E	N	C	E	R	A	L	I	H	A	T
I	E	H	H	E	T	H	O	D	D	I	O	L	H	P
M	P	D	C	I	R	C	U	L	A	R	S	N	A	R
E	H	O	P	I	G	O	R	O	U	S	L	T	W	Z
L	I	N	E	A	S	U	P	E	D	A	B	S	T	R
Y	H	S	A	C	L	E	A	R	O	U	E	U	L	K

## Solution to Crossword # 16

L	F	A	L	L	I	M	P	O	R	T	A	H	T	I	J	K	L	
L	I	M	I	T	E	D	I	R	C	H	E	R	M	N	O	A	E	
A	U	A	P	A	S	M	L	I	L	A	A	T	T	S	W	I	N	
B	S	H	I	D	E	N	I	G	E	M	S	L	W	A	I	H	T	
C	E	B	A	T	A	I	A	I	H	H	I	N	X	R	Y	T	S	
A	F	A	S	R	E	C	T	H	R	O	B	A	W	Q	P	E	D	
S	U	B	P	S	F	N	N	A	A	C	L	I	B	T	.	P	O	
U	I	G	E	L	A	P	Y	L	I	K	E	P	P	M	Q	E	C	
C	T	O	C	V	C	O	R	I	G	I	A	T	T	B	X	S	L	
C	A	T	E	E	P	R	A	C	T	I	C	A	L	C	E	T	S	
E	D	I	D	O	U	T	P	R	E	A	L	Y	O	V	F	F	I	R
S	E	P	A	S	A	D	I	R	E	C	T	T	H	D	Z	N	O	
R	A	N	P	L	L	E	J	U	S	T	I	F	D	T	O	G	O	
R	E	S	E	A	R	C	H	A	B	L	E	S	U	Q	N	R	I	

## GLOSSARY

- Variable	Factor influencing a situation
Extraneous Variable	A strange variable not having direct relation with a research situation
- Dependent Variable	Effects studied in an investigation
- Independent Variable	Characteristics or properties that are supposed to be the cause of the phenomenon studied in an investigation
- Operationalization of Hypotheses	Division of hypotheses into variables and indicators
- Division of Problem	The main problem is sectioned into subproblems

- Periphery of Problems - Limit of Problems
- Review-on-topic Section - Section including a review on each topic in the work book
- Importance-of-the-study Section - Section including the justification of the Problem
- Validity - Determination of the degree of accuracy of a measuring device
- Reliability - Accuracy of an instrument or device
- Review of Related Literature - Theoretical Framework

A P P E N D I X    D



# CENTRO UNIVERSITARIO DE OCCIDENTE

UNIVERSIDAD DE EL SALVADOR

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Tels.: 40-2265 - 40-2447 - 40-2568

Apartado 1908

Santa Ana, El Salvador, C. A.

## SYLLABUS OF DIRECTED RESEARCH PROJECT

### I. General Data

Name of the Subject: Directed Research Project

Prerequisite : Methods and Materials to Teach  
English as a Foreign Language

Hours per Week : 6

Credits : 5

### II. Description

This subject deals with the techniques the students have to learn in order to write a research paper. This research paper is a training for the students to write their theses after they have finished their studies. First of all, the students must have an intensive practice in writing paragraphs and compositions to arrive at the research paper.

### III. Objectives

#### A. General Objectives

1. To enable the students to write their theses



- after they finish studying the English career
2. To investigate general problems that Santa Ana community has and to present solutions to those problems

#### B. Specific Objectives

1. To write short paragraphs
2. To write whole compositions
3. To study some techniques previously to writing the research paper
4. To learn how to elaborate various kinds of bibliographical cards
5. To write a research paper

#### IV. Contents

##### A. Unit I: Logical Thinking

1. Induction
2. Deduction
3. Common Fallacies

##### B. Unit II: The Paragraph

1. Unite
2. Coherence
3. Development

C. Unit III: The Whole Composition

1. Formal Outlines
2. Compositions
  - a. Introductions
  - b. Conclusions
  - c. Body of a Composition

D. Unit IV: The Research Paper

1. Choice and Limitation of a Subject
2. Library Materials
3. Bibliography
4. Evaluation and Notes on Sources
5. Presentation and Revision of the First Draft
6. Presentation and Revision of the Second Draft
7. Presentation of the Research Paper

