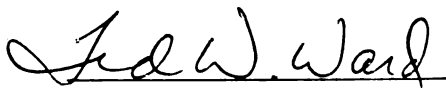




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LEARNERS' PERCEPTIONS OF LEARNING IN A MULTI-CULTURAL
EDUCATIONAL SITUATION IN INDIA

By
Narendra John

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ABSTRACT

LEARNERS' PERCEPTIONS OF LEARNING IN A MULTI-CULTURAL
EDUCATIONAL SITUATION IN INDIA

by

Narendra John

The study was conducted in Union Biblical Seminary, Yavatmal Maharashtra, India. The purpose of the research was to describe the perceptions students of UBS have regarding learning. Forty-five students were selected from the student population, representing Tamilnadu (TN), Maharashtra (MA), North Eastern States (NE) of India (15 students per region). The sample was identified after a pilot project which suggested there might be significant differences among these three groups of students.

The research design included interviews around two questions which were asked with the help of seven photographs of learning situations. The first question was, "Is learning taking place in this photograph?" The second question elicited elaboration and rationale for the previous responses, i.e., "Why do you say that learning is/isn't occurring?" What do you see in the photograph that prompts you to say what you say?" Demographic information included name, age, years of formal schooling, years of experience on the field, years of experience in the Seminary, etc.. The data were gathered in India during 1977, and were brought to U.S.A. in January

1978. A content analysis procedure was constructed to analyze the data. The categorization system used included these categories: Focus of the content, Content of the citation, Perceived aspect of learning, Factors that describe teacher-student relationship and Environmental factors pertaining to Environment focus. Under each there were subcategories.

All the statements made by the respondents for four key photographs were analyzed. The responses were categorized and quantified. Percentages were taken and bar graphs were plotted to show the differences for each category on the three different variables, i.e., geographical (cultural) background, years of formal schooling, and years of experience.

The analysis showed that there are differences among those three variables. The findings were reported in terms of which group showed what kinds of categories of responses most and least. The perceptions were described and description put in the form of comparison across geographical (cultural) background, years of formal schooling, and years of experience.

A pattern emerged from the comparisons. Hypotheses were derived from analyses of the descriptive data. The major findings were in the areas of (1) classroom instruction; (2) individual study; and (3) practical learning.

In the area of classroom instruction, students from TN perceived orderliness in the classroom as important for effective learning more than students from MA and NE. The same was true of those who have had more than 16+ years of formal schooling. Students who have had more years of experience (5+ years) perceived interactional informal

situations for effective learning over those who have had no experience or some experience on the field. In the area of individual study, students from MA perceive individual study as effective learning more than students from TN and NE. The same was true of those who have had 13-15 years of formal schooling and also of those who have had 2-4 years of practical experience on the field. In the area of practical learning, NE students perceive practical work as effective learning more than students from TN and MA. Practical work was also seen as more effective by those who have had more experience on the field and also by those who have had more schooling.

Other findings included differences in perception about individual attention and interactional learning.

Recommendations were made for further research, including extension of the study with a modified instrument, testing of the hypotheses under more controlled conditions and exploring the ways that perceptions are related to cognitive styles.

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Chapter 1

STATEMENT OF THE PROBLEM

Introduction

Schools can be viewed as an arena for cross-cultural conflict between representatives of different cultural systems (King, 1968; Walcott, 1968; Wax et al., 1964). Indeed there is an acute need to promote the development of culturally sensitive school curriculums in the developing countries in order to reduce the dysfunctional educational outcomes which often occur when two cultures meet in an educational setting (Rosenfeld, 1971).

The teaching profession has long championed the ideal of providing instruction which is sensitive to individual differences. Psychological and sociological approaches to the study of education have alerted educators to the role psychological and sociological differences play in learning, but the role of cultural endowments as they relate to learning have received less attention. This study attempts to further understanding of learning in cross-cultural settings.

When education is defined as cultural transmission, implying equal interest in all parties involved in educational systems and transactions, as well as in the social context within which learning takes place, the cultural dimension of a curriculum gains considerable

significance. The educator needs to question whether the cultural assumptions upon which the teaching methods and curriculum are based are consistent with the realities of a student's cultural experiences.

In developing countries where national policies stress modernization and nation building, and the schools themselves are often fashioned along the lines of a dominant culture or group, the student from a cultural sub-group often has difficulties in school. The problems are most acute in situations where minority ethnic groups confront schools directed by agencies remote from their influence and experience. If the cultural characteristics of a student are ignored and not utilized to improve teaching, such schooling may actually subvert its own formal objectives (Singleton, 1971).

This study is undertaken in a multi-cultural situation to further the understanding of a learner's perceptions in regard to learning. The "what" of the perceptions of students regarding learning is reported descriptively.

Ward and his associates built upon the concept of ethnopedagogy as developed by Burger (1971) and have suggested the importance of "pedagogical expectations".¹

¹It is currently not in fashion with some people to use the word "pedagogy" and its derivatives when discussing adult education. Malcolm Knowles has promoted the use of the word "andragogy" for referring to helping adults learn. Knowles' argument rests upon the Greek words from which the word "pedagogy" is based. It is claimed that the word in Greek refers to the instruction of children. However, as used in English, the word "pedagogy" has not had such an exclusive meaning. Thus, it has been used widely in the field of education to refer to the instructional context and issues related to the context. It is with the intention of using the word "pedagogy" in its generalized meaning that Burger used the word in "ethnopedagogy", and it is with the same intention that it is used here to refer to expectations adults have about the instructional context (Ward, Herzog, et al., 1974).

One of the ethnopedagogical issues Ward identified is the learner's "acceptance and expectations of instructional procedures" (1973). He explains this by saying:

The most concrete evidence of the imposition of culture on the learning potentialities of people is their expectations of what constitutes a valid learning experience. What is accepted as a valid learning experience in one culture may be rejected in another. The wisdom of the elders, transmitted as legends and proverbs, may be profoundly respected as a learning experience or totally rejected as having no place in an educational system. A person may be culturally conditioned to accept the pedantic ways of the lecturing teacher in a formal classroom as a valid learning experience, tending to make him suspicious of discussion groups or instructional motion pictures (Ward, 1973, pp. 2-3).

McKean in his thesis (1977) points out that although the purpose of self-directed learning is liberation for adults for maximizing their full potential, it does not always yield positive results. According to him, there is "potential discrepancy between activities of self-directed learning and pedagogical expectations" (Abstract of Thesis). He shows in his study that in order for learning to be meaningful for adults, their expectations regarding learning have to be met. Students need to recognize learning activities provided by teachers as those which are meaningful to them.

Therefore, this study has been undertaken in order to further understanding of the learner's perceptions in regard to learning in a multi-cultural situation.

Purpose

It is the purpose of this study, first of all, to describe the perceptions of learning for the students of Union Biblical Seminary, Yavatmal, India. These students come from Tamilnadu, Maharashtra, The North Eastern States (Arunachal Pradesh, Assam, Manipur, Meghalaya,

Mizoram, Nagaland States), and many other states of India. Some also come from other countries of Asia and Africa. This study considers the student population from three different geographical (sub-cultural) groups, i.e., Tamilnadu (TN), Maharashtra (MA) and the North Eastern States of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram and Nagaland (referred to hereafter as NE). Included in the study is the development of an instrument to categorize and quantify the descriptions.

Secondly, it is the purpose of this study to generate hypotheses relating to learning perceptions of learners in multi-cultural situations.

The first purpose is served by interviewing students from the three areas of India who are studying at Union Biblical Seminary, Yavatmal, India. The purpose of the interview is to get at their perceptions regarding learning. A categorization system is developed to analyze the content of interviews. The quantification of the data is done in terms of one unit for each category used in the responses of the respondents.

The second purpose is served by the following:

1. Describing the characteristics of these students in terms of specified categories of perceptions of learning across:
 - a. Different states represented,
 - b. Years of formal schooling,
 - c. Years of practical experience,
2. By suggesting what the description means in terms of possible causation for the profile that emerges. These hypotheses are suggested as the basis for further research.

Research Questions

The inquiry in this study will be focused on the following research questions regarding perceptions of learning:

1. When exposed to similar stimulus pictures of learning situations, what do the respondents see regarding learning and what does it mean to them?
2. Are there differences in their perceptions attributable to:
 - a. Different geographical (subcultural) background?
 - b. Extent of (Years in) formal schooling?
 - c. Extent of (Years of) practical experience?
3. What kinds of differences exist in their perceptions and what implications do these have for pedagogy in general and for a multicultural situation like Union Biblical Seminary in particular?

Importance of the Study

Knowles, one of the major voices in adult self-directed learning, says, "Inherent in the concept of adult education is the process of liberation." He says further that we should

define our aim as helping individuals to liberate themselves from whatever shackles and deficiencies prevent them from fulfilling themselves This conception of the common aim of adult education as being liberal--in the sense of liberating--provides a meaningful context for all types of learning activities To the extent that any learning activity--whether vocation or humanist--leaves an adult with as much or more dependency upon external direction, to that extent it is failing to contribute to the inherent aim of adult education (1958, pp. 85, 86).

Kidd speaks about learning involving the active role of the learner and freeing a person from limitations. He draws a parallel with medicine:

Yet the most profound fact about the living body is that it is health seeking--that its forces reach out toward health and healing. The art of medicine is not so much doing things to the body but inhibiting destructive influences and enabling the body to achieve healing. It seems to be very much the same with learning. Human beings seem to seek after learning; learning seems to be a condition of a healthy organism (1959, p. 16)

In his book, Pedagogy of the Oppressed, Freire is concerned about an approach to education that will liberate people from oppression. He speaks vehemently against the "banking concept of education," in which it is the task of a "banker-educator" to release knowledge into the mind of the student, and through the acquisition of this knowledge, the student learns. There are some presuppositions behind this kind of thinking: first, that knowledge is static and thus must be passed on from one generation to another generation; second, that education is transmission of knowledge; and third, that when knowledge is passed on, it automatically produces learning in the students. There seems to be inadequate comprehending of learning and education in these assumptions. As against this concept, Freire speaks about "praxis" which means that people learn about the world through acting upon the world. There is a transaction between the learner and the environment; as a result there is liberation which causes development of the total person. In this transaction the learner is important. The learner may have transaction with teacher. He may have transaction with the subject-matter of life experiences--confronting situations and making decisions.

Thus the learner experiences life and reality as it is. He evaluates and reevaluates priorities in the light of these experiences. He begins to develop. This change is not in isolation. It is in the

context of societal relationships. It is not merely intellectual response. The articulation of responses is in terms of the total development that is taking place. This is active learning as Freire emphasizes it when he says:

I cannot think for others or without others, nor can others think for me. Even if the people's thinking is superstitious or naive, it is only as they rethink their assumptions in action that they can change. Producing and acting upon their own ideas--not consuming those of others--must constitute that process (Freire, 1970, p. 100).

It is in this respect, then, that a developing country like India, through her education policies, should emphasize the role of the learner and the great potential of the learner. Educational processes can guide persons towards development and eventually guide the country towards development. Such education is the crying need of hour.

The purpose of this kind of learning is development. When this theme is contextualized for the third world countries, it implies liberating the common person for his/her full potential. Education cannot remain strictly in the area of intellectual excellence (although it is important part of human life and existence).

Piaget (1970) has shown that a person matures or develops through stages; maturation is a process of transaction between the live organism and the environment. And the process has to do with the human whole. In order to understand development as a result of educational process, integration of knowledge (learning) for total development is an important concept.

In the consultation called by Dag Hammarskjold Foundation, in April, 1975, the "right to learn" was discussed as an international issue. Basic to the concept of development in education was the concept

of learning. A distinction was drawn between integration of knowledge and acquisition of knowledge. The latter suffers from four weaknesses according to Ward (1975). First, if learning is acquisition of knowledge then it is limited by time and place. Defining the objectives of this kind of an acquisition are specific to situations and places. They cannot be universal. This results in amassing knowledge without its application to day-today life. We run the risk of passing on irrelevant knowledge. Second, this concept of acquisition is, according to Ward, "an imperialistic task". One person or organization decides who is to pass on what to whom. Both the content of knowledge and the process of communicating knowledge have to originate from the giver. The one who receives becomes dependent on the giver and the giver begins to control. Third, learning becomes a thin; static in nature; "subject to restrictions of supply and demand", and again subject to dependency and control of the giver. Fourth "an acquisitive view plays into the ancient fallacy of learning being concerned with knowledge," as if, knowledge and real life are two distinct realities. This view is at the grass roots of platonic philosophy. Plato in his Republic speaks about the real world "here and now" being at best a replica of an ideal world. Only a select band of people who are "philosopher kings" can attain it. These have gone through education of the state. They have climbed the ladder after various stages in education and having been censored at various times. They are the ones who have a glimpse of the Truth, because they have the discipline, integrity and character. In other words, different gradations of people are assumed. In order to understand whether this kind of an arbitrary decision can be made, it is important to know whether there is such a thing as different

classes of people, and whether there is one right way to classify people. But society is more complex; answering these questions would be an impossibility. A fruitful way to understand and approach the questions would be to understand what it means that everyone has "a right to learn."

One of the recommendations of the Dag Hammarskjold Foundation consultation was to establish a commission on basic learning for the purposes of identifying the specific areas of learning which relate to development. Some suggested areas were the following:

1. Basic learning attributes of man: What is it in human beings that contributes to meaningful learning?
2. What kinds of experiences are positively related to meaningful learning?
3. What are some of the threats to meaningful learning?
4. If there are threats, what can be done to reduce those threats?

In order to do the above we need to at least know what is meaningful learning for the learner. What are some of the definitions of learning in the minds of the learner? What is it that they are expecting when they are learning? These are some of the questions which this study will try to answer.

Assumptions Made In This Study Regarding Pedagogy are the Following:

1. Within a culture, concepts of learning and concepts of teaching arise from the same sources.
2. In a culture under multi-cultural impact, concepts of learning and concepts of teaching may be arising from various and potentially conflicting sources.

3. In order to plan, develop and maintain effective formal and non-formal education, it is important to know the nature, the source and the conflicts among the various concepts of learning and teaching.
4. Teaching may not necessarily produce learning because of the differences in perceiving the task of teaching and learning. In order to bridge the gap between teaching and learning, it is important to understand learners' expectations regarding learning. This insight will improve pedagogy in so far as communication is concerned.

Definitions

Ethnopedagogy. Ethnopedagogy is the name given to cultural aspects of teaching and learning. Burger explains in his manual (1971) how cultural traits can help us to understand meaningful learning experiences for the learner and teacher. He has developed the concept of ethnopedagogy teaching methods which will take into consideration cultural differences between learners, or between teachers and learners.

Perception. Perception is a word used to define how a person sees the world. This seeing of the world or world-view is formed as a person grows, through many transactions with the world. Everybody may see the same things in the same way or different ways depending upon their experiences in life up to that point in time.

The primary assumption of the perceptionist is that behavior is a function of perception. A person behaves in ways which are consistent with his view of his world. That is, as he "sees" so does he behave (Learning More about Learning, p. 55).

Learning. The definition of learning is to be in terms of development of the individual. Rogers in Freedom to Learn emphasizes

the fact that for a person to learn, he needs to be involved in the process. His involvement has to be total. "It has a quality of personal involvement-the whole person in both his feelings and cognitive aspects being in the event" (1969, p. 5). Even though there are compelling forces from outside, from within there is a drive to understand those forces and make meaning out of. This changes one's behavior, attitudes, even the personality. The learner evaluates himself/herself to see whether ignorance in that area still exists or that he/she has been enlightened in that area. What has been learned takes on meaning from inside.

For Dewey, learning is being able to solve problems by intelligent inquiry. This inquiry is not merely intellectual. It is experimental inquiry. It is integration of the result of empirical inquiry into experience and life such that growing takes place. Dewey says

Learning is, then, problem solving or intelligent action in which a person continually evaluates his experience in the light of its foreseen and experienced consequences. The greater the foresight in terms of multiple anticipated consequences, the greater the accumulated experiences or "learning." But learning in this sense is not simply an acquisition or achievement but a moment of experience out of which emerges redefined purposes, new evaluations and action in the service of continued growth. (Quoting from Theories of Learning and Instruction, 1964, p. 13)

Limitations of the Study

The major limitation of the study is the basic premise of the concept of perception. This premise states that there is correspondence between the way people are and the way they are believed to be by others. Debate on this basic premise continues. But for this study this basic premise has been taken for granted, which means that when respondents speak, they are speaking about their perceptions. The second premise

about perception which has been faulted is in regards to methodology used to inquire into the basic premise. In this study, open ended questions are used to get at the perceptions of students. This kind of methodology is suggested since this allows for free and open expression by the respondent (Asch, 1946; Kelly, 1950).

There are other limitations of the study largely because of its exploratory nature. First, since the sample is limited to the Union Biblical Seminary's students from Tamilnadu, Maharashtra, and North Eastern States of India, the findings are not necessarily generalizable; second, the study does not identify cause and effect relationships; it is a descriptive study, exploratory in nature. The study is intending to get at learners' perceptions and expectations regarding learning. It will only compare the several groups of learners and their perceptions and expectations about learning; third, the study uses an instrument and analysis system which is particularly designed for this study. As the instrument continues to be used, it will be refined and one can have more confidence in its findings. At this stage, it can only help to discover trends and to suggest possible relationships.

Overview

In the first chapter the purpose and importance of the study was discussed. Research questions and limitations of the study were also specified. A basic design to get at the question was also identified.

Chapter 2 presents the background material for the study. The background described includes Indian education, theological education, and ministry orientation of Union Biblical Seminary's educational concern.

Chapter 3 deals with the research literature which helps in understanding the main intention of the study. The literature focuses on expectation, perception and cultural influences on learning expectations.

Chapter 4 describes the research methodology. The sample, background of the school from which the sample is taken and the research procedure are discussed in detail. Included in Chapter 4, are the following: Field procedures, data collection, development of analysis procedures, concerns for reliability and validity, and finally statistical procedures to analyze the data.

The findings of the study are presented in Chapter 5. The analysis of the data is reported. Specific relationships are discussed along with their statistical significance. Descriptive statistics are reported.

Chapter 6 presents conclusions and implications. The findings on learners' perceptions and expectations show an area of research which can hypothesize relationships; also suggestions are made for educational practices based on the findings.

As a whole, the study is focussed on learners' perceptions regarding learning. It attempts to discover some of the sources of expectations regarding learning. These efforts are intended to help develop further pedagogical insight in a multi-cultural situation.

Chapter 2

THE CONTEXT OF THEOLOGICAL EDUCATION IN INDIA

In this chapter, a number of factors that affect theological education in India are described. Included in this is Indian education, theological education and its ministry orientation, the history and multi-cultural nature of Union Biblical Seminary, Yavatmal.

Education in India

Education is a major concern of India. Literacy has been the principle focus of this concern. The Literacy rate rose from 16.6% to 29.45% between 1951 to 1971; children going to school between ages 6-11 years has risen from 33% to 86% during the same period. Students going to school rose from 23.5 million to 85.8 million (India, 1976). From these figures, it is clear that the Government of India has been doing a great deal in the area of education since independence in 1947.

There have been many problems in education; the Government has determined a number of changes that need to be brought about. A commission was appointed in 1964, under the chairmanship of D. C. Kothari to look into new ways of dealing with situations confronting education in the country. The Kothari commission recommended the schooling pattern of 10 + 2 + 3 for a college degree. Some of the salient features of the recommendations are the following:

1. free and compulsory education up to the age of 14,
2. improved status, enrolments and education of teachers,
3. three language formula and development of regional languages,
4. equalization of education of science and research,
5. development of education for agriculture and industry,
6. improvement in quality and production of inexpensive text books, and
7. investment of 6% of national income in education (Bhatnagar, 1967).

Teacher training and the production of teachers is given high priority. There is so much thrust on teaching that sometimes student gets lost out in the process. There is danger of seeing development entirely as producing graduates. The crucial problem, though, is if development is to mean total development of the individual, learning, in terms of maximizing human potential, has to take place.

There has been an awareness that students who come from different cultural perspectives bring different kinds of potential into learning situations. Zakir Hussain recognizes this when he says:

The educational institutions have to correct their one sided intellectuality and devote themselves more consciously and systematically to the exercise and nature of social urges inherent in the young (Hussain, 1965, p. 17).

Indian education has always stood for values education. Indian educators like the late President Radhakrishnan have been emphasizing this dimension. Radhakrishnan speaking to Brembeck (1962), referred to values dimension in Indian education. In his words, ". . . we must now recover the universals in our past and the great truths which permeate the great traditions of all religions whether Hinduism, Mohamadanism, Buddhism or Christianity." The values dimension has to

somehow blend with the trend towards modernization and urbanization and there have been efforts made to understand education's role to bring about this blend. Gore, Desai, Chitnis write:

Education in modern societies is an important agency for communication the values of the society to the younger generation. This it does through the direct process of classroom instruction as also by equipping the individual with the skills of reading and writing facilitate communication of values in larger society as well. Education, especially higher education, is also expected to serve as the agency for promotion and development of new knowledge. New knowledge, whether it relates to physical and technological subjects or to the human behavioral subjects-always raises questions about older assumptions on which older practices were based. To the extent that this is true, education becomes the initiator of change. It no longer serves as an inert medium, but develops its own dynamic. This provides the third point of articulation between educational goals and cultural values (1967, p. 336).

We can therefore say that the educational thinking is forging ahead to bring about change in many areas.

Another aspect of the struggle in Indian education has been to find out what is meaningful to India. This is a problem of contextualization of education. If education is relevant it can thrive in the context. That is the test of education.

Theological Education

Theological education has been going through problems as well. Some of these problems are similar to educational problems in general. But some others are different because of specific nature of education. One of the problems we want to consider here is related to culture.

Theological education in Asia has always been multi-cultural because of the nature of the Church. Western influence in writings, in teaching, in establishing churches and in liturgy have brought about a multi-cultural Christianity. The present debate in theological

education in Asia is contextualization. The content of theological education is being made more Indian; it is being reconstructed to take better account of the Indian context. Pedagogy also must be considered in Asian context; methodology and the view of teaching and learning will also have to be contextualized.

Theological education (Theo. Ed.) has been content oriented primarily because of emphasis on revelatory aspect of the content. Special revelation which is recorded in the Bible which is inspired by God has a central place in theology (at least in orthodox and evangelical theology if not in liberal theology). There is historical and archeological critical literature that is growing to bring objectivity to this revelation. But still process of communication of this revelation has been proclamatory which means one way monologue. This has been transferred in teaching with the result that the theological teaching has been monologic instead of dialogic. Proclamation has to go hand in hand with the dialogic and apologetic teaching. Theological education has to recover the process of communication aspect of the content.

The content of theology and the methodologies of theological education must be made relevant to situations in which Indians live. Christianity has to be communicated to people of particular world-view, mindset (cognitive style) and from a perceptual point of view so that theology will become spring-board for action.

Content is important for curriculum but if content becomes the exclusive concern of the curriculum, development of the individual can be hampered. Lee (1975) suggests that there has to be an "integralist" approach for pedagogy in theological institutions. By integralist approach he means that both content and the process of communication

have to so blend that in both the planned curriculum and the hidden curriculum, teaching will yield valuable learning. The "hidden curriculum" is as important as the planned curriculum because actions speak louder than what is taught in the class. Stewart (1974) developed the concept of values development education which emphasizes the role of a teacher as a developer. The teacher is not only a messenger but a message. Jesus, speaking about ministry, told his disciples to do as he had done, e.g., washing the disciples' feet (John 13).

The model of ministry is passed on to students from the expectations teachers have about their students. If church is a body of people to carry out the ministry of the concern and servanthood, theological colleges have to start this orientation in their curriculum before it can become a reality in churches.

One of the first things theological colleges can do is to become ministry oriented toward the students. The kind of ministry teachers have towards their students will determine the kind of practices that the students-becoming-ministers will adopt for themselves.

The concern, then, is for the students; but far too often, students do not fit into existing patterns of school structure. Brembeck and Hill speak to this issue: .

How often the author has heard a teacher state that what made teaching a rewarding profession were those few students who responded and did well; one must just "put up with others as best as you can." How many of "those few students" did well because their subcultures were more in congruence with the stereotyped subculture and that the context and techniques of the system were designed to serve? What social problems were intensified and what human resources were lost because neither the sub-culture or teacher nor the institutional sub-culture of the education system could do no more than "put up with" others? (1973, p. 142).

Another concern that is there is because of strong authority relationship of Guru (meaning teacher) and students. For a seminary situation where the teacher is still an authority figure, it is important to understand how the image of teacher and his/her expectations about students can affect the attitude towards education and the ultimate values of the students.

Within the value orientation of a theological seminary within Indian society, there are important questions, such as what do teachers who are authority figures see as appropriate for education, what kind of pedagogy brings out creativity, liberates students from fear of authority figures and puts both teacher and student into an interacting relationships to explore new fields for development? According to Benne (1970) there is need for "anthropogical authority," which is a sharing growing concept. This cannot be done without understanding what learning is and how learning is perceived by both teacher and student in the context of total development of a person.

Its multi-cultural nature. UBS in India is strategically located and uniquely prepared for its vital role in developing the Church of Jesus Christ in Asia. Within a four-thousand mile radius lies half the population of the world. During its twenty-five years, UBS has seen some 800 students go out into that vast sea of Asian need and take their places in leadership among the varied nations and churches. Indian students come from various walks of life: from a Christian culture dating their ancestry back to Thomas the disciple of Jesus (There is historical evidence that one of the disciples of Jesus Christ visited India in obedience to the command to "Go ye into all the world and preach the gospel" (Mt. 28). He was a martyr as a result of his

ministry. The church in the southern part of India still continues to grow. The Christian tradition goes back to the first century and therefore there is really no grounds to claim that christianity is a western religion. In other parts of India where there was strong mission work because of missionaries from the west, the church became a dependent community for their financial support and liturgy on the west and really lost contact with the mainline stream of people. The present endeavour of the church is to go back to realize the origins in the east and this is bringing back life in the church.); from animistic tribes less than thirty years removed from head-hunting practices; from poverty-stricken and low-caste Hindu villages as well as from teaming, sweating cities; from the vast fields of the Sikhs' rich Punjab plains; from Hindu, Moslem, Buddhist, Jain background, some from the simplest homes, and others from among the most highly educated and influential.

Students of other countries also come from Japan, Indonesia, Singapore, Malaysia, Vietnam, Sri Lanka, Sikkim, Bangladesh, Nepal; also from Africa: Burundi, Ruanda, Kenya and Tanzania; once in a while, even from Germany, U.S.A., Canada and England. Last year 33 different Protestant Church affiliations were represented in the student body.

The faculty and staff also come from a wide spectrum, representing 13 different churches and 7 different countries. Saphir Athyal of Kerala has just begun his third three-year term as Principal, and now more than half the teaching and administrative staff on the job and in training are Indian.

"UBS family," for that is how the students and staff consider themselves, seek to be a caring and sharing community. Their motto, "Speaking the truth in love" (Ephesians 4:15), is constantly tested as they face and wrestle with cultural and personality differences. The challenge is to keep in harmony the diversity of persons and the unity of purpose, both faculty and students have much to learn from one another and a long way to go together in achieving the high calling they have been given (adapted from Nixon, 1978).

Hopefully this study will in some ways help understand the importance of student's place in learning. The best we can do at present for theological education is to make it serve the purpose of development of the person. The study is undertaken to find out some of the ways and thoughts of the students who come to us from different geographical regions and see whether we meet their expectations regarding learning. What are some of the elements in their thinking which need reinforcement? What are some of the inadequate perceptions which need change in order for better transfer of learning to take place? Are the teachers really able to see the students as they should be seen? Are they using the rich resource present in the students themselves? These are some of the questions in the mind of the researcher. He is seeking a responsible basis for recommendations about effective pedagogy for the theological school within the particular multi-cultural situation that faces India.

Summary

In this chapter the background for the study was reviewed. The background centered around the context of theological education in

India. Concern for contextualization of pedagogy was also shared.

Background, history and the multi-cultural nature of UBS was described.

Chapter 3

REVIEW OF THE LITERATURE

In this chapter, the research literature is examined. Special attention is given to the research on expectations, perception and ethnopedagogy.

Burger (1968) suggests that looking at learning attributes might help us to distinguish cultures.

Each culture teaches not only habits, of speaking and seeing, but even attitude towards learning. Such as, whether learning is valuable and what types of learning (e.g., from memory, from books, from experience) are desirable (1968, p.61).

Ward (1973) suggests that students coming from different cultural backgrounds might see learning from different perceptions.

Expectations

Expectations about others does have consequences, Libow (1967), Merton (1957), Krishna (1971) claims validity to Thomas' theorem which states, "If men define situations as real, they are real in their consequences (p. 1104)."

The land mark study in the area of expectation was that of Rosenthal and Jacobson (1968). The study was conducted in Oak Elementary School, in South San Francisco, during May, 1964. Students from grade 1-6 were administered the Test of General Ability (TOGA), but their teachers were told that it was the "Harvard test of inflated

acquisition." (There is no such thing.) This name was given to impress teachers. Teachers were told that the experiment would identify "spurters" and predict their high achievement in the subsequent years. TOGA is a non-language group intelligence test, which provides verbal ability and reasoning sub-scores as well as a total I.Q. score. This test was administered because it was unfamiliar to the teachers and because it offered three forms, for grades K-2, 2-4, 4-6. All of similar style and content. In fall, 1964 a randomly chosen 20% of the students were designated as "spurter". Each of the 18 teachers received one to nine names of "spurters", who would be in their classes. TOGA was again administered in January 1965, and May 1965, and May 1966. The study concluded that "change in teacher expectation can lead to improved intellectual performance" (p. 182).

The study has come under attack for several reasons. According to Elashoff and Snow (1971) there was statistical inaccuracy in reporting. The conclusions were inflated, the labels were prejudicial, the design was inadequate, the sampling plan was not spelled out in detail, and experiment was carried on under false pretence. Their judgment was that research was miscommunicated.

There have been other studies done to replicate the experiment in many different situations. It has been generally confirmed that there is such a thing as self-fulfilling prophecy. Now the question is not whether "there are expectancy effect..." (Baker and Crist, 1971, p. 64), the question is how expectancy effects operate.

There have been many studies which show that teacher expectation about the student does have consequences upon student image and his perceptions about learning. One of the major factors in the students'

minds is the expectations of teacher about them. Finn (1972) has developed a model to show how sources of expectations impinge upon the student and the direction in which they operate (Figure 3.1).

This model suggests that especially in a learning situation where teachers and students interact the students' perceptions are influenced by many factors, one of them is expectations of teacher.

Perception

There is a substantial tradition of research in the area of perceptions of learners. The Association for Supervision and Curriculum Development has published papers and reports in Learning More About Learning (1959) showing the various areas in perceptions of students which need exploration. According to Bills (1959), beliefs, values, needs, attitudes, self experience, threats all go into forming the perceptions of students regarding learning. The teacher needs to be aware of the student in all these areas in order to teach effectively. "To teach a person we must understand. This is most easily accomplished by trying to see him and his world as he sees them" (p. 63).

Do teachers have different expectations about the student achievement? Is it because of cultural traits or teachers perception about student ability? These were some of Finn's questions (1972). As a result of his experiment, Finn came to the conclusion that teachers' expectations of students' ability to perform did influence students' grades. "The factor found the most influential in shaping these evaluations is the perceived ability level of the pupil" (p. 407).

