UNIVERSITY OF CAPE COAST

TEACHERS' PERCEPTION AND NEEDS OF DISTANCE EDUCATION PROGRAMME IN GHANA

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CANDIDATE'S DECLARATION

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

..... Date: 3-03-2000

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SUPERVISOR'S DECLARATION

We hereby declare that the preparation and presentation of the thesis were superivsed in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

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D E D I C A T I O N

This thesis is dedicated to the Almighty God for supporting and protecting me, and for his love and mercy towards me and my family.

"Who am I, O Sovereign Lord.
And what is my family, that
You have brought me this far 2nd Samuel 7:18b."

TO GOD BE THE GLORY, Amen!

ABSTRACT

This study is an investigation into the perception and needs of teachers in relation to Distance Education. The simple random and stratified sampling methods were used to select three rural and three urban districts from three sampled regions in Ghana.

An original instrument designed by the writer was used to collect data on the needs and perception of teachers on Distance Education. A 52-item questionnaire including a 4-point Likert type scale was administered to teachers to collect data on their needs and perception of distance education. The Survey Research had 8 null hypotheses tested for statistical significance using chi-square tests at alpha 0.05.

The major result was that teachers in the area of the study; namely – Greater Accra, Western and Central Regions of Ghana have positive perception towards the distance education programme and that the needs of rural teachers in respect to distance education are different from those of urban teachers. It is, therefore, being suggested that the distance education programme in Ghana is mounted and maintained. Again, print materials should be used at the initial stage.

Finally the needs of urban teachers in relation to distance education must be catered for by the implementers of distance education.

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1.0 BACKGROUND TO THE STUDY

Education is the key to national development in the sense that everywhere in the world, education was expected to help fulfill national aspirations and goals. It is central to the development of a better life and a better world. Because of the importance of education in national development, almost all successive governments in Ghana since 1919 made some sort of systematic effort to regulate education (MacWilliam and Kwamena-Poh. 1975; Antwi, 1992). In the process, new educational reforms came into being with their accompanied curricula, demand for qualified personnel to handle the programmes as well as their own attendant problems to be solved. A more recent reform is the Free Compulsory and Universal Basic Education (FCUBE) which like previous reforms aimed at Universal Basic Education; hence increasing enrollment and also demanding quality in teaching and learning.

It is an acceptable principle that the teacher is the crucial element of any meaningful educational reform or expansion and the pivot around whom the entire educational system revolves. In effect, the teacher plays

a central role and has to adjust his personal knowledge, skills and attitudes to meet the demands of any such reforms by being trained and retrained to handle new syllabuses effectively. Adequate numbers of teachers in each group of subjects will have to be found if these reforms could be successfully implemented. For instance, it was projected that in 1987, 7,000 JSS I classes would need three teachers for each class, or a total of I21,000 teachers by September 1987 (Antwi, 1992). This implied that there was the need to employ more appropriately/suitably qualified teachers into the new system that was emerging at the time.

It is therefore essential for teachers in the classroom to up-date their knowledge and skills of teaching since their low educational background has been the major constraint on the quality of education delivery. Teachers in the village schools who have struggled through the Middle School or Senior Secondary School are always teaching to the limits of their knowledge. They cling desperately to the official syllabuses. Their low educational background makes it difficult for them to go beyond the information given in text books. Such teachers are afraid of any questions in the classroom but those they ask, for they are the only ones to which hey can be sure of knowing the answers (Beeby, 1966).

Much as teachers would like to update their qualifications, the conventional educational institutions all over the world and particularly in Africa are not enough to absorb all aspiring students into the various

universities. This necessitated a move for various countries to work out a scheme for non traditional students to continue their education outside the university walls through distance education.

In Ghana, even though training college and tertiary facilities were expanded to some extent, the problem has still created a backlog of students unable to gain admission into the conventional Teacher Training Colleges, Diploma Awarding Institutions and Universities. In view of the fact that the government cannot expand educational facilities in the conventional system to accommodate all student applicants, there is a clear need for effective policies to be formulated to enable more teachers to be trained to handle the educational reforms.

Furthermore, there are people who for various reasons may not wish to study full-time in an educational institution because such people would face a lot of problems if they decided to enroll as full-time residential students. In Africa and particularly Ghana, marriage and family life is considered as one of the most important aspects of one's life. As a result, most married people find it difficult to leave their marital homes and enroll as full-time students despite the fact that they very much want to further their education. Indeed, women who are solely responsible for the upbringing of children find it difficult to leave this all important responsibility and enroll as full-time students.

The financial level of certain teachers prevent them from attaining higher education as full-time students. For instance, a lot of male and female teachers engage in some sort of business, trading or giving extra tuition to some children all for financial gains. Enrolling as full-time residential students to pursue higher education may cripple them financially. In view of this, Jenkins and Koul (1991) are of the view that, adults seeking higher education on a part-time basis have become possibly the second largest audience for Distance Education.

Furthermore, some teachers find themselves in isolated areas in certain parts of the country and hence find it difficult to leave their farms and come to the towns to further their education. These teachers can use distance education as alternative solution because the nature of distance education is such that with a little effort it can reach teachers in the hinterland.

Thus, distance education programmes could be used as alternative route to expand teacher education. Its facilities may include the use of the print, radio and television to reach out to thousands and thousands who would never get to school or college (Sewart et al, 1988). It is one significant development that the new technologies of education have made possible (Reddy, 1988).

Distance Education has also proved to be a mutating virus within the bodies of education systems. It has been able to rise to new

challenges, to reshape itself to meet social changes and to transform itself for adoption to new contexts (Evans & Nation, 1989).

The programme also offers an economic use of sparse educational resources to provide large numbers of students with chances to continue their education. In effect, it has been seen as a way of providing in-service education to classroom teachers on a large scale. Its attraction is that the teachers are not taken away from the classroom while they study. Consequently, the demand for the services that distance education offers especially to teachers is growing and has become an important issue in most countries educational and developmental agenda.

1.1 STATEMENT OF THE PROBLEM

Since every success in learning depends a great deal on the learning environment, distance education needs to be systematically planned in order to cater for the backlog of teachers yearning for higher education. To plan effectively, there is the need to know the learners' needs and perception in relation to the distance education programme.

Furthermore, the learners' background in terms of age, sex, culture, education and economic resources available to them should be known so as to boost planning. This is precisely the problem that the study seeks to investigate for a smooth take off of the distance education programme in Ghana.

1.2 PURPOSE OF THE STUDY

The existing conventional universities in Ghana and elsewhere can no longer cope with the influx of people who are seeking admission to the universities. Aside these, there are other teachers working in our educational offices who would like to acquire diplomas and degrees but cannot leave their work to enter the conventional universities.

The purpose of the study therefore is twofold. First, to find out the way those who would like to attain higher education by the distance mode perceive distance education itself. Secondly, to get to know the needs of such students so that support services and cost-effectiveness can be achieved in the design and implementation of distance education programmes in Ghana.

1.3 RESEARCH QUESTIONS

Questions arising out of the problem and purpose of this study from which the hypotheses are formulated are:

1. What are the perceptions of teachers about distance education in Ghana?
2. What are the various needs in terms of time, money and logistics of the individual teacher in distance education?
3. Are there any differences between the perception of male and female teachers about distance education programme?

4. Are there any differences between the needs of male and female teachers about distance education programme?

5. Do perceptions of rural-based teachers differ significantly from that of the urban-based teachers about distance education programme?

6. Are there any differences between the needs of rural-based and urban-based teachers for distance education?

7. Is there any difference between the perception and needs of married and unmarried teachers on/of the distance education programme?

8. Do teaching experiences affect the perception and needs of teachers to distance education?

9. Do gender influence needs or perceptions of teachers in rural or urban areas on distance education?

1.4 RESEARCH HYPOTHESES

The following hypotheses have been formulated from the research questions.

1. There is no significant difference in perception held by male and female teachers about the distance education programme.

2. There is no significant difference between the needs of male and female teachers of distance education.

3. There is no significant difference between the perception of

teachers with ten or more years of teaching experience and those with less than ten years teaching experience.

4. There is no significant difference between the needs of teachers with ten or more years of teaching experience and those with less than ten years teaching experience.
5. There is no significant difference between the perception of rural and urban teachers about distance education.
6. There is no significant difference between the needs of urban and rural teachers in relation to distance education.
7. There is no significant difference between the perception of married and unmarried (single) teachers about distance education.
8. There is no significant difference between the needs of married and unmarried (single) teachers about distance education.