V. Evaluation

A. Paragraphs	10%
B. Compositions	10%
C. First Draft	10%
D. Second Draft	10%
E. Research Paper	60%



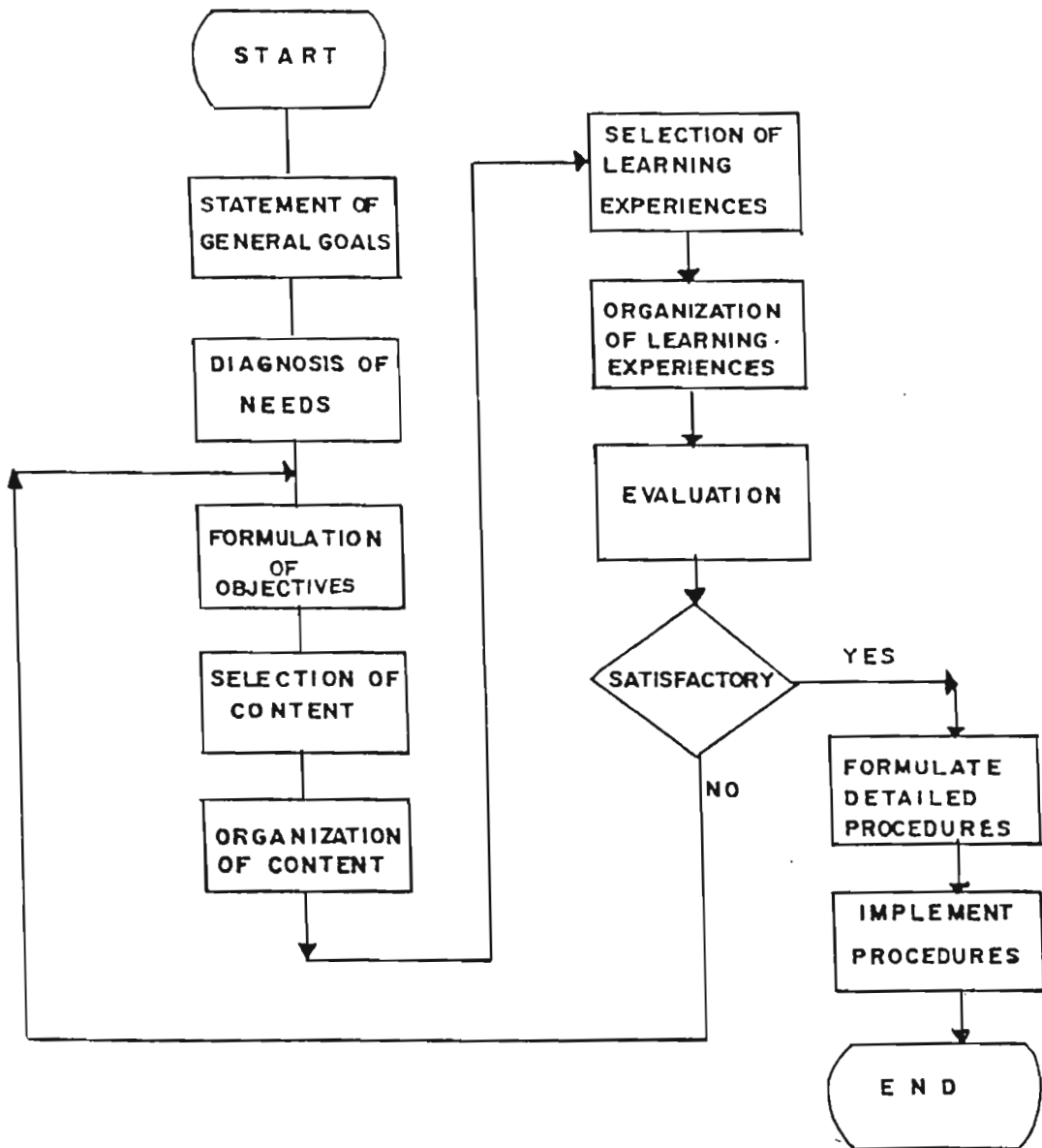
## APPENDIX D

After Goals, Taba recognized that an assessment of learner's needs was the first step in developing a syllabus, prior to the setting of objectives. Goals are general statements describing qualities of the educated or trained individual, which s/he is expected to develop and possess as a result of instruction (Johnson 1977). Objectives, on the other hand, are statements describing the more immediate qualities that a learner should develop or possess as a result of instruction (Finder 1976). They are short-range in nature, and when invested with the intention that they be learned, become syllabus items (Johnson 1977). They appear at different levels of generality, but, as Finder (1976) has pointed out, they must be reduced to a manageable degree of specificity to be readily translated into syllabus items.

It should be observed that this version of the Taba-Tyler model does not mention general goals as such. They are implicit.