Block, in Mastery Learning (1972), comes to the conclusion that if the concept of mastery learning is popularized (i.e., everybody can

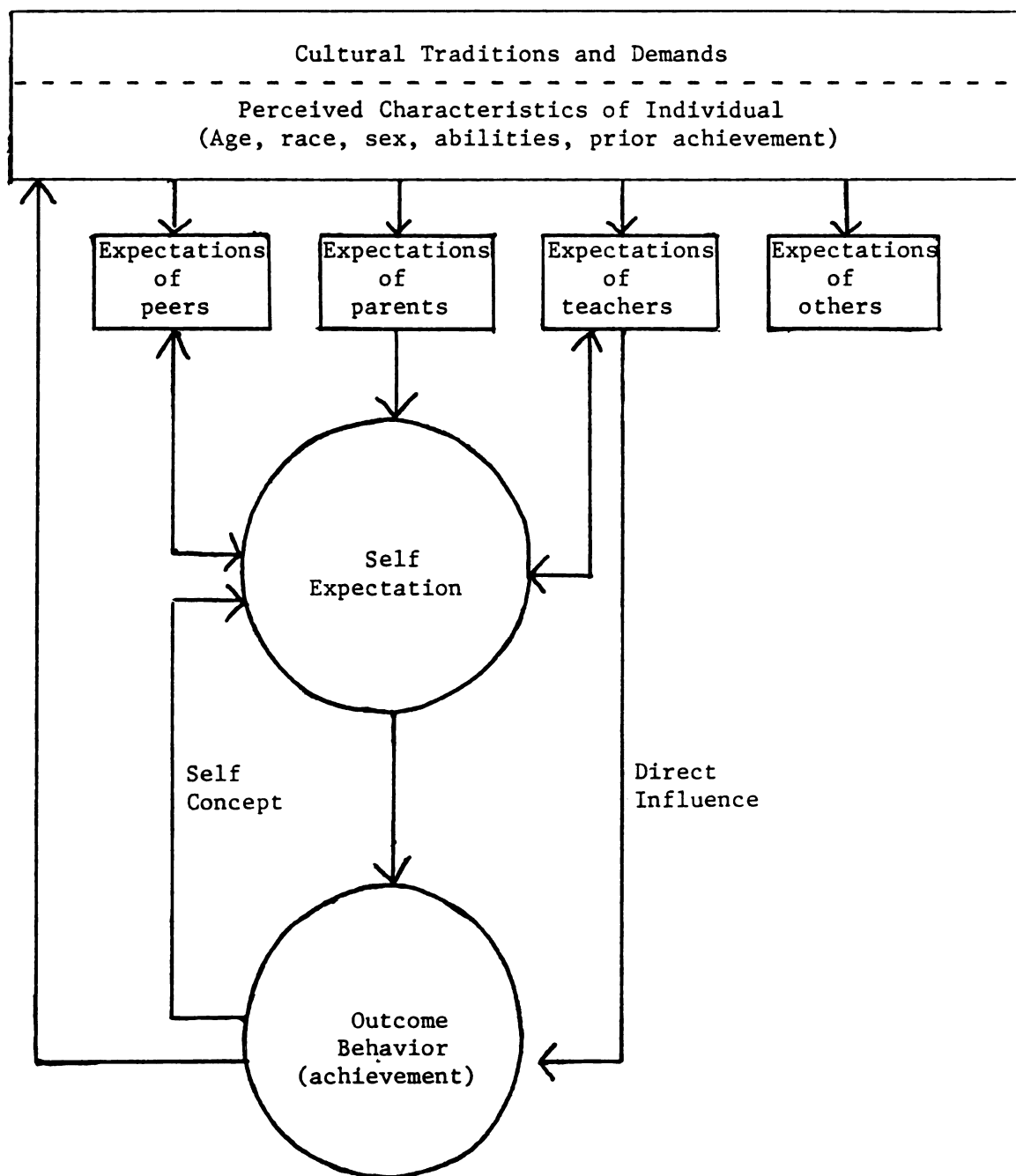


Figure 3.1

NETWORK OF EXPECTATIONS

(This is a modification of similar diagrams in Finn (1970) and Breland (1970))

master anything), 95% can achieve the target in learning. Black's conclusion is similar to Finn's. The teacher is one of the most important factors in raising or lowering the level of achievement in students.

The question raised earlier in Chapter 1 under limitations of the study, regarding veridicality of implicit theories is important one at least on one count i.e. methodology. The other count which is a more basic one is that of how do you know that what students have said is their real perception. No claim is made in the thesis that it is real one. It is taken for granted with all the limitations. This is a major limitation of the study.

The basic premise in this study states that these are perceptions of 45 respondents.

Regarding the methodological issue, Asch's study (1946) could not have come to the conclusion that he did if he were not to bias the subjects regarding warm-cold concepts as central characteristics.

Kelly (1950) in his follow up study gave more freedom to his subjects by asking the subjects to write free descriptions about the personality characteristics.

Between 1954-57, such eminent social psychologists as Allport, Bruner, Hastorf and Taiguri all published persuasive arguments that the study of person perception and impression formulation would be greatly enriched by the study of how people spontaneously categorize others. The essence of their arguments is the notion that, in order to "understand" another, we need to know how that person perceives and interprets the world (Jones, 1977, p. 33).

The research literature in the area of expectation and perception is brought up-to-date by Russell A. Jones in Self Fulfilling Prophecies.

In order to give maximum freedom of expression and minimum hindrance to speak about what the respondent really feels about perception, it is necessary not to impose our value system upon him/her.

Cultural Influence on Pedagogical Expectation

Cohen (1968) worked with children and she found that children who grow up in relational social environments cannot fit into analytical schooling approaches. It is not because of "cultural deprivation" nor because of "cultural differences", but more likely it is a matter of "cultural conflict". Cawley, Miller and Milligan (1976), building upon Cohen's findings, looked into relational and analytic cognitive styles. Their definitions of "relational" and "analytic" were in correspondence with Witkin's "global" and "articulate". Their study used the Witkin instrument, thus their definition of the global cognitive style is one in which a person sees total situation with all its relational factors whereas in the articulate cognitive style is a person analyzing each part after first separating or detaching the perceived parts of a situation.

Ward (1972) and Hovey (1971) looked at cognitive styles of adult learners in Africa as it related to Witkin's description of global and articulate. Hovey identified the characteristics of fourteen African cultures that are related to cognitive styles. Ward suggests "people differ along ethnic and sub-cultural lines--hardly in the old sense of inherent superiority and inferiority--but nevertheless in very real ways." (p. 10).

Plueddemann (1978) looks at cognitive styles in the pastors and church leaders of the Hausa people in Nigeria. He suggests that

Western curricular material, written from analytical cognitive styles, may have hampered growth and development in the people who have relational cognitive styles of solving problems.

This has ramifications for UBS curriculum since it is a place where both relational and articulate cognitive styles are interacting all the time.

McKean Study

In the spring of 1977, 225 adults from various adult education programs in southern Michigan were studied to find out their expectations of learning for various instructional settings. They responded to photograph and tape recording representations of nine instructional activities, by answering the question, "Do you think these people are learning something important?" The answers were recorded on a five-point Likert scale. Each of the nine pictures in the instrument represented a combination of one of the three levels of formality (low, medium, high) and one of the three types of learning experience (input, self awareness, sharing).

The study showed that there are two major effects. The respondents considered low and medium formality settings more valid than high formality setting. Also, the respondents considered sharing and self awareness experiences more valid than input experience. And interaction between amount of formal schooling and expectations about level of formality was found. Those who have had more years of formal schooling preferred less formal situations for learning.

The present study is similar to McKean study in several respects: Both studies used pictures. The primary question asked was a similar type. The responses in McKean study were recorded in Likert type scale.

The major difference was in the interviewing method. In the McKean study no inquiry was made into what lay behind the subjects' responses. The present study focuses on the meanings of the responses. Expectations about learning are assumed to be based on perceptions. The perceptions are discussed.

Summary

In this chapter related research in the areas of expectation, perception and cultural influence on pedagogical expectation was reviewed. The McKean study is reported in particular since the present research is an extension of McKean's investigation.

Chapter 4

RESEARCH METHODOLOGY

In this chapter, the methodology of the research is described. The research design, including variables and research questions, are stated. The instrumentation and procedures used for data collection are explained. The categorization system developed for content analysis the reliability testing of the instrument, the training program for the judges and the application of the categorization system to the actual analysis are described.

Description of Methodology

The research is a descriptive study which identifies the learners' perceptions of 'learning' in terms of the focus of the content, the apparent perceived aspect of learning, the relationship between teacher and student, and the environmental factors. In order to describe the differences among the three geographic (ethnic and cultural) groups, the study compared them according to these categories.

Research Design

The research is a 'one-shot case study' (Campbell and Stanley, 1963). The instrument was administered only one time to each of the subjects (45 subjects from three different geographical areas studying at Union Biblical Seminary, Yavatmal, Maharashtra, India).

Seven stimulus pictures of learning situations were presented in an open-ended interview. The responses to the four pictures which proved to be most discriminating were analyzed in detail. Content analysis procedures were used. The criteria by which the respondents perceived learning were identified. A questionnaire was also used in order to collect demographic information from the respondents (see Appendix C). Demographic information included the area representation of the respondents, years of formal schooling, years of practical experience in life and years of seminary training.

Sample

The study involved a select sample of students from UBS, Yavatmal. 15 students from each of the three geographical regions of India, viz., Tamilnadu State, which is in the South; Maharashtra State, which is in the center; and a set of states which are in the North-East (Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram and Nagaland States). Students of these states speak different native languages and represent different cultural groups. Compared to Tamilnadu State (TN) and Maharashtra State (MA) which are plains, the North-East States (NE) are tribal and hilly. TN students come from city (urban) backgrounds and most of them come from Christian backgrounds. MA students come from rural and semi-urban backgrounds. They come from Christian and Hindu backgrounds. Students from NE come from rural hilly backgrounds. Most of them also have gone to colleges in cities which are well developed and have Christian backgrounds. They originally come from tribal backgrounds.

Most of the subjects speak English and they all belong to protestant Christian faith (although they come from different

denominations of evangelical churches). There were five who had to be interviewed in Marathi and interviews translated into English. The sample was identified after a pilot project which showed that there might exist some differences among these three groups. The interviews were conducted and the data were collected by the researcher in the months between July to November, 1977.

The age of the subjects ranged from 18 years to 38 years. The average amount of formal schooling was 14.7 years. Only one out of 45 had 8 years of schooling before coming to seminary. All the rest had 10 or more years of schooling. Only 4 out of the 45 were female; 8 of the males were married. Although not documented, about half of the sample came from higher middle class and the rest from the poor class. Average years of practical experience was 3 years and average exposure to seminary training was 2 years (see Table 4.1 for Abstract of Demographic details. For Demographic details on respondents from TN, see Table 4.2; respondents from MA, see Table 4.3; respondents from NE, see Table 4.4). All subjects were volunteers enlisted by the researcher from among the student body of UBS in 1977-78.

Instrumentation

Interviews. The instrumentation consisted of seven separate 8½" x 11" photographs (Appendix B), each followed by two questions:

1. Is learning taking place in this picture (Yes/No/any other response)?
2. Why do you say so? (In other words, what are your thoughts regarding learning as it comes to your mind when you are exposed to this picture?) (For Questionnaire Response sheet see Appendix A and for Example of Responses see Appendix G.)

Table 4.1

ABSTRACT OF DEMOGRAPHIC DETAILS ON ALL RESPONDENTS

	TN	MA	NE	Total	Average Mean
Age	387	343	419	1149	25.533
Mean	25.8	22.8	27.9		

Years of Schooling	229	195	238	662	14.711
Mean	15.26	13.0	15.8		

Years of Seminary	30	27	34	91	2.022
Mean	2.0	1.8	2.2		

Years of Experience	43	49	50	142	3.155
Mean	2.86	3.26	3.33		

TN: Tamilnadu

MA: Maharashtra

NE: North Eastern State

Table 4.2
DEMOGRAPHIC DETAILS ON THE RESPONDENTS
Tamilnadu State of India

TAMILNADU: Subject (TN) No.	Age	Years in School	Years in Seminary	Years of Experience on the Field
501	28	10+5	2	6
504	23	10+6	1	1
505	30	10+6	2	8
508	23	10+5	3	1
514	26	10+5	2	1
519	27	10+7	2	3
520	22	10+6	1	1
522	20	10+2	1	5
523	28	10+5	1	3
528	30	10+5	1	6
532	25	10+6	2	0
534	26	10+7	3	0
535	23	10+7	1	1
536	21	10+5	1	1
537	35	10+2	7	6
Total:	387	150+79	30	43
Average Mean:	25.8	10+5.26	2	2.86

Table 4.3

DEMOGRAPHIC DETAILS ON THE RESPONDENTS

Maharashtra State of India

MAHARASHTRA: Subject (MA) No.	Age	Years in School	Years in Seminary	Years in Experience on the Field
502	24	10+2	4	0
506	31	8+0	1	13
509	23	10+5	3	1
511	29	10+7	1	5
512	35	10+5	2	15
513	27	10+5	1	3
515	21	10+5	1	2
516	21	10+0	1	1
517	23	10+2	2	4
124	20	10+2	1	1
525	22	10+4	2	0
526	21	10+2	2	0
531	24	10+2	4	1
538	18	10+1	1	0
542	25	10+5	1	3
Total:	343	138+47	27	49
Average Mean:	22.8	10+3	1.8	3.26

Table 4.4

DEMOGRAPHIC DETAILS ON THE RESPONDENTS

North Eastern States of India

NORTH EAST: (NE)	Subject No.	Age	Years in School	Years in Seminary	Years in Experience on the Field
	503	27	10+6	2	2
	507	28	10+7	2	0
	510	35	10+6	1	1
	518	21	10+4	1	4
	521	38	10+6	3	6
	527	24	10+7	2	0
	529	28	10+7	2	3
	530	31	10+5	5	5
	533	25	10+6	3	0
	539	31	10+4	2	10
	540	23	10+6	2	4
	541	31	10+7	3	4
	543	27	10+5	3	1
	544	25	10+5	1	2
	545	25	10+7	2	6
Total:		419	150+88	34	50
Average Mean:		27.9	10+5.8	2.2	3.33

Permission to interview students of UBS was granted by the administration prior to interviewing schedule. Students selected from the three different geographical locations were informed about the procedure and purpose of the interview. After their consent, interviews were conducted.

Each subject was brought into a room where the tape recorder was already set up and the photographs were shown to them one at a time. After showing each photograph, the first question was asked. After showing all the seven photographs and recording the responses, the same photographs were shown in the same order and, at this time, the second question was asked about each photograph. The responses were recorded. Then the respondent filled in demographic information which called for the details about his/her background. This was repeated with each of the 45 respondents. The interview typically lasted between 30 to 45 minutes.

Transcription of Interviews. All the interviews were transcribed in English. Five interviews which were in Marathi were first translated into oral English by the researcher and then transcribed.

Content Analysis

It was necessary to analyze the content of the transcribed interviews since the purpose of the study was to get at the perceptions of the respondents regarding learning. Four photographs were selected out of the seven originally used (see Table 4.5). Photographs #1 and #4 showed similar classroom situations, a group situation with teacher(s) present, yet the responses were quite different for these photographs. Photographs #5 and #7 were both single-student situations; the responses were quite similar although the situations were quite different

Table 4.5

DISTRIBUTION OF YES/NO RESPONSES FOR THE SEVEN PHOTOGRAPHS

Photograph Numbers:	1*	2	3	4*	5**	6	7**
Responses:							
Yes learning	<u>19</u>	38	34	<u>44</u>	<u>41</u>	38	<u>39</u>
No learning	<u>14</u>	3	5	<u>0</u>	<u>4</u>	5	<u>4</u>
Other responses	<u>12</u>	<u>4</u>	<u>6</u>	<u>1</u>	<u>0</u>	<u>2</u>	<u>2</u>
Total Responses:	45	45	45	45	45	45	45

* Similar photographs: Photographs #1 and #4, but responses are different

**Similar photographs: Photographs #5 and #7, but responses are similar

in terms of the actual situation (reading versus fishing). The remaining photographs #2, #3, #5 were not used because there was not enough discrimination in responses. The purpose of the content analysis is to identify factors relating to learning of which the respondent is conscious at the time he/she makes the judgement about the stimulus photograph. According to the principles of content analysis, a categorization system was developed.

Principles of Content Analysis. According to Isaac and Michael (1971), three common errors are made in doing content analysis. First, one tends to base the analysis on easily available content. This may not be a representative sample of all the content related to research objectives. This error was avoided in the study by analyzing all the statements respondents made. Moreover, these statements were taken in the context for the analysis so that meaning was better represented (see Appendix H for example of Responses in the context). Secondly, the researcher may fail to determine the reliability of the content analysis procedures. This error was avoided by developing a procedure that had high inter-rater reliability. A detailed statement on this is given under Reliability Testing. Third the research may use categories which are not sufficiently specific and comprehensive. All possible precautions are taken to solve this; many tentative categories were tried, looking at various problems posed by each, reworking the best systems and combining the best features.

Categorization System

Any categorization system should take into consideration the comprehensiveness of categories; at the same time, it should be flexible

enough to allow for all the responses given. After testing several systems a final system was developed (see Figure 4.1).

The responses were analyzed in respect to the categories of content. The categories provided for identifying the responses and for quantifying them. Both identification and quantification are essential for meaningful description of responses.

The categorization system was arbitrary in that it was specific to the responses given by the respondents in this study. The following are presuppositions for the categories developed:

1. Exposure to the instrument (i.e., exposure to the photographs and asking of questions: Is learning taking place in this photograph? and Why do you say it?) have elicited the responses.
2. It is assumed that mental processing has taken place in the respondent, differentiated for each photograph.
3. It is assumed that perception is a product of the development process and that in responding to the photographs, the respondents are reconstructing their own experience and explaining the learning situation in terms of past experiences.
4. Respondents are perceiving learning situations from their individual perspectives.

Reliability Testing

Reliability testing was an important part of this study since the major part of the data analysis was the content analysis.

Sampling of the Responses for Testing by Judges. On an average, four responses (four statements) were given by each respondent (45 respondents) for each of the four photographs (photographs #1, #4,

Figure 4.1

CATEGORIZATION SYSTEM

Descriptors of the Content

FOCUS OF THE CONTENT	CONTENT OF THE CITATION	RESPONDENTS PERCEPTION OF LEARNING	FACTORS THAT DESCRIBE "TEACHER AND STUDENT" RELATIONSHIP	ENVIRONMENTAL FACTORS PERTAINING TO "ENVIRONMENT FOCUS"
I II III		P Q R	S T	V W X Y Z
I. Student II. Teacher III. Environment		P. Physical Q. Mental R. Emotional	S. Instructional T. Nurturant	V. Disorderliness W. Formal (rigid) X. Formal but flexible Y. Less formal but more flexible Z. Free or natural
Observability of the learning behavior of the Student or Teacher	Focus of the Observable behavior of the Student or Teacher	Social characteristics of learning behavior	Kind of observable learning behavior	Kind of unobservable learning behavior
A B	1 2 3 4 5	6 7	8 9 10	12 13 14
A. Observable behavior of the student or teacher B. Unobservable behavior of the student or teacher	1. Reference made to physical activity/ physical posture of student or teacher 2. Reference made to learning aids/ learning materials/ subject matter 3. Reference made to learning environment 4. Reference made to practical learning 5. Reference made to life-related learning	6. Learning alone 7. Learning with others	8. Specific reference made to definite learning actually taking place 9. Specific reference made to peripheral aspects of learning 10. Specific reference made to learning in definitional terms	12. Reference made to internal involvement with learning 13. Reference made to interactional learning 14. Reference made to learning in definitional terms

#5, #7). It was important to test all the responses for each of the photographs. Responses were selected on a rotation basis for the respondents who were randomly assigned. The first response was taken was taken from photograph #1 for respondent 501; the second response was taken from photograph #4 for respondent 502; the third response was taken from photograph #5 for respondent 503; the fourth response was taken from photograph #7 for respondent 504. If there were not that many responses in that particular photograph for that particular respondent, the nearest to that number of responses was taken.

20 responses (statements) were selected for testing by three judges who made independent decisions about the categories to be assigned to each (see Appendix H). The categorizations made by the three judges were compared with the categorizations made by the researcher.

Rationale For the Training Program For the Judges. Inter-rater reliability is an important concern for this kind of a descriptive study. Berelson (1952) claims,

No single answer can be given about the reliability of the content because of its varied nature. Procedures which prove reliable in one set of circumstances will not necessarily be reliable under all circumstances because of the several factors which affect the reliability of analysis (1953, p. 136).

According to Berelson 1) reliability increases with the precision of rules of analysis, definition of terms and illustrations for those definitions (see Appendix K for Rules); 2) increased reliability is dependent upon a sufficiently large unit for the content; 3) if the coders have training they can do a more accurate job of categorizing; and 4) if the categorization system is complex there will be confusion that will reduce the reliability.

Training Program for the Judges

It was felt necessary to set up a training program for the three judges since categories had to be explained. So in addition to giving them the written explanation about the purpose of the content analysis (see Appendix I) and examples of how the researcher had made categorizations (see Appendix J), the judges were given time to ask questions regarding the categories and the procedure. After the questions were discussed, the judges independently went ahead with the categorization of the 20 statements. After the judges did the categorization, there was time given for them to explain the problems they faced during the actual categorization.

Report of the Reliability Testing. There was unanimity among the judges regarding the researcher's categories in the first section of the categorization system, i.e., focus of the content.

The judges discovered that the other categories were not clear. Subsequently, the rest of the categories (excluding the first) were reworded in form of questions (see Appendix L). The same judges were asked to categorize the same 20 statements using this revised system. This time there was 74% agreement on all items in all categories.

Categorization and Quantification of Categories

All the responses for all the photographs (photographs #1, #4, #5, #7) for all the 45 respondents were categorized. These categories were then quantified in terms of one unit for each category for each photograph. This means that the respondent gets a one unit count for each category used in his/her response for each photograph.

The schedule of rating is as follows:

I + II + III	= 1 unit
A + B	= 1 unit
1 + 2 + 3 + 4 + 5	= 1 unit
6 + 7	= 1 unit
8 + 9 + 10	= 1 unit
12 + 13 + 14	= 1 unit
P + Q + R	= 1 unit
S + T	= 1 unit
V + W + X + Y + Z	= 1 unit

For example if a respondent 501 has used two statements to describe photograph #1, the following categories were assigned to these statements:

Photograph #1, statement 1: I, A, 6, 9, P

Photograph #1, statement 2: II, B, 12, Q

He gets 0.50 for I; 0.50 for II; 0.50 for A; 0.50 for B; 1.00 for 6; 1.00 for 9; 1.00 for 12; 0.50 for P; 0.50 for Q.

This procedure allows the examination of all statements provided by each respondent for each photograph and generates a unit score representing the respondent's total response to the photograph.

Grouping of Data for Analysis

The data is grouped under three major independent variables vis. comparison across Geographical (cultural) Background, Comparison Across Years of Formal Schooling, Comparison Across Years of Practical Experience. Under each independent variable there are three sub-groupings which are the following:

Comparison Across Geographical (Cultural) Background

Tamilnadu State (TN)

Maharashtra State (MA)

North Eastern States (NE) (For details see Appendix D)

Comparison Across Years of Formal Schooling

10-12 years (Group I)

13-15 years (Group II)

16+ years (Group III) (For details see Appendix E)

Comparison Across Years of Practical Experience

0-1 year (Group A)

2-4 years (Group B)

5+ years (Group C) For details see Appendix F)

An example of a breakdown of quantified categories for a hypothetical individual respondent's statement is shown in Table 4.6. The breakdown of percentages by groups for each category is shown in Table 4.7.

For the purposes of analysis, percentage for each group for individual categories were plotted in the form of bar graphs. Bar graphs for each category then become the basis for comparing each group regarding the description of perceptions about learning in Chapter 5.

Summary

In this chapter the research design, a "one shot case study," was explained. Photographic stimuli and open ended questions were used for interviews with 45 respondents from three different geographical (cultural) backgrounds. The questions elicited information

Table 4.6

STATEMENT SHOWING BREAKDOWN OF QUANTIFIED CATEGORIES FOR A HYPOTHETICAL
INDIVIDUAL RESPONDENT'S RESPONSE

# 501	I	II	III	A	B	1	2	3	4	5	6	7	8	9	10	12	13	14	P	Q	R	S	T	V	W	X	Y	Z
Photo- graph #1	.5	0	.5	1	0	1	0	0	0	0	0	1	.5	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0

The count for each respondent is then added according to the variables; and there were three variables:

Then 12 statements (each for each variable) were made and % were worked out for quantification and analysis.
The statements looked as in Table 4.7.

Table 4.7

STATEMENT SHARING THE BREAKDOWN OF PERCENTAGES BY GROUPS FOR EACH CATEGORY

	Total for Group I:		Total for Group II:		Total for Group III:	
I	93%	19.66	93%	13.00	100%	11.00
II	.9	0.200	0	0	0	0
III	.9	0.200	7%	0.91	0	0
A	54%	10.46	53%	7.44	56%	6.12
B	46%	9.00	47%	6.52	44%	4.86
1	25%	3.25	33%	3.30	24%	1.95
2	63%	8.25	49%	4.86	66%	5.3
3	12%	1.50	18%	1.83	9%	0.75
4	0	0	0	0	0	0
5	0	0	0	0	0	0
6	98%	17.66	100%	12.00	100%	9.00
7	2%	0.33	0	0	0	0
8	82%	14.83	83%	10.00	64%	5.80
9	16%	2.83	17%	2.00	8%	0.70
10	2%	0.33	0	0	28%	2.50
12	74%	12.75	82%	9.00	71%	5.00
13	8%	1.45	5%	0.50	0	0
14	18%	3.10	14%	1.50	29%	2.00
P	17%	2.32	15%	2.07	19%	2.05
Q	79%	15.79	75%	10.45	76%	8.31
R	9%	1.83	10%	1.28	6%	0.61
S	100%	1.00	0	0	0	0
T	0	0	0	0	0	0
V	0	0	0	0	0	0
W	0	0	50%	1.00	0	0
X	0	0	0	0	0	0
Y	0	0	0	0	0	0
Z	0	0	50%	1.00	0	0

about students' perception regarding learning. Content analysis was done for four photographs, the responses to which show differences. A categorization system was developed to describe learners' perceptions of learning. Each response was categorized and quantified. The quantification was done in percentages for the three variables, i.e., geographical (cultural) background, years of formal schooling, and years of experience in the field. Statements were prepared showing the comparisons in percentages. (These percentages were the basis for plotting the graphs in Chapter 5.) Problems related to content analysis were described; the assurance of interrater reliability was also described.

Chapter 5

FINDINGS

In this chapter, findings of the study are reported. They are organized around three independent variables: comparison across geographical (cultural) background, comparison across years of formal schooling and comparison across years of practical experience on the field. General summary statements are made at the end of each comparison. Final summation is presented at the end.

In this chapter findings are presented in a series of figures. Each figure consists of a group of bar graphs graphically illustrating the distribution of responses for the three independent variables. Each independent variable is sub-divided into 3 groupings. (Geographical Cultural Background is divided into TN, MA and NE; Years of Formal Schooling is divided into 10-12 years, 13-15 years, 16+ years; Years of Practical Experience is divided into 0-1 year, 2-4 years, 5+ years). Bar graphs have been omitted in those situations where at least two of the three sub-divisions of an independent variable have received no response. All bar graphs, therefore, display data in situations where at least two of the three sub-divisions have received their response or all three received insignificant score.

Comparison Across Geographical (Cultural) Background:
(Responses to Photograph 1)

Focus of the Content

Student focus. Most of the respondents from the three geographical regions mentioned this. North East (NE) ranked first; Tamilnadu (TN) ranked last. (Figure 5.1)

Teacher focus. Most of the respondents from the three geographical regions mentioned this. Maharashtra (MA) ranked first; TN ranked last. (Figure 5.1)

Environment focus. Most of the respondents from the three geographical regions mentioned this. TN ranked first; NE ranked last. (Figure 5.1)

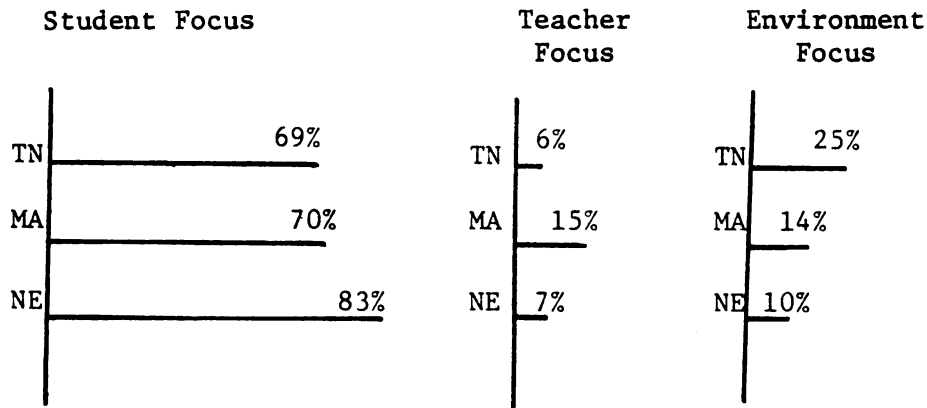


Figure 5.1

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 1

Comparing Geographical Background and Focus of the Content

Content of the Citation

Observability of the learning behavior of the student or teacher.

Most of the respondents mentioned observable behavior of the student more than unobservable behavior of the student. 1) Observable behavior of the student or teacher. Most of the respondents from the three geographical

regions mentioned this. MA ranked first; TN ranked last. (Figure 5.2)

2) Unobservable behavior of the student or teacher. Most of the respondents from the three geographical regions mentioned this. TN ranked first; MA ranked last. (Figure 5.2)

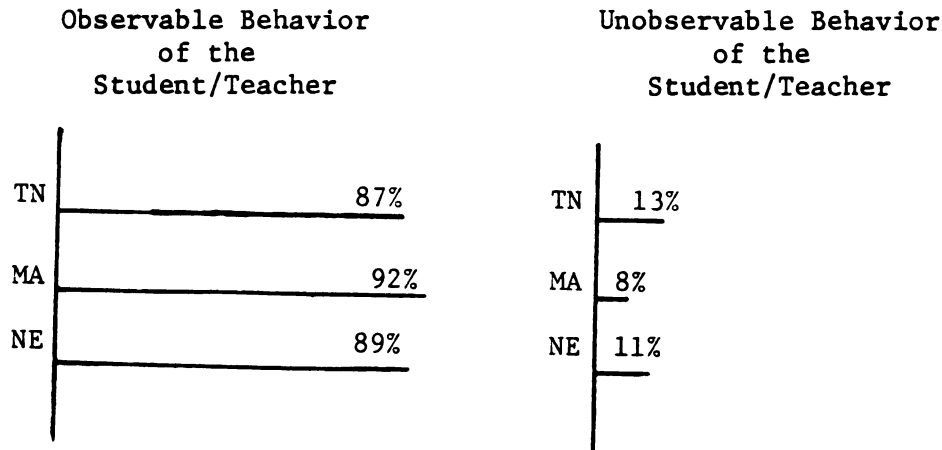


Figure 5.2

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 1

Observability of the Learning Behavior of the Student/Teacher

Focus of the observable behavior of the student or teacher. 1)

Physical activity or physical posture of the student or teacher. Most of the respondents from the three geographical regions mentioned this. MA and NE ranked equal; TN ranked last. (Figure 5.3) 2) Learning aids

or learning materials or subject matter. Most of the three geographical regions mentioned this. NE ranked first; TN ranked last. (Figure 5.3)

3) Learning environment. Most of the respondents from the three geographical regions mentioned this. TN ranked first; NE ranked last. (Figure 5.3)

4) Practical learning. A very few respondents from MA mentioned this.

5) Life-related learning. There were no response to this.