1.5 SIGNIFICANCE OF THE STUDY

Education is a tool for development. The more people are educated, the more likely it is for a particular country to develop. The primary significance of this study lies in the fact that it will serve as a data bank from which useful information concerning distance education could be got. Second, it will point out the needs of distance education learners so that effective support services would be planned for them. Third, since the study will be based on Ghanaian conditions, it will throw more light on

how best the distance education programme in Ghana could be run. Finally, it will help distance education authorities in Ghana to be familiar with the perception and needs of distance education learner's and hence plan suitable programmes for them.

1.6 DELIMITATIONS OF THE STUDY

The scope of this study covers the perception and needs analyses of non-graduate trained certificated teachers in Ghana.

Owing to time and financial constraints the study was confined to teachers in three of the ten regions in Ghana. In as much as teachers share certain commonalities in terms of training, qualification, experience and placement, it is believed that generalization of findings could be made from a representative sample of teachers drawn from the three regions in Ghana.

1.7 DEFINITION OF TERMS

For the purpose of this study, the following operational definitions are applied for the terms below:

PERCEPTION OF DISTANCE EDUCATION:

How one sees and understands distance education to be.

NEEDS: What the learner of distance education requires to be in a position to pursue the course. For example, time, money, logistics in terms of radio, library facilities, television and reading skills.

URBAN-BASED

TEACHERS: Teachers residing in a settlement of more than 5,000 people with more than half of the population not engaged in agricultural production.

RURAL-BASED

TEACHERS: Teachers residing in a settlement of less than 5,000 people with more than half of the population engaged in agricultural and related occupations (Ghana, 1984. Population census).

CHAPTER TWO

REVIEW OF RELATED LITERATURE AND

THEORETICAL REVIEW

2.0 INTRODUCTION

This chapter is in two parts - theoretical and empirical review of literature.

The theoretical review seeks to examine the concept perception and its definition. It also looks at some of the perceptual factors that influence behaviour as well as teachers needs and perception in relation to distance education. It again touches on some theories of need motivation and how they relate to distance education.

It also deals with the definition of distance education as well as its importance. Furthermore, the study looks at the development of support systems for distance education learners and some of the various types of media that are used in distance educatio...

The empirical review on the other hand looks at studies done by certain authorities on perception and need motivation in relation to distance education.

2.1 THE CONCEPT OF PERCEPTION DEFINED

Perception as a psychological concept does not easily lend itself to definition. The Oxford Advanced Learner's Dictionary of Current English for example define perception as "the process by which we become aware of changes (through the senses of sight, hearing etc); act or power of perceiving" (Hornby et al, 1980). To buttress this, Bartley (1969) is of the view that perception is the immediate discriminatory response of the organism to energy-activating sense organs.

Until recently, the concept perception was looked at by early psychologists as an act of perceiving in terms of basic data and sensory experience. The person perceives colours, sizes and physical shapes (Tagiuri and Petrullo (1958). Thus early psychologists such as Wundt (1904) generally considered perception as merely the immediate response of the organism to the impingement of energy upon one of its specialized sense organs. For example, the eyes, ears, tongue, receptors in the nose and the variety of receptors in the skin. Wundt (1904) and his associates were of the view that one cannot condemn the faith that every perceptual experience, however complex, could finally be reduced to terms of elementary sensations combined in a particular way (Tagiuri and Petrullo, 1958).

In the same way Allport (1955) in his attempt to define the concept perception, states that perception can be defined as having something to do with our awareness of the objects or conditions about us. He further explains that perception is dependent, to a large extent, on the impressions these objects make on our senses. It is the way things look to us, or the way they sound, feel, taste or smell.

Yinger (1965) also in an attempt to define the concept of perception indicates that, perception in its general sense is an experience produced by an outside stimulation of the senses. However, Bruner et al, (1956) gave a new dimension to the study of perception in the 1950's. According to Bruner et al, (1956) perception involves a decision process, a placement of incoming information into a network of meaningful categories developed largely from prior learning. Past experience in certain kinds of setting lead us to expect certain events with a higher probability than others. In other words, the individual is alert for certain things that have often happened in the past. The individual more or less ignores the unlikely possibility of rare events. Such teachers may understand the distance education programme since they are familiar with correspondence courses such as the rapid results programmes. Others may exhibit ignorance abt it bec. they are not familiar with these correspondence courses. Such reasoning leads to the prediction that objects and events that have a high frequency of occurrence will be more

rapidly and more accurately perceived than those that are unusual. Hence, Bruner et al, (1956) place emphasis on two important characteristics of the perceptual process.

Firstly, they think that perception is selectively organized (Houston et al, 1989; Bruner et al, 1956). Selective attention is the concentration and focusing of mental effort on specific stimuli while excluding other stimuli from consideration (Best, 1986 p.36). In selective organisation, new experiences are assimilated selectively. They are then incorporated into previous experiences that are meaningful and functionally useful to the individual.

Secondly, they are of the view that perception processes operate to minimize surprise. New experiences are therefore assimilated more readily if they are highly related to past experiences than if they are not (Wortman et al, 1992).

Bruner et al (1956) conclude by saying that perception refers to the ways that we understand our environment by interpreting incoming sensory information (Houston, et al, 1989). From Bruner's explanation of perception, one realizes that an individual's environment and past experiences are important in his understanding and acceptance of a particular concept or event. The success or failure of certain events in the past can affect the individual's perception. Distance education, even though a novelty in Ghana may be assimilated readily since it is directly

related to many past experiences such as learning by correspondence, rapid results and other external courses.

Wortman et al, (1992) went a step further to define perception as the process whereby the brain interprets sensations it receives giving them order and meaning. Thus, hearing sounds and seeing colours may be largely sensory processes, but following a melody and detecting depth in a two-dimensional picture are largely perceptual ones.

To understand this concept better, Gestalt psychologists have come out to indicate that the perception of the whole is different from the sum of its elements. (Coren and Girgus, 1980; Wortman et al, 1992). In other words both the stimulus and its interpretation should be seen as a single process.

On the other hand, the S-R associationist psychologists define perception as the sense organ 'reading' a person's social and physical surroundings and recording this reading in the nervous system (Bigge and Hunt, 1968). After sensing something, a person may derive a meaning for it. The S-R associationists therefore see perception as a two-step process (sensing and deriving meaning). This process focuses on particular objects of the environment only in so far as previous conditioning directs. In the same vein, the teacher who is a potential candidate to the distance education programme has to understand the programme in its totality. He must be given in-depth education and insight

into the entire programme for him to understand and therefore derive meaning out of it. This is important because some of the teachers might have been involved in the defunct 'modular' programme introduced into the country in the 1980's to expand teacher education but did not survive the decade. Such teachers, unless well convinced about the distance education programme may perceive it negatively. Similarly, whether teachers will perceive the distance education programme positively or negatively will depend on the impressions they will derive from the way the programme will be portrayed to them in terms of quality and prospects. They have to be fully aware of what the whole programme is about.

From the above definitions, one comes to realize that:

1. Objects and events that have a high frequency of occurrence will be more rapidly and more accurately perceived than those that are unusual.
2. New experiences are assimilated more readily if they are highly related to past experiences than if they are not.
3. Perception is a two-step process which focuses on particular objects of the environment only in so far as previous conditioning directs.

Houston et al (1989:101) in the light of the above differences to definitions of perception put it this way:

the field of perceptual psychology is loosely defined and covers a multitude of interests.

2.1.1 *Perceptual Factors That Influence Behaviour*

Perception being more or less a cognitive process can be influenced by many factors which can in turn affect behaviour. The question is, "why do people interpret the same sensation differently"?

According to Houston, et al, (1989) an individuals past experience can influence his perception and hence his behaviour. They contended that limited knowledge can affect one's perception and cause the individual to behave in a particular manner. It can be inferred from the above statement that if one has limited or adequate information about an event, object or a person, his perception will follow the same trend. Therefore, teachers who have adequate knowledge about the distance education programme may perceive it positively and embrace it while those with limited knowledge may perceive it negatively and reject it. Perceptual Expectancy can affect many aspects of perception. Much of what we perceive is due to our expectations about what we are likely to perceive. In other words, we perceive what we expect to perceive (Wortman et al, 1992; Houston et al, 1989; Weiten, 1986; Turnbull, 1961; Bruner and Minturn, 1955). The perceivers needs, interests and values also affect the character of perceptions (Houston et al, 1989; Weiten,

1986). A person who needs to see something may be "ready" to see it and more likely to notice it if it does appear (Mills, 1980). Similarly, teachers who want to pursue degrees and diplomas but are being hindered from entering the conventional universities due to circumstances beyond their control will readily perceive distance education as a positive programme that will serve their needs and interests.