Curriculum Contents. To continue, in the Taba-Tyler model syllabus, content is chosen only after objectives have been seen. Taba makes the distinction between objectives and content, because, for her, content is the actualization of objectives in a syllabus. One does not teach objectives, but rather content that is justified by objectives.

# FLOWCHART REPRESENTATION OF THE TABA-TYLER SYLLABUS DEVELOPMENT MODEL



## APPENDIX E

### QUESTIONNAIRE

This questionnaire is to be answered by students of the "Licenciatura en Idioma Ingles" who have taken the subject "Directed Research Project" on the Western Campus of the University of El Salvador.

Direction: Please Put a check on the blank to the left of the item that best describes your situation or Point of view.

1. You learned about the historical and Philosophical bases of social science in the subject "Directed Research Project."

\_\_\_\_\_Strongly agree

\_\_\_\_\_Agree

\_\_\_\_\_Disagree

\_\_\_\_\_Strongly disagree

2. You can give satisfactory explanation about Scientific Method.

\_\_\_\_\_Strongly agree

\_\_\_\_\_Agree

\_\_\_\_\_Disagree

\_\_\_\_\_Strongly disagree

3. You learned about the main steps needed to carry out a research project when you took "Directed Research Project."

Strongly agree

Agree

Disagree

Strongly disagree

4. You need the sections that a research project must include.

Strongly agree

Agree

Disagree

Strongly disagree

5. You learned how to select a relevant topic for a research work when you took "Directed Research Project."

Strongly agree

Agree

Disagree

Strongly disagree

6. You learned how to limit a topic for a research work when you took "Directed Research Project."

Strongly agree

Agree

Disagree

Strongly disagree

7. You learned how to state a problem for a research project when you took "Directed Research Project."

\_\_\_\_\_Strongly agree

\_\_\_\_\_Agree

\_\_\_\_\_Disagree

\_\_\_\_\_Strongly disagree

8. You learned how to formulate general and specific objectives for a research project when you took "Directed Research Project."

\_\_\_\_\_Strongly agree

\_\_\_\_\_Agree

\_\_\_\_\_Disagree

\_\_\_\_\_Strongly disagree

9. You learned how to differentiate general objectives from specific ones when you took "Directed Research Project."

\_\_\_\_\_Strongly agree

\_\_\_\_\_Agree

\_\_\_\_\_Disagree

\_\_\_\_\_Strongly disagree

10. You learned how to review the related literature for a research project when you took "Directed Research Project."

\_\_\_\_\_Strongly agree

\_\_\_\_\_Agree

\_\_\_\_\_Disagree

\_\_\_\_\_Strongly disagree

11. You learned how to state hypotheses when you took "Directed Research Project."

\_\_\_\_\_ Strongly agree

\_\_\_\_\_ Agree

\_\_\_\_\_ Disagree

\_\_\_\_\_ Strongly disagree

12. You learned how to identify the variables (dependent + independent) of a hypothesis when you took "Directed Research Project."

\_\_\_\_\_ Strongly agree

\_\_\_\_\_ Agree

\_\_\_\_\_ Disagree

\_\_\_\_\_ Strongly disagree

13. You learned how to find the indicators of the variables when you took "Directed Research Project."

\_\_\_\_\_ Strongly agree

\_\_\_\_\_ Agree

\_\_\_\_\_ Disagree

\_\_\_\_\_ Strongly disagree

14. You learned about the Process you must follow to Prove the stated hypotheses when you took "Directed Research Project."

\_\_\_\_\_ Strongly agree

\_\_\_\_\_ Agree

\_\_\_\_\_ Disagree

\_\_\_\_\_ Strongly disagree

15. You learned how to select the methodology according to the nature of your research when you took "Directed Research Project."



\_\_\_\_\_Strongly agree

\_\_\_\_\_Agree

\_\_\_\_\_Disagree

\_\_\_\_\_Strongly disagree

16. You learned how to choose the appropriate instruments to collect the data when you took "Directed Research Project."

\_\_\_\_\_Strongly agree

\_\_\_\_\_Agree

\_\_\_\_\_Disagree

\_\_\_\_\_Strongly disagree

17. You learned how to interpret data for a research work when you took "Directed Research Project."

\_\_\_\_\_Strongly agree

\_\_\_\_\_Agree

\_\_\_\_\_Disagree

\_\_\_\_\_Strongly disagree

18. You can see clearly the importance of a research Project you have to carry out in your field.

\_\_\_\_\_Strongly agree

\_\_\_\_\_Agree

\_\_\_\_\_Disagree

\_\_\_\_\_Strongly disagree

19. You were enabled to carry out a research work applying the Scientific Method when you took "Directed Research Project."