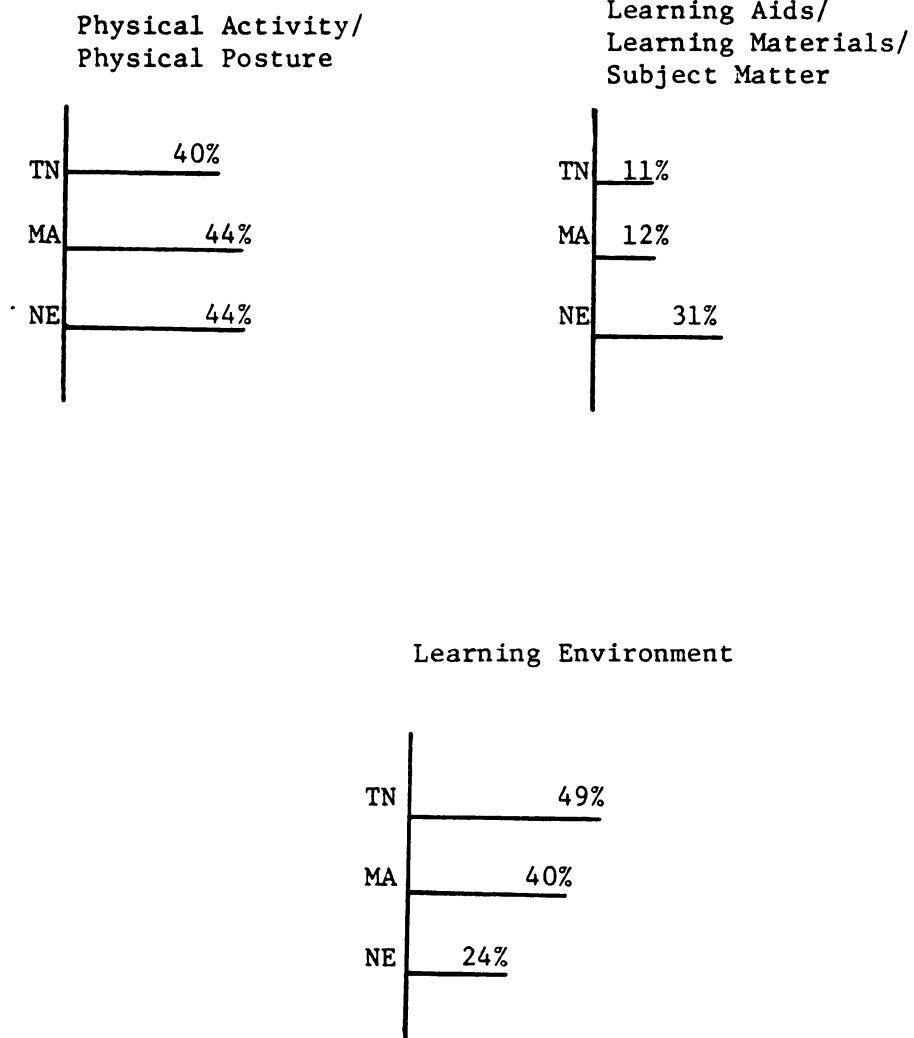


Figure 3

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 1

Focus of the Observable Behavior of the Student/Teacher

Social characteristics of learning behavior. 1) Learning alone.

Most of the respondents from the three geographical regions mentioned this. MA ranked first; NE ranked last. (Figure 5.4) 2) Learning

with others. Most of the respondents from the three geographical regions mentioned this. NE ranked first; MA ranked last. (Figure 5.4)

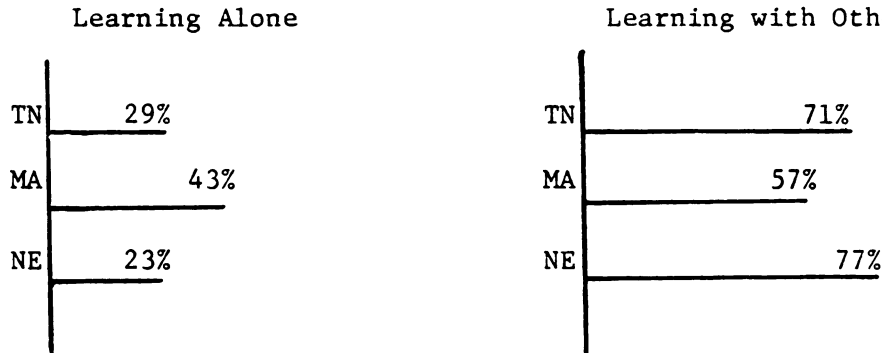


Figure 5.4

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 1

Social Characteristics of Learning Behavior

Kind of observable learning behavior. 1) Learning actually taking

place. Most of the respondents from the three geographical regions mentioned this. NE ranked first; TN ranked last. (Figure 5.5) 2)

Peripheral aspects of learning. Most of the respondents from the three geographical regions mentioned this. TN ranked first; NE ranked last.

(Figure 5.5) 3) Learning in definitional terms. Of the respondents from the two states who mentioned this, TN ranked first. MA did not mention learning in definitional terms. (Figure 5.5)

Kind of unobservable learning behavior. 1) Internal involvement

with learning. Most of the respondents from the three geographical regions mentioned this. MA ranked first; TN ranked last. (Figure 5.6) 2)

Interactional learning. Of the respondents from the two states who mentioned this, TN ranked first. MA did not mention interactional learning. (Figure 5.6) 3) Learning in definitional terms. No state mentioned this.

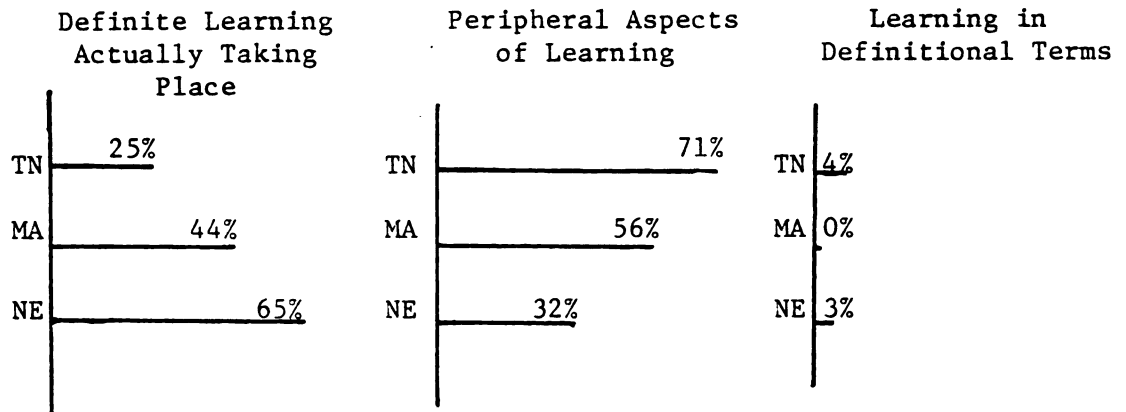


Figure 5.5

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 1

Kind of Observable Learning Behavior

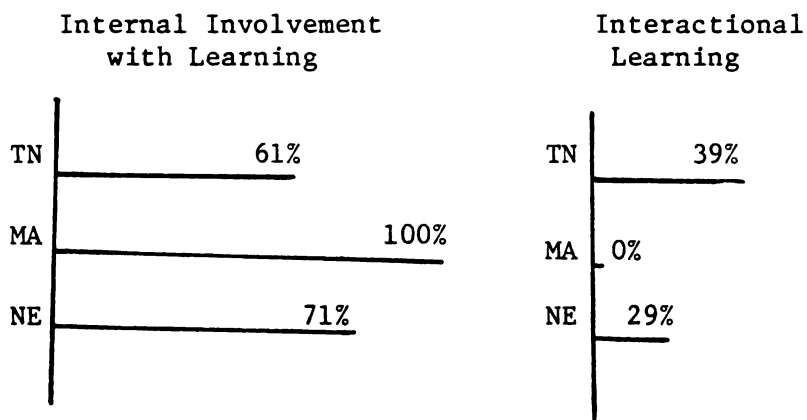


Figure 5.6

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 1

Kind of Unobservable Learning Behavior

Respondents Perception of Learning

Physical involvement for learning. Most of the respondents from the three geographical regions mentioned this. TN and MA ranked equal. (Figure 5.7)

Mental involvement for learning. Most of the respondents from the three geographical regions mentioned this. NE ranked first; TN and MA ranked equal. (Figure 5.7)

Emotional involvement for learning. Very few from NE mentioned this.

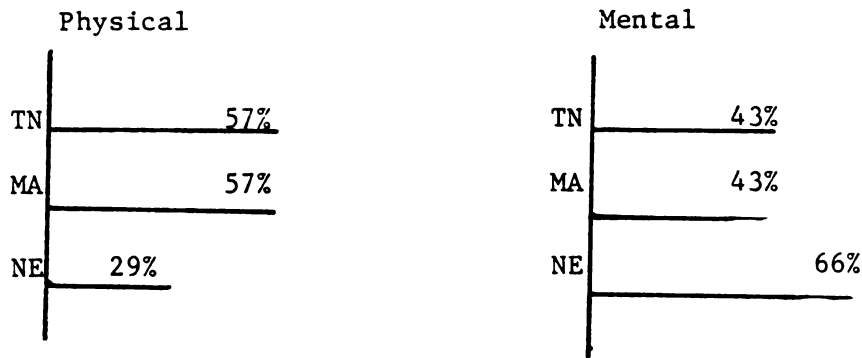


Figure 5.7

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 1

Respondents Perception of Learning

Factors that Describe Teacher or Student Relationship

Instructional factors. Very few respondents from the three states mentioned this.

Nurturant factors. A very few from NE mentioned this.

Environmental Factors Pertaining to Environment Focus Statements

A very few from each state mentioned this.

Comparison Across Geographical (Cultural) Background:
(Responses to Photograph 4)

Focus of the Content

Student focus. Most of the respondents from the three geographical regions mentioned this. NE ranked first; TN ranked last. (Figure 5.8)

Teacher focus. Most of the respondents from the three geographical regions mentioned this. MA ranked first; TN and NE ranked equal.

(Figure 5.8)

Environment focus. Most of the respondents from the three geographical regions mentioned this. TN ranked first; MA ranked last. (Figure 5.8)

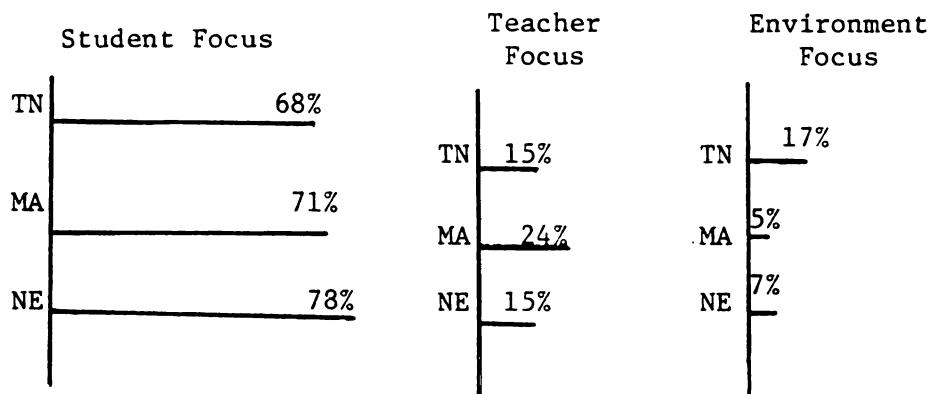


Figure 5.8

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 4

Comparing Geographical Background and Focus of the Content

Content of the Citation

Observability of the learning behavior of the student or teacher.

1) Observable behavior of the student or teacher. Most of the respondents from the three geographical regions mentioned this. NE ranked first; TN ranked last. (Figure 5.9)

2) Unobservable behavior of the student or teacher. Most of the respondents from the three geographical regions mentioned this. TN ranked first; NE ranked last. (Figure 5.9)

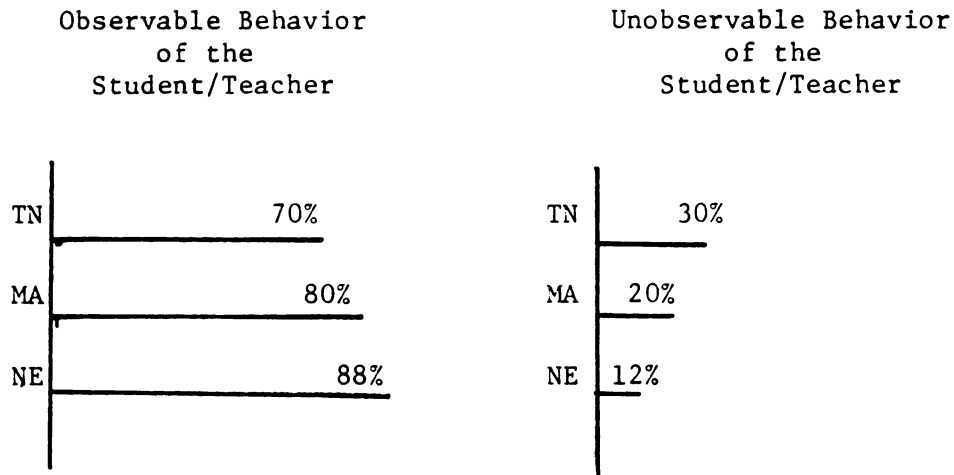


Figure 5.9

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 4

Observability of the Learning Behavior of the Student/Teacher

Focus of the observable behavior of the student or teacher. 1) Physical activity or physical posture of the student or teacher. Most of the respondents from the three geographical regions mentioned this. MA ranked first; TN ranked last. (Figure 5.10) 2) Learning aids, learning materials or subject matter. Most of the respondents from the three geographical regions mentioned this. TN and NE ranked first and equal. (Figure 5.10) 3) Learning environment. Of the respondents from the two states who mentioned this, TN ranked first. NE did not mention learning environment. (Figure 5.10) 4) Practical learning. Of the respondents from the two states who mentioned this, MA ranked first. TN did not mention practical learning. (Figure 5.10)

Social characteristics of learning behavior. 1) Learning alone. Most of the respondents from the three geographical regions mentioned this. MA ranked first; TN ranked last. (Figure 5.11) 2) Learning with others. Most of the respondents from the three geographical regions mentioned this. TN ranked first; MA ranked last. (Figure 5.11)

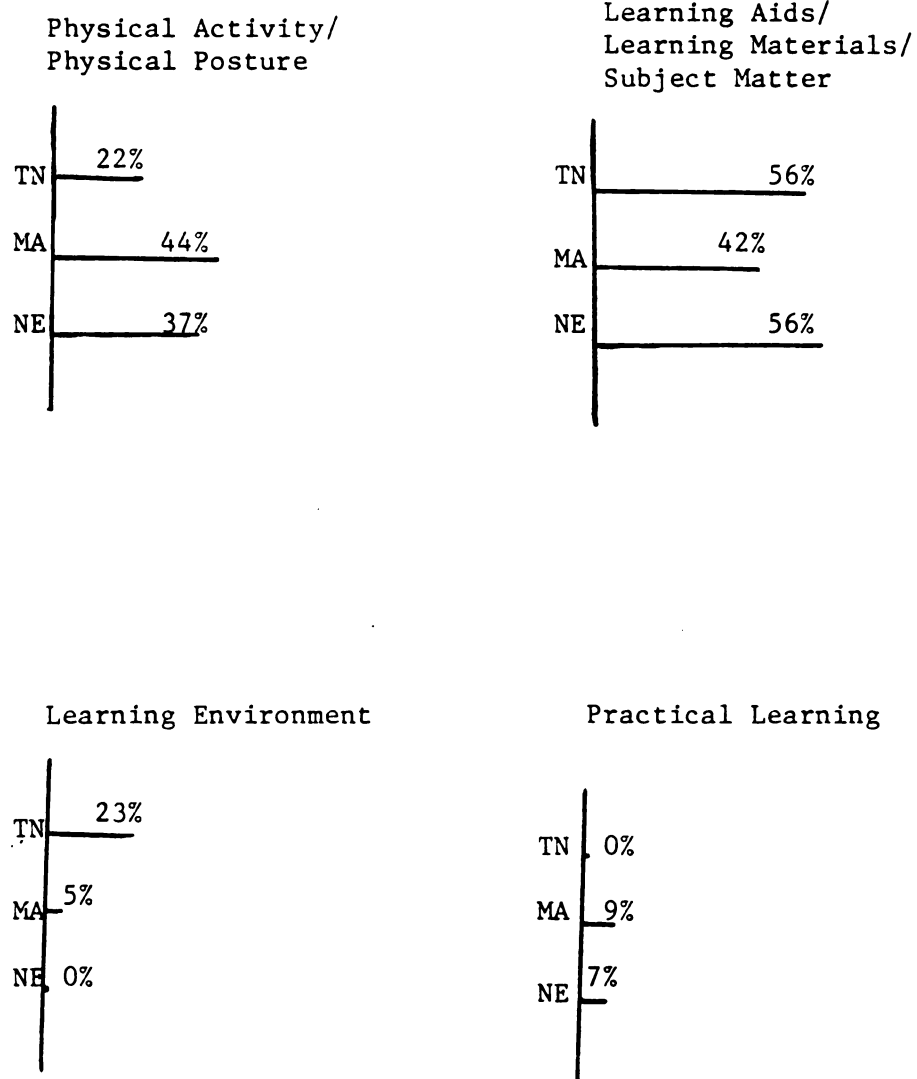


Figure 5.10

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 4

Focus of the Observable Behavior of the Student/Teacher

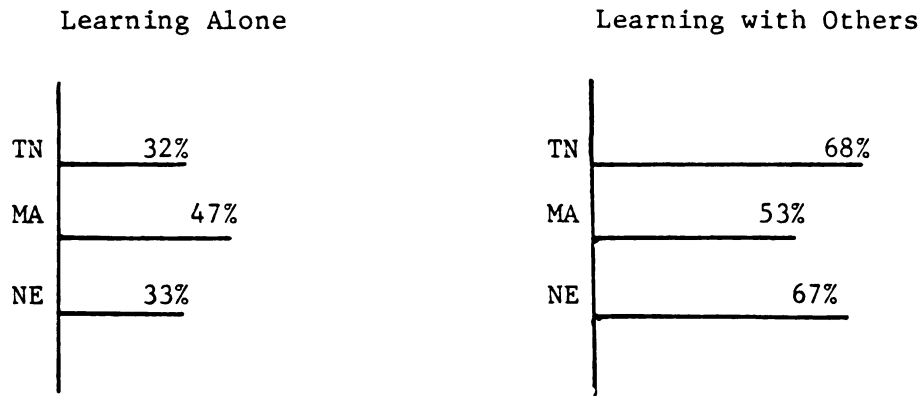


Figure 5.11

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 4

Social Characteristics of Learning Behavior

Kind of observable learning behavior. 1) Learning actually taking place. Most of the respondents from the three geographical regions mentioned this. NE ranked first; TN ranked last. (Figure 5.12) 2) Peripheral aspects of learning. Most of the respondents from the three geographical regions mentioned this. TN ranked first; NE ranked last. (Figure 5.12) 3) Learning in definitional terms. Most of the respondents from the three geographical regions mentioned this. TN ranked first; MA ranked last. (Figure 5.12)

Kind of unobservable learning behavior. 1) Internal involvement with learning. Most of the respondents from the three geographical regions mentioned this. NE ranked first; TN ranked last. (Figure 5.13) 2) Interactional learning. Most of the respondents from the three geographical regions mentioned this. MA ranked first; NE ranked last. (Figure 5.13) 3) Learning in definitional terms. Of the respondents from the two states who mentioned this, TN ranked first. MA did not mention learning in definitional terms. (Figure 5.13)

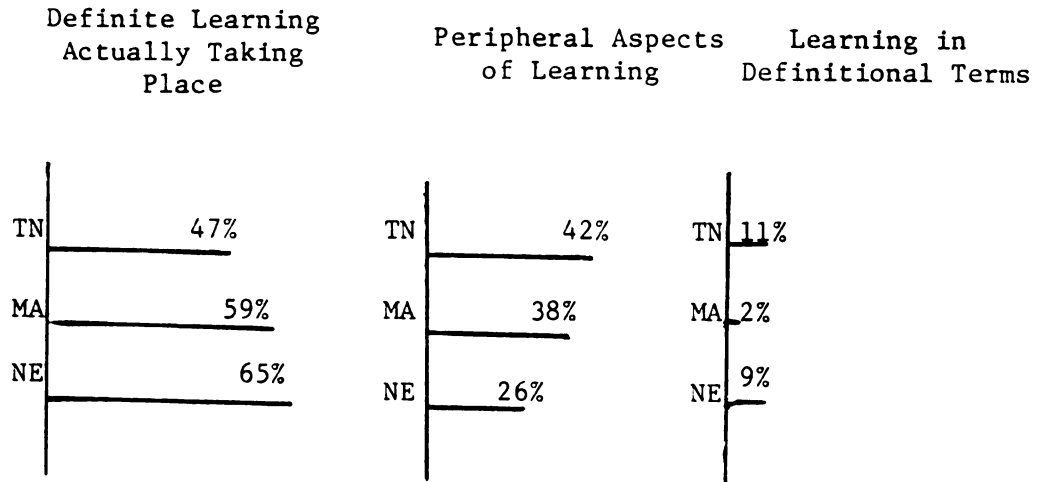


Figure 5.12

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 4

Kind of Observable Learning Behavior

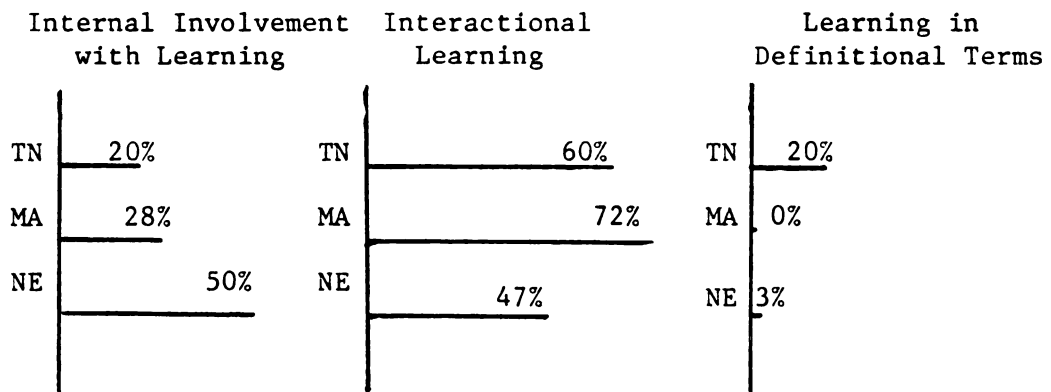


Figure 5.13

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 4

Kind of Unobservable Learning Behavior

Respondents Perception of Learning

Physical involvement for learning. Most of the respondents from the three geographical regions mentioned this. MA ranked first; NE ranked last. (Figure 5.14)

Mental involvement for learning. Most of the respondents from the three geographical regions mentioned this. NE ranked first; TN ranked last. (Figure 5.14)

Emotional involvement for learning. Of the two states who mentioned this, TN ranked first. MA did not mention emotional involvement for learning. (Figure 5.14)

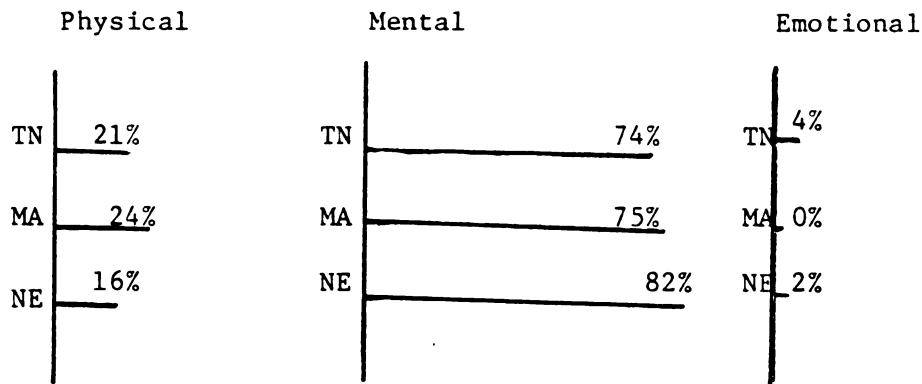


Figure 5.14

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 4

Respondents Perception of Learning

Environmental Factors Pertaining to Environment Focus Statements

A very few from each state mentioned this.

Comparison Across Geographical (Cultural) Background: (Responses to Photograph 5)

Focus of the Content

Student focus. Most of the respondents from the three geographical regions mentioned this. TN and NE were equal; MA was last. (Figure 5.15)

Teacher focus. None of the states mentioned this.

Environment focus. A very few from MA mentioned this.

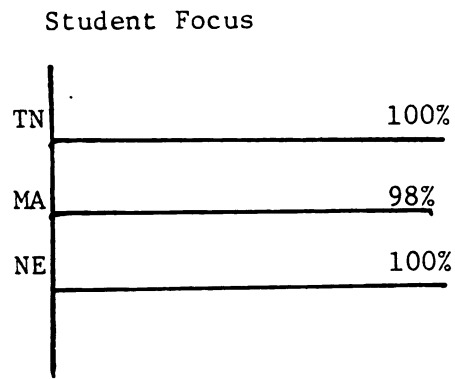


Figure 5.15

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 5

Comparing Geographical Background and Focus of the Content

Content of the Citation

Observability of the learning behavior of the student or teacher.

1) Observable behavior of the student or teacher. Most of the respondents from the three geographical regions mentioned this. NE ranked first; MA ranked last. (Figure 5.16) 2) Unobservable behavior of the student or teacher. Most of the respondents from the three geographical regions mentioned this. MA ranked first; NE ranked last. (Figure 5.16)

Focus of the observable behavior of the student or teacher. 1)

Physical activity or physical posture of the student or teacher. Most of the respondents from the three geographical regions mentioned this.

MA ranked first; NE ranked last. (Figure 5.17) 2) Learning aids or learning materials or subject matter. A very few from TN mentioned this.

3) Learning environment. A very few from TN mentioned this.

4) Practical learning. Most of the respondents from the three geographical regions mentioned this. NE ranked first; TN ranked last.

(Figure 5.17) 5) Life-related learning. A very few from TN mentioned this.

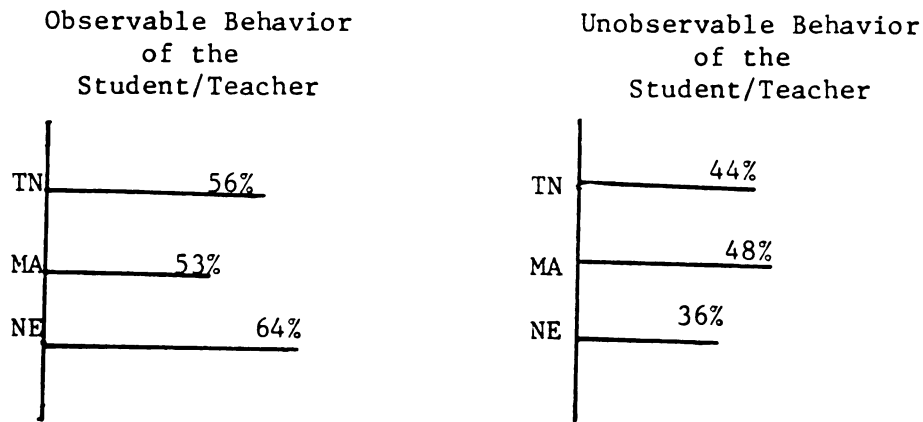


Figure 5.16

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 5

Observability of the Learning Behavior of the Student/Teacher

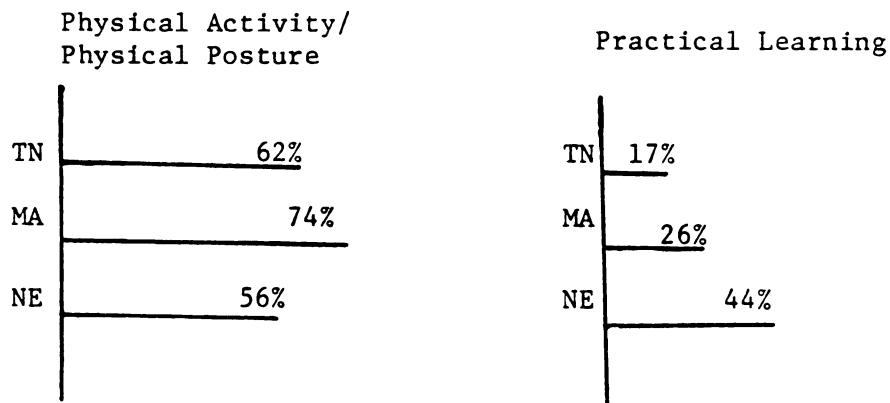


Figure 5.17

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 5

Focus of the Observable Behavior of the Student/Teacher

Social characteristics of learning behavior. 1) Learning alone.

Most of the respondents from the three geographical regions mentioned this. All three states were equal. (Figure 5.18) 2) Learning with others. None of the respondents from the three geographical regions mentioned this.

Learning Alone

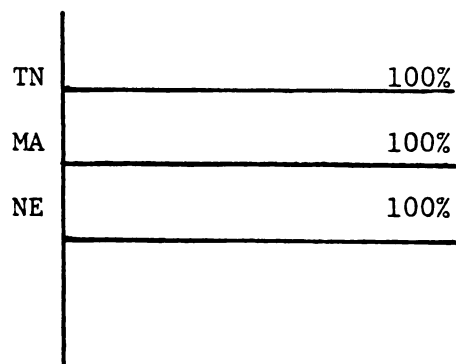


Figure 5.18

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 5

Social Characteristics of Learning Behavior

Kind of observable learning behavior. 1) Learning actually taking place. Most of the respondents from the three geographical regions mentioned this. TN ranked first; MA ranked last. (Figure 5.19) 2) Peripheral aspects of learning. Most of the respondents from the three geographical regions mentioned this. MA ranked first; TN ranked last. (Figure 5.19) 3) Learning in definitional terms. None of the three states mentioned this.

Kind of unobservable learning behavior. 1) Internal involvement with learning. Most of the respondents from the three geographical regions mentioned this. NE ranked first; TN ranked last. (Figure 5.20) 2) Interactional learning. Of the two states who mentioned this, MA ranked first. TN did not mention interactional learning. 3) Learning in definitional terms. Most of the respondents from the three geographical regions mentioned this. TN ranked first; MA and NE were last and equal. (Figure 5.20)

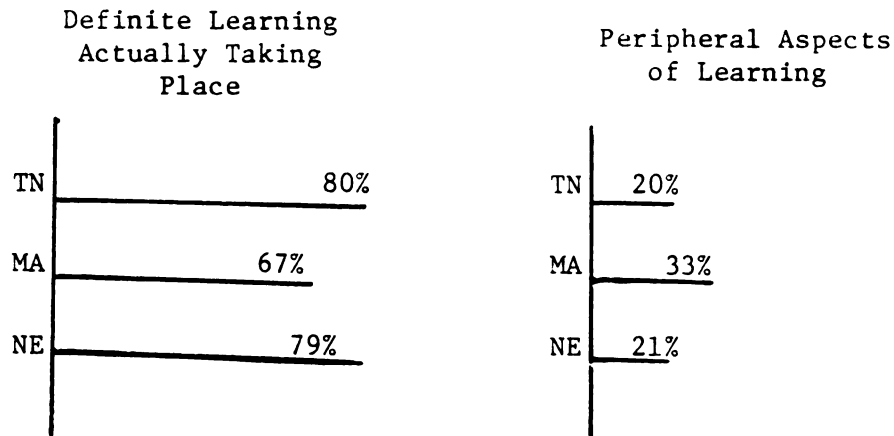


Figure 5.19

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 5

Kind of Observable Learning Behavior

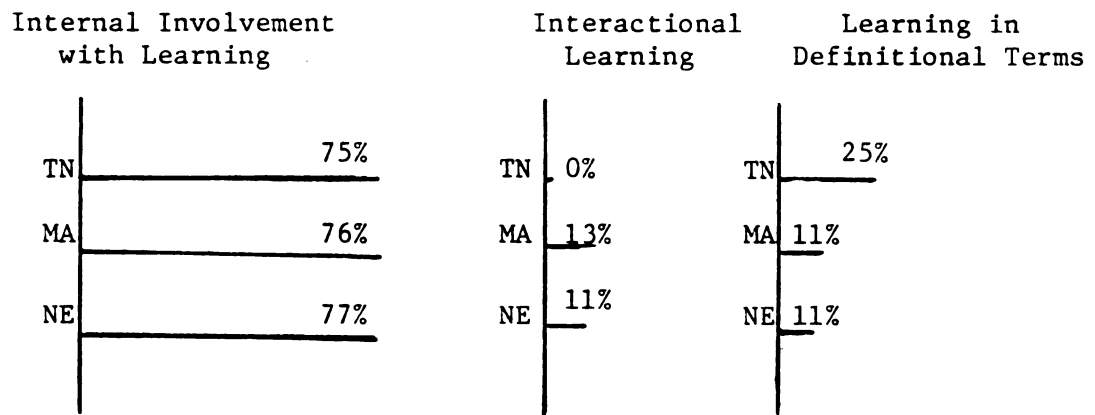


Figure 5.20

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 5

Kind of Unobservable Learning Behavior

Respondents Perception of Learning

Physical involvement for learning. Most of the respondents from the three geographical regions mentioned this. MA ranked first; NE ranked last. (Figure 5.21)

Mental involvement for learning. Most of the respondents from the three geographical regions mentioned this. NE ranked first; TN ranked last. (Figure 5.21)

Emotional involvement for learning. Most of the respondents from the three geographical regions mentioned this. TN ranked first; MA ranked last. (Figure 5.21)

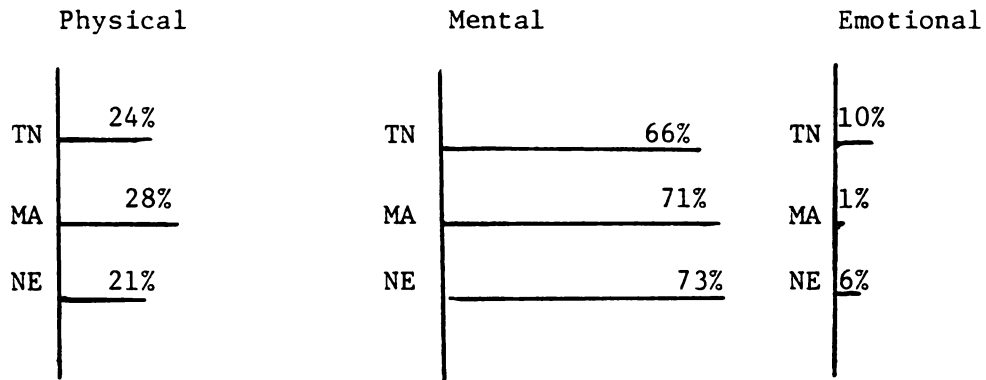


Figure 21

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 5

Respondents Perception of Learning

Factors that Describe Teacher and Student Relationship

None of the respondents from the three states mentioned this.