Perception again is affected by the cognitive process as well as the motivational level of the individual (Wortman et al, 1992; Houston et al, 1989). Sometimes people have reasons to set very strict criteria for saying that they perceive something. A radiologist for example may see a tiny tumour on the x'ray of a person who later turns out to be tumour free (Wortman et al, 1992). This implies that the cognitive process of the individual teacher can affect how he perceives the distance education programme and hence his behaviour towards it. An intelligent teacher may be quick enough to gain much insight and notice the virtue in the distance education programme better than the teacher who is not all that intelligent.

2.2 PERCEPTION AND DISTANCE EDUCATION

Social interaction occurs whenever two or more persons are behaving in orientation to each other. The basic thing is simply that the presence of one person affects the behaviour of another person. Each

person interprets his world in such a way that it forms a meaningful pattern for him. His interpretation is the reality on which he designs his actions. Based on this assumption, Weiten (1986) argues that any perception can be coloured to some degree by the purposes and experience of the observer. Taking Distance Education (which is relatively new in Ghana) as a social institution it is likely that the perception of teachers towards its implementation may be influenced by factors that have been discussed already. One obvious feature of social interaction is that the parties involved have a persistent interest in the gratification of their personal needs (Mc Gregor, 1960). In view of this teachers may like to find out how the distance education programme will satisfy their personal needs and this may affect their perception positively or negatively. For example, a teacher who wants to pursue higher education but cannot do so due to family commitments will have a positive perception towards the distance education programme because the idea will be a welcoming one which will help him/her to achieve his aim in life. On the other hand, a teacher who wants to run away from the family problems at home may have a negative perception of the programme because he will still be tied down to the same family problems he wants to run away from if he does not enter the conventional university.

Lack of adequate information or limited knowledge may affect the teacher's perception of distance education (Houston et al, 1989).

According to Wortman et al, (1992) a study with college students came out with results which implied that knowledgeability probably, has its effects partly by enhancing the clarity and strength of beliefs and feelings, just as personal relevance does. The more knowledgeable one is about a topic, the clearer that individual's opinions tend to be and also the stronger his/her feelings pro or con (Wortman et al, 1992). Considering the fact that the distance education programme is relatively new in Ghana, teachers may have very limited knowledge about it despite the fact that some of them are familiar with correspondence courses. Because of this, they may perceive it negatively. They may not see their way through how the programme can be run effectively until they are properly briefed on its aims and objectives and how the programme will be run through the use of electronic media and the like. Some teachers will have to be convinced that their colleagues who enter the conventional universities will not look down on the distance education programme. It is only when there is adequate knowledge about a stimuli that an objective perception could be possible.

The past experiences of teachers may also affect their perception on the distance education programme (Houston et al, 1989). The average teacher in Ghana is used to the pursuit of programmes in conventional institutions. A sudden shift to distance education may not be readily accepted and this can affect their perception of the distance education

programme.

The expectation of the individual can affect his perception positively or negatively and hence his behaviour (Wortman et al, 1992; Houston et al, 1989; Weiten, 1986). For instance, a stranger travelling to Tema in the Greater Accra region of Ghana may read a signboard with the inscription "Temptation" as "Tema station" because of his expectations. To buttress the point on perceptual expectancy, the writer, assumes that teachers expectation of being treated and placed on the same status as degree or diploma holders from the conventional universities will go a long way to determine their various responses in terms of their perception towards the distance education programme.

Finally, the individual teacher has a level of unique cognitive processes (Wortman et al, 1992; Houston et al, 1989). Thus the organisation of his mental structures as well as his ability to think logically can hinder him to respond positively or negatively to the distance education programme.

2.3 TEACHERS NEEDS IN RELATION TO DISTANCE EDUCATION

Various terms have been used to describe the motivating forces of human behaviour. Some of the terms are need, drive, aspiration and desire (Sisk, 1969). As a result of perceiving a need, a tension or imbalance is created within the individual that leads to activities intended

to reduce the tension thus created (Sprinthall et al, 1990; Sisk, 1969; Hull, 1943).

A need, according to Sprinthall and Sprinthall (1990), is usually defined in terms of a deficit or lack which gives rise to a desire for satisfaction. For example, a hungry person is in a state of need. This need leads him to eat. The need then disappears (Akwesi, 1980). In the light of this, a need can be said to be a motivating factor that compels the individual to perform an activity. In order to motivate the organism, one must know something about the fundamental needs of man (Sisk, 1969).

Numerous systems have been developed for the classification of human needs, ranging from those that attempt to explain all human motivation as the results of satisfying one basic need or drive to classifications that list twenty five or more separate needs (Bartley, 1969). However, one of the most useful and widely quoted classifications of human needs is that developed by Maslow (1943).

2.3.1 *Maslow's Theory of Growth Motivation or Need Gratification*

The chief proponent of the need theory, Maslow (1943) theorized that human organism has certain needs in life. These are grouped into two.

1. Physiological Needs
2. Psychological Needs

These needs are hierarchically arranged from the lowest to the highest. Maslow (1968) explains that unless the lower level needs are gratified, a higher-level need will not be attended to. Similarly, a teacher who finds it difficult to feed his children cannot pursue a diploma or degree course through distance education since he will be expected to bear at least part of the cost of his education.

2.3.2 *Theory of Achievement Motivation*

The need for achievement theory was developed by J.W. Atkinson, (1964) and David McClelland (1961). They hypothesized that differences in the strength of the need for achievement can be explained by postulating a contrasting need to avoid failure. Some people, they suggest, are success oriented, others have a high degree of anxiety about failure. This pre-supposes that teachers who are success oriented may not have much problems going through the distance education programme to achieve a higher academic need; whereas the failure oriented teachers may shun the programme as a result of fear of failure.

2..3.3 *The Arousal Theory of Motivation*

The arousal theory of motivation was developed by Hebb (1958). According to the theory, there is an optimal level of arousal that differs for different tasks. For instance, intense concentrated types of activity, such

as studying for examination or competing for a quiz programme will demand higher levels of alertness (arousal) than more habitual behaviours like eating. It is generally accepted that for most learning, moderate levels of arousal are probably the best. The distance education programme by its nature cannot demand higher levels of alertness or arousal since the learner learns at his own pace and time.

2.4 NEED MOTIVATION AND LEARNING

According to Farrant (1980) to have efficient learning there must be strong motivation to learn. This means that without some form of motivation, learning can never be efficient. This is why the needs gratification of distance education learners must be satisfied at all cost to motivate them, otherwise effective results of the programme may not be achieved.

Behaviourists are of the view that behaviour is determined by reinforcement contingencies (Wortman et al, 1992; Houston et al, 1989; Biehler, 1974). This is seen in the S-R theories of Skinner and his associates. According to Skinner (1953) reinforcement in the form of positive reward brings about motivation to the organism. He explains further that learning occurs when, usually given a set of conditions that encourage some behaviour, the individual behaves in a certain way and is immediately given a reward for that behaviour.

In the light of the above, distance education learners should be reinforced so as to learn. This could be done by satisfying their needs in terms of logistics. Furthermore, distance education learners can be effectively reinforced since print and other distance education materials are planned just like that of programmed learning. In fact, one can conveniently say that distance education to a very large extent has some characteristics of programmed learning.

According to Hill (1985) no matter how programmed learning is presented it emphasizes reinforcement in a learning situation. Every response the student makes elicit immediate feedback. The programme presents information sequentially in small segments and the learner goes on to a new unit only after demonstrating comprehension of the present one. It is in the light of this that Nacino-Brown et al, (1982); and Balogun et al, (1981) refer to programmed learning as "Unit Plan". Skinner (1948) the chief proponent of the programmed instruction explains further that since the programme is designed so that the student gets the vast majority of the units correct, there is immediate reinforcement of the correct responses.