\_\_\_\_\_Strongly agree

\_\_\_\_\_ Agree

\_\_\_\_\_ Disagree

\_\_\_\_\_ Strongly disagree

## APPENDIX F

### Checklist for the Evaluation of the Syllabus

Direction: Place a check mark in the appropriate column after carefully inspecting the syllabus to see if it contains or meets the items designated.

F A C T O R	YES	NO
1. Are the general objectives of the course formulated on the bases of the students needs and interests?		
2. Are the general objectives of the course stated as results of the learning level to achieve?		
3. Are the specific objectives stated taking into account the behavior and content or situation?		
4. Have they been formulated in proper terms?		
5. Do the objectives contain all necessary elements?		
6. Are all the objectives attainable?		
7. Are all the objectives in accordance with the objectives of the "Licenciatura en Idioma Ingles?"		
8. Are the objectives in accordance with the		

F A C T O R	YES	NO
<p>objectives of the University of El Salvador?</p> <p>9. Are they based on consistent Principles of learning (Permanent and transferable results)?</p> <p>10. Are they sequentially ordered?</p> <p>11. Are the contents selected aimed at reaching the objectives of the course?</p> <p>12. Are the contents related among themselves?</p> <p>13. Are the course contents Properly organized?</p> <p>14. Are the course contents adapted to the specific characteristics of the subject?</p> <p>15. Is the course methodology in accordance with the course objectives and contents?</p> <p>16. Is the methodology selected in accordance with the students' level of maturity and the characteristics of the subject?</p> <p>17. Does the methodology allow the students' active Participation?</p> <p>18. Does the course methodology stimulate the students' creativeness?</p> <p>19. Are the course activities aimed at reaching the objectives of the course?</p> <p>20. Are the course activities in accordance</p>		

F A C T O R	YES	NO
<p>with the course contents?</p> <p>21. Are the course activities selected taking into account the students' needs and interests?</p> <p>22. Are the course materials clearly described?</p> <p>23. Are the course materials aimed at contributing to achieve the stated objectives?</p> <p>24. Have the course materials been selected according to the students' needs?</p> <p>25. Are the course materials available?</p> <p>26. Are the evaluation instruments appropriate to evaluate the students' outcomes?</p> <p>27. Is the evaluation system properly organized?</p> <p>28. Is the evaluation of the course properly scheduled?</p> <p>29. Is the time properly assigned to the different activities and contents?</p> <p>30. Are the elements of the syllabus flexible?</p> <p>31. Are the elements of the syllabus sequentially organized?</p> <p>32. Are the elements of the syllabus unified?</p> <p>33. Is the syllabus as a whole realistically structured?</p>		

APPENDIX G

WORKSHOP ON RESEARCH  
PROFICIENCY TEST

Name \_\_\_\_\_

Signature \_\_\_\_\_ Grade \_\_\_\_\_

PART I

Read each of the following statements. If the statement is true, circle "T." If the statement is false, circle "F."

1. There is not any difference between common and scientific knowledge.....T F
2. The ancient Greeks used the scientific method to prove their theories.....T F
3. The scientific method appeared during the scientific revolution.....T F
4. The methodology for a research project is selected according to the researcher's choice....T F

5. Hypotheses for a research project are derived from the Problem.....[ F

## PART II

On the line to the left of each definition in column H, write the letter of the term in column B that corresponds to that definition

H	B
6. ( ) Method of research in which the the data are quantified they reach the researcher is mathematical or statistical concepts.	a)Experimental method
7. ( ) It is the means by which the researcher deals with the latent meaning of history	b)Statistical method
8. ( ) Method of research that deals with observation	c)Descriptive survey method
9. ( ) Method of research that deals with the Phenomenon of cause and effect	d)Analytical survey method
	e)Experiment

## PART III

Read the following items and choose the letter that contains the correct answer. Then underline it.

10. If you were making a scientific study of a Problem, your first step should be to:

- a. collect information about the Problem.
- b. develop hypotheses to be tested.
- c. design the experiment to be conducted.
- d. select scientific equipment.

11. After you have chosen a topic for a scientific study, the next step should be to:

- a. get data related to the Problem.
- b. carry out surveys and interviews.
- c. choose the methodology.
- d. limit the topic.

12. If you were reviewing the related literature for a scientific study, the first step should be to:

- a. make as many copies of the bibliographic items as necessary.
- b. relate your bibliography to your Problem.



- c. revise your Problem and see what the information you need is.
  - d. Plan the sections the review of the related literature will include.
  