Environmental Factors Pertaining to Environment Focus Statements

None of the respondents from the three states mentioned this.

Comparison Across Geographical (Cultural) Background: (Responses to Photograph 7)

Focus of the Content

Student focus. Most of the respondents from the three geographical regions mentioned this. MA ranked first; TN and NE ranked equal and last. (Figure 5.22)

Teacher focus. There were very few from the three states that mentioned this.

Environment focus. Of the two states who mentioned this focus, TN ranked first. MA did not mention environment focus. (Figure 5.22)

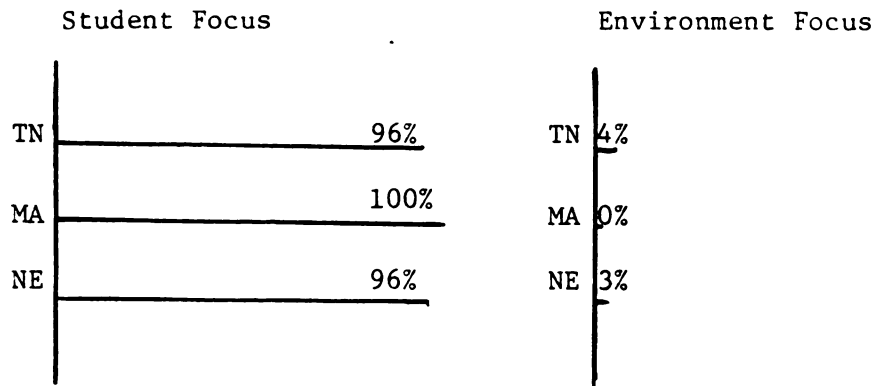


Figure 5.22

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 7

Comparing Geographical Background and Focus of the Content

Content of the Citation

Observability of the learning behavior of the student or teacher.

Most of the respondents from the three geographical regions mentioned this. MA ranked first; TN ranked last. (Figure 5.23) 2) Unobservable behavior of the student or teacher. Most of the respondents from the three geographical regions mentioned this. TN ranked first; MA ranked last. (Figure 5.23)

Focus of the observable behavior of the student or teacher.

1) Physical activity or physical posture of the student or teacher.

Most of the respondents from the three geographical regions mentioned this. TN ranked first; NE ranked last. (Figure 5.24) 2) Learning aids, learning materials or subject matter. Most of the respondents

from the three geographical regions mentioned this. NE ranked first; TN ranked last. (Figure 5.24) 3) Learning environment. Most of the respondents from the three geographical regions mentioned this. TN ranked first; NE ranked last. (Figure 5.24) 4) Practical learning. None of the respondents from the three geographical regions mentioned this. 5) Reference made to life-related learning. None of the respondents from the geographical regions mentioned this.

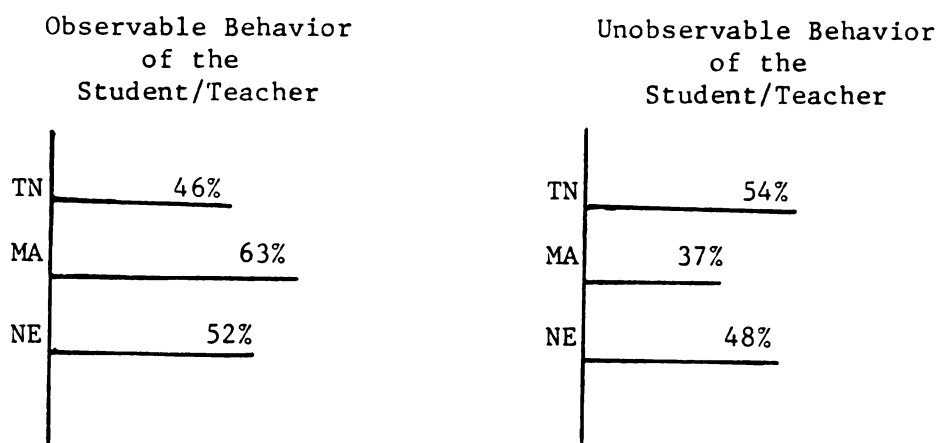


Figure 5.23

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 7

Observability of the Learning Behavior of the Student/Teacher

Social characteristics of learning behavior. 1) Learning alone.

Most of the respondents from the three geographical regions mentioned this. TN and MA were equal and ranked first; NE ranked last. (Figure 5.25) 2) Learning with others. There were very few respondents from the three geographical regions who mentioned this.

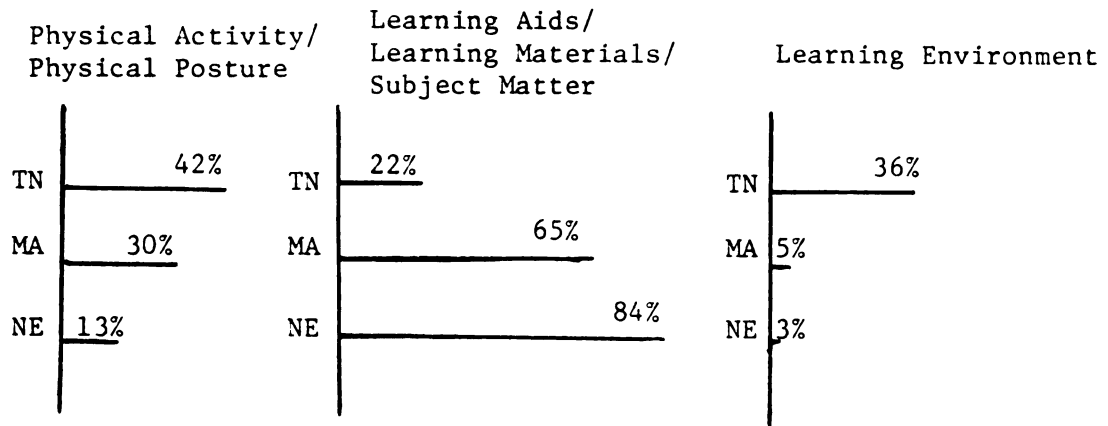


Figure 5.24

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 7

Focus of the Observable Behavior of the Student/Teacher

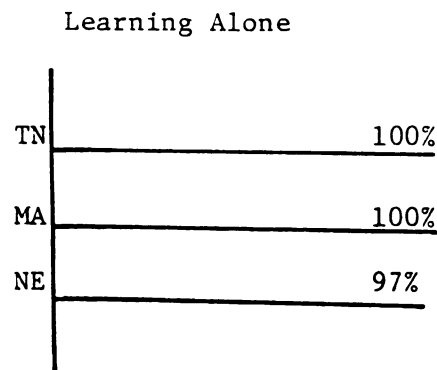


Figure 5.25

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 7

Social Characteristics of Learning Behavior

Kind of observable learning behavior. 1) Learning actually taking place. Most of the respondents from the three geographical regions mentioned this. NE ranked first; TN and MA were equal and ranked last. (Figure 5.26) 2) Peripheral aspects of learning. Most of the respondents from the three geographical regions mentioned this. MA ranked first; NE ranked last. (Figure 5.26) 3) Learning in definitional terms. Of the two states who mentioned this, TN ranked

first. MA did not mention learning in definitional terms. (Figure 5.26)

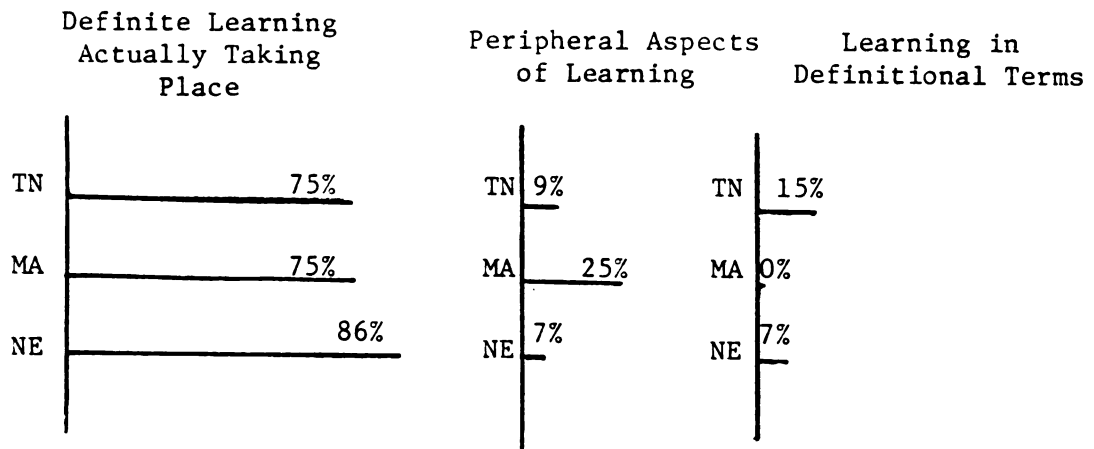


Figure 5.26

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 7

Kind of Observable Learning Behavior

Kind of unobservable learning behavior. 1) Internal involvement with learning. Most of the respondents from the three geographical regions mentioned this. MA ranked first; NE ranked last. (Figure 5.27)

2) Interactional learning. Of the two states who mentioned this, NE ranked first. MA did not mention interactional learning. (Figure 5.27)

3) Learning in definitional terms. Most of the respondents from the three geographical regions mentioned this. TN ranked first; MA ranked last. (Figure 5.27)

Respondents Perception of Learning

Physical involvement for learning. Most of the respondents from the three geographical regions mentioned this. MA ranked first; NE ranked last. (Figure 5.28)

Mental involvement for learning. Most of the respondents from the three geographical regions mentioned this. TN ranked first; MA ranked last. (Figure 5.28)

Emotional involvement for learning. Most of the respondents from the three geographical regions mentioned this. NE ranked first; TN ranked last. (Figure 5.28)

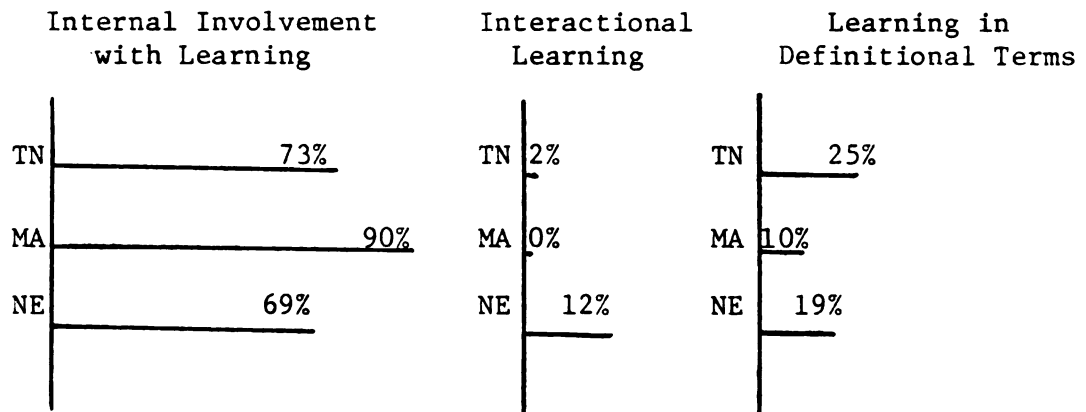


Figure 5.27

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 7

Kind of Unobservable Learning Behavior

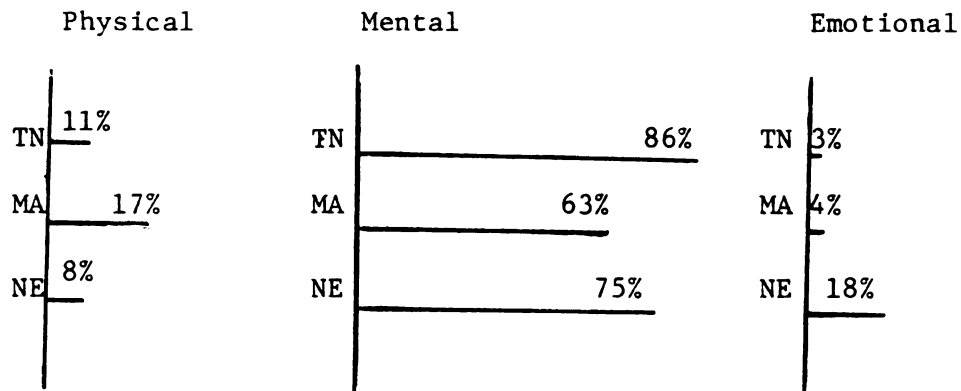


Figure 5.28

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 7

Respondents Perception of Learning

Factors that Describe Teacher and Student Relationship

None of the respondents from the three geographical regions mentioned this.

Environmental Factors Pertaining to Environment Focus Statements

Very few of the respondents from the three geographical regions mentioned this.

Comparison Across Geographical (Cultural) Backgrounds

Some Important Findings

TN stands for Tamilnadu. MA stands for Maharashtra. NE stands for North Eastern States.

Photographs #1 and #4. 1) In all the statements respondents made regarding photograph #1 and #4, focus of the content was student. As a secondary focus of the content in photograph #1 and #4, MA was highest of the three groups for teacher focus and TN was highest for environmental focus. (Figures 5.1, 5.8) 2) Although most respondents from these states mention observable behavior of the student or teacher in photographs #1 and #4, TN has the highest secondary emphasis on unobservable behavior of the student or teacher. (Figures 5.2, 5.9) 3) MA sees physical posture; NE sees learning aids or subject matter and TN sees learning environment in photograph #1 and #4. (Figures 5.3, 5.10) 4) Most see learning with others as a primary emphasis in photographs #1 and #4. But as a secondary emphasis, MA sees learning alone in group situations. (Figures 5.4, 5.11) 5) Most see peripheral learning activity in photograph #1 (Figure 5.5) and learning definitely taking place in photograph #4 (Figure 5.12) but TN sees peripheral aspects of learning in these two photographs. 6) Most see internal

involvement with learning in photograph #1 and interactional learning in photograph #4, but MA see internal involvement in learning most in photograph #1 and interactional learning in photograph #4 both of which are unobservable. TN sees interactional learning in photograph #4.

7) Most see physical involvement in learning in photograph #1 (Figure 5.7) and mental involvement in photograph #4 (Figure 5.14) but NE sees mental involvement in photograph #1.

Conclusions for Photographs #1 and #4. 1) Disorderliness may become a hindrance for TN students for effective learning. 2) Group situations may be a hindrance for MA students for effective learning. 3) NE students would require individual attention for effective learning.

Photographs #5 and #7. 1) In photograph #5, for most it is observable behavior but for MA students it is unobservable behavior. (Figure 5.16) 2) Photograph #5 is physical activity for TN and MA students but it is practical learning for NE students. (Figure 5.17) 3) In photograph #5, specific learning is definitely taking place for TN and NE but for MA students it is peripheral learning. 4) For NE, photograph #5 (fishing) is internal involvement with learning (Figure 5.20), but for MA, photograph #7 (study) is internal involvement with learning (Figure 5.27). TN students speak about photograph #5 and #7 in definitional terms. (Figures 5.20, 5.26, 5.27) 5) Photograph #5 (fishing) is mental involvement for NE students; physical involvement for MA students; and emotional involvement for TN students. (Figure 5.21) 6) But photograph #7 (study) is physical involvement for MA, mental involvement for TN and emotional involvement for NE (Figure 5.28) In photograph #7 (study), TN students see physical posture

and learning environment and NE sees learning aids and learning materials. (Figure 5.24)

Conclusions for Photographs #5 and #7. 1) NE students may benefit from practical learning situations. 2) Individual study may help MA students in effective learning.

Comparison Across Years of Formal Schooling:
(Responses to Photograph 1)

Focus of the Content

Student focus. Of the respondents from the three formal school groupings who mentioned this focus, those with 13-15 years of schooling (Group II) ranked first; 10-12 years of schooling (Group I) ranked last. (Figure 5.29)

Teacher focus. Of the respondents from the three formal school groupings who mentioned this focus, Group I ranked first; 16+ years of schooling (Group III) ranked last. (Figure 5.29)

Environment focus. Of the respondents from the three formal school groupings who mentioned this focus, Group I ranked first; Group II ranked last. (Figure 5.29)

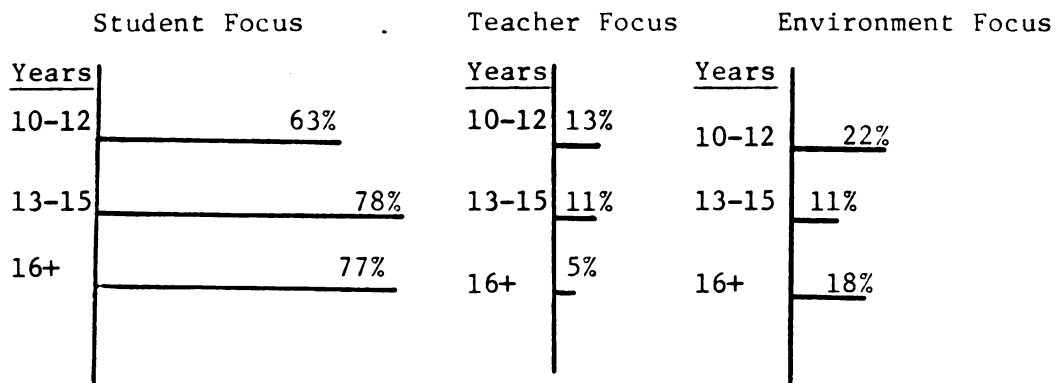


Figure 5.29

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 1

Comparing Years of Formal Schooling and Focus of the Content

Content of the Citation

Observability of the learning behavior of the student or teacher.

1) Observable behavior of the student or teacher. Of the respondents who mentioned this, Group II ranked first; Group III ranked last.

(Figure 5.30) 2) Unobservable behavior of the student or teacher.

Of the respondents who mentioned this, Group III ranked first; Group II ranked last. (Figure 5.30)

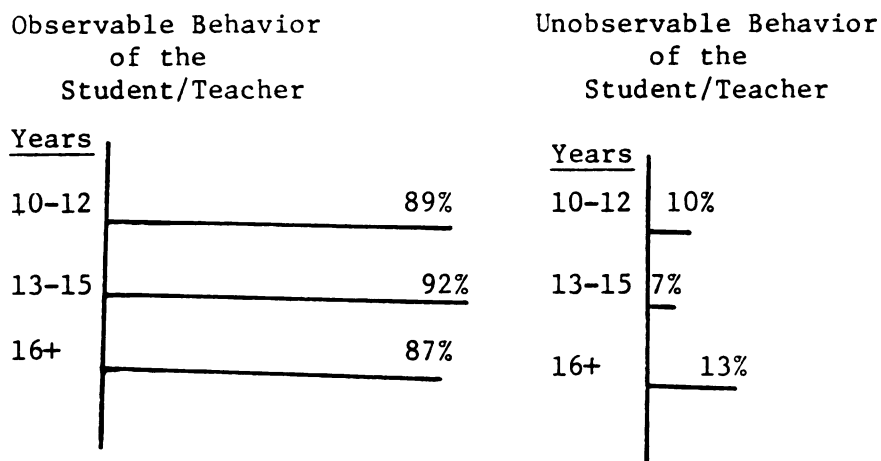


Figure 5.30

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 1

Observability of the Learning Behavior of the Student/Teacher

Focus of the observable behavior of the student or teacher. 1)

Physical activity or physical posture of the student or teacher. Of those who mentioned this, Group III ranked first; Group II ranked last.

(Figure 5.31) 2) Learning aids or learning materials or subject matter.

Of the respondents who mentioned this, Group II ranked first; Group I ranked last. (Figure 5.31) 3) Learning environment. Of all the respondents who mentioned this, Group I ranked first; Group III ranked last. (Figure 5.31) 4) Practical learning. A very few respondents

mentioned this focus of learning. 5) Life-related learning. No one mentioned this focus of learning.

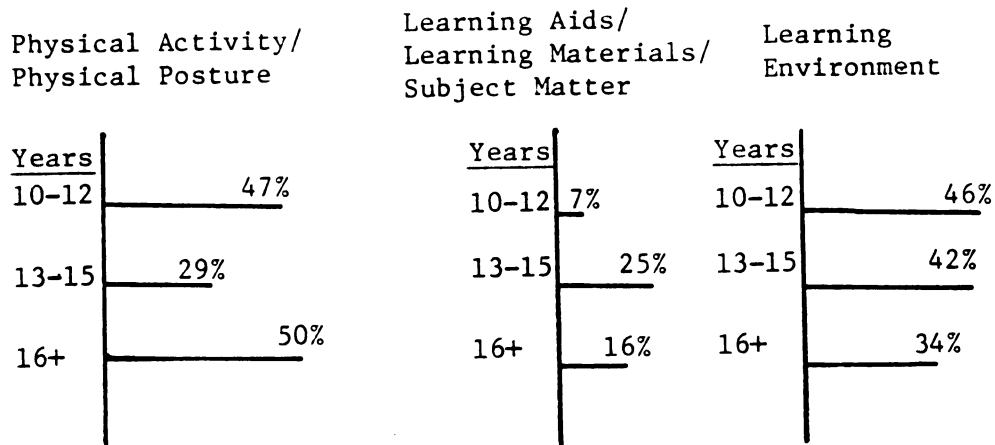


Figure 5.31

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 1

Focus of the Observable Behavior of the Student/Teacher

Social characteristics of learning behavior. 1) Learning alone.

Of all the respondents who mentioned this, Group II ranked first; Group I ranked last. (Figure 5.32) 2) Learning with others. Of all the respondents who mentioned this, Group I ranked first; Group II ranked last. (Figure 5.32)

Kind of observable learning behavior. 1) Learning actually taking place. Of all the respondents who mentioned this, Group II ranked first; Group I ranked last. (Figure 5.33) 2) Peripheral aspects of learning. Of all the respondents who mentioned this, Group I ranked first; Group II ranked last. (Figure 5.33) 3) Learning in definitional terms. A very few respondents mentioned this.

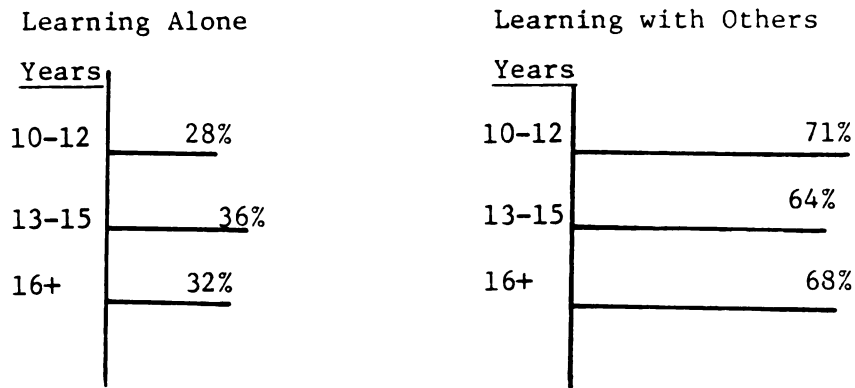


Figure 5.32

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 1

Social Characteristics of Learning Behavior

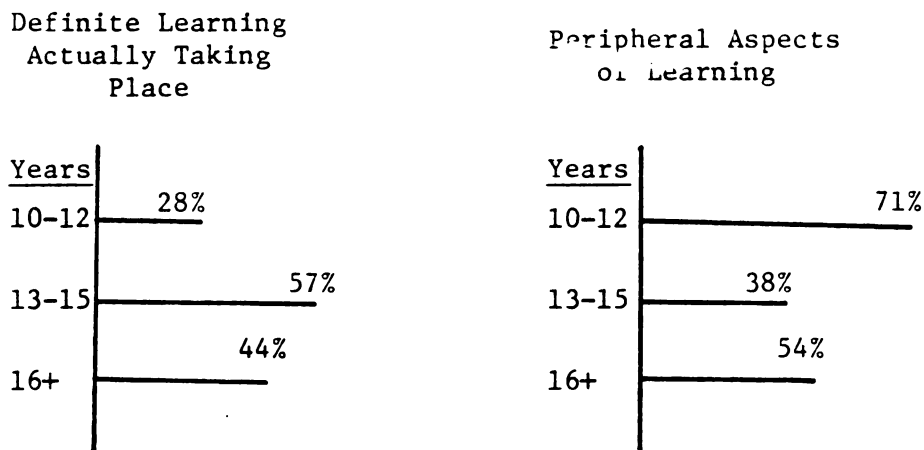


Figure 5.33

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 1

Kind of Observable Learning Behavior

Kind of unobservable learning behavior. 1) Internal involvement with learning. Of all the respondents who mentioned this, Group I ranked first; Group II ranked last. (Figure 5.34) 2) Interactional learning. Of the respondents from those who mentioned this, Group II and Group III were equal and first; Group I ranked last. (Figure 5.34) 3) Learning in definitional terms. No group mentioned this.

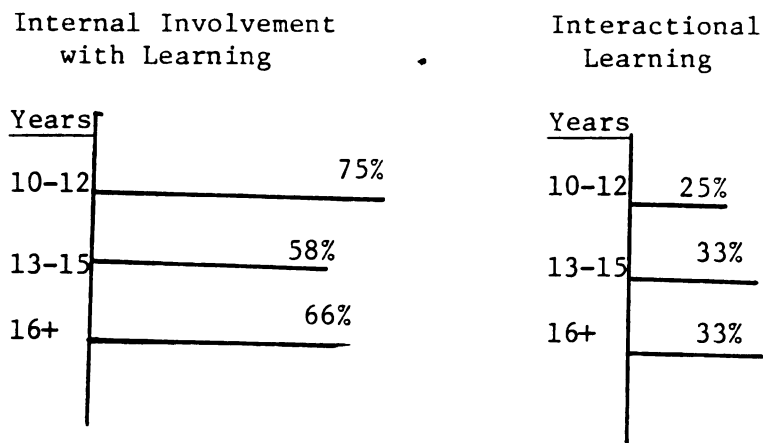


Figure 5.34

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 1

Kind of Unobservable Learning Behavior

Respondents Perception of Learning

Physical involvement for learning. Of all the respondents who mentioned this, Group I ranked first; Group II ranked last. (Figure 5.35)

Mental involvement for learning. Of all the respondents who mentioned this, Group II ranked first; Group I ranked last. (Figure 5.35)

Emotional involvement for learning. Of the two groups who mentioned this, Group I ranked first. Group II did not mention emotional involvement for learning. (Figure 5.35)

Factors that Describe Teacher and Student Relationship

Instructional factors. Of all the respondents who mentioned this, Group II and Group III were equal and ranked first; Group I ranked last. (Figure 5.36)

Nurturant factors. A very few mentioned this.

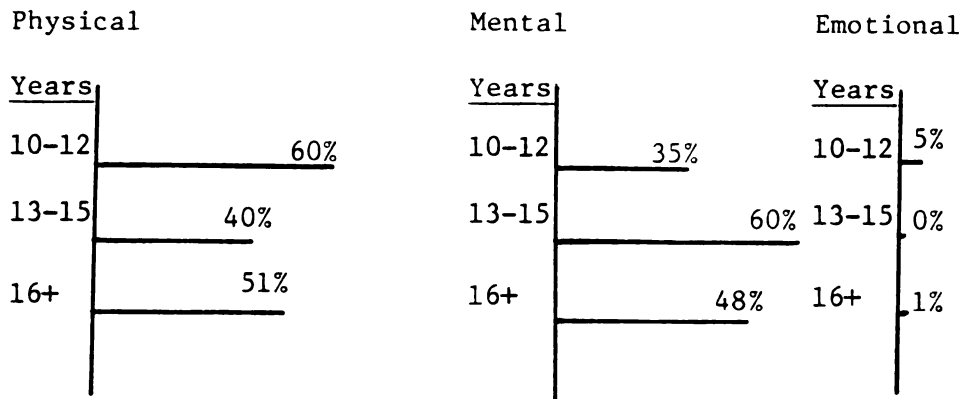


Figure 5.35

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 1
Respondents Perception of Learning

Environmental Factors Pertaining to Environment Focus Statements

Disorderliness. Of all the respondents who mentioned this, Group I, Group II and Group III were ranked equal. (Figure 5.37)

Formal (rigid). A very few respondents from the three groups mentioned this.

Formal but flexible. A very few respondents from the three groups mentioned this.

Less formal but more flexible. A very few respondents from the three groups mentioned this.

Free or natural. A very few respondents from the three groups mentioned this.

Instructional

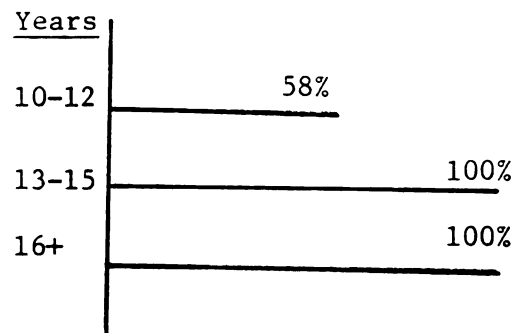


Figure 5.36

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 1

Factors that Describe Teacher/Student Relationship

Disorderliness

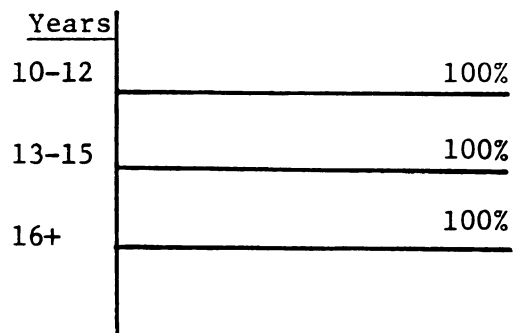


Figure 5.37

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 1

Environmental Factors Pertaining to Environment Focus Statements

Comparison Across Years of Formal Schooling:
(Responses to Photograph 4)

Focus of the Content

Student focus. Of the respondents who mentioned this focus, Group III ranked first; Group I ranked last. (Figure 5.38)

Teacher focus. Of the respondents who mentioned this focus, Group I ranked first; Group III ranked last. (Figure 5.38)

Environment focus. Of the respondents who mentioned this focus, Group II ranked first; Group III ranked last. (Figure 5.38)

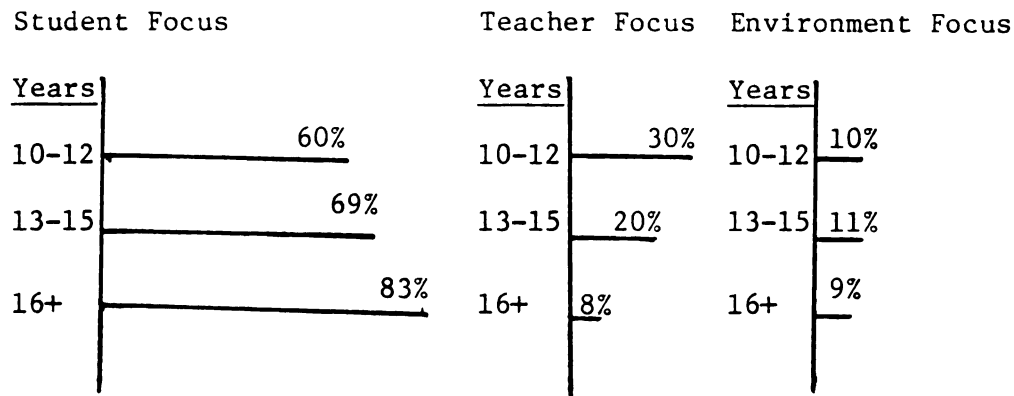


Figure 5.38

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 4

Comparing Years of Formal Schooling and Focus of the Content

Content of the Citation

Observability of the learning behavior of the student or teacher.