Distance Education more or less takes the same form. The programme is planned in such a way that the learner gets immediate feedback after working on the various units. This leads to mastery which in turn brings about satisfaction.

The environment is an important factor, hence, the distance education learner must learn to operate on his environment to obtain a reward. This is in line with Skinner's operant conditioning where the rat operated on its environment to obtain a reward (Skinner, 1948). If the distance education learner has only one electronic device, say the radio for instance, he must make good use of that radio to go through the distance education course so as t o achieve a certificate higher than what he held before. This becomes his reward.

In the light of this, one realizes that the environment of the distance education learner is important in the implementation of the distance education programme. If the learner has no access to electricity for instance, there is no way he can use television or video in his studies. Distance education planners should therefore take a serious view of the learners environment before a programme takes off. This harmonizes with the humanists view that people act on their environment and make choices about what to do. They are more concerned with the general course of personal development, the actualization of potential and the removal of obstacles to personal growt! . These are motivators to human development. (Rogers, 1951, 1961; Maslow, 1962, 1970).

Cognitive psychologists such as Piaget (1952) and Bruner (1960) believe that people decide what they want to achieve and that their thought process control their behaviour. Hence cognitive theorists are

most concerned with how people process information and impute personal meanings to particular situation. In effect the problems they encounter motivate them to process information, utilizing their repertoire of schemas to arrive at a conclusion or solution. This implies that the educational level of the distance education learner should be taken into consideration when learning materials are being planned so that it will not be too difficult or too easy for the learner. It should be just challenging for him.

2.5 DISTANCE EDUCATION AS A CONCEPT

Distance Education ranks very high among the few innovations in the field of education. Although it is catching up very fast in all countries - developed and developing, socialist and capitalist, western and eastern - it is still little known and studied.

As Keegan (1986:4) points out:

> Even a cursory reading of education literature shows that distant systems are usually ignored. It merits not a paragraph in most volumes of educational philosophy, in guides of administrative practice or in analysis of didactic strategy.

In view of this it is necessary to discuss what distance education entails.

2.5.1 WHAT IS DISTANCE EDUCATION?

Distance Education according to Zigerell (1984) is a form of instruction characterized by the physical separation of teacher from student, except for the occasional face to face meeting allowed for by some projects. He points out that distance education differs from correspondence courses in that it pre-supposes opportunities for students interaction, whether live or mediated, as well as for student independence. He also provides a distinction between distance education and distance learning, the former being the process and the latter focusing on the receiving end of distance education.

Wedemeyer (1983) takes the definition one step further by focusing on the learner. He believes distance education is learning undertaken in a transactional relationship with educational programmes and institutions, but entered into by the choice of the learner on the basis of his or her own needs, concerns and aspirations.

Ljosa (1975) also views distance education as a system that should be considered in terms of its sub-systems and characteristic functions. Thus, in defining distance education, thought must be given to such sub-systems as modes of teaching, student services, student activity,

comprehensiveness of course material, student follow-up, examination, subject areas and two way communication.

Clearly, a variety of definitions for the term distance education exist but all share some common characteristics. Perhaps the best way to define the phrase is to outline its characteristics.

The credit goes to Keegan (1986) who has attempted a synthesis of most of the definitions. On the basis of this, he perceives distance education as having the following important characteristics:

1. Quasi-permanent separation of teacher and learner throughout the length of the learning process. This distinguishes it from conventional face to face education.
2. Influence of an educational organization both in planning and preparation of learning materials and in the provision of student support services. This distinguishes it from private study and teach yourself programmes.
3. Use of technical media-print, audio, video and computer - unites teacher and learner and carries the content of the course.
4. Provision of two-way communication so that the student may benefit from or even initiate a dialogue. This distinguishes it from other uses of technology in education.

5. Quasi - permanent absence of a learning group through out the length of the learning process so that people are usually taught as individuals and not in groups, with the possibility of occasional meetings for both didactic and socialization purposes (1986: 49).

In addition, Keegan (1986) finds that there are two other socio-cultural determinants which are necessary pre-conditions and necessary consequences of distance education. First, there is the presence of more industrialized features in distance education than in conventional or oral education. Secondly, distance education can be conceptualized as the privatization of institutional learning. The characteristics enumerated by Keegan are basic to the concepts of distance education. In sum, they provide the operational facility for the use of distance education. Separation of the teacher and learner emphasizes that the latter can learn on his own, there is no educational organization which does the planning for him. A variety of media are used to teach the students. Efforts are also made to provide interaction between the student and the teacher. There may be an occasional peer group interaction. On the whole, the student learns on his own which may be described as privatization of instructional learning. A note worthy feature of distance education is that it needs massive organizational effort which is similar to industrial organizations. Thus, it can be noted that distance education institutions

have two distinct characteristics - academic and industrial.

The 'academic' presents the development and preparation of course materials whereas 'industrial' refers to production and distribution of these materials. Distance Education, therefore, represents distance teaching and distance learning.

2.5.2 *Why Distance Education?*

Distance Education is being called upon to meet some of the felt-needs in several countries all over the world (Sharma, 1986). The nature of felt-needs varies from country to country depending on the stage of its development, but the need for distance education is being recognized both in developed and developing countries for a variety of reasons, some of which are common to all but others are specific to particular countries depending on their individual needs. For instance, in all countries, it is felt that equality of opportunities for education should be provided and that there should be greater access to higher education (Selim, 1986). Those who have missed educational opportunities earlier should have a second chance. Furthermore, there is a need to provide continuing education to meet the changing requirements of people working in various walks of life. In view of the changed circumstances, there is a need for providing life-long educational opportunities for working people and house wives. These two requirements exist in all countries (Reddy, 1988). To buttress these

points, surveys conducted in England, the United States and Australia (Stanford et al, 1980) reveal the nature of typical students enrolled in distance education programmes as from metropolitan areas as well as rural areas. They are employed full-time or part-time, unable to attend traditional programmes because of restraints of time, location, disability, work, or home commitments. Unable to afford to attend the traditional college or university; working toward upgrading certification or job qualifications; and/or unable to meet the requirements for entrance into traditional universities or college (Stanford et al, 1980).

In the case of developing countries, there is a need to meet the shortage of technical manpower which the existing conventional universities are unable to meet (Reddy, 1988). This implies that needs of the students who have completed school education and want to go to university are to be met. If this is the case, then, education should be made relevant to the needs of the country as well as improving its quality. This will involve catering for those who want flexibility in the time and space of their study. Again, it will allow for study at one's own convenience: for example, when the children are asleep.

In conclusion, Reddy, (1988) is of the view that a system that can meet all these demands has to be innovative and flexible (1988:6). It is in agreement with this that Taylor (1986) says that in view of certain limitations of the formal education, it is increasingly realized that distance

education can meet some of the educational needs in all the countries, irrespective of their ideologies or stages of development.

Distance Education is also cost-effective. According to Perraton, (1993) it has long been assumed that under the right circumstances, distance education can prove cheaper than the alternatives. A number of early cost studies seemed to bear this out. UNESCO and UNRWA used distance education to train teachers in Palestinian refugee camps in the 1960's, and UNESCO reported that the cost per student was $341 as compared to $830 for a comparable in-college course (Lyle, 1967). Similarly, a study of the former Soviet Union's experience with distance education claimed that costs were a quarter of those for conventional education (Zhamin and Remennikov, 1972).

More recently, research into management efficiency has led universities to undertake cost studies so that one has access to recent cost data on Deakin University in Australia (Deakin University, 1989) and the British Open university (Open University, 1991). Comparable studies have been made of the economics of open universities in Costa Rica and Venezuela (Rumble, 1981 and 1982 respectively) and a group of programmes at secondary and tertiary levels in Brazil, Israel, Kenya, Korea, Malawi and Mauritius (Parraton, 1982).

The above statistics show that distance education is cost-effective as has been hinted already and therefore appropriate for a developing

country such as Ghana.

Again, all over the world, distance education programmes have attracted large numbers of students. In some cases the numbers are staggering. In the Sukhothai Thammathirat Open University (STOU) there are about 400,000 students. The British Open University (UKOU) has 100,000; the Andhra Pradesh Open University (APOU) has 40,000 students and the China's Central Radio and Television University (CRTVU) has a little more than One million students (Reddy, 1988). These numbers are very high by any yardstick and are unthinkable in the conventional university system. Access to such large numbers is made possible mainly because of the distance education system and they go a long way to clear backlogs which is a problem in Ghanaian education at the moment.