13. If you are to formulate the hypotheses for your research Project, the thing you need to do first is to
  - a. select the methodology you need to test the hypotheses.
  - b. look for possible solutions to your Problem.
  - c. divide the Problem into subProblems.
  - d. get data for your research Project.
  
14. If you were to select the methodology for your Project, the first step should be to
  - a. see what methodology is the most convenient for you.
  - b. see the nature of the data you will need.
  - c. see what you need to test the hypotheses.
  - d. choose the instruments for carrying out the research Project.

## PART IV

Answer the following items completely.

15. Explain four characteristics a topic for a scientific study must have.
16. Explain the importance of the objectives in a scientific study.
17. Explain the importance of the variables of a hypotheses.
18. Explain why indicators of variables are necessary.
19. Explain the importance of statistics in research.

## PART V

Read the following items carefully and Please do what is asked in each of them.

20. Find the variables and indicators to the following hypothesis

-The use of audio-visual aids when teaching a foreign language facilitates the students' acquisition of the language.

21. Derive two specific objectives from the following general objective

-To improve the students' reading skill in English.

22. State a hypothesis related to the following Problem

-The undergraduate students of English are not Prepared to carry out a research Project.

23. State a Problem for a research Project and formulate two hypotheses about two possible solutions for that Problem.

APPENDIX H

WORKSHOP ON RESEARCH

FIRST QUIZ (5%)

Name \_\_\_\_\_ Date \_\_\_\_\_

Signature \_\_\_\_\_ Grade \_\_\_\_\_

Write a Problem that you could use to carry out a research. Say whether this Problem meets the characteristics all research Problems must have.

## WORKSHOP ON RESEARCH

## SECOND QUIZ (5%)

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_ Grade: \_\_\_\_\_

Read carefully the following problem and formulate two hypotheses.

The environmental pollution in Santa Ana

## WORKSHOP ON RESEARCH

## THIRD QUIZ(5%)

Name \_\_\_\_\_ Date \_\_\_\_\_

Signature \_\_\_\_\_ Grade \_\_\_\_\_

Read the following hypotheses and find out the dependent and independent variables and their indicators.

The present crisis of El Salvador is causing children to have psychological problems.

## WORKSHOP ON RESEARCH

## FOURTH QUIZ(5%)

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_ Grade: \_\_\_\_\_

Write the main parts that a research project must contain and give a brief explanation about them.



## WORKSHOP ON RESEARCH

## FIFTH QUIZ(5%)

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Signature \_\_\_\_\_ Grade: \_\_\_\_\_

Read the following general objective carefully, then, derive two specific objectives from it.

-After taking the subject "Directed Research Project," the students will know the steps of the scientific method.

## APPENDIX I

### Checklists for the evaluation of each class of the workshop

This checklist gives you an opportunity to express your view of this class. Indicate the responses closest to your view by circling the appropriate criterion.

SA (4) = Strongly agree

A (3) = Agree

D (2) = Disagree

SD (1) = Strongly disagree

F A C T O R	SA	A	D	SD
1. The objectives for the class were made clear.....	4	3	2	1
2. There was considerable agreement between the announced objectives of the class and what was actually taught.....	4	3	2	1
3. The activities carried out were interesting for me and avoided that I got bored during the class.....	4	3	2	1
4. The activities carried out were in accordance with the content				

of the class.....	4	3	2	1
5.The activities carried out gave me the opportunity to think and create by myself during the class.....	4	3	2	1
6.The activities carried out helped to achieve the objectives of the class.....	4	3	2	1
7.The activities carried out helped me to understand the contents of the class better.....	4	3	2	1
8.The activities were described clearly enough.....	4	3	2	1
9.The activities in this class were scheduled according to my progress.....	4	3	2	1
10.Challenging questions or problems were raised in each activity carried out in this class..	4	3	2	1
11.In each activity carried out in this class, I felt free to ask questions or express my opinions.....	4	3	2	1
12.My interest in research has been stimulated by the activities carried out in this class.....	4	3	2	1

13.The activities carried out in this class focused on the major points of this class.....	4	3	2	1
14.In my opinion, the main point of the class was easily grasped because of the activities...	4	3	2	1
15.In my opinion, the objectives of this class were accomplish- ed.....	4	3	2	1
16.Time was wisely used in this class.....	4	3	2	1

## APPENDIX J

### Questionnaire for the Evaluation of the Workshop

This questionnaire gives you an opportunity to express anonymously your view of this course. Indicate the responses closest to your view by circling the appropriate criterion.