- 1) Observable behavior of the student or teacher. Of all the respondents who mentioned this, Group II ranked first; Group III ranked last. (Figure 5.39)
- 2) Unobservable behavior of the student or teacher. Of all the respondents who mentioned this, Group III ranked first; Group II ranked last. (Figure 5.39)

Focus of the observable behavior of the student or teacher.

- 1) Physical activity or physical posture of the student or teacher. Of all those who mentioned this, Group I ranked first; Group III ranked last. (Figure 5.40)
- 2) Learning aids or learning materials or subject matter. Of all the respondents who mentioned this, Group III ranked first; Group I ranked last. (Figure 5.40)
- 3) Learning environment. Of all the respondents who mentioned this, Group I ranked first; Group II and Group III were equal and ranked last. (Figure 5.40)
- 4) Practical

learning. Of all those who mentioned this, Group I ranked first; Group III ranked last. (Figure 5.40) 5) Life-related learning. None of the respondents mentioned this.

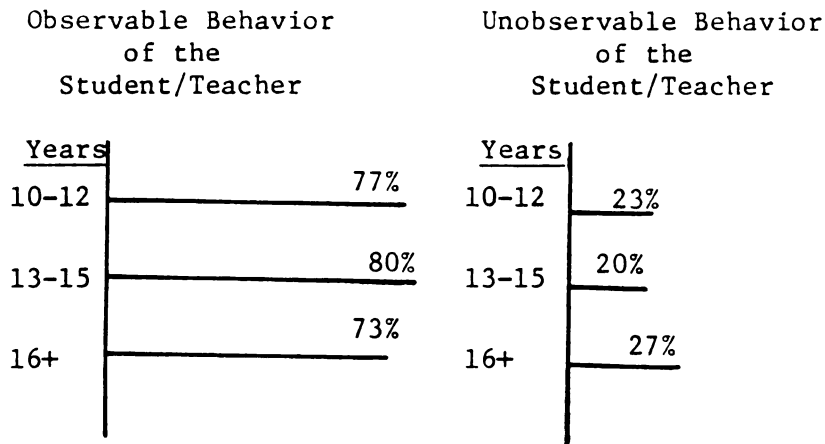


Figure 5.39

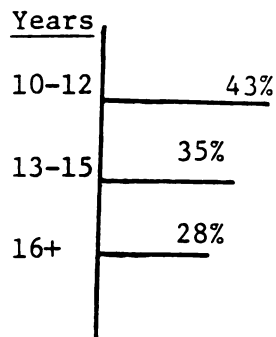
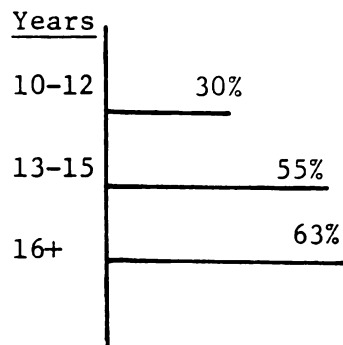
DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 4

Observability of the Learning Behavior of the Student/Teacher

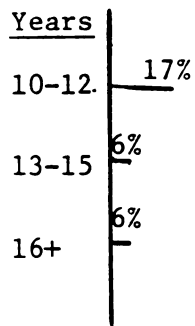
Social characteristics of learning behavior. 1) Learning alone.

Of all the respondents who mentioned this, Group II ranked first; Group I ranked last. (Figure 5.41) 2) Learning with others. Of all the respondents who mentioned this, Group I ranked first; Group II ranked last. (Figure 5.41)

Kind of observable learning behavior. 1) Definite learning actually taking place. Of all the respondents who mentioned this, Group II ranked first; Group I ranked last. (Figure 5.42) 2) Peripheral aspects of learning. Of all the respondents who mentioned this, Group I ranked first; Group II ranked last. (Figure 5.42) 3) Learning in definitional terms. Of all the respondents who mentioned this, Group I ranked first; Group II and Group III ranked equal and last. (Figure 5.42)

Physical Activity/
Physical PostureLearning Aids/
Learning Materials/
Subject Matter

Learning Environment



Practical Learning

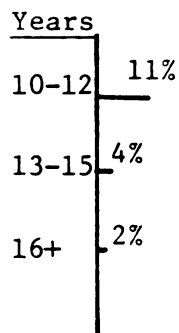
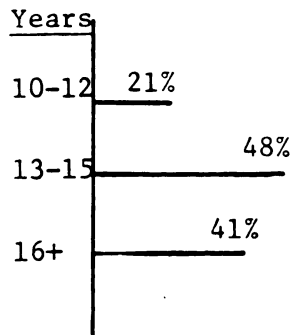


Figure 5.40

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 4

Focus of the Observable Behavior of the Student/Teacher

Learning Alone



Learning with Others

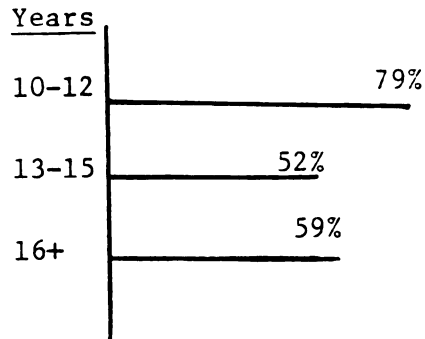


Figure 5.41

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 4

Social Characteristics of Learning Behavior

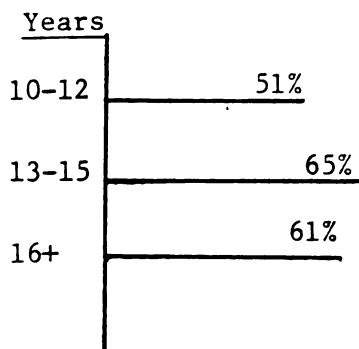
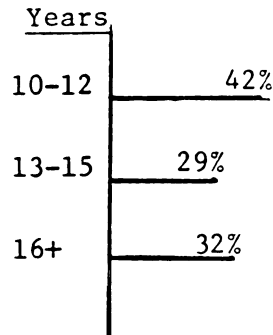
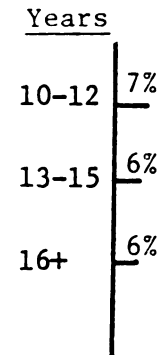
Definite Learning
Actually Taking
PlacePeripheral Aspects
of LearningLearning in
Definitional Terms

Figure 5.42

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 4

Kind of Observable Learning Behavior

Kind of unobservable learning behavior. 1) Internal involvement with learning. Of all the respondents who mentioned this, Group III ranked first; Group I ranked last. (Figure 5.43) 2) Interactional learning. Of the respondents who mentioned this, Group I ranked first; Group III ranked last. (Figure 5.43) 3) Learning in definitional

terms. Of all the respondents from the two groups who mentioned this, Group II ranked first. Group I did not mention learning in definitional terms. (Figure 5.43)

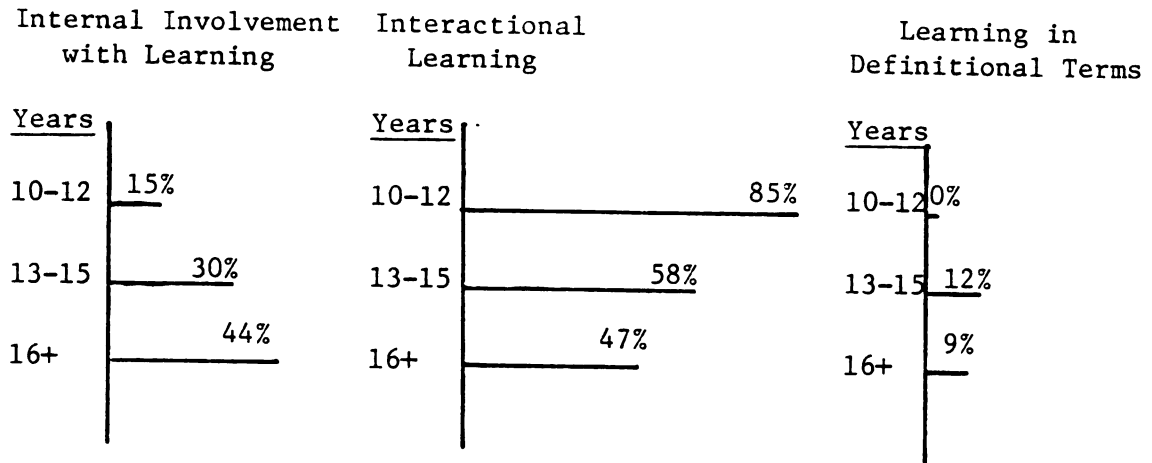


Figure 5.43

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 4

Kind of Unobservable Learning Behavior

Respondents Perception of Learning

Physical involvement for learning. Of all the respondents who mentioned this, Group I ranked first; Group III ranked last. (Figure 5.44)

Mental involvement for learning. Of all the respondents who mentioned this, Group III ranked first; Group I ranked last. (Figure 5.44)

Emotional involvement for learning. Of all the respondents who mentioned this, Group II ranked first; Group I and Group III were equal and ranked last. (Figure 5.44)

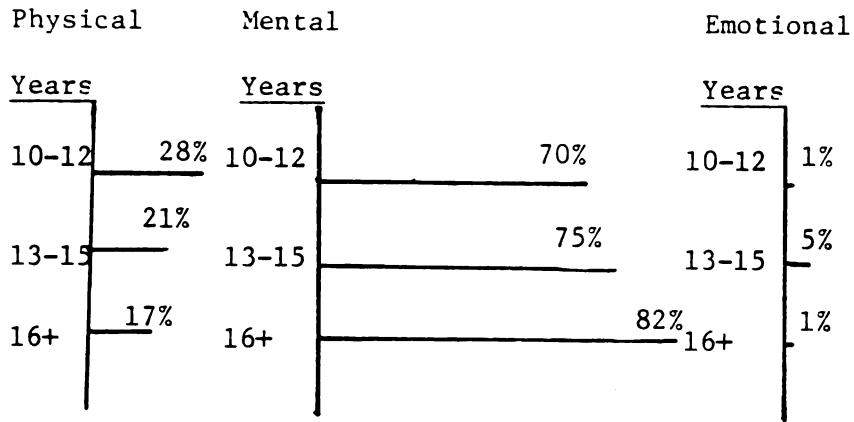


Figure 5.44

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 4

Respondents Perception of Learning

Factors that Describe Teacher and Student Relationship

Instructional factors. Of all the respondents who mentioned this, Group I and Group III were equal and ranked first; Group II ranked last. (Figure 5.45)

Nurturant factors. A very few respondents from the three groups mentioned this.

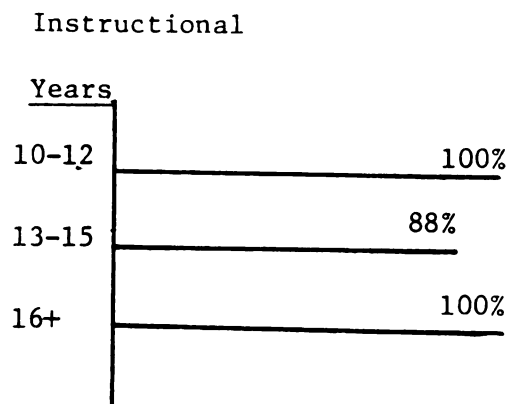


Figure 5.45

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 4

Factors that Describe Teacher/Student Relationship

Environmental Factors Pertaining to Environment Focus Statements

Disorderliness. None of the respondents from the three groups mentioned this.

Formal (rigid). Of all the respondents who mentioned this, Group II and Group III were equal and ranked first; Group I ranked last. (Figure 5.46)

Formal but flexible. None of the respondents from the three groups mentioned this.

Less formal but more flexible. None of the respondents from the three groups mentioned this.

Free or natural. None of the respondents from the three groups mentioned this.

Formal (Rigid)

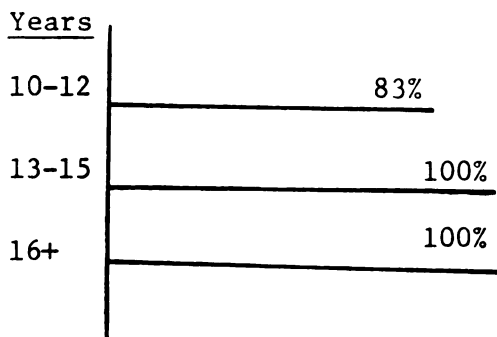


Figure 5.46

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 4

Environmental Factors Pertaining to Environment Focus Statements

Comparison Across Years of Formal Schooling:
(Responses to Photograph 5)

Focus of the Content

Student focus. Of all the respondents who mentioned this focus, Group I, Group II and Group III were equal. (Figure 5.47)

Teacher focus. None of the respondents from the three groups mentioned this focus.

Environment focus. None of the respondents from the three groups mentioned this focus.

Student Focus

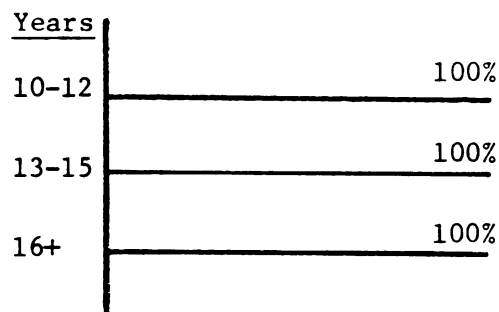


Figure 5.47

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH 5

Comparing Years of Formal Schooling and Focus of the Content

Content of the Citation

Observability of the learning behavior of the student or teacher.

1) Observable behavior of the student or teacher. Of all the respondents who mentioned this, Group III ranked first; Group II ranked last.

(Figure 5.48) 2) Unobservable behavior of the student or teacher. of all the respondents who mentioned this, Group II ranked first; Group III ranked last. (Figure 5.48)

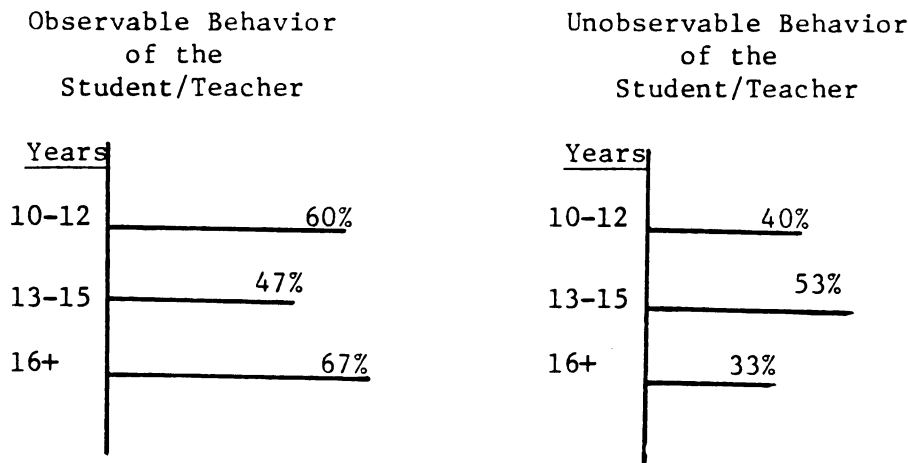


Figure 5.48

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH 5

Observability of the Learning Behavior of the Student/Teacher

Focus of the observable behavior of the student or teacher.

1) Physical activity or physical posture of the student or teacher.

Of all the respondents who mentioned this, Group II ranked first;

Group III ranked last. (Figure 5.49) 2) Learning aids or learning

materials or subject matter. None of the respondents from the three

groups mentioned this. 3) Learning environment. None of the re-

spondents from the three groups mentioned this. 4) Practical learning.

Of all the respondents who mentioned this, Group III ranked first; Group

II ranked last. (Figure 5.49) 5) Life-related learning. None of the

respondents from the three groups mentioned this.

Social characteristics of learning behavior. 1) Learning alone.

Of all the respondents who mentioned this, Group I, Group II and Group

III were equal. (Figure 5.50) 2) Learning with others. None of the

respondents from the three groups mentioned this.

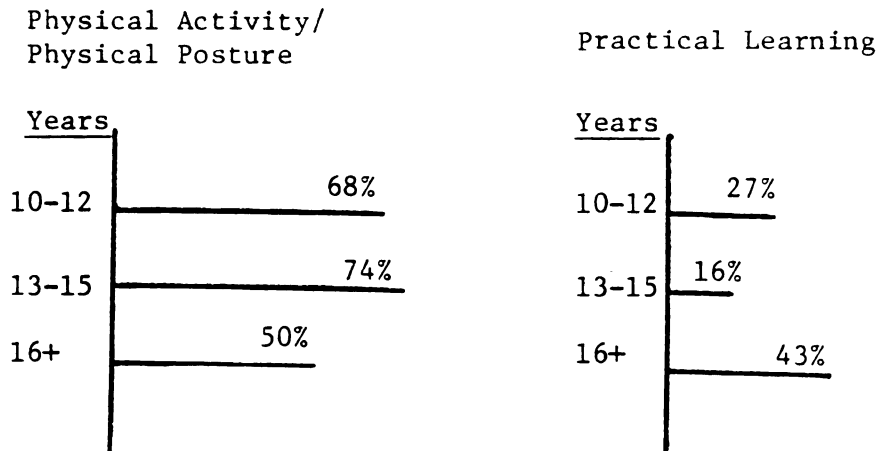


Figure 5.49

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH 5

Focus of the Observable Behavior of the Student/Teacher

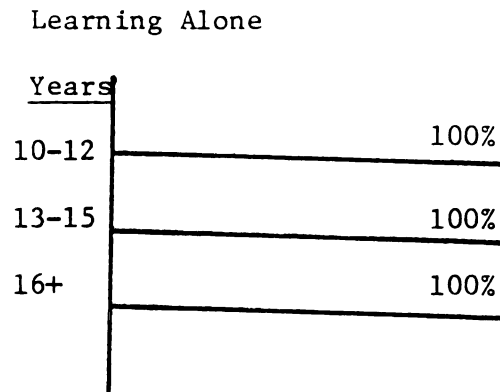


Figure 5.50

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH 5

Social Characteristics of Learning Behavior

Kind of observable learning behavior. 1) Definite learning actually taking place. Of all the respondents who mentioned this, Group I ranked first; Group II ranked last. (Figure 5.51) 2) Peripheral aspects of learning. Of all the respondents who mentioned this, Group II ranked first; Group I ranked last. (Figure 5.51) 3) Learning in

definitional terms. None of the respondents from the three groups mentioned this.

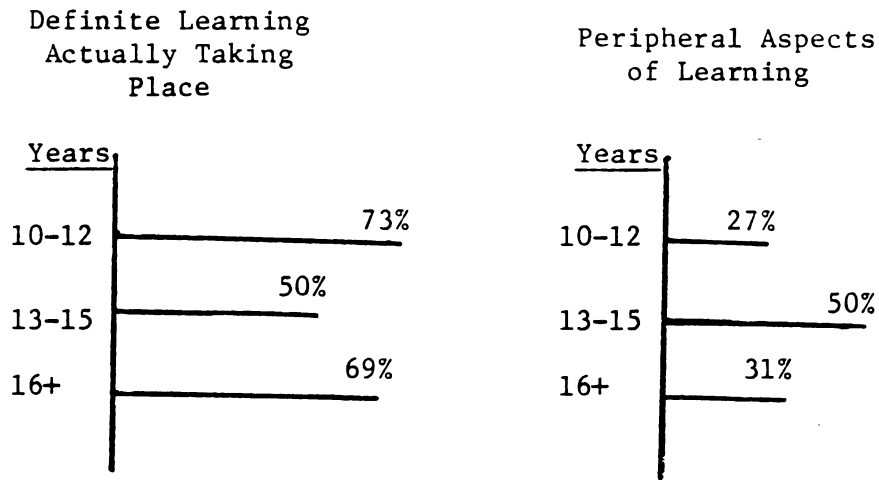


Figure 5.51

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH 5

Kind of Observable Learning Behavior

Kind of unobservable learning behavior. 1) Internal involvement with learning. Of all the respondents who mentioned this, Group III ranked first; Group I ranked last. (Figure 5.52) 2) Interactional learning. Of the respondents from the two groups who mentioned this, Group I ranked first. Group III did not mention interactional learning. (Figure 5.52) 3) Learning in definitional terms. Of all the respondents who mentioned this, Group I ranked first; Group III ranked last. (Figure 5.52)

Respondents Perception of Learning

Physical involvement for learning. Of all the respondents who mentioned this, Group I ranked first; Group II ranked last. (Figure 5.53)

Mental involvement for learning. Of all the respondents who mentioned this, Group II ranked first; Group I ranked last. (Figure 5.53)

Emotional involvement for learning. Of all the respondents who mentioned this, Group II ranked first; Group I ranked last. (Figure 5.53)

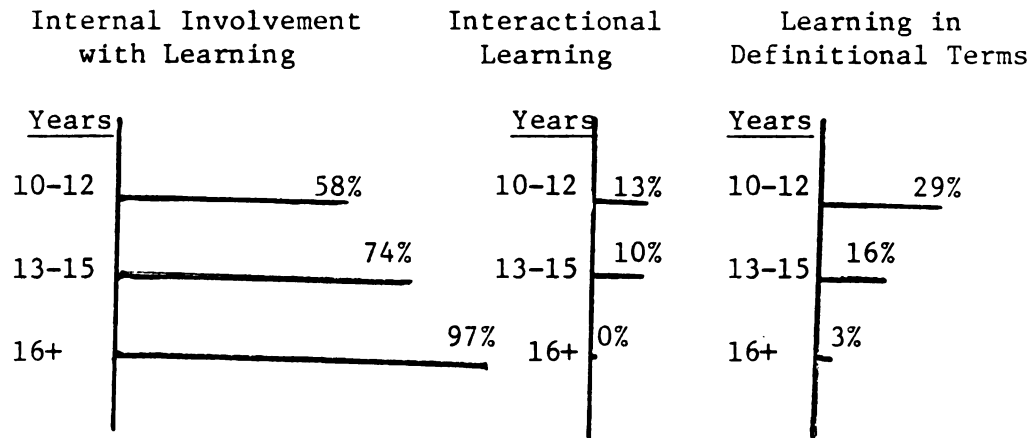


Figure 5.52

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH
Kind of Unobservable Learning Behavior

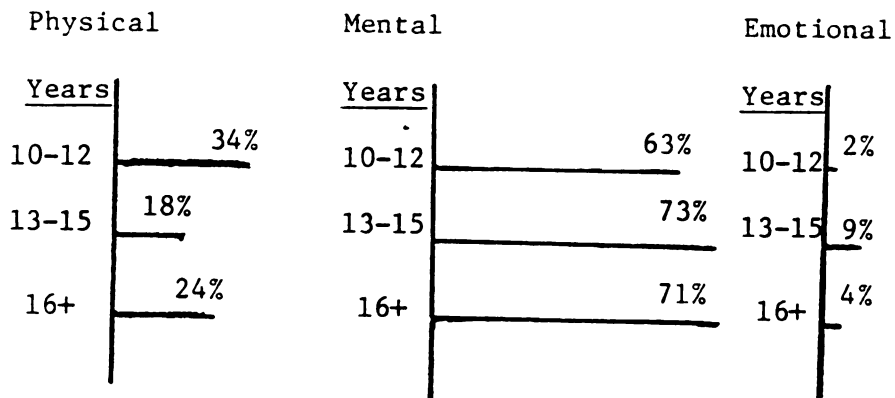


Figure 5.53

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH 5
Respondents Perception of Learning

Factors that Describe Teacher and Student Relationship

None of the respondents from the three groups mentioned these relationships.

Environmental Factors Pertaining to Environment Focus Statements

None of the respondents from the three groups mentioned these focus statements.

Comparison Across Years of Formal Schooling: (Responses to Photograph 7)

Focus of the Content

Student focus. Of the respondents who mentioned this focus, Group II ranked first; Group III ranked last. (Figure 5.54)

Teacher focus. Very few of the respondents from the three groups mentioned this.

Environment focus. Of the respondents from the two groups who mentioned this, Group III ranked first. Group II did not mention this environment focus. (Figure 5.54)

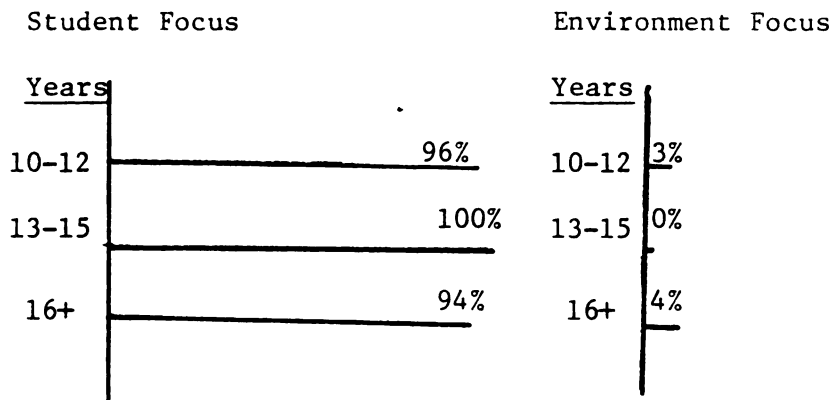


Figure 5.54

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH 7

Comparing Years of Formal Schooling and Focus of the Content

Content of the Citation

Observability of the learning behavior of the student or teacher.

1) Observable behavior of the student or teacher. Of all the respondents who mentioned this, Group I ranked first; Group II ranked last. (Figure 5.55) 2) Unobservable behavior of the student or teacher. Of all the respondents who mentioned this, Group II ranked first; Group I ranked last. (Figure 5.55)

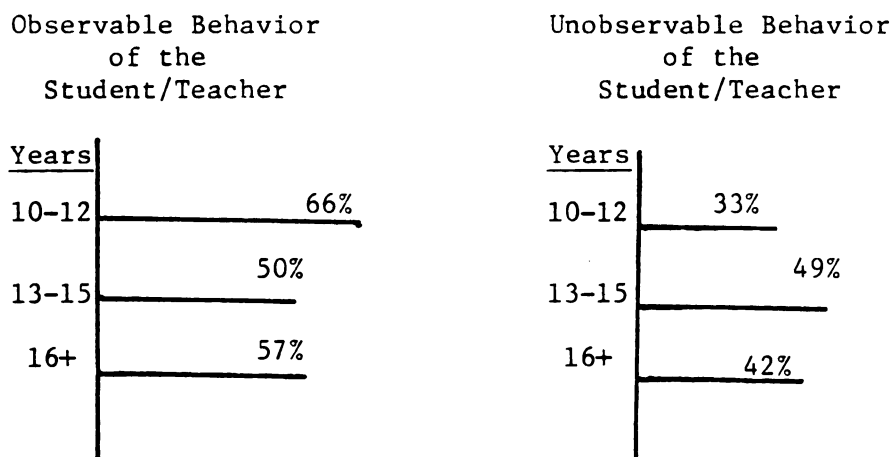


Figure 5.55

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH 7

Observability of the Learning Behavior of the Student/Teacher

Focus of the observable behavior of the student or teacher. 1)

Physical activity or physical posture of the student or teacher. Of all the respondents who mentioned this, Group II ranked first; Group I ranked last. (Figure 5.56) 2) Learning aids or learning materials or subject matter. Of all the respondents who mentioned this, Group III ranked first; Group II ranked last. (Figure 5.56) 3) Learning environment. Of all the respondents who mentioned this, Group I ranked first; Group III ranked last. (Figure 5.56) 4) Practical learning.

None of the respondents from the three groups mentioned this. 5) Life-related learning. None of the respondents from the three groups mentioned this.

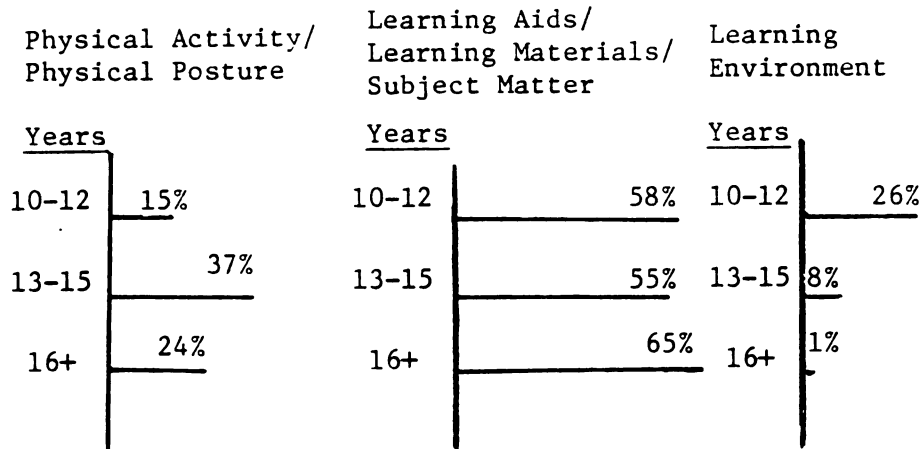


Figure 5.56

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH 7

Focus of the Observable Behavior of the Student/Teacher

Social characteristics of learning behavior. 1) Learning alone.

Of all the respondents who mentioned this, Group I and Group II were equal and ranked first; Group III ranked last. (Figure 5.57) 2)

Learning with others. Very few of the respondents from the three groups mentioned this.