2.5.3 *Designing Materials for Distance Education*

According to Reddy (1988) preparation of distance education courses and materials is a complex task requiring input from a variety of academic and professional experts. Curriculum and evaluation specialists are involved in long-term programme planning and academic experts are involved in established detailed course content outlines (1988:31)

Even though Rowntree (1990) points out that distance education is supposed to be learner centered, he goes further to argue that traditional

education like traditional industry, has long been producer-centered. That is teachers and institutions developed the product they wanted to develop and gave them to the learner (Rowntree, 1992). In Ghana, most conventional education programmes and courses are designed on a provider determined agenda. The institutions determine the courses, and potential candidates are compelled to fit into these programmes.

Many studies have highlighted the problem of design-implementation gap when center-periphery approaches to curriculum development are employed (Carter, 1990). He is of the view that there is no coordination between the designers of curriculum and curriculum implementers, teachers or educationists.

In the last two or three decades, however, people have come to expect choice. Rowntree (1992) says that the mass market seems to be a thing of the past. People's needs can no longer be met by educational assembly-line, that picks them up as infants, bolts on various modules of knowledge and skills of successive ages as they pass along it and then drops them off at this age or that according to whether the system decides to put them on the road as basic models or as top-of-the range. Edwards (1991) sums it up that, the mass market is dead, supposedly replaced by consumer choice (Edwards, 1991).

The new consumer and for that matter students want a wider range of products, they want relevance, they want it when they want it and they

want value for money. In short, they expect a product or type of education that is tailored to their individual needs (Rowntree, 1992).

From the above analysis, one can argue that in designing learning materials for a distance education programme, the need assessment of potential learners when considered will help to fashion and customize the programme to show relevance to the needs of these target learners. It is when the organizers sufficiently know the needs of the learners that they can design suitable learning materials for them.

Perraton (1991) has the following summary as a guideline to designing course materials for distance education programmes:

1. In developing materials, start by considering the needs of the audience and by asking what role, if any, there is for distance education and how it can be integrated with classroom work.

2. Courses can be developed by:
   a. academic members of your own staff.
   b. borrowing or adapting materials from other institutions.
   c. getting writers on secondment from other institutions.
   d. employing suitable qualified people part-time.

3. In choosing between media we can be guided by practical convenience, by the knowledge that any medium can be used to teach any subject, and by the unique value of face-to-face study for dialogue.

4. A system approach is helpful in planning distance - teaching courses.

5. In writing correspondence lessons it is helpful to work out the activities which students must undertake

before doing a detailed specification of the subject content.

6. Course material should be tested in order to see how far people can understand and learn from it.

7. A good correspondence lesson will be simply written, coherent, easy to use, and give students the assurance that they are making progress as they work through it. It will be centered around student activities (1991:45).

2.5.4 ***Developing Support System of Distance Education***

Researches indicate that the assumption that adult learners could be largely self-sufficient may not be correct. For the majority of the adult learners, the concept of open distance learning is a totally new experience and a large proportion of them lack the ability to adopt readily to such a system (Coldeway, 1982). In most cases, adult students are studying part-time and have to accommodate their studies within the demands of their families, jobs and established social life. This implies that their role as students is one of the many other roles - parent, employee, conscientious citizen, and a friend. Sharing the same view, Reddy (1988:38) adds his voice by saying that:

> to complicate matters further, most adult students have been away from any kind of educational environment for at least a few years, so that their study habits, if not non-existent, are, at least, rusty. Coming into a distance education system, a system so new that the student never had a chance to become familiar with, the potential for conflict between the demands of their studies and those in other areas of their lives is great.

Reddy (1988) goes on to explain that the objective behind setting up the student support system is to minimize the potentials for conflict and help the student to proceed with the academic work in a systematic way to achieve success.

To do this effectively, the human element of the programme must be considered (Sewart (1987). It is in the light of this that Rowntree (1992:UNIT 3) had this to say:

> Open learners usually work with packages of materials. But the package is rarely enough. Most open learners will need support from human beings - people who can help them with their learning and respond to them as individuals.

According to Lewis and Spencer (1986) one of the key features of open learning is a commitment to helping the learner to acquire independence and autonomy. They explained further that learners may need help of various kinds. They may need help before they even begin learning, as well as during and after a learning programme. Before they begin, learners may need to be helped or supported to recognize that they need to learn; decide what they want from learning and the best way of achieving it.

These support systems, according to Rowntree (1992) need to be planned at least as rigorously as the package materials. Learners without support are most liable to delay their completion of a programme or to drop out all together. They simply have no one to turn to when they run

into problems. Rowntree (1992:35) explains further that the sad thing is that their problems would often have been solved by a few minutes of a supporter's time - perhaps just enough to say "Yes, of course you can take longer over the project" or you're doing fine, everybody has trouble with that section".

The foregoing indicate that learners can run into all sorts of anxieties, problems and difficulties when trying to learn under their own steam.

2.5.5 ***Media in Distance Education***

Distance education or learning depends on the use of media. Without that distance learning will be impossible (Rowntree, 1992). Similarly, Reddy (1988) is of the view that media is the major means of supporting a distance education programme. He further postulated that almost all open universities follow the multi-media approach to education.

In agreement with Perraton (1991) and Rowntree (1992), Reddy (1988) says the multi-media include print such as books, pamphlets, workbooks, maps, charts, photographs and posters and audio-visuals such as audio-cassettes, radio broadcast, slides and filmstrips, video-cassettes and television broadcast. Tutorials are provided at study centres. They also talk of practical or project work including materials, equipment, field work such as observation, interviews and assignments

which are based on learner's workshop.

These aside, Rowntree (1992), Perraton (1991), and Reddy (1988) talk of human interaction at a distance, such as, telephone conversation, video and computer conferencing, as well as learner-learner telephone conversation.

There is also face-to-face interaction in the form of learner's self-help groups, occasional lectures by tutors and help from line managers, mentors' and technicians.

It is worthy to note that each country relies on a particular media better than the others. All the same, Rowntree (1992) points out that in most open learning - whether on-site or at a distance - the main medium is print. However, in spite of the importance and wide usage of the print. Perraton (1991) has pointed out that it is of limited use to illiterates. In relation to media usage in various countries, foreign delegates gave interesting accounts on their experiences with the media (Reddy, 1988).

In China for instance printed materials, radio and TV were all used in distance education. The Chinese use TV for nation-wide programmes viewed by large audiences. In specialized courses, TV was not used since such courses catered for small audiences. The use of TV also depended upon the subject matter to be handled. In China, printed materials are the cheapest, while TV is very expensive. However, students prefer TV. (Ministry of Education: Foreign Affairs Bureau (1985).

In Korea, both radio and TV are used in distance education programmes. Video cassettes are also produced by the open university. Viewing and listening facilities are available at the study centres.

In Spain, radio and print materials are the principal media of Communication. In the total delivery system, print material covers 80 percent and radio 20 percent. TV is considered prohibitively expensive.

In Japan, heavy reliance is placed on TV and radio. Audio cassettes are also used very liberally, Seventy percent of the students have video cassettes, and 99 percent have audio cassettes. Televised courses are supplemented by the print materials and contact programmes.

In UK, the television programmes have very great attraction. The national TV programme is effectively used in distance education. However, students consider video cassettes more useful than TV.

In Canada, the telephone is used besides radio and TV. The telephone occupies 30 percent in the delivery system, radio 10 percent, TV 15 percent and the print media 45 percent.

From all the discussions so far, can Ghana as a country meet the requirement of distance education? Will both male and female teachers embrace the programme irrespective of their residential areas?

In conclusion, it is being suggested that the perception of teachers on the distance education programme must be considered from the point

of view of gender, marital status, location and teaching experience. Again, the various needs of teachers in terms of money, time and logistics must be considered if the programme is to be successful.

Several questions which emanate from this review include issues on perceptions of teachers about distance education in Ghana. Again, whether there is a difference between gender perception about distance education programme, whether the location of teachers has anything to do with their perception and needs in relation to distance education; whether there is a difference between the perception and needs of single and married teachers of the distance education programme and last but not the least whether teaching experience can affect the perception and needs of teachers to distance education. These are the main questions that the study is designed to provide answers to.