SECTION I 1-17 - Circle one response number for each question.

SA (4) = Strongly agree You strongly agree with the statement as it applies to this course.

A (3) = Agree You agree more than you disagree with the statement as it applies to this course.

D (2) = Disagree You disagree more than you agree with the statement as it applies to this course.

SD (1) = Strongly disagree You strongly disagree with the statement as it applies to this course.

F A C T O R	SA	A	D	SD
1. The objectives for the course have				

been made clear.....	4	3	2	1
2. There was considerable agreement between the announced objectives of the course and what was actually taught.....	4	3	2	1
3. The instructors seemed to know when the students didn't understand the materials.....	4	3	2	1
4. Lectures were too repetitive.....	4	3	2	1
5. Students had the opportunity to think by themselves during the course.....	4	3	2	1
6. Activities were scheduled according to the students' progress.....	4	3	2	1
7. Out-of-class activities and homework assignments were discussed in class.....	4	3	2	1
8. Challenging questions or problems were raised in class.....	4	3	2	1
9. In this workshop I felt free to ask questions or express my opinions.....	4	3	2	1
10. Major points in lectures or discussions were summarized or emphasized.....	4	3	2	1
11. My interest in research has been stimulated by this workshop.....	4	3	2	1

12. The scope of the workshop has covered what I need to do research.	4	3	2	1
13. Homework-assignments and final test reflected the important aspects of the workshop.....	4	3	2	1
14. I have been putting a good deal of effort into this workshop.....	4	3	2	1
15. Activities were in accordance with the points of the workshop.....	4	3	2	1
16. Time was wisely used in the workshop.....	4	3	2	1
17. Visual aids were properly used in this workshop.....	4	3	2	1
18. In my opinion, the objectives of the workshop have been accomplished.....	4	3	2	1
19. In my opinion, the points of the course were easily grasped because of the activities.....	4	3	2	1

SECTIONS II: 20-24 - Circle one response number for each question.

20. For my preparation and ability to do research, the level of difficulty of this workshop was about right.

1. Strongly agree

3. Disagree

2. Agree

4. Strongly disagree.

21. The work load for this workshop was about right.

- |                   |                      |
|-------------------|----------------------|
| 1. Strongly agree | 3. Disagree          |
| 2. Agree          | 4. Strongly disagree |

22. For me, the Pace at which the material was covered during the workshop was about right.

- |                   |                      |
|-------------------|----------------------|
| 1. Strongly agree | 3. Disagree          |
| 2. Agree          | 4. Strongly disagree |

23. Illustrations, examples, and activities helped to clarify the material.

- |                   |                      |
|-------------------|----------------------|
| 1. Strongly agree | 3. Disagree          |
| 2. Agree          | 4. Strongly disagree |

24. The class size was satisfactory for the method of conducting the workshop.

- |                   |                      |
|-------------------|----------------------|
| 1. Strongly agree | 3. Disagree          |
| 2. Agree          | 4. Strongly disagree |

SECTION III: Circle the appropriate response number.

25. How would you rate the quality of instructions in the workshop?

(Try to set aside your feelings about the course itself.)

Excellent      Good      About average      Fair      Poor

If you would like to make additional comments on the workshop, use a separate sheet of paper. You might elaborate on the particular aspects you liked most as well as those you liked least.



APPENDIX K

Checklist for the Evaluation of the Workbook

Place a check mark in the appropriate column after carefully inspecting the workbook to see if it contains or meets the items designated.

SA = Strongly Agree

A = Agree

D = Disagree

SD = Strongly Disagree

F A C T O R	SA	A	D	SD
1. The review-on-topic section included in the workbook provides clear information to the students.....				
2. The review-on-topic section focuses on the most important information about each topic included in the workbook.....				
3. The review-on-topic section included in the workbook helps the students to remember about the topic.....				
4. The review-on-topic section helps to achieve the class objectives.....				

F A C T O R	SA	A	D	SD
5. The direction for each activity included in the workbook is clear enough for the students.....				
6. The games included in the workbook help the students to develop specific skills related to the topic....				
7. The games included in the workbook are easy to perform.....				
8. The games included in each topic of the workbook contribute to achieve the class objectives.....				
9. The games included in the workbook aim to stimulate the students' creativity.....				
10. Charts, frames, and pictures included in the workbook help the students understand the class contents better and easily.....				
11. In-class activities included in the workbook are in accordance with each topic.....				
12. In-class activities included in the workbook stimulate both individual and group work.....				
13. Out-of-class activities are in ac-				