Kind of observable learning behavior. 1) Learning actually taking place. Of all the respondents who mentioned this, Group III ranked first; Group II ranked last. (Figure 5.58) 2) Peripheral aspects of learning. Of all the respondents who mentioned this, Group II ranked first; Group III ranked last. (Figure 5.58) 3) Learning in definitional terms. Of all the respondents from the two groups who mentioned this, Group III ranked first. Group II did not mention learning in definitional terms. (Figure 5.58)

Learning Alone

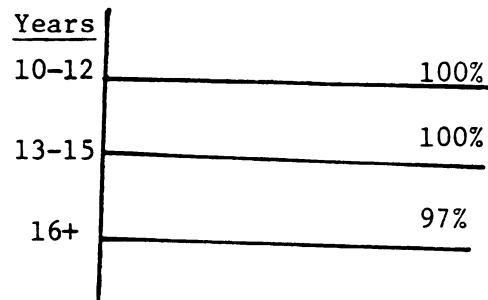


Figure 5.57

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH 7

Social Characteristics of Learning Behavior

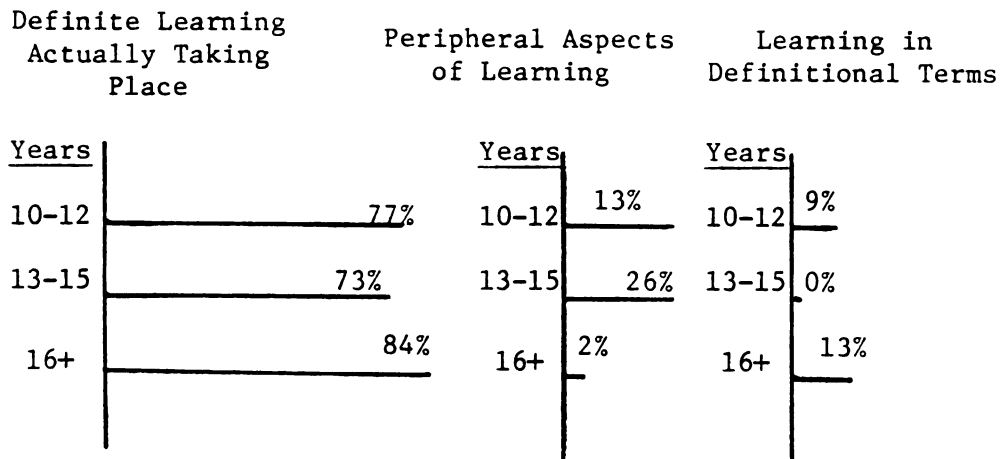


Figure 5.58

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH 7

Kind of Observable Learning Behavior

Kind of unobservable learning behavior. 1) Internal involvement with learning. Of all the respondents who mentioned this, Group I ranked first; Group III ranked last. (Figure 5.59) 2) Interactional learning. Of all the respondents from the two groups who mentioned this, Group III ranked first. Group II did not mention interactional learning. (Figure 5.59) 3) Learning in definitional terms. Of all those who

mentioned this, Group II ranked first; Group I ranked last. (Figure 5.59)

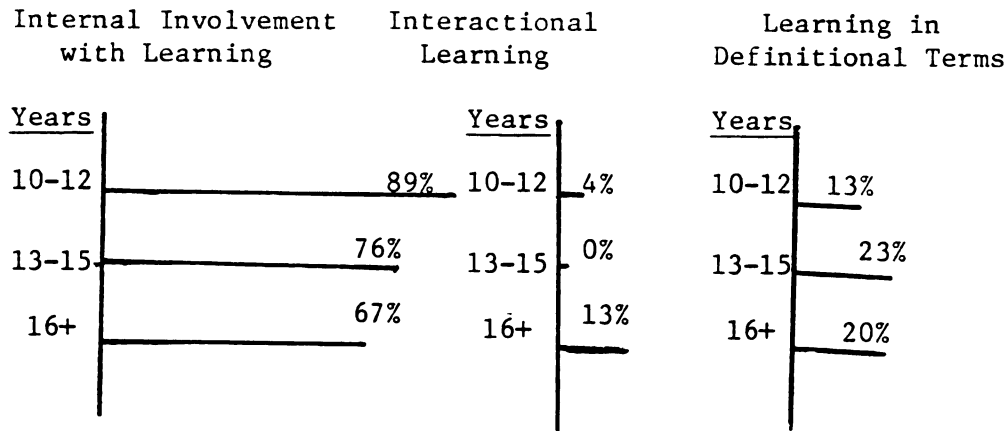


Figure 5.59

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH 7

Kind of Unobservable Learning Behavior

Respondents Perception of Learning

Physical involvement for learning. Of all those who mentioned this, Group I ranked first; Group III ranked last. (Figure 5.60)

Mental involvement for learning. Of all those who mentioned this, Group III ranked first; Group I ranked last. (Figure 5.60)

Emotional involvement for learning. Of all those who mentioned this, Group III ranked first; Group I ranked last. (Figure 5.60)

Factors that Describe Teacher and Student Relationship

Instructional factors. Very few of the respondents from the three groups mentioned this.

Nurturant factors. Very few of the respondents from the three groups mentioned this.

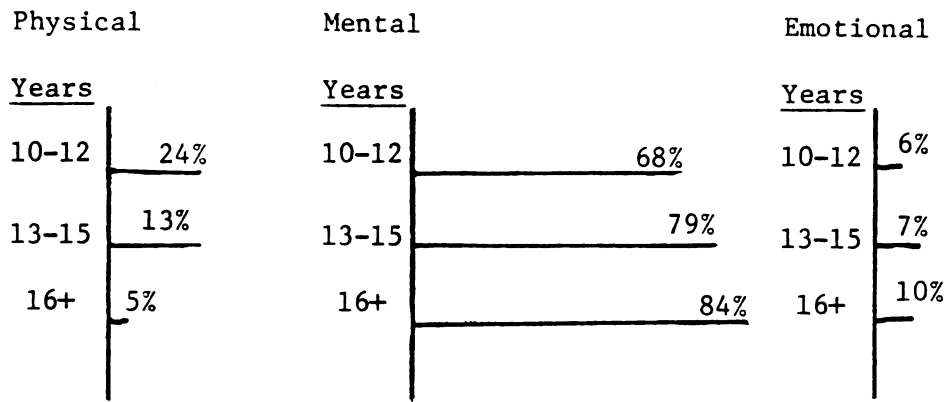


Figure 5.60

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH 7

Respondents Perception of Learning

Environmental Factors Pertaining to Environment Focus Statements

A very few of the respondents from the three groups mentioned this.

Years of Formal Schooling

Some Important Findings

Group I consists of those who have had 10-12 years of formal schooling. Group II consists of those who have had 13-15 years of formal schooling. Group III consists of those who have had 16+ years of formal schooling.

Photographs #1 and #4. 1) Respondents in Group I for photograph #1, focus their statements around teacher and environment whereas respondents in Group II focus their statements around student. (Figure 5.29) 2) For most respondents photograph #1 and #4 is observable learning behavior but for Group III it is unobservable learning behavior. (Figures 5.30, 5.39) 3) Group I is preoccupied with learning environment in photograph #1 and #4 (Figures 5.31, 5.40) and physical posture

in photograph #4 (Figure 5.40) but Group III is preoccupied with physical posture in photograph #1 (Figure 5.31) and learning materials in photograph #4 (Figure 5.40). 4) Photograph #1 and #4 is learning alone for Group II but for Group I, it is learning with others.

(Figures 5.32, 5.41) 5) In photograph #1 and #4 specific learning is definitely taking place whereas for Group I it is peripheral learning.

(Figures 5.33, 5.42) 6) Group III sees internal involvement with learning in photograph #4, but for Group I it is interactional learning (Figure 5.43). 7) For Group III in photograph #1 (disorderly classroom) there is not much mental involvement (Figure 5.35) but in photograph #4 (orderly classroom) there is much mental involvement. (Figure 5.44) But for Group I in both photographs #1 and #4, it is physical involvement with learning (Figures 5.35, 5.44). For Group II even in photograph #1 (disorderly classroom) there is mental involvement with learning. (Figure 5.35)

Conclusions for Photographs #1 and #4. 1) Group III would prefer orderliness in the classroom for effective learning. 2) Group I would prefer group activeness for effective learning. 3) Group II would prefer individual study situations for effective learning.

Photographs #5 and #7. 1) Photograph #5 (practical learning) and photograph #7 (individual study) is an unobservable behavior for Group II (Figures 5.48, 5.55) and observable behavior for Group I (Figure 5.55). 2) Group III see in photograph #5 practical learning whereas Group II see physical activity (Figure 5.49). 3) In photograph #7 Group II see physical posture; Group III see learning materials and Group I see learning environment (Figure 5.56). 4) In photograph #5, Group I see specific learning definitely taking place (Figure 5.51) and Group II

see peripheral aspects of learning in photograph #5 and #7 (Figures 5.51, 5.58). 5) Photograph #5 (practical learning) is internal involvement for Group III (Figure 5.52) whereas photograph #7 (individual study) is internal involvement for Group I (Figure 5.59). 6) Photograph #5 (practical learning) is physical involvement for Group I (Figure 5.53) whereas photograph #7 (independent study) is mental involvement for Group III (Figure 5.60).

Conclusions for Photographs #5 and #7. 1) Group III would benefit from practical work for effective learning. 2) Group I would benefit from physical involvement in study for effective learning.

Comparison Across Years of Practical Experience (Responses to Photograph 1)

Focus of the Content

Student focus. Of the respondents who mentioned this focus, 5+ years of practical experience (Group C) ranked first; 0-1 years of practical experience (Group A) ranked last. (Figure 5.61)

Teacher focus. Of the respondents who mentioned this focus, Group A and Group C were equal and ranked first; 2-4 years of practical experience (Group B) ranked last. (Figure 5.61)

Content of the Citation

Observability of the learning behavior of the student or teacher.

1) Observable behavior of the student or teacher. Of all the respondents who mentioned this, Group A ranked first; Group C ranked last. (Figure 5.62) 2) Unobservable behavior of the student or teacher. Of all the respondents who mentioned this, Group C ranked first; Group A ranked last. (Figure 5.62)

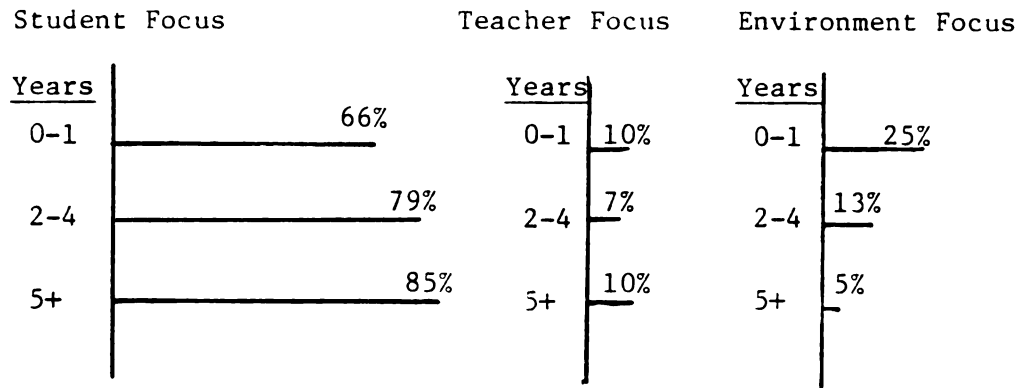


Figure 5.61

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 1

Comparing Years of Practical Experience and Focus of the Content

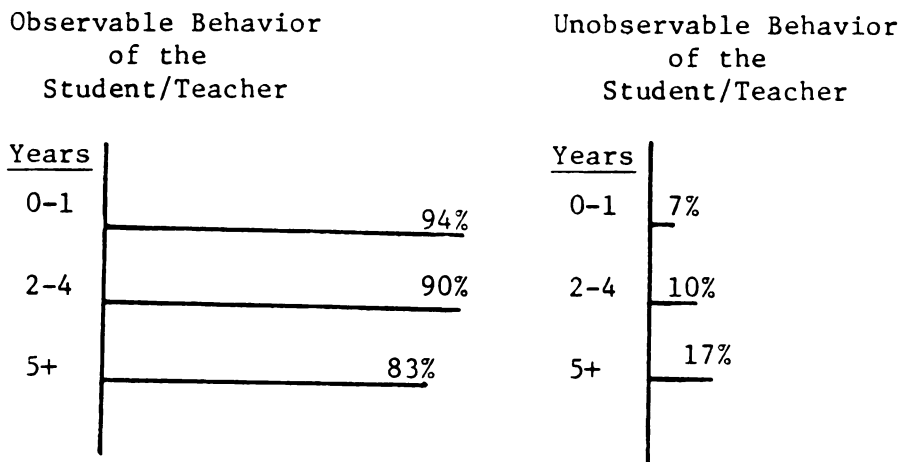


Figure 5.62

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 1

Observability of the Learning Behavior of the Student/Teacher

Focus of the observable behavior of the student or teacher.

- 1) Physical activity or physical posture of the student or teacher.

Of all the respondents who mentioned this, Group B ranked first; Group A ranked last. (Figure 5.63) 2) Learning aids or learning materials or

subject matter. Of all the respondents who mentioned this, Group C

ranked first; Group A ranked last. (Figure 5.63) 3) Learning

environment. Of all the respondents who mentioned this, Group A ranked first; Group C ranked last. (Figure 5.63) 4) Practical learning.

A very few of the respondents from the three groups mentioned this.

5) Life-related learning. None of the respondents from the three groups mentioned this.

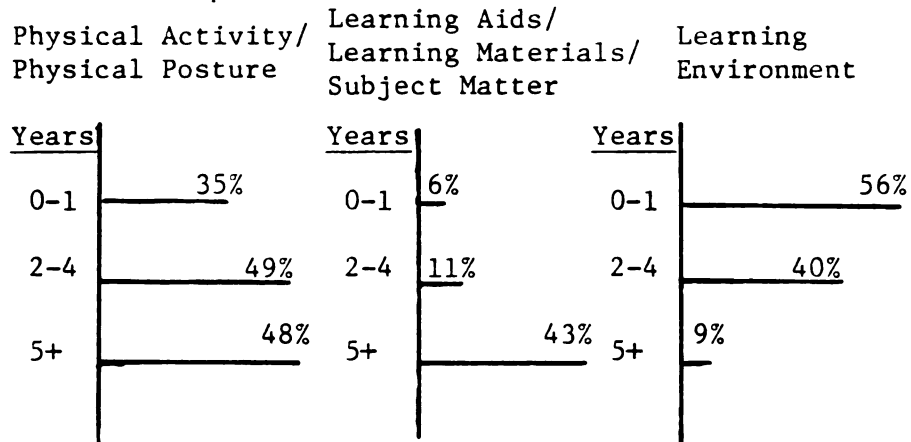


Figure 5.63

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 1

Focus of the Observable Behavior of the Student/Teacher

Social characteristics of learning behavior. 1) Learning alone.

Of all the respondents who mentioned this, Group A ranked first; Group C ranked last. (Figure 5.64) 2) Learning with others. Of all the respondents who mentioned this, Group C ranked first; Group A ranked last. (Figure 5.64)

Kind of observable learning behavior. 1) Definite learning actually taking place. Of all the respondents who mentioned this, Group A ranked first; Group B ranked last. (Figure 5.65) 2) Peripheral aspects of learning. Of all the respondents who mentioned this, Group B ranked first; Group A ranked last. (Figure 5.65) 3) Learning in definitional terms. Of the respondents from those who mentioned this.

Group B and Group C were equal and ranked first; Group A ranked last.

(Figure 5.65)

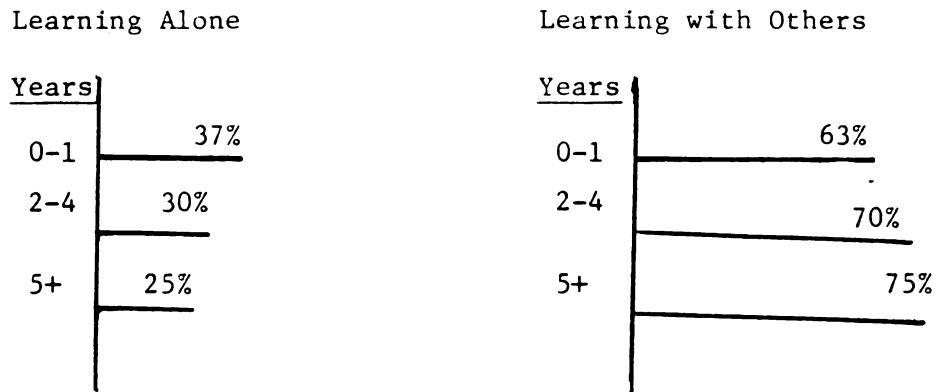


Figure 5.64

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 1

Social Characteristics of Learning Behavior

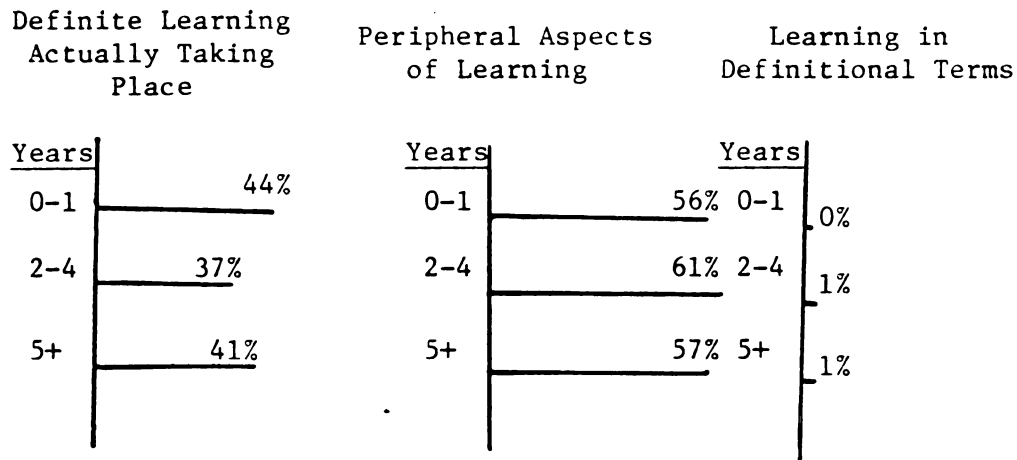


Figure 5.65

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 1

Kind of Observable Learning Behavior

Kind of unobservable learning behavior. 1) Internal involvement with learning. Of all the respondents who mentioned this, Group A ranked first; Group C ranked last. (Figure 5.66) 2) Interactional

learning. Of the respondents from the two groups who mentioned this, Group C ranked first. Group A did not mention interactional learning. (Figure 5.66) 3) Learning in definitional terms. Of the respondents from the two groups who mentioned this, Group C ranked first. Group A did not mention learning in definitional terms. (Figure 5.66)

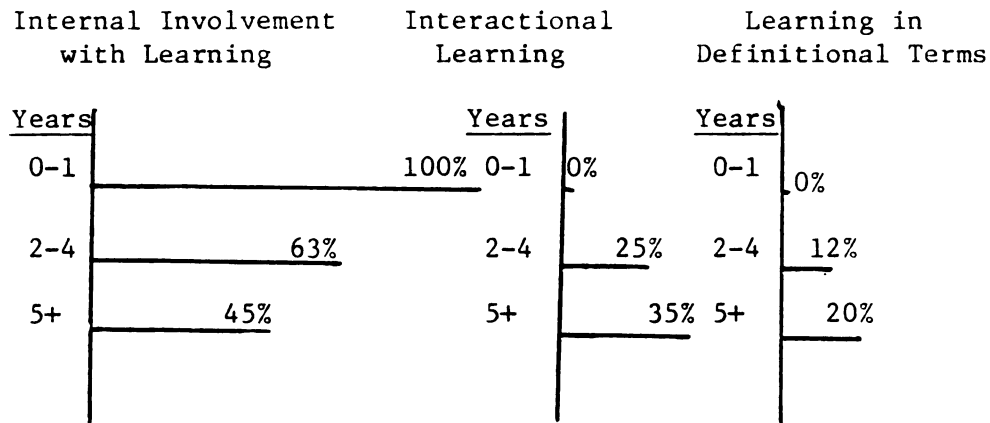


Figure 5.66

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 1

Kind of Unobservable Learning Behavior

Respondents Perception of Learning

Physical involvement for learning. Of all the respondents who mentioned this, Group A ranked first; Group B and Group C were equal and ranked last. (Figure 5.67)

Mental involvement for learning. Of all the respondents who mentioned this, Group B ranked first; Group A ranked last. (Figure 5.67)

Emotional involvement for learning. Of all the respondents from the two groups who mentioned this, Group C ranked first. Group A did not mention emotional involvement for learning. (Figure 5.67)

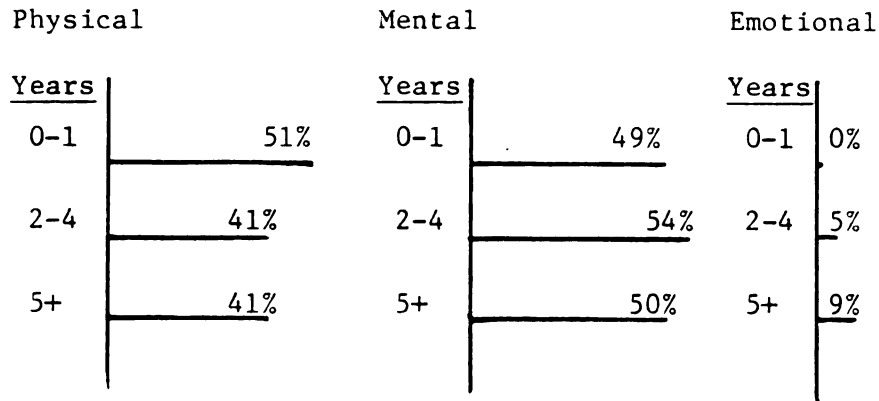


Figure 5.67

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 1

Respondents Perception of Learning

Factors that Describe Teacher and Student Relationship

Instructional factors. Of all the respondents who mentioned this, Group A and Group C were equal and ranked first; Group B ranked last. (Figure 5.68)

Nurturant factors. A very few of the respondents from the three groups mentioned this.

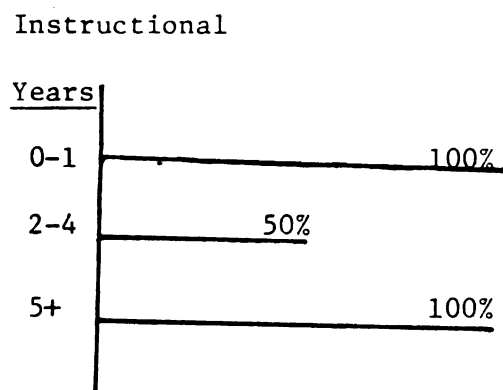


Figure 5.68

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 1

Factors that Describe Teacher/Student Relationship

Environmental Factors Pertaining to Environment Focus Statements

A very few of the respondents from the three groups mentioned this.

Comparison Across Years of Practical Experience (Responses to Photograph 4)

Focus of the Content

Student focus. Of all the respondents who mentioned this focus, Group B ranked first; Group C ranked last. (Figure 5.69)

Teacher focus. Of all the respondents who mentioned this focus, Group C ranked first; Group B ranked last. (Figure 5.69)

Environment focus. Of all the respondents who mentioned this focus, Group C ranked first; Group A and Group B were equal and ranked last. (Figure 5.69)

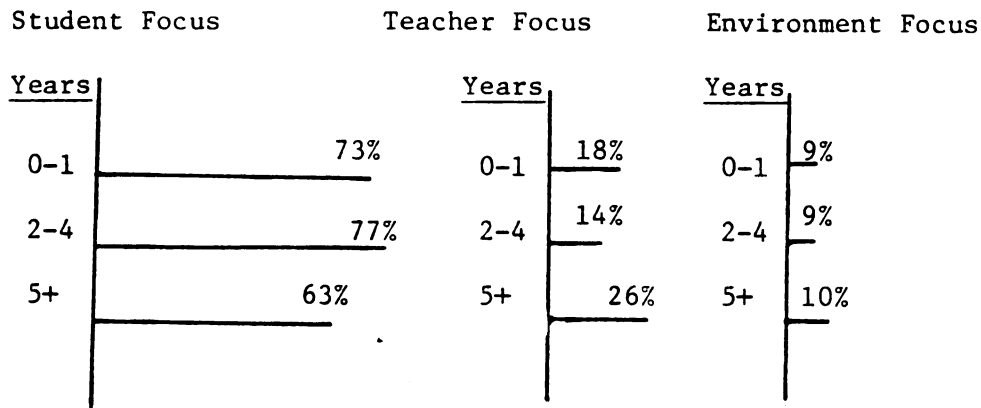


Figure 5.69

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 4

Comparing Years of Practical Experience and Focus of the Content

Content of the Citation

Observability of the learning behavior of the student or teacher.

- 1) Observable behavior of the student or teacher. Of all the respondents

who mentioned this, Group A ranked first; Group B and Group C were equal and ranked last. (Figure 5.70) 2) Unobservable behavior of the student or teacher. Of all the respondents who mentioned this, Group B and Group C were equal and ranked first; Group A ranked last. (Figure 5.70)

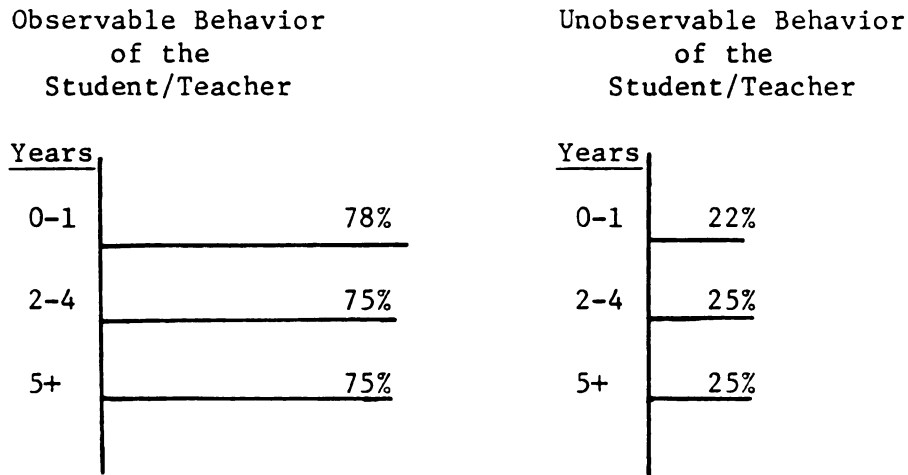


Figure 5.70

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 4

Observability of the Learning Behavior of the Student/Teacher

Focus of the observable behavior of the student or teacher.

1) Physical activity or physical posture of the student or teacher.

Of all the respondents who mentioned this, Group B ranked first; Group A ranked last. (Figure 5.71) 2) Learning aids or learning materials

or subject matter. Of all the respondents who mentioned this, Group A

ranked first; Group C ranked last. (Figure 5.71) 3) Learning

environment. Of all the respondents who mentioned this, Group A ranked

first; Group B ranked last. (Figure 5.71) 4) Practical learning.

Of all the respondents who mentioned this, Group B ranked first; Group A

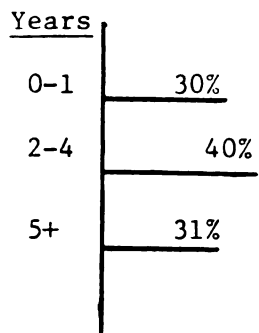
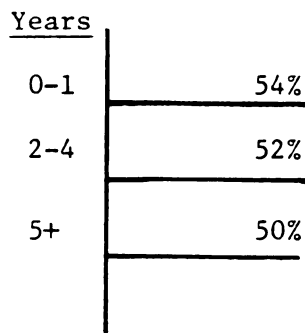
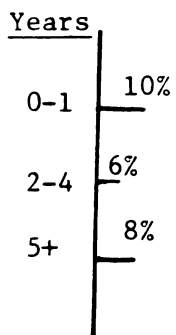
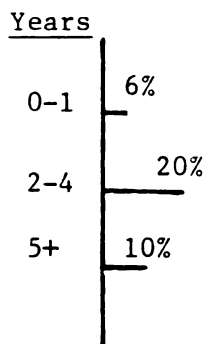
Physical Activity/
Physical PostureLearning Aids/
Learning Materials/
Subject MatterLearning
EnvironmentPractical
Learning

Figure 5.71

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH 4

Focus of the Observable Behavior of the Student/Teacher

ranked last. (Figure 5.71) 5) Life-related learning. None of the respondents from the three groups mentioned this.

Social characteristics of learning behavior. 1) Learning alone. Of all the respondents who mentioned this, Group B ranked first; Group C ranked last. (Figure 5.72) 2) Learning with others. Of all the respondents who mentioned this, Group C ranked first; Group B ranked last. (Figure 5.72)

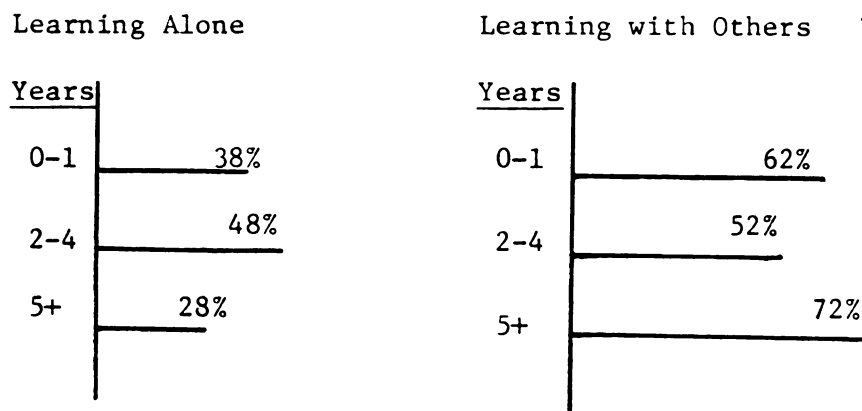


Figure 5.72

DISTRIBUTUION OF RESPONSES OF PHOTOGRAPH 4

Social Characteristics of Learning Behavior

Kind of observable learning behavior. 1) Learning actually taking place. Of all the respondents who mentioned this, Group C ranked first; Group B ranked last. (Figure 5.73) 2) Peripheral aspects of learning. Of all the respondents who mentioned this, Group C ranked first; Group A ranked last. (Figure 5.73) 3) Learning in definitional terms. Of the respondents who mentioned this, Group A ranked first; Group C ranked last. (Figure 5.73)

Kind of unobservable learning behavior. 1) Internal involvement with learning. Of all the respondents who mentioned this, Group B

ranked first; Group A ranked last. (Figure 5.74) 2) Interactional learning. Of all the respondents who mentioned this, Group A ranked first; Group B ranked last. (Figure 5.74) 3) Learning in definitional terms. A very few of the respondents from the three groups mentioned this.

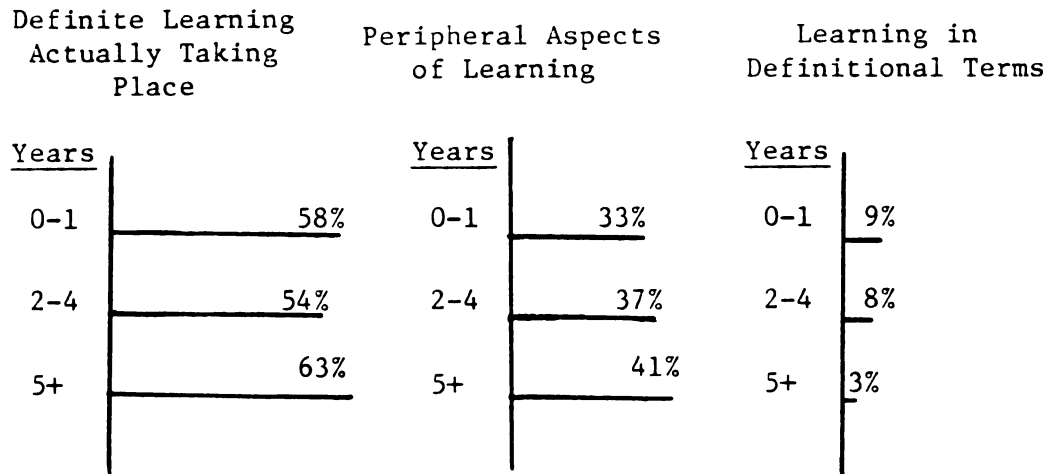


Figure 5.73

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH 4

Kind of Observable Learning Behavior

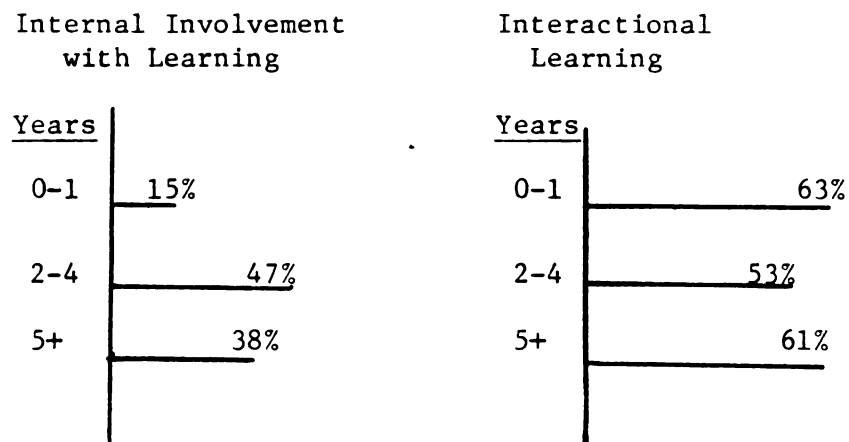


Figure 5.74

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH 4

Kind of Unobservable Learning Behavior

Respondents Perception of Learning

Physical involvement for learning. Of all the respondents who mentioned this, Group A ranked first; Group C ranked last. (Figure 5.75)

Mental involvement for learning. Of all the respondents who mentioned this, Group C ranked first; Group A ranked last. (Figure 5.75)

Emotional involvement for learning. Of all the respondents who mentioned this, Group C ranked first; Group A ranked last. (Figure 5.75)

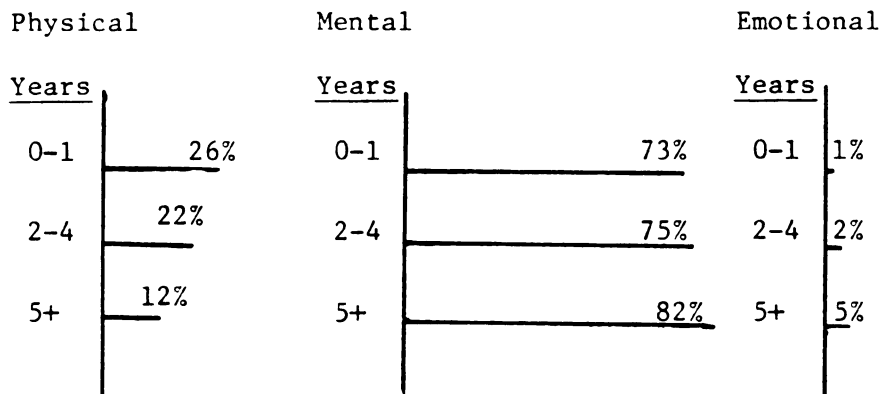


Figure 5.75

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH 4

Respondents Perception of Learning

Factors that Describe Teacher and Student Relationship

Instructional factors. Of all the respondents who mentioned this, Group A, Group B and Group C were equal. (Figure 5.76)

Nurturant factors. No one from the three groups mentioned this.