2.6 *EMPIRICAL REVIEW*

Psychologists, according to Wortman and Loftus (1992) have studied many basic perceptual processes. The focus of their studies have centered around the question of how people come to perceive the world as they do. What factors lead them to organise their perceptual environment? According to Wortman et al (1992), there are two schools of thought on this issue. The first, called empiricist view, holds that

perceptual processes are largely a matter of learning. In sharp contrast is the nativist view of perceptual development which holds that not all perceptual processes can be accounted for by learning. Most contemporary psychologists believe that neither the empiricist nor the nativist viewpoint is adequate in itself. They say that only through the interaction of inherited biological factors and experience do our perceptual processes unfold. Thus, what we see, hear, feel, and so forth is partly the result of how our sensory systems are programmed and partly the result of what we are exposed to (Singer 1986).

Discussions under the foregoing theoretical view points show how factors such as experience, lack of knowledge, perceptual expectancy, cultural background and cognitive processes can affect perception and hence the behaviour of the organism. Several empirical evidence (Weiten, 1986, Houston et al, 1986, Wortman et al, 1992) support the notion that the behaviour of individuals and for that matter teachers can be influenced by the way they perceive the world and its host of stimuli.

2.6.1 ***Perception and Behaviour***

The perception that the individual holds has been found to influence his behaviour to a very large extent. Bruner and Goodman (1947) in a classic study demonstrated how needs and values affect the perceived nature of the stimulus. In the experiment, they found that poor

children were more prone to exaggerating the size of coins than rich children. Such perceptual distortions, according to them, resulted from emotional significance the poor children attached to money. In the same vein, teachers who aspire for higher education through the conventional mode but cannot gain admission due to inadequate entry requirements and other factors may readily embrace the distance education programme without knowing what it involves. Such teachers may tend to exaggerate the importance of the distance education programme including its flexibility and cost-effectiveness to hide their own frustrated efforts.

On cognitive processes, Cialdini et al (1978) demonstrated in a series of experiments that prior information to a task affects the behaviour of the individual. In one study, college students were invited to participate in an experiment on thinking process. Of those who were told that the experiment was to be held very early in the morning, only twenty four percent agreed to participate and showed up for the appointment. This was supported by Burger (1986) when in an experiment realised how sales increased from forty-four to seventy-three percent when he fixed a price for a commodity, increased the price of the commodity after some time and quickly reverted to the old price. In relation to distance education, the learner should be allowed enough time to consider the pros and cons of the programme so as to take a decision whether to commit himself or not. It is inferred from the studies that once people commit

themselves they often feel compelled to go through with it even when the key conditions change. Teachers who decide to further their education through distance education and therefore commit themselves are likely not to dropout once they start a programme. In agreement with this Clennell et al (1985) in a study came out to say that older students of distance education manage to stick to, complete and come out successfully despite the initial uncertainties they encounter.

On perceptual expectancy, Kelly (1950), in a classic study showed how a person is perceived based on his/her reputation or behaviour. He demonstrated that the differential reaction of a student to his teacher in the classroom as regards whether the teacher is warm or cold could be perceived differently by students based on what they have been told about the behaviour of their teacher. In effect what the distance education learner is told about the entire programme will determine the extent to which he will embrace the programme. If the programme is portrayed as something positive, learners will see it as something good and worth embracing. On the other hand, if the programme is portrayed as a negative enterprise, they will see it as such. To buttress this point, Cohen (1981) in another study said people in the study saw a film of a woman and her husband having dinner (Cohen 1981). Those who were told that the woman was a waitress tended to remember that she drank beer and owned a TV set (traits consistent with a waitress schema),

whereas those who were told that the woman was a librarian tended to remember that she wore glasses and listened to classical music (traits consistent with a librarian schema). In both experiments, people in the study saw what they expected to see based on the prior information that they had. Akin to this, the information that the distance education learner has will enable him to know whether he qualifies enough to pursue the course or not.

2.7 ***Need Motivation and Distance Learning***

Abraham Maslow, the chief proponent of the need motivation theory has suggested that there is a definite order in which individuals attempt to satisfy their needs. The fact that motivation is a crucial component in learning is so taken for granted that such a thought now seems like a statement of the obvious. There are many studies to support this view (Skinner, 1953; Bruner, 1956).

Kounin (1970) in certain studies have shown that classes in which the motivation to learn is low, the ripple effect is far more prevalent whereas in highly motivated classes, the teacher's immediate attempt to restore order is greeted by student approval. In the studies, students in the highly motivated classes seemed to want an environment conducive to learning. In support of this, Mills et al (1996) are of the view that motivation is a crucial factor in all forms of higher education, but nowhere

more so than in open and distance education where students are isolated. Distance education involves learning. As such, the learner has to be adequately motivated by creating a conducive learning atmosphere in the form of legible prints, provision of libraries, counselling services from tutors and mentors, clear instructions and immediate feedback on course materials.

Coleman (1966) in another study found that a student's personal feeling of self-directed competence was the most important factor in determining academic achievement. Hence, distance education planners should device ways and means of ensuring the competence of the learner before he is admitted into the programme. In relation to this, Sprinthall et al (1990) are of the view that intrinsic motives are those that are satisfied by internal reinforcers and are thus not dependent on external goals. The distance education learner being more or less isolated must be motivated intrinsically through the provision of logistics, the use of relevant media, words of encouragement and prompt feedback in the text itself.

Hummel and Sprinthall (1965) in a study found that academic achievement was a function of the student's ego strength or reality orientation. The study demonstrated that the underachiever possessed a weak ego and was unwilling to postpone pleasure. The distance education leaner must therefore be convinced that with a little seriousness and confidence he can pull through the difficult task of learning almost all

by himself.

Furthermore, based on a long series of studies, McClelland (1965) and Alschuler (1970) have concluded that successful decision-makers share certain characteristics: They compete with a standard of excellence in mind, they take moderate risks, and they make good use of concrete feedback. These characteristics are motivators in themselves. Distance education learners, who decide to excel, try to take moderate risks and make good use of concrete feedback are likely to be successful. Distance education planners must make it a point to plan the programme to meet all needs of learners. This will be rewarding to them. Since distance education is learning outside a conventional environment, the learner should be motivated by making the entire programme interesting and by supplying materials and other facilities that will make learning enjoyable.

2.8 ***Key Factors that Affect Distance Learning***

The conventional education system could cater for a specific age group through specific study programmes, face-to-face instruction, or supervised research. But distance education can serve a much broader age group, using a wide variety of study programmes that have to be constantly reviewed and modernised. Barker and his associates (1989) in a study found out that the clientele of distance education comes from widely varied backgrounds. Again, Clennell et al (1993) in a study of older

students in four European countries surveyed 1853 people in Britain, France, Germany and Belgium. Their responses give clear evidence of active social and civic responsibility in the broad categories of helping the sick and disabled, the elderly, prisoners, women with problems, refugees and the educationally deprived.

In another study in England, the United States and Australia, Stanford et al (1980) revealed among others that typical students enrolled in distance education programmes include people from metropolitan areas as well as rural areas, those employed full-or part-time and those who cannot afford to attend the traditional college or university. Furthermore, Woodley (1981) in another study came out to say that students who enrolled were typically middle class and employed as administrators, managers, professionals or technical workers, in addition to lower-level white collar workers and some manual labourers. These and other demographic data reveal that distance education has a wide spectrum of students who must be supported. Moore (1983) concluded that, on a university campus, if a new student finds a lecture incomprehensible or boring, he or she can check this perception immediately with fellow students. If there is no one else to talk to, students will be more about to blame themselves, assume that they are 'just not up' to that level of work and drop out without sharing their concerns. This is a major challenge when students are separated from the institution and from each other by

what Moore (1983) calls "transactional distance". Open Universities thus have a responsibility to do whatever they can to put students in contact with each other and to allow them success which they can build upon as they gain confidence in their own ability to do university-level work.

2.8.1 ***Problems Faced by Adult Learners***

Adult learners form an increasingly significant group of the learning population. Schuller and Bostyn (1992) after a study estimated that about three-quarters of a million third-agers enroll annually in some kind of formal education, and a similar figure receive some kind of organised training. A collection of reports from the same four countries studied by Clennell et al (1993) on the training opportunities for over 50's has given a picture of older people actively engaged in voluntary work for which they are required to follow programmes of training.