F A C T O R	SA	A	D	SD
<p>conformance with the topic.....</p>				
<p>14.Out-of-class activities are simple and practical for the students to perform.....</p>				
<p>15.In general, the activities included in the workbook are aimed at encouraging the students to do research.....</p>				
<p>16.In general, the activities included in the workbook give the students the opportunity to think and create by themselves.....</p>				
<p>17.The workbook is sequentially organized.....</p>				
<p>18.The workbook is designed in accordance with what the students need to do scientific research.....</p>				
<p>19.The workbook is prepared in such a way that it contributes to achieve the general objectives of the subject "Directed Research Project."...</p>				
<p>20.The workbook can be used to teach research in any subject of the "Licenciatura en Idioma Inglés.".....</p>				

## APPENDIX L

### Checklist for Evaluation of the Research Works Presented by Students Who Have Taken the Subject "Directed Research Project" on the Western Campus

Student's Name \_\_\_\_\_

Title of Research Work: \_\_\_\_\_

Direction: Place a check in the appropriate column after carefully inspecting the research report to see if it contains the items designated.

F A C T O R	YES	NO
1. Is the central Problem of research clearly stated?		
2. Does the research evidence plan and organization?		
3. Are the general objectives clearly stated?		
4. Are the specific objectives in accordance with the general objectives of the study?		
5. Has the researcher stated his/her hypotheses well?		
6. Is there a clear and consistent connection between the specific objectives of the study and the hypotheses?		
7. Are the hypotheses related to the Prim-		

F A C T O R	YES	NO
<p>Principal Problem of the research?</p> <p>8. Is the importance-of-the-study section of the project clearly enough set forth?</p> <p>9. Is the methodology clearly stated, that is, is an explanation of exactly how the research will be conducted specifically delineated?</p> <p>10. Is the whole proposal phrased in specific terms, clear and exact phraseology?</p> <p>Number of tally marks in each column (Enter these here).....</p> <p>Multiply the total of each column as follows.</p> <p>Total Score (Column 1 only).....</p>		

## APPENDIX M

### VARIATION IN THE NUMBER OF ATTENDANTS TO THE WORKSHOP

First Week.....	Nine Students
-Second Week.....	Five Students
-Third Week.....	Three Students
-Fourth Week.....	Three Students
-Fifth Week.....	Three Students
-Sixth Week.....	Three Students

T A B L E S

TABLE I

Table Containing the Results Obtained through the Pre-Test and the Post-Test Answered by the Three Final Attendees to The Workshop

Question	Pre-Test		Post-Test	
	Correct	Wrong	Correct	Wrong
Scien. 1	1	2	3	0
Heth. 2	1	2	2	1
	0	3	2	1
4	1	2	2	1
5	1	2	3	0
Method 6	0	3	3	0
ology 7	0	3	3	0
8	1	3	3	0
9	1	2	3	0
10	2	1	3	0
11	2	1	2	1
Steps 12	1	2	3	0
13	1	2	2	1
14	1	2	3	0



	15	1	2	2	1
Hyp.	16	0	3	2	1
and	17	0	3	2	1
Obj.	18	0	3	2	1
	19	0	3	2	1
	20	0	3	2	1
	21	0	3	3	0
APPL.	22	0	3	3	0
	23	0	3	3	0
Total		14	55	58	11
Percentage		20.29%	79.71%	84.0%	16.0%

TABLE II

Table Containing the Results Obtained through the Weekly  
Quizzes

Quizzes	St1	St2	St3	X
1.Character. of Problems	7.0	8.0	8.5	7.8
2.Formulat. of Obj. and Hypotheses	8.0	8.5	9.0	8.5
3.Operation- nalization of Hypotheses	7.0	7.2	7.5	7.2
4.Sections of a Research Project	9.0	9.5	9.8	9.4
5.Formulation of Objectives	7.6	8.0	8.2	7.9

TABLE III

Table Containing the Results Obtained through the  
Checklists for the Students Evaluation of the Workshop