Instructional

Years

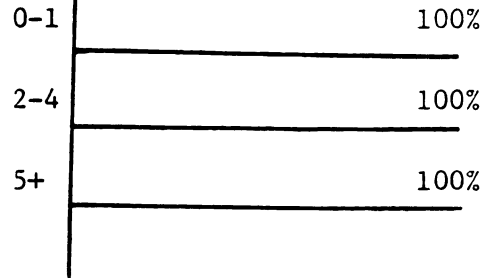


Figure 5.76

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 4

Factors that Describe Teacher/Student Relationship

Environmental Factors Pertaining to Environment Focus Statements

Disorderliness. None of the respondents from the three groups mentioned this.

Formal (rigid). Of all the respondents who mentioned this, Group B ranked first; Group C ranked last. (Figure 5.77)

Formal but flexible. Of all the respondents from the two groups who mentioned this, Group C ranked first. Group B did not mention this focus. (Figure 5.77)

Less formal but more flexible. None of the respondents from the three groups mentioned this.

Free or natural. None of the respondents from the three groups mentioned this.

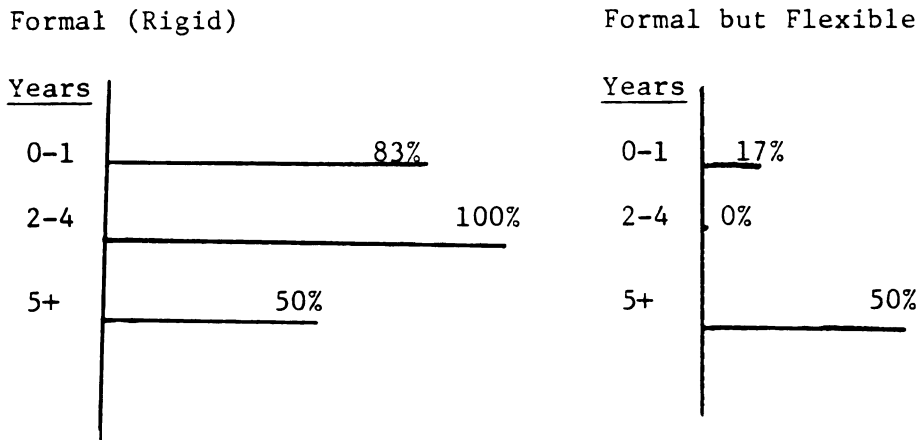


Figure 5.77

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 4

Environmental Factors Pertaining to Environment Focus Statements

Comparison Across Years of Practical Experience
(Responses to Photograph 5)Focus of the Content

Student focus. Of all the respondents who mentioned this focus, Group A and Group B were equal and ranked first; Group C ranked last. (Figure 5.78)

Teacher focus. None of the respondents from the three groups mentioned this.

Environment focus. A very few of the respondents from the three groups mentioned this.

Content of the CitationObservability of the learning behavior of the student or teacher.

1) Observable behavior of the student or teacher. Of all the respondents who mentioned this, Group B ranked first; Group C ranked last. (Figure 5.79) 2) Unobservable behavior of the student or teacher. Of all the respondents who mentioned this, Group C ranked first; Group B ranked last. (Figure 5.79)

Student Focus

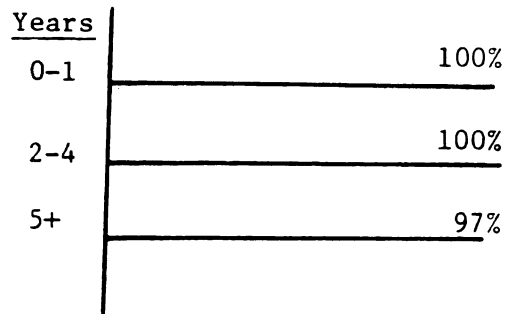


Figure 5.78

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 5

Comparing Years of Practical Experience and Focus of the Content

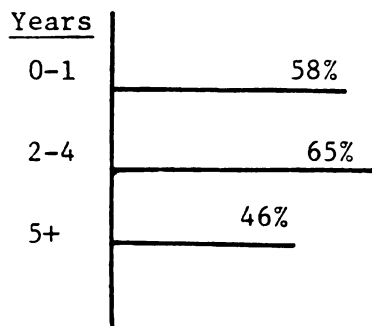
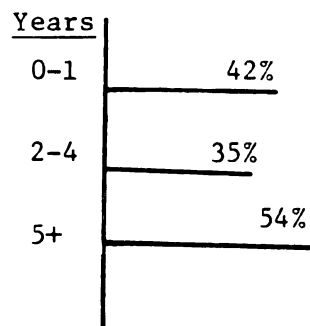
Observable Behavior
of the
Student/TeacherUnobservable Behavior
of the
Student/Teacher

Figure 5.79

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 5

Observability of the Learning Behavior of the Student/Teacher

Focus of the observable behavior of the student or teacher.

1) Physical activity or physical posture of the student or teacher.

Of all the respondents who mentioned this, Group B ranked first; Group A ranked last. (Figure 5.80) 2) Learning aids or learning materials or

subject matter. There were very few respondents from the three groups

who mentioned this. 3) Learning environment. There were very few

respondents from the three groups who mentioned this. 4) Practical learning. Of all the respondents who mentioned this, Group A ranked first; Group B ranked last. (Figure 5.80) 5) Life-related learning. There were very few respondents from the three groups who mentioned this.

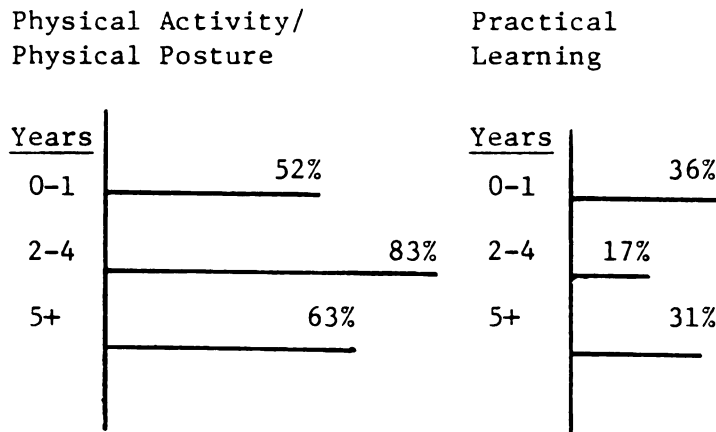


Figure 5.80

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 5

Focus of the Observable Behavior of the Student/Teacher

Social characteristics of learning behavior. 1) Learning alone.

Of all the respondents who mentioned this, Group A, Group B and Group C were equal. (Figure 5.81) 2) Learning with others. None of the respondents from the three groups mentioned this.

Kind of observable learning behavior. 1) Definite learning actually taking place. Of all the respondents who mentioned this, Group A ranked first; Group B ranked last. (Figure 5.82) 2) Peripheral aspects of learning. Of all the respondents who mentioned this, Group B ranked first; Group A ranked last. (Figure 5.82) 3) Learning in definitional terms. None of the respondents from the three groups mentioned this.

Learning Alone

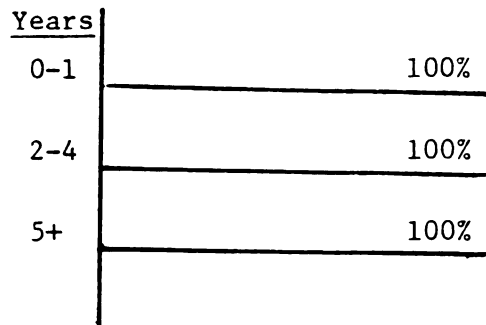


Figure 5.81

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 5

Social Characteristics of Learning Behavior

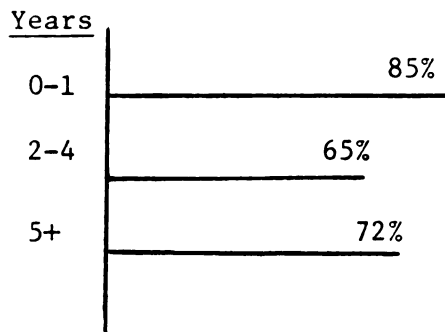
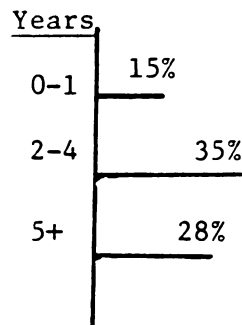
Definite Learning
Actually Taking
PlacePeripheral Aspects
of Learning

Figure 5.82

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 5

Kind of Observable Learning Behavior

Kind of unobservable learning behavior. 1) Internal involvement with learning. Of all the respondents who mentioned this, Group C ranked first; Group B ranked last. (Figure 5.83) 2) Interactional learning. Of all the respondents who mentioned this, Group B ranked first; Group C ranked last. (Figure 5.83) 3) Learning in definitional

terms. Of all the respondents who mentioned this, Group C ranked first; Group B ranked last. (Figure 5.83)

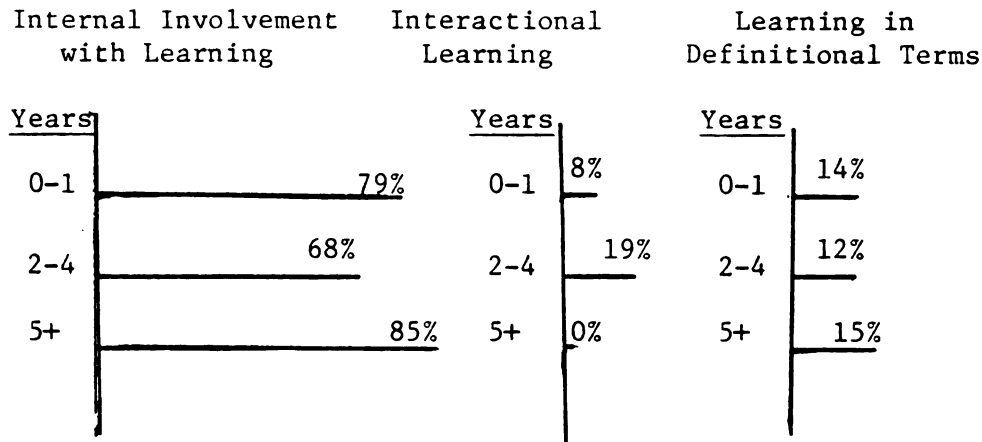


Figure 5.83

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 5

Kind of Unobservable Learning Behavior

Respondents Perception of Learning

Physical involvement for learning. Of all the respondents who mentioned this, Group B ranked first; Group C ranked last. (Figure 5.84)

Mental involvement for learning. Of all the respondents who mentioned this, Group A and Group C were equal and ranked first; Group B ranked last. (Figure 5.84)

Emotional involvement for learning. Of all the respondents who mentioned this, Group C ranked first; Group A ranked last. (Figure 5.84)

Factors that Describe Teacher and Student Relationship

None of the respondents from the three groups mentioned this.

Environmental Factors Pertaining to Environment Focus Statements

None of the respondents from the three groups mentioned this.

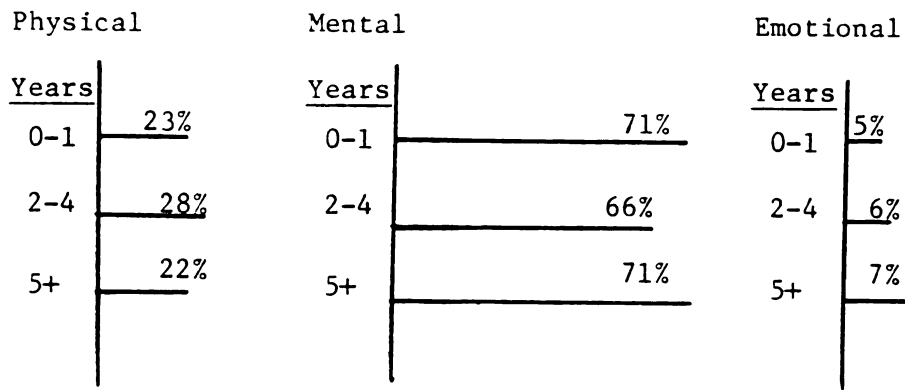


Figure 5.84

DISTRIBUTION OF RESPONSES TO PHOTOGRAPH 5

Respondents Perception of Learning

Comparison Across Years of Practical Experience
(Responses to Photograph 7)Focus of the Content

Student focus. Of all the respondents who mentioned this focus, Group C ranked first; Group B ranked last. (Figure 5.85)

Teacher focus. A very few of the respondents from the three groups mentioned this focus.

Environment focus. Of all the respondents from the two groups who mentioned this focus, Group A ranked first. Group C did not mention environment focus. (Figure 5.85)

Content of the CitationObservability of the learning behavior of the student or teacher.

- 1) Observable behavior of the student or teacher. Of all the respondents who mentioned this, Group C ranked first; Group B ranked last. (Figure 5.86)
- 2) Unobservable behavior of the student or teacher. Of all the respondents who mentioned this, Group A ranked first; Group C ranked last. (Figure 5.86)

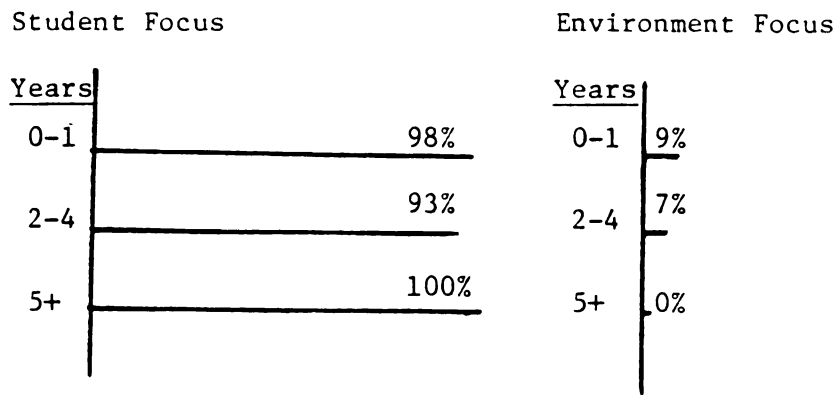


Figure 5.85

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH 7

Comparing Years of Practical Experience and Focus of the Content

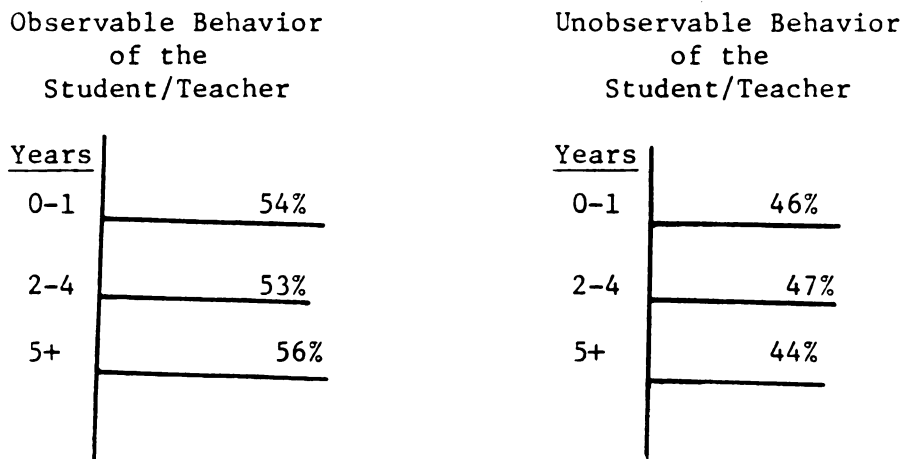


Figure 5.86

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH 7

Observability of the Learning Behavior of the Student/Teacher

Focus of the observable behavior of the student or teacher.

1) Physical activity or physical posture of the student or teacher.

Of all the respondents who mentioned this, Group B ranked first; Group C ranked last. (Figure 5.87) 2) Learning aids or learning materials or subject matter. Of all the respondents who mentioned this, Group C

ranked first; Group B ranked last. (Figure 5.87) 3) Learning environment. Of all the respondents who mentioned this, Group B ranked first; Group C ranked last. (Figure 5.87) 4) Practical learning. None of the respondents from the three groups mentioned this. 5) Life-related learning. None of the respondents from the three groups mentioned this.

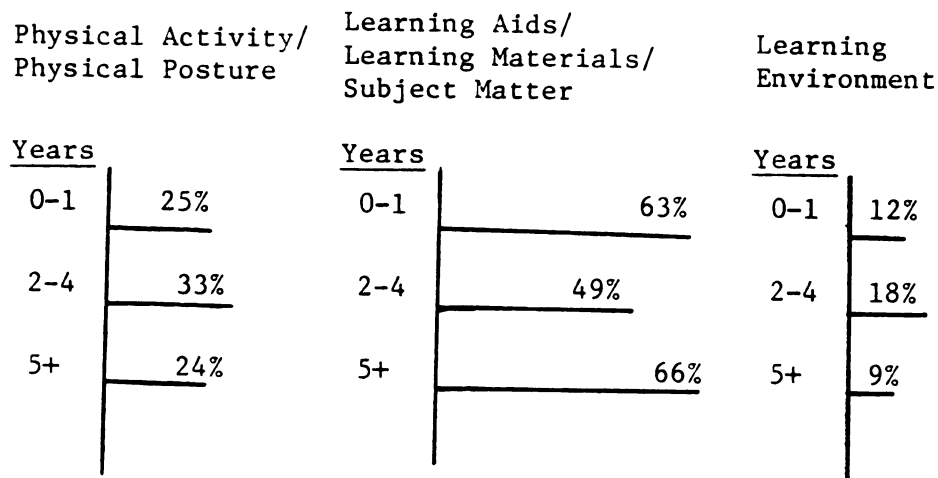


Figure 5.87

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH 7

Focus of the Observable Behavior of the Student/Teacher

Social characteristics of learning behavior. 1) Learning alone.

Of all the respondents who mentioned this, Group B and Group C were equal and ranked first; Group C ranked last. (Figure 5.88) 2) Learning with others. None of the respondents from the three groups mentioned this.

Kind of observable learning behavior. 1) Definite learning actually taking place. Of all the respondents who mentioned this, Group B ranked first; Group C ranked last. (Figure 5.89) 2) Peripheral aspects of learning. Of all the respondents who mentioned this,

Group B ranked first; Group C ranked last. (Figure 5.89) 3) Learning in definitional terms. Of the respondents from the two groups who mentioned this, Group C ranked first. Group B did not mention learning in definitional terms. (Figure 5.89)

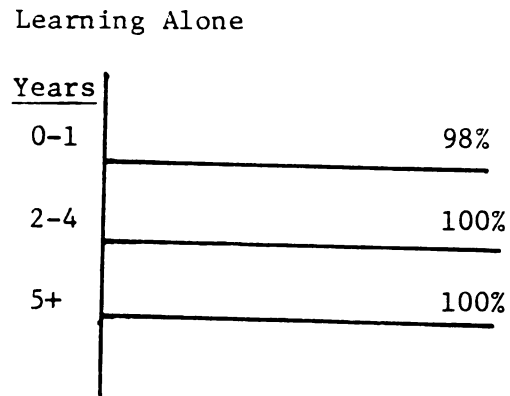


Figure 5.88

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH 7

Social Characteristics of Learning Behavior

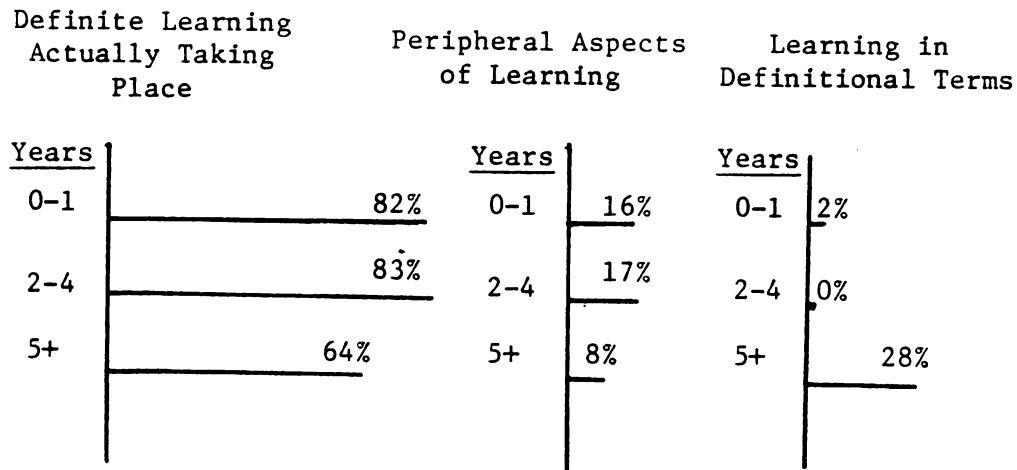


Figure 5.89

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH 7

Kind of Observable Learning Behavior

Kind of unobservable learning behavior. 1) Internal involvement with learning. Of all the respondents who mentioned this, Group B ranked first; Group C ranked last. (Figure 5.90) 2) Interactional learning. Of all the respondents from the two groups who mentioned this, Group A ranked first. Group C did not mention interactional learning. (Figure 5.90) 3) Learning in definitional terms. Of all the respondents who mentioned this, Group C ranked first; Group B ranked last. (Figure 5.90)

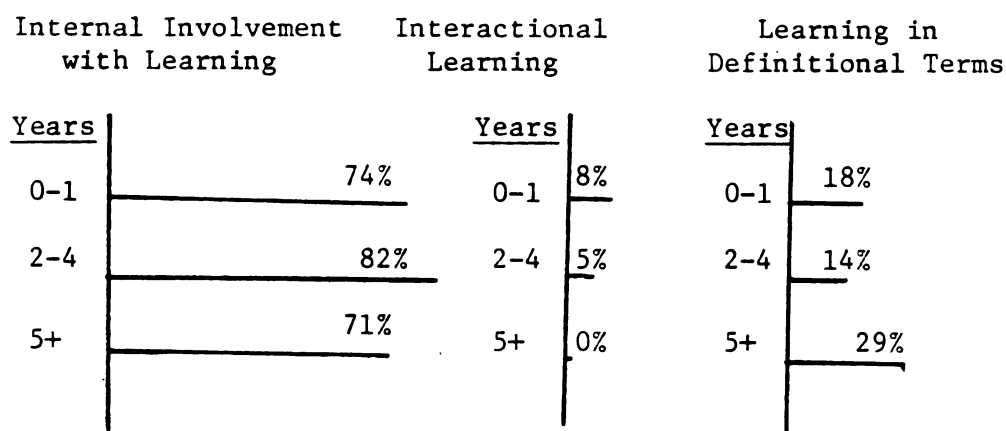


Figure 5.90

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH 7

Kind of Unobservable Learning Behavior

Respondents Perception of Learning

Physical involvement for learning. Of all the respondents who mentioned this, Group C ranked first; Group B ranked last. (Figure 5.91)

Mental involvement for learning. Of all the respondents who mentioned this, Group A ranked first; Group B ranked last. (Figure 5.91)

Emotional involvement for learning. Of all the respondents who

mentioned this, Group B ranked first; Group C ranked last. (Figure 5.91)

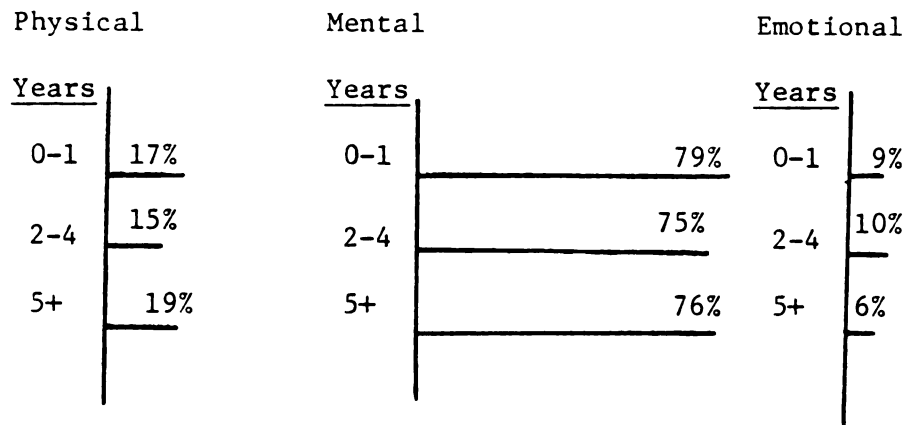


Figure 5.91

DISTRIBUTION OF RESPONSES OF PHOTOGRAPH 7

Respondents Perception of Learning

Factors that Describe Teacher and Student Relationship

A very few of the respondents from the three groups mentioned this.

Environmental Factors Pertaining to Environment Focus Statements

A very few of the respondents from the three groups mentioned this.

Years of Practical Experience

Some Important Findings

Group A consists of those who have had 0-1 years of experience in the field. Group B consists of those who have had 2-4 years of experience in the field. Group C consists of those who have had 5+ years of experience in the field.

Photographs #1 and #4. 1) Group C sees teacher focus in photograph #1 and #4 (Figure 5.69) whereas, Group A sees environment focus in photograph #1 (Figure 5.61). 2) For Group A, photograph #1 and #4 is observable behavior but for Group C it is unobservable behavior (Figures 5.62, 5.70). 3) In photograph #1 and #4 Group A sees learning environment (Figures 5.63, 5.71); Group C sees learning aids in photograph #1 (Figure 5.63); Group B sees physical posture in photograph #1 and #4 (Figures 5.63, 5.71). 4) For Group A it is internal involvement in learning in photograph #1 but, for Group C it is interactional learning (Figure 5.66). 5) Both photographs #1 and #4 are physical involvement for Group A (Figures 5.67, 5.75); photograph #4 is mental involvement for Group C (Figure 5.75). 6) Group B sees formal rigid environment in photograph #4 but, Group C sees formal and flexible environment (Figure 5.77).

Conclusions for Photographs #1 and #4. 1) Group C would benefit more from interactional situations in learning. 2) Group C would learn more from less formal situations of learning.

Photograph #5. 1) Group B sees physical posture in photograph #5 whereas Group C sees it practical learning (Figure 5.80). 2) Group A sees specific learning definitely taking place in photograph #5 but, Group B sees peripheral aspects of learning (Figure 5.82). 3) Group C sees internal involvement with learning in photograph #5. They also make definitional statements (Figure 5.83). 4) Photograph #5 (practical learning) is mental involvement in learning as all see it (Figure 5.84).

Conclusions for Photograph #5. Practical learning situations may help Group C for effective learning.

Photograph #7. 1) Group C sees observable behavior but, Group B sees as unobservable behavior in photograph #7 (Figure 5.86). 2) Group B sees physical posture and Group C sees learning material in photograph #7 (Figure 5.87). 3) Group B sees specific learning taking place in photograph #7 (Figure 5.89). 4) Group B sees internal involvement with learning in photograph #7 and Group C made definitional statements about photograph #7 (Figure 5.90).

Conclusions for Photograph #7. Independent study would help effective learning for Group B.

Summary

The analysis centered around three variables, i.e., geographical (cultural) background, years of formal schooling, and years of practical experience in the field. The findings were summarized and conclusions generated. These now become the basis for discussion in the last chapter.

Chapter 6

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

In this chapter a summary is given in the form of hypotheses. The rationale for each hypothesis is presented from the findings. Based upon the hypotheses, some recommendations are made for further research and for implementation of the recommendations. In the Epilogue the researcher shares his sojourn in doing this research, reviewing the problems confronted and how he went about solving them. This might help those who want to undertake a similar task.

Geographical (Cultural) Background

Hypotheses Generated in This Study

1. Disorderliness in the classroom will reduce effective learning for Tamilnadu students more than for Maharashtra and North Eastern States. Tamilnadu students seem to be preoccupied with the environment both in disorderly classroom as in Photograph 1 and in orderly classroom as in Photograph 4. The Tamilnadu students see physical learning in Photograph 1 and interactional learning in Photograph 4. Their attention is towards peripheral aspects of learning. The very fact they see and talk about environment more than others seems to suggest this hypothesis.

2. Group situations would be less apt to be seen as effective learning by Maharashtra students than for Tamilnadu and North Eastern States students. Maharashtra students are the only ones who tend to see learning done alone even in group situations. They also attribute internal unobservable character to group situational learning, suggesting that they probably are quite at home with their own alone study where they can concentrate and understand with their minds.

3. North Eastern States students would require individual attention for effective learning more than Tamilnadu and Maharashtra students. North Eastern States score highest in speaking about student. They are almost preoccupied with student focus, even most of the time to the exclusion of teacher or environment.

4. Practical learning will increase effective learning more in North Eastern States students than in Tamilnadu and Maharashtra students. North Eastern States students see in Photograph 5 practical learning taking place. Practical learning is internal involvement in learning for them. This is not so with Maharashtra and Tamilnadu students.

5. Individual study would increase effective learning in Maharashtra students more than in Tamilnadu and North Eastern States students. Maharashtra students see observable learning in Photograph 7 where the student is studying alone. Individual study is internal involvement for them. Physical involvement is important for study and learning. Therefore there is adequate basis for this hypothesis.

Years of Formal Schooling

Hypotheses Generated in This Study

Group I consists of those who have had 10-12 years of formal schooling. Group II consists of those who have had 13-15 years of formal schooling. Group III consists of those who have had 16+ years of formal schooling.

1. Orderliness in the classroom would increase effective learning more for Group III. For this group, in a disorderly classroom there is not much mental involvement but in an orderly classroom there is much mental involvement. Another reason could be that they have been so long in the school, they are attuned to orderly classroom situations and they cannot get away from it.

2. Group situations for learning would increase effective learning more for Group I than for Group II and Group III. These students are seeing environment focus. They are also interested in seeing interactional kinds of things. Another reason could be that they have just come from the school and are living with students who have had more schooling and experience in life and they crave for learning from them and therefore this hypotheses has adequate basis.

3. Individual study would increase effective learning more for Group II than for Group I and Group III. Even in group situations, they see learning alone. Whether orderly classroom or disorderly classroom they see specific learning actually taking place. Even in disorderly classroom there is mental involvement. If we put all this together we could say that they are for independent study - mental involvement is what they need.

4. Practical work would increase effective learning in Group III more than for Group I and Group II. Group III sees practical learning in Photograph 5 and for them practical learning is internal involvement. Also they like to see studies related to practical life since they have been in school for so long, and how they are looking forward to settling down in life.

5. Physical involvement in study would increase effective learning more for Group I than for Group II and Group III. Practical learning and individual study is an unobservable learning behavior for them. Group I sees environment in Photograph 7. Practical learning is physical involvement for Group I. So they are looking for physical postures, physical aspects of learning. They think that only when you sit in a certain way, read or write in a certain way, can you study. Concern for these matters may increase effective learning for them.

Years of Practical Experience

Hypotheses Generated in This Study

Group A consists of those who have had 0-1 years of experience in the field. Group B consists of those who have had 2-4 years of experience in the field. Group C consists of those who have had 5+ years of experience in the field.

1. Group C would learn more from interactional situations than Group A and Group B. Group C sees mental involvement in interactional situations and therefore there is a possibility of this hypotheses yielding good results.