Older learners do not appear to make demands for specialist or age-related support. Responses showed that the over 40's/50's made rather better use of tutors, counsellors and summer school staff than younger students except where there were transport and other logistical difficulties. In another study, Bilston (1989) came out to say that little or no time is spent on training teachers in open and distance learning for work with older students and yet in teaching this age group the tutorial role is clearly critical and deserves further attention. In support of this,

Clennell et al (1987) went on to say that some learners seemed to feel they are not always taken seriously by younger tutors for reasons which, rightly or wrongly, they believe are age-related. For some, the critical written comments tutors put on their work make them anxious. Without close peer support, the isolated distance learner is at a disadvantage. In view of this, the distance education learner must be handled preferably by tutors who are a bit elderly. Furthermore, tutors, mentors and counsellors should be careful not to write or give negative comments on the work of adult learners. This can demoralise them and hence affect their academic output.

2.8.2 ***Study Time as a factor***

A study by Clennell (1987) reported that two-thirds of distance education students, and 85% of open university students, study from four to seven days in a weak, the majority putting in between two and six hours a day. Between 40-50% respondents revealed that they could maintain concentrated study for one to two hours, and one in four said they were in a habit of studying continuously for up to three hours. Since distance education leaners basically learn on their own time schedule, it is important that they plan their daily activities so as to create study time for the learning of their distance education materials. The study by Clennell et al (1987) has indicated that this can conveniently be done.

2.8.3 *Location as a factor*

One variable, which appears to be useful in determining success, is that of choice-whether or not the student actively chooses an open-learning institution over conventional alternatives. Studies at Athabasca University by Paul (1986) and Shale (1982) revealed that, there has been a rural/urban dimensions. Many urban students actively select distance education institutions over campus-based alternatives because they prefer the independence and flexibility it offers, whereas most rural students have no other choice if they are not prepared or cannot afford to move to the nearest university town. The studies also indicated that rural students are more demanding of social interaction – they are more apt to want a professor in the classroom, and to debate issues with their peers. If they cannot have this on a regular basis in their own community, they want seminars or anything, which will offer them an alternative to trying to work through the materials in isolation. This experience is apparently replicated in Yugoslavia, where Krajnc (1988) also found out that rural students often demand face-to-face interaction more than urban students do. In Ghana, it is an acceptable fact that rural dwellers lack certain social amenities including access to electricity and library facilities. Since some teachers are residenced in rural areas, distance education implementers must ensure that there are considerable physical interaction for such teachers.

CHAPTER THREE

METHODOLOGY

3.0 INTRODUCTION

The chapter deals with the procedure adopted in the writing of the thesis. It covers the research design, population and sample size; and the instrument used for the research. It also looks at the procedure used for data collection; the problems encountered during the research period and finally editing, scoring, computation and statistical test for the study.

3.1 RESEARCH DESIGN

The study was purely a survey based on correlational analysis which focused on the assessment of teachers perception or understanding of distance education. It also looked at teachers needs in relation to distanace education as they prevail in the areas of investigation. The survey was considered the most appropriate design for conducting the investigation since it is concerned with current status of the subject of the study (Gay, 1987). In other words it deals with the present.

According to Osuala (1987), a survey is oriented toward the determination of the status of a given phenomenon rather than toward the

isolation of causative factors. It is versatile and practical in that it identifies present conditions and point to present needs. The survey also attempts to determine the incidence, distribution and interrelations among sociological and psychological variables. It focuses on the vital facts of people, and their beliefs, opinions, attitudes, motivations and behaviour. It provides information on which to base sound decisions. Surveys interprete, synthesize, and integrate data and point to implications and interrelationships (1987: 181). In the light of this, the survey research design, again seems more appropriate when working on a phenomenon such as teachers' perception and needs in relation to distance education programme in Ghana.

3.2 POPULATION AND SAMPLE

The target population was made of all the non-graduate certificated teachers in Ghana. For the purpose of this research, three out of the ten regions of Ghana were sampled through the simple random method.

These are Greater Accra, Central and Western Regions. In each of these regions, one urban and one rural educational district or metropolis were sampled also through the simple random method after the districts have been stratified into rural and urban. The sampled urban districts were: Ayawaso sub metro of the Greater Accra Region; Awutu-Efutu-Senya District of the Central Region and Shama-Ahanta-East

Metropolis of the Western Region.

The rural sampled districts were: Amasaman District in the Greater Accra Region; Abura-Asebu-Kwamankese district in the Central Region; and Mpohor-Wassa district of the Western Region. Thus the accessible population was made up of all the non-graduate certificated teachers in the six districts within the three regions mentioned above.

To ensure maximum returns of the questionnaire, the researcher sought the assistance of both metropolitan and district directors with an introductory letter from the Head of Department of Educational Foundations, University of Cape Coast. (See Appendix 2). The researcher contacted the respective Directors of Education who introduced her to the officers in charge of Basic Education, Officers in charge of Statistical Data in the district education offices, officers of the manpower division of the Ministry of Education and Officers In Charge (OIC's) of Education of sub-metros. They in turn introduced her to the circuit supervisors in the sampled districts.

The officers in charge of Statistical Data together with the Basic Education Officers furnished the researcher with lists of all trained and certificated teachers in the sampled metropolis and districts for the purpose of random sampling. These lists were compiled and the teachers numbered after being stratified into male and female. This was necessary for generalization of the findings of the study to be applicable in the

country.

After the stratification, a table of random numbers was used to sample 40 male and 40 female teachers in each of the metropolis and districts. In all, eighty teachers both male and female were sampled in each urban district or metropolis. The same thing was done in each rural district. This gave a total of 240 male and female urban teachers and 240 male and female rural teachers giving a total sample size of 480 teachers. This will ensure a fair representation of the research findings. After the sampling, the teachers were grouped under the various circuits for a final list of sampled teachers in each circuit to be compiled indicating the respective schools in which they teach.

To have a fair representation of the three levels of education, that is Primary, JSS and SSS; purposive sampling was used to select diploma certificate holders from some Senior Secondary Schools. In the case of Aggrey Memoral and Obrakyire Senior Secondary Schools, all diploma certificate holders were selected to complete some of the questionnaires.

3.3 INSTRUMENTATION

A novel scientific research of this nature would have augured well with some sort of an adapted instrument but this was not possible. The researcher therefore used only primary data which was a questionnaire designed by the researcher as it was difficult to lay hands on an existing

instrument. A forty-two item tentative questionnaire was designed and pilot tested in a selected cluster of schools in the Shama Ahanta East Metropolis of the Western Region of Ghana. In all forty-three tentative questionnaires were distributed and forty, that is 95% were retrieved. After the pilot study, the tentative questionnaire was modified for the main study. The modification came about because it was realised that the items testing for teachers perception of d.e. were not enough. In all, there were 52 items on the modified questionnaire made up of Section one - demographic data - nine items; Section two - items to test the needs of distance education learners - twenty five items; Section three - items to test teachers perception of distance education - fifteen items and section four - open ended questions on opinions on distance education - three items.

A second pilot study was conducted to determine the reliability co-efficient of the instrument using SPSS. A value of 0.82 on Spearman's co-efficient of reliability was obtained..

To ensure content validity, questionnaires were given to senior lecturers of the Department of Educational Foundations at the University of Cape Coast to read through and offer suggestions since content validity is based on expert judgement (Gay, 1987; Borg and Gall, 1989).

The second pilot test provided researcher the opportunity to make further changes in the items. Again, the researcher obtained a better

technique for administering and retrieving the questionnaire from the respondents, through the second pilot study.

3.3.1 *Data Collection Procedure*

The lists of sampled teachers under the various circuits together with the required questionnaires were given to the circuit supervisors who helped in the data collection. The researcher had various meetings with the circuit supervisors, explained the questionnaire to them and briefed them as to how they should be filled. A dateline of four weeks was given for the collection of data. In some cases the researcher sent the questionnaires to the sampled teachers herself in their respective schools since the circuit supervisors were not willing to go to those schools. They include schools in Afrangua and Winneba under Abura-Asebu-Kwamankèse and Awutu-Effutu-Senya districts respectively. In such cases, permission was sought from the headteachers involved. The questionnaire was then explained to the teachers and they were briefed on how to fill them. The researcher collected them after completion.