	First Week	Second Week	Third Week	Fourth Week	Fifth Week	Sixth Week
Criteria	SA A D SD	SA A D SD	SA A D SD	SA A D SD	SA A D SD	SA A D SD
Item Number						
1	6 2 1 0	4 1 0 0	2 1 0 0	2 1 0 0	3 0 0 0	2 1 0 0
2	6 3 0 0	4 1 0 0	3 0 0 0	2 1 0 0	3 0 0 0	2 1 0 0
3	8 1 0 0	4 1 0 0	2 1 0 0	3 0 0 0	3 0 0 0	3 0 0 0
4	9 0 0 0	4 1 0 0	3 0 0 0	3 0 0 0	3 0 0 0	3 0 0 0
5	9 0 0 0	4 1 0 0	3 0 0 0	3 0 0 0	2 1 0 0	2 1 0 0
6	8 1 0 0	5 0 0 0	2 1 0 0	2 1 0 0	3 0 0 0	3 0 0 0
7	9 0 0 0	5 0 0 0	3 0 0 0	3 0 0 0	3 0 0 0	3 0 0 0
8	9 0 0 0	5 0 0 0	3 0 0 0	3 0 0 0	2 1 0 0	3 0 0 0
9	8 1 0 0	4 1 0 0	3 0 0 0	3 0 0 0	3 0 0 0	2 1 0 0
10	7 1 1 0	3 1 1 0	2 1 0 0	3 0 0 0	3 0 0 0	3 0 0 0
11	8 1 0 0	4 1 0 0	3 0 0 0	3 0 0 0	3 0 0 0	2 1 0 0
12	7 0 1 1	3 1 0 0	3 0 0 0	3 0 0 0	3 0 0 0	3 0 0 0
13	9 0 0 0	4 1 0 0	3 0 0 0	3 0 0 0	2 1 0 0	2 1 0 0
14	7 2 0 0	5 0 0 0	3 0 0 0	3 0 0 0	2 1 0 0	2 1 0 0
15	7 2 0 0	5 0 0 0	3 0 0 0	2 1 0 0	2 1 0 0	3 0 0 0
16	8 1 0 0	5 0 0 0	2 1 0 0	3 0 0 0	3 0 0 0	3 0 0 0

TABLE IV

Table Containing the Results of the Checklists for the Students' Final Evaluation of the Workshop

Item Number	CRITERIA			
	SA	A	D	SD
1	2	1	0	0
2	3	0	0	2
3	1	2	0	0
4	0	0	0	3
5	3	0	0	0
6	2	1	0	0
7	2	1	0	0
8	3	0	0	0
9	2	1	0	0
10	3	0	0	0
11	3	0	0	0
12	3	0	0	0
13	2	1	0	0
14	1	2	0	0
15	3	0	0	0
16	3	0	0	0
17	3	0	0	0
18	3	0	0	0
19	3	0	0	0

Item Number	CRITERIA			
	SA	A	D	SD
20	1	2	0	0
21	1	2	0	0
22	2	1	0	0
23	3	0	0	0
24	2	1	0	0

TABLE V

Table Containing the Results Obtained through the  
Evaluation of the Syllabus

Content of Items	Item Number	YES (1)	NO (2)
1 Evaluation of Course Objectives	1	5	0
	2	5	0
	3	5	0
	4	5	0
	5	5	0
	6	4	1
	7	4	1
	8	4	1
	9	4	1
	10	4	1
2 Evaluation of Course Contents	11	5	0
	12	5	0
	13	5	0
	14	5	0
3 Evaluation of Course Methodology	15	5	0
	16	4	1
	17	5	0
	18	5	0

Content of Items	Item Number	YES (1)	NO (2)
4 Evaluation of Course Activities	19	5	0
	20	5	0
	21	5	0
5 Evaluation of Course Materials	22	5	0
	23	5	0
	24	5	0
	25	4	1
6 Evaluation of Course Evaluation	26	5	0
	27	5	0
	28	5	0
7 Evaluation of Time Assigned	29	4	1
8 Evaluation of the Characteristics of the Syllabus	30	5	0
	31	5	0
	32	5	0
	33	5	0

TABLE VI

Table Containing the Results of the Evaluation of the  
Workbook

Content of Items	Item Number	CRITERIA			
		SD	A	D	SD
1 Evaluation of the Re- view-on- topic Sec- tion	1	4	1	0	0
	2	4	1	0	0
	3	5	0	0	0
	4	4	1	0	0
2 Evaluation of Direc- tions	5	4	1	0	0
3 Evaluation of Games	6	2	3	0	0
	7	5	0	0	0
	8	3	2	0	0
	9	4	1	0	0
4 Evaluation of Charts and Pictures	10	3	2	0	0



Content of Items	Item Number	CRITERIA			
		SA	A	D	SD
5 Evaluation of Out-of- class and In-class Activities	11	5	0	0	0
	12	4	1	0	0
	13	5	0	0	0
	14	2	3	0	0
	15	5	0	0	0
	16	5	0	0	0
6 Evaluation of the Work- book Organ- ization	17	4	1	0	0
	18	4	1	0	0
7 General Evaluation of the Work- shop	19	5	0	0	0
	20	3	2	0	0

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