2. Group C would learn more from less formal situations of learning than Group A and Group B. Group C sees formal but flexible environment in Photograph 4 and hypothesis 1 lends support to this. Also with their experience on the field and their place in the seminary as students somehow conflicts with their image of themselves.

3. Effective learning will take place more for Group C than for Group A and Group B when they are in practical learning situations. Both the hypotheses previously mentioned lend a strong support to this. They are asking all the time for how to make study come alive in the practical situations.

4. Independent study would increase transfer of learning more for Group B than for Group A and Group C. Group B sees in Photograph 7 observable learning behavior, physical posture. They also see learning definitely taking place and they see internal involvement in this situation. These are the people who have been on the field and faced certain problems, have come to the seminary now to read and make meaning out of what they read. They want time to conceptualize problems.

Recommendations

The basic nature of the findings suggest that there be one way of looking at the learning at least from the perspectives of the faculty if they are to help students to come up to that or give direction for learning potentialities to blossom in students. Learning will then become honest inquiry into problem situations so that growing will take place. This growth will not confine to intellectualizing but include total development of the person.

Although we knew there were differences, we did not know the kinds of differences that existed in the different groups of students. Although the present study did not look into what causes these differences in students (a separate study may have to be undertaken to establish cause and effect relationship), it does establish a few facts about the learning expectations of the students, at least for the three groups examined, i.e., students from Tamilnadu (TN), Maharashtra (MA) and North Eastern States of India (NE) along the lines of geographical (sub-cultural) lines, years of formal schooling lines and years of experience lines.

The very fact that there are differences and that the differences are along these lines, the primary focus of the teacher concern becomes "the student" -- individual concern for student. The teacher will have to be sensitive to these differences. Some of the valid experiences the student sees for learning will have to be brought into teaching strategies. This will help student recognize that valid learning now can take place and some of the threats and fears will disappear.

Since there will emerge different concerns from different groups of students, all the concerns will have to have hearing (both teachers and students). For the general curriculum it will have to be evaluation of the curriculum by a committee of people drawn from the constituency of student, teacher, administrators, churchmen and curriculum consultant. For the immediate purposes, teachers, when they meet with their classes for the first time, write down different concerns and agree upon common concerns. The teacher should try to incorporate those in the teaching of the particular subject. All

students should share what their concerns are. All together define these concerns as it relates to the subject matter and teach the subject from that "concern" perspective. Periodically, the teacher should check whether those concerns are becoming clear. The direction set in class may need to be changed or adaptation made.

Both teacher and student should work out their own agenda; student for their ministry and teacher for his or her ministry and share it with each other so that each knows what the others' agenda are. Then work from there. Not in a way that teacher will lay his or her agenda heavily upon students. But see how teacher can incorporate into his agenda some of the students' agenda and vice-versa.

There is a possibility that for students with more experience on the field (especially 5+ years of experience), we may have to provide them on-the-field training. This can be done with the help of external degree programs. Such programs will have to be geared to practical concerns of "ministry".

Pinar in Curriculum Theorizing (1975) suggests three metaphors for curriculum design. The first is "The Metaphor of Production". This is a mechanistic design. Here people are fed into a specifically designed curriculum which has entry requirements. At the end of the period certain specified product comes out.

Great care is taken so that raw materials of a particular quality or composition are channelled into the proper production systems and that no potentially useful characteristic of the raw material is wasted (p. 84).

The second one is "The Metaphor of Growth" where the students grow to their fullest potential under the care and concern of the gardener. Each is treated according to his or her needs so that each blossoms in his or her own way. No effort is made to divert the inherent potential

that is in them. The gardener is one who is available for care and guidance if need be. The third metaphor is "The Metaphor of Travel". The journey is charted by an experienced guide and companion. It is made sure that the journey is going to be as rich and as fascinating as possible. The traveller goes through it and learns many memorable lessons and grows thereby.

Consideration of this kind of conceptualization is important for the seminary from out of which the findings have come. We represent a specific worldview, i.e., a Christian worldview. But there are various ways of looking at this worldview, at least two (two conceptual styles i.e. "relational" and "analytic") to say the least. It might be good to decide upon which one of the metaphors mentioned by Pinar best suits our objectives. Or come up with one that is a combination or modification of the ones stated above. Then work from there. Rowen (1977) in his article entitled "The Future of Theological Education" suggests that theological education has to take a direction which may mean confronting the present "hierarchical elitist model" of education with the "servanthood and relationship model" of education and set the course for change at conceptual level for future.

Theological education has not been exempt from the forces which has shaped education in general. The challenge before us is to reject the professional model and begin to transform the meaning and practice of education by placing it back within the center of the community of faith---It means jointly committing our resources under the authority of scripture to the discovery of the meaning and practice of a transformed theological education (p. 7).

Recommendations for Further Research

Replication of this study. This study could be replicated in UBS with larger sample of students to find out what other kinds of

perceptions regarding learning exist in the student body. This may enrich teachers' understanding of students' perceptions of learning. This may also help refine the instrument and increase the reliability of it.

Some of the categories developed in the present study are not hierarchical. For the description that students gave of their perceptions, it was not necessary to develop that kind of an instrument. Moreover the perception research seems to advocate open-ended questionnaires and interviewing because it allows for more free expression. But it would be interesting to see how students' perceptions line up in a hierarchical way of categorization. It would show student profile in hierarchical "concept formation" of learning. The findings from such a study would help understand where the students' perceptions lie in the hierarchy and how to bring that up to a place that will increase their own understanding of learning.

Another approach would be to study random samples in order to gain findings that are more generalizable. In such a study the method of analysis could be precise. Analysis of Variance (ANOVA) could be applied to determine significant differences.

Extension of this study. It would be interesting to see to develop a study which would combine the current study and Plueddemann's (1978) approach to find out cognitive styles of both teachers and students. It would give insight as to how different cognitive styles of thinking affect not only the content of Bible, Theology, etc., but also the processes of communication of that content.

Important studies. It would be valuable to test the hypotheses under controlled conditions to determine the validity of the hypotheses

generated in this study. It would also be important to ask questions as to why different people see (perceive) learning differently? What particular element in the life of a student is most influential in forming those kinds of perception about learning?

Another important question that need to be asked is whether the present perceptions of learning at UBS are adequate ways of looking at learning? What are adequate perceptions for learning? What can be done by the community to bring about adequate ways of looking at learning.

Problems. One of the major problems confronted in this study has been subjectivism. This can be overcome by critically examining the research literature and having two or three others who have some expertise in the field of education to validate your findings.

There is lot of decision making regarding the direction the research project should take. It helps to know for sure what are the objectives and purpose of the project and the kinds of things that might emerge. It is here that reading of various related research helps. It gives us the direction as to what to look for and help us out of darkness.

It helps to be precise and analytical about the problem and not beat about the bush. Perseverance in doing the task however monotonous and hard that might be. The temptation is always to do part of the job and derive conclusions from it. This should be avoided. This needs discipline and hard work.

EPILOGUE

Sojourn of the Researcher

Life has neve been the same since the time the researcher met Don Joy of Asbury Theological Seminary, Wilmore, Ky. and Ted Ward of Michigan State University. Joy opened my eyes to the rich possibilities there are for me to contribute to the Church of Christ in India and gave me a positive self image. Ward made me aware of the danger of too much subjectivism and gave me a critical outlook on the issues of education. He really helped me to look into a meaningful relationship between the sacred and the secular. I drew very heavily from his educational expertise and Christian worldview.

Sitting under the teachings of such professors as Barnett, Schiamberg, Ward and Useem and with the critical objective guidance of Levine, have not only enriched my vision but gave me an optimism that hopefully will continue to sharpen my own insight in life in general and education in particular.

When the proposal was accepted, I had scarcely dreamed that the research would be such arduous work. I thought in the beginning that I have to do interviews and collect some information-data for interpreting those interviews. The work really began when I came back to the States with my wife and our lovely daughter Stuti (which means "Praise" in several Indian languages). In the beginning, the labor

was transcribing interviews. The problem of subjectivity confronted me here first. I had to write exactly what the respondents had said although in translation I might have inferred a few things students have said I might have misread because of my biases about the students and about the state of Maharashtra (I come from that State). The second task was analysis of the content of the interviews. I wanted an easy way, perhaps choosing the important words (from out of context sometimes) again according to my biases. I am not used to making decisions till late and sometimes it was very late, according to the standards of the West! There were always after-thoughts about the decisions and a temptation to change the ones I had made earlier. It was good for me in several ways. If I had not made those kinds of decisions I would still be in the process of developing a categorization system for the content analysis. The problem of subjectivity at this point was solved by taking statements in full and in the context which was a much laborious process but as I look back now it was worth it. It brought out some findings I did not expect, which is always a surprise and a happy one, at that! The categorization system was developed; but that was not the end of the project, it was just the beginning. I was getting impatient and wanted the results right away. The inter-rater reliability had to be done for the instrument. Another instrument had to be developed for the training for the judges, and that was an eye-opener. I faced the problem of communication. The relational mindset that I bring came in conflict with the analytic mindset of the judges and we had to find a basis to get together. Hopefully, I now have an analytically relational

mind, a very big help in seeing the problems of Indian education in general and seminary education in particular.

The next step in the project was to construct a way to compute the data. I thought I might take several years before I would be able to see the results! But Ward and Levine kept "pushing" me (I needed that) until I finally came into the light out of fuzziness. I thought to myself, "Now I have the results." But not yet. My wife and I had to work on the different kinds of graphs to portray the findings so that we might communicate the meaning of the data. We tried many different ways of representing the findings. Finally we completed it, and now it was easy to find out what the students were saying about learning and specifically, about photographs.

The next big step was to write it all in English and time was getting shorter. Ward again came to the rescue by assisting in the editing of the manuscript.

The biggest problem in any social research, and especially in perception research, still continues to be subjectivity. Perception research has been very weak in this area. The first question is how do we know what the students have said is what they see in fact. The methodology of the researcher has surely added to this problem. Methodology must be further refined. The categorization system can be tried and retried, modified, sharpened but it can never be made unbiased. So here it is with all the limitations of it.

It has helped me to think more clearly and more objectively. In the words of Dewey, there has been an inquiry into a problem situation out of which will come an unleashing of resources towards growing together in a community. The students of UBS have taught me a great

deal in this respect. They are a rich resource by virtue of their personhood and their different cultural backgrounds. We teachers have to humbly incorporate their experiences into our pedagogy in order to contextualize theology and pedagogy for the seminary. This will develop "servants" for the cause of caring for the people of the vast land of India.

In Teaching

Content of the subject matter is important because of the objectivity it has accumulated over the years through research. But lecturing the content does not automatically transfer it to the learner. There is a process of communication of this content which has student as a central figure. There has to be a dynamic relationship between the content and the process of communication of this content such that the one who goes through it will grow as a result.

From the research that is available to us suggests strongly that there are at least two ways of looking at the world. In Witkin's words they are global and articulate. Global is synonymous with relational and articulate is synonymous with analytical. Relational way of looking at the world does help us to see the world as a whole and relationships within the whole. On the other hand analytical way of looking at the world does involve seeing in parts which form the whole. Analyzing the parts in order to understand the problems is important in this perspective. As a matter of fact both ways of looking at the world does help. We can analyze the problems and at the same time see their relationships to the whole. That is meaningful to solving the problems. Both can coexist in a creative

tension. In my own understanding, there is a decision process involved in the choice. When to choose what and towards accomplishing what purpose? In educational circles, there is need for looking at the problems from both the perspectives specially when we are functioning in a multi-cultural situation.

APPENDICES

APPENDIX A

QUESTIONNAIRE RESPONSE SHEET

APPENDIX A

QUESTIONNAIRE RESPONSE SHEET

IS LEARNING TAKING PLACE IN THIS PHOTOGRAPH?

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
YES	_____	_____	_____	_____	_____	_____	_____
NO	_____	_____	_____	_____	_____	_____	_____
ANY OTHER RESPONSE	_____	_____	_____	_____	_____	_____	_____

PHOTOGRAPH**

WHY DO YOU SAY THAT LEARNING IS/ISN'T OCCURING?
(WHAT DO YOU SEE IN THE PHOTOGRAPH THAT PROMPTS
YOU TO SAY WHAT YOU SAY?)

**7 photographs used in this oral interview are in Appendix B.

The interviews were done orally and were tape-recorded.

Most of them were done in English with the exception of five
interviews which were done in Marathi with students from
Maharashtra (MA).

APPENDIX B

APPENDIX B





APPENDIX C

QUESTIONNAIRE FOR DEMOGRAPHIC INFORMATION

APPENDIX C

QUESTIONNAIRE FOR DEMOGRAPHIC INFORMATION

Name: _____ Sex _____ Married/Unmarried _____

Denomination: _____ Number of children: _____

_____ 1. _____ age _____

2. _____ age _____

Date of Birth: Day _____ Month _____ Year _____ Age: _____ Years

Place you come from: Place _____ State _____

Place of Birth _____ State _____

Place of Schooling (High School) _____ State _____

Did you go to public or Government school? _____

Place of College education: _____ State _____

Profession of Parents _____

How many years of education before coming to Seminary? _____

How many years in the Seminary? _____

Any experience (work)

	<u>Kind of work</u>	<u>Place</u>	<u>Years</u>
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____

Languages you know
(You can write and
speak fluently)

1. English

2. _____

3. _____

4. _____

5. _____

APPENDIX D

IDENTIFICATION OF RESPONDENTS

Geographical Cultural Background

APPENDIX D

IDENTIFICATION OF RESPONDENTS

Geographical Cultural Background

Respondent numbers for the three states:

<u>Tamilnadu</u>	<u>Maharashtra</u>	<u>North East</u>
501	502	503
504	506	507
505	509	510
508	511	518
514	512	521
519	513	527
510	515	529
522	516	530
523	517	533
528	524	539
532	525	540
534	526	541
535	531	543
536	538	544
537	542	545

15 in each state

APPENDIX E

IDENTIFICATION OF RESPONDENTS

Years of Formal Schooling

APPENDIX E

IDENTIFICATION OF RESPONDENTS

Years of Formal Schooling

Respondent numbers for three groups:

	<u>10-12 years</u>	<u>13-15 years</u>	<u>16+ years</u>
	502	501	503
	506	508	504
	516	509	505
	517	511	507
	522	513	510
	524	514	511
	526	515	519
	529	518	510
	531	523	521
	537	525	527
	538	528	532
		530	533
		536	534
		539	535
		542	540
		543	541
		544	545
In each state:	11	17	17

APPENDIX F

IDENTIFICATION OF RESPONDENTS

Years of Practical Experience

APPENDIX F

IDENTIFICATION OF RESPONDENTS

Years of Practical Experience

Respondent numbers for three groups:

<u>0-1 years</u>	<u>2-4 years</u>	<u>5+ years</u>
502	503	501
504	509	505
507	513	506
508	515	511
510	517	512
514	518	521
516	519	528
520	522	530
524	523	537
525	529	539
526	540	545
527	541	
531	542	
532	544	
533		
534		
535		
536		
538		
543		
In each state:	<u>20</u>	<u>14</u>
		<u>11</u>

APPENDIX G

EXAMPLE OF RESPONSES

APPENDIX G

EXAMPLE OF RESPONSES

From A Respondent of Tamilnadu State

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Whether Learning Is Taking Place?

Photograph #1: NO. Surrounding environment. It is not suitable. It is not educative for the human mind to concentrate on something or observe something. It needs a proper environment. No calm atmosphere. Lot of things that disturb people's attention. I don't see any regularity in the arrangement which is again an important factor.

Photograph #2: YES. In contrast to photograph #1, photograph #2 has better environment proper environment; concentrating so learning is taking place in this photograph. There are guides who are helping the students to find out things, to discover things, and there are photographs on the walls which may also provoke thinking and help them to learn.

Photograph #3: YES. This is a perfect class atmosphere. In this photograph, learning is taking place because the teacher is able to absorb student's attention or action through the photograph and teaching. I think learning is taking place.

Photograph #4: YES. Because every student has material which the teacher also has and they are reading something. There is an active participation by students. The atmosphere is also very good. It gives a very neat arrangement of things, board, desk.

Photograph #5: YES. I believe there are two ways of learning:
1) through conscious observation and 2) through unconscious absorption.

I think this through experience a child can learn many things. Fishing, even though he is fishing, certain things get through your mind. So, I say learning is taking place even through this act also.

Photograph #6: YES. The atmosphere is perfect; natural surrounding but there is nothing to disturb people's attention rather they are able to concentrate in this environment. I think some sort of sharing is going on and it is a real good way of learning.

Photograph #7: YES. The child is at his own table reading. I see a clear interest in his face. So I think if the child has interest, he can learn.

From a Respondent of Maharashtra State

Whether Learning Is Taking Place?

Photograph #1: NO. Students' attention is diverted. They are not actually studying in the class room. Disordered place. The teacher is seeing all the children are just sitting on the table and looking here and there. She is also looking here and there. The action of the teacher and things are written on the board but there nobody is paying attention, so learning is not taking place.

Photograph #2: NO/YES. Also children are involved in their own activities. There may be learning because some of them are keenly observing certain things; they might be learning. Some photographs show the teacher is standing and going and explaining them. I think learning might be taking place. Children are actually taking part. Teacher is also showing how to do the work; involving the children

themselves. Involvement by the children and the teacher is sitting side by side together. Learning is taking place.

Photograph #3: YES. More learning. Teacher is coming to the level of the children. Children are sitting in front of her and acting like children and making the children to be to take part in this action thereby, involving them in action. So learning is taking place. Teacher is showing the action by the hand the other child is also trying to do the same action and they are recently observing the teacher what she is doing.

Photograph #4: YES. Here also student himself has been asked to take part in reading and he is representing the whole class and all the students are paying attention what the representative is doing. This is most effective. Children can notice what their representative is reading. Teacher is also standing by to correct him where he is making mistakes both are involved, keenly observing one another. Learning is taking place.

Photograph #5: YES. In this pictorial, fish. I think, observing minutely observing and there he studied structure. He can understand many things by pictorial way. He can study the thing himself. Learning is definitely taking place.

Photograph #6: YES. Students are in good atmosphere and all are. There is no pressure in that atmosphere. They are leisurely sitting and studying together and the environment is helping them to study. There is no tension between them; one another. They are free to share what they want.

Photograph #7: YES. He is very keenly studying the book himself. Studying is also most important for learning. So learning is taking place.

Whether Learning is Taking Place?

Photograph #1: YES. Each one is involved in their own work.

Photograph #2: SOME YES/SOME NO. One boy who is concentrating; some looking around; photograph hanging on the wall for students to observe.

Photograph #3: YES/NO. Teacher has something to teach them but none of the children are looking at him. As I look at the photograph, I think there is no real learning. The students are not really listening.

Photograph #4: YES. At least students who are not listening here to that boy's reading, some of them are looking at the book and to some extent some process is going on in the mind. I think, in that respect, I think some kind of learning is taking place. Thinking is very important for learning. Concentration, when they think, they are concentrating. The boy is reading out the book.

Photograph #5: YES. I would say again that the boy is examining and concentrating on something. He is using his mind and concentrating. So learning is thinking and concentrating. He is trying to find out what and why; I think fishing hook and how the hook is working. Practical learning is taking place.

Photograph #6: YES. This man is trying to say something to these people. They are listening to what he say. I can see they are reading some book. They are sitting on the top; environment; learning is taking place in each individual.

Photograph #7: YES. When I look at the photograph, I say learning is taking place; studying-expression shows he is enjoying the work and he is getting some new insights from the book; enjoying learning.

APPENDIX H

RESPONSES IN THE CONTEXT FOR RELIABILITY TESTING

APPENDIX H

RESPONSES IN THE CONTEXT FOR RELIABILITY TESTING

Respondent #501: Photograph #1

Interviewer: Is learning taking place in this photograph?

Respondent: Some Yes/Some No

Interviewer: Why do you say so?

Respondent: Not disciplined learning.

Three or four are involved in learning and others are not so.

Respondent #503: Photograph #5

Interviewer: Is learning taking place in this photograph?

Respondent: Yes

Interviewer: Why do you say so?

Respondent: Here the student is learning how to catch fish with hook and rope. He is learning here.

He knows how to attract fish by putting some food in the hook and when the fish comes and tries to eat it he takes out fish. This is how he is learning how to catch fish. So I should say he is learning.

Respondent #505: Photograph #1

Interviewer: Is learning taking place in this photograph?

Respondent: No

Interviewer: Why do you say so?

Respondent: The arrangement of the room is not in order

People are paying much attention to what is happening.

The teacher seems not to be paying attention.
The students seem to be doing just what everyone wants to do.

One student is just looking away.
 One student sitting, I don't know what he is doing at
 all.

Respondent #507: Photograph #5

Interviewer: Is learning taking place in this photograph?

Respondent: Yes

Interviewer: Why do you say so?

Respondent: Yes, he is learning because he is thinking what is going
 on here.
 Because learning takes place where one person thinks
 about what is practical.

So I feel this boy is learning something about this
 fish: he must be thinking how it happened.

Respondent #508: Photograph #7

Interviewer: Is learning taking place in this photograph?

Respondent: Yes

Interviewer: Why do you say so?

Respondent: In this I see a junior boy learning. He seems to be
 on a ready posture.

He learns I think and this could help him for better
 learning.
 The reason is that he does it by himself and he has
 concentration.

Respondent #510: Photograph #4

Interviewer: Is learning taking place in this photograph?

Respondent: Yes

Interviewer: Why do you say so?

Respondent: All learning from some photographs.
 Written on the board

and particularly a boy and other learning something
 in particular subject

Respondent #511: Photograph #5

Interviewer: Is learning taking place in this photograph?

Respondent: Yes

Interviewer: Why do you say so?

Respondent: Learning, you see that one fish is there
Student is observing fish

He is getting some new knowledge; so learning

Respondent #512: Photograph #7

Interviewer: Is learning taking place in this photograph?

Respondent: Yes

Interviewer: Why do you say so?

Respondent: He is very keenly studying the book himself.

Studying is also most important for learning.

Respondent #514: Photograph #4

Interviewer: Is learning taking place in this photograph?

Respondent: Yes

Interviewer: Why do you say so?

Respondent: Because boys are sitting on table and chair

They are seriously doing their studies.
I am seeing that everyone is looking at their books
except one or two.
And one boy is reading and the teacher is looking
listening the book
Some writing on the board
From this photograph, the boys are interested in their
studies.
Arrangement made in their class. So all these things
show learning is taking place.

Respondent #515: Photograph #5

Interviewer: Is learning taking place in this photograph?

Respondent: No

Interviewer: Why do you say so?

Respondent: In photograph #5, I did not see anything learning. I think this boy is thinking about something.

I didn't think that whether he is learning from this fish or not but I think he is just playing.

It is possible that he is thinking about fish.
I don't know. Learning is not taking place. This boy is thinking about the fish but I don't know whether learning is taking place.

Respondent #516: Photograph #7

Interviewer: Is learning taking place in this photograph?

Respondent: Yes

Interviewer: Why do you say so?

Respondent: Moving devotion
Meditation

and reading Bible

New knowledge from God
Prayer

Respondent #518: Photograph #4

Interviewer: Is learning taking place in this photograph?

Respondent: Yes

Interviewer: Why do you say so?

Respondent: Here a boy is called to the front.

This is learning through doing something

Written on the board
All of them are engaged in the activity of learning.

Respondent #520: Photograph #7

Interviewer: Is learning taking place in this photograph?

Respondent: Yes

Interviewer: Why do you say so?

Respondent: He is reading a book.
But whether he learned the thing is not clear. Something may confuse himself. So it is always better to have the full knowledge before. If he full understands things. It is the way of learning and there are some people who don't know things and it will be no more useful. This child adopted without understanding the subject.

If he understood it, it will be useful.

Respondent #522: Photograph #4

Interviewer: Is learning taking place in this photograph?

Respondent: Yes

Interviewer: Why do you say so?

Respondent: Appearance of the classroom,
and she has asked the boy to read

Opened book and listening so learning is taking place

Written on the board
Careful listening
We can say learning is taking place.

Respondent #524: Photograph #7

Interviewer: Is learning taking place in this photograph?

Respondent: Yes

Interviewer: Why do you say so?

Respondent: Because boy is reading that book very carefully

Reading something. Learning is taking place.

Respondent #525: Photograph #1

Interviewer: Is learning taking place in this photograph?

Respondent: Yes

Interviewer: Why do you say so?

Respondent: Because in this photograph, the situation is not good
and they are just studying and

two students are studying with mind

Here also learning by practical
After finishing study, they are studying.

Respondent #526: Photograph #4

Interviewer: Is learning taking place in this photograph?

Respondent: Yes

Interviewer: Why do you say so?

Respondent: According to the instructions given on the board,
teaching is calling one by one students
They have to read something from the book before the
class

and here everybody is involved in action that is why
learning is taking place

Respondent #528: Photograph #7

Interviewer: Is learning taking place in this photograph?

Respondent: Yes

Interviewer: Why do you say so?

Respondent: Boy learning alone. Class table

and concentrating nicely while reading

Looking at the book and reading the book materials are
here, papers.
He is concentrating on reading.

Respondent #529: Photograph #1

Interviewer: Is learning taking place in this photograph?

Respondent: No

Interviewer: Why do you say so?

Respondent: Because of the atmosphere
The room is not properly arranged.
Everything is scattered.

and it seems teacher doesn't care about the students

students do whatever they like.

Respondent #531: Photograph #5

Interviewer: Is learning taking place in this photograph?

Respondent: Yes

Interviewer: Why do you say so?

Respondent: I think this boy is fish catcher.
So has caught one fish.

so he knows how to catch fish

so here also learning is taking place
business learning.

APPENDIX I

PURPOSE OF THE CONTENT ANALYSIS

APPENDIX I

PURPOSE OF THE CONTENT ANALYSIS

The study is about the students of Union Biblical Seminary, Yavatmal, India. It is designed to find out their perceptions and expectations about LEARNING.

45 students (15 each from Maharashtra State, Tamilnadu State and North Eastern States of India) were exposed to seven stimulus photographs of learning situations (photographs are enclosed). They were then asked mainly two questions:

1. Is learning taking place in this photograph? (the same question for all the seven photographs)
2. Why do you say what you say? (e.g., why do you say "yes", "no" or)

The purpose of the content analysis that you will do, is to identify the factors relating to learning, of which the respondent is conscious at the time he/she makes the judgement about the stimulus photograph.

You are given a systematic sample of responses (statements) from a random selection of respondents. These are responses to stimulus photograph Numbers 1, 4, 5 and 7. These are to be analyzed by you.

We have developed a system of categorization (DESCRIPTORS FOR CONTENT ANALYSIS) which you will use in categorizing the responses to these stimulus photographs. Each statement has to be analyzed and categories given to it. One statement from each respondent for one stimulus photograph is given to you for categorization. The statement, however, is in context and therefore we have given you other words (sentences) surrounding the particular statement you will analyze.

The total response to a particular stimulus photograph has been provided together with the specific statement you are to analyze. The statement you are to analyze has been highlighted in yellow.

APPENDIX J

EXAMPLE OF CATEGORIES GIVEN

APPENDIX J

EXAMPLE OF CATEGORIES GIVEN

Sample example for categorization:

Teacher is teaching (one idea)

Students are listening (one idea)

But there is disturbance in the atmosphere therefore no learning
(one idea)

Explanation for categorization:

There are three ideas and therefore at least three categories.

First Idea:

The focus is on the teacher and therefore	II
It is an observable teaching behavior of the teacher with others (students) therefore	A 7
Teaching is mental process therefore	Q
There is instructing relationship therefore	S

Second Idea:

The focus is on the students and therefore	I
listening is an observable behaviour of the students (alone) therefore	A 6
It is a physical aspect therefore	P

Third Idea:

The focus here is on the environment therefore	III
There is reference to environmental setting therefore	3
Reference is also to disturbance (disorderliness) therefore	V

Therefore categories given to the above statement is:

II. A . 7 . Q . S I. A . 6 . P III. 3 . - . V

APPENDIX K

RULES FOR CATEGORIZATION

APPENDIX K

RULES FOR CATEGORIZATION

I. How to arrive at:

A. FOCUS OF THE CONTENT

Questions such as the following would help:

About whom^{which}/is the statement (sentence) speaking?

Normally, subject of the sentence (statement) will be the focus

B. CONTENT OF THE CITATION

Questions such as the following would help:

What is it that the statement (sentence) is speaking about?

Normally, predicate of the sentence (statement) will be the content

C. APPARENT PERCEIVED PURPOSE OF THE CITATION

D. INFERRED (OR MENTIONED) RELATIONSHIP FACTORS BETWEEN LEARNER AND TEACHER

E. ENVIRONMENTAL FACTORS as they relate to III (ENVIRONMENT) above

C, D, E can be inferred from the statement if not mentioned already.

The inference regarding C, D, E has to be consistent with the context

II. If you pick out

A. STUDENT (which is I) as the focus of the statement (sentence)

you are analyzing, normally the statement will have content and purpose: no more than 3 letter category (e.g., I . 3 . a)

B. TEACHER (which is II) as the focus of the statement (sentence)

you are analyzing, normally the statement will have content, purpose and relationship factors: no more than 4 letter category (e.g., II. 4 . B . P)

C. ENVIRONMENT (which is III) as the focus of the statement (sentence)

you are analyzing, normally the statement will have content, environmental factors: no more than 3 letter category (e.g., III. 5 . - - V)

APPENDIX L

INSTRUMENT FOR TESTING INTER-RATER RELIABILITY

APPENDIX L

INSTRUMENT FOR TESTING INTER-RATER RELIABILITY

Is the focus of the statement: I. Student _____

II. Teacher _____

III. Environment _____

Is the observability of the learning behavior of the student or teacher:

A. Observable _____

B. Unobservable _____

If you checked Observable, check appropriate columns number 1 to 10 only.

If you checked Unobservable, check appropriate columns numbers 12 to 14 only.

Focus of observable behavior of the student/teacher:

1. If observable, is reference made to physical activity or physical posture of the learner or teacher?

(a) Yes _____ : (b) No _____

2. If observable, is reference made to learning aids or learning materials or subject matter?

(a) Yes _____ : (b) No _____

3. If observable, is reference made to learning environment?

(a) Yes _____ : (b) No _____

4. If observable, is reference made to practical learning?

(a) Yes _____ : (b) No _____

5. If observable, is reference made to life-related learning?

(a) Yes _____ : (b) No _____

Social characteristics of learning behavior:

6. If observable, is reference made to learner or teacher alone?

(a) Yes _____ : (b) No _____

7. If observable, is reference made to learner or teacher with others?

(a) Yes _____ : (b) No _____

Kind of observable learning behavior:

8. If observable, is specific reference made to definite learning actually taking place?

(a) Yes _____ : (b) No _____

9. If observable, is specific reference made only to peripheral aspects of learning?

(a) Yes _____ : (b) No _____

10. If observable, is specific reference made to learning in definitional terms?

(a) Yes _____ : (b) No _____

Kind of unobservable learning behavior:

12. If unobservable, is specific reference made to internal involvement with learning (i.e. responsibility for learning comes from within the learner)?

(a) Yes _____ : (b) No _____

13. If unobservable, is specific reference made to interaction for learning (i.e. responsibility for learning comes from outside or beyond the learner)?

(a) Yes _____ : (b) No _____

14. If unobservable, is specific reference made to learning not in terms of actually happening, but in terms of definition.

(a) Yes _____ : (b) No _____

Some people feel that learning only takes place when the learner is physically involved in something (physical process for learning). Others feel that learning takes place when you are mentally involved (mental process for learning). Still others feel that you learn through emotional involvement (emotional process for learning). However, many people are more complex and see learning as necessitating a combination of the above.

For the statement under analysis, check appropriate box(es).

Perceived aspects of learning involvement:

	(a) Definitely	(b) may be
P. Physical		
Q. Mental		
R. Emotional		

Only if the focus of the statement is "Teacher", answer the following:

Is the relationship between teacher and learner (mentioned or inferred)?
Check appropriate box(es).

Factors that describe "teacher/student relationship":

	(a) Definitely	(b) may be
S. Instructional		
T. Nurturant		

Only if the focus of the statement is "Environment", answer the following:

Is the environmental setting (mentioned or inferred)? Check appropriate box(es).

Environmental factors pertaining to "Environment focus" statements:

	(a) Definitely	(b) may be
V. disorderliness		
W. formal (rigid)		
X. formal but flexible		
Y. less formal but more flexible		
Z. free or natural		

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