3.3.2 *Problems*

A few problems were encountered by the researcher in the study. The major problem was lack of funds. The researcher had to rely on her meagre salary for the study. Some of the circuit supervisors who assisted

in the data collection demanded that they are paid at least transportation and lunch allowances. This was difficult for the researcher since she had to see to her own transportation, stationery and other things as well.

Another problem was the uncompromising attitude of some of the sampled teachers. In certain cases teachers did not even understand why they should be sampled and demanded explanation from the researcher. Some teachers had the questionnaires destroyed by their children while others misplaced theirs. In all, 10 (2:1) questions were destroyed or misplaced. The researher replaced them for the teachers involved to fill. Furthermore, a few teachers were of the view that the Distance Education Programme cannot be effectively run in Ghana so there was no need to waste time on the filling of questionnaires. Some sampled teachers were bold enough to tell the researcher that since they were not interested in the programme they would not be part of the exercise. The researcher had to do a second sampling in order to replace such teachers with new ones.

There was also the question of time. Some of the teachers asked the researcher to sit and wait for them to complete the questionnaires which have already been with them for a whole month. In certain cases the researcher sat for four hours for only four questionnaires to be completed.

It is worthy to note that, some Directors of Education demanded that the researcher makes a photocopy of the introductory letter and also leave a copy of the questionnaire to be put on file for future references.

3.4 EDITING, SCORING, COMPUTATION OF RELEVANT STATISTICS AND STATISTICAL TEST FOR THE STUDY

In editing the responses to the questionnaires, the researcher realized that some of them were not complete. About 12(2.5%) of such questionnaires could not be used by the researcher so she considered them to be non-respondents.

In all, 480 questionnaires were sent out. Out of this, 440 (92%) were retrieved, scored and analysed for the study. In scoring the 15-item Likert-type scale questionnaires, each item was weighted according to its nature. For example, items 31, 35, 39 and 42 which were negative items were scored as follows: Strongly agree = 1; agree = 2; disagree = 3; and strongly disagree = 4. The rest of the items on the Likert scale which were positive were weighted as follows: strongly agree = 4; agree = 3; disagree = 2; and strongly disagree = 1 (see Appendix 3). This scoring procedure was used to facilitate N x K contingency X^2 analysis where N = 2 for the categories in the study eg: rural and urban, male and female etc. and K = 4 or 2 representing responses such as strongly agree (sa), agree (a), disagree (d), strongly disagree (sd), or Yes and No.

3.5 DATA ANALYSIS PLAN

In analysing the responses of data and for that matter the hypotheses, the chi-square (X^2) was used to test for differences in teachers' needs and perception on distance education for all the eight hypotheses stated.

The chi-square was used because of the categorization and the frequency tables developed. After respondents have responded to the items under perception, they were weighted so that they all had perception scores. The SPSS was used for the rest of the analysis. The 0.05 level of significance was used in testing all the hypotheses stated.

CHAPTER FOUR

ANALYSIS OF DATA

4.0 INTRODUCTION

This chapter is in two parts: the first part deals solely with the demographic description of teachers used in the study. The second part deals with the analysis of the main results of the study. Descriptive statistics has been used in summarizing the characteristics of respondents, as shown below.

4.1 CHARACTERISTICS OF RESPONDENTS

In all, four hundred and forty teachers were used as respondents in the main study. The characteristics of the respondents is depicted in tables 1-7 which show the demographic distribution in relation to level and location of schools, gender and marital status, age, academic qualification and teaching experience.

TABLE 1: DISTRIBUTION OF RESPONDENTS BY LEVEL OF SCHOOL

SCHOOL	FREQUENCY	PERCENTAGE (%)
PRIMARY	210	47.7
JSS	213	48.4
SSS	17	3.9
TOTAL	440	100.0

A synthesis of the total demographic distribution of data on level of school in Table 1 indicates that 210 (47.7%) respondents were teaching at the primary school level. 213 (48.4%) at the JSS level and 17 (3.9%) at the SSS level. It could be deduced from this statistics that much as the difference between respondents of primary and JSS is not great (0.7%), the difference between them and that of SSS is great.

This is due to the fact that only few teachers were sampled under the SSS. There are not many such schools in some of the regions. Again, some of the few sampled teachers did not complete the questionnaire as in the case of Obrakyire and Aggrey Memorial Senior Secondary Schools.

TABLE 2: DISTRIBUTION OF RESPONDENTS BY LOCATION OF SCHOOL

LOCATION	FREQUENCY	PERCENTAGE (%)
RURAL	218	49.5
URBAN	222	50.5
TOTAL	440	100.0

Under location of school in Table 2,218 (49.5%) of the teachers were from the rural area and 222 (50.5%) were urban teachers. This indicates that both urban and rural communities were fairly represented. The difference was a negligible 1%.

TABLE 3: GENDER DISTRIBUTION OF TEACHERS

SEX	FREQUENCY	PERCENTAGE (%)
FEMALE	216	49.1
MALE	224	50.9
TOTAL	440	100.0

Table 3 indicates that out of the 440 teachers who participated in the study, 216 (49.1%) were female while 224 (50.9%) were males. This shows a very good gender representation. Both males and females were fairly represented with the males leading by only 1.8%. This may be due to the fact that in most of the rural areas male teachers far outnumber their female counterparts.

TABLE 4: DISTRIBUTION OF RESPONDENTS BY MARITAL STATUS

MARITAL STATUS	FREQUENCY	PERCENTAGE (%)
SINGLE	205	46.6
MARRIED	235	53.4
TOTAL	440	100.0

In Table 4, the figures reveal that 205 (46.6%) single teachers and 235 (53.4%) married teachers participated in the study. This indicates that both married and unmarried teachers responded to give a fair representation. The difference was 6.8%.

TABLE 5: AGE-RANGE DISTRIBUTION

AGE	FREQUENCY	PERCENTAGE (%)
BELOW 20 YEARS	0	0
20-29 YEARS	109	24.8
30-39 YEARS	165	37.5
40-49 YEARS	125	28.4
50 & ABOVE	41	9.3
TOTAL	440	100.0

The distribution of teachers' age in Table 5 shows that there was no respondent who was below 20 years. This is so because in Ghana students complete secondary schools around the age of 18 years before they enter into post secondary institutions. This makes it impossible for them to be below 20 years after post secondary since most of such institutions have a duration of three years

Again, the table indicates that 109 (24.8%) and 165 (37.5%) teachers were between 20-29 years and 30-39 years respectively. This gives a total of 274 (62.3%) who are between 20 and 39 years. It can

therefore be concluded that most of the teachers were young and active who can serve the country for the next 20-40 years. There were only 41 (9.3%) out of the total participants of 440 teachers who were 50 years and above. They can also serve for some ten years before they go on retirement.

In consonance with the findings of teacher age, Moore (1986) is of the view that the audience for continuing education is broadening to encompass more adult learners. Statistics released in 1984 indicate a growth of nearly 70 percent for students age 25 to 34, while those above 35 increased by close to 80 percent (1986:34-4).

TABLE 6: DISTRIBUTION OF RESPONDENTS BY QUALIFICATION

QUALIFICATION	FREQUENCY	PERCENTAGE (%)
CERT 'A' 4-YR	178	40.5
CERT 'A' 2-YR P.S.	22	5.0
CERT 'A' 3 YR P.S.	195	44.3
SPECIALIST	8	1.8
DIPLOMA	37	8.4
TOTAL	440	100.0

Table 6 depicts the distribution by academic qualification. At a glance, one can realize that there is some sort of correlation between the percentage of respondents under certificate 'A' 4-year (40.5%) and certificate 'A' 3-year Post Secondary (44.3%). This can be attributed to the fact that the certificate 'A' 4-year and 'A' 3-year Post Secondary programmes run concurrently for some time until the certificate 'A' 4-year programme was phased out off in the early 1990's.

Again, the correlation between the percentages of certificate 'A' 2-year Post Secondary (5.0%) and the specialist certificate (1.8%) may be due to the fact that those programmes were scrapped off the system so many years back.

The table also indicates that 91.6% of the respondents have academic qualifications lower than the diploma certificate.

TABLE 7: YEARS OF TEACHING EXPERIENCE DISTRIBUTION

EXPERIENCE	FREQUENCY	PERCENTAGE (%)
Less than 5 years	100	22.7
5-9 years	102	23.2
10-14 years	98	22.3
15-19 years	92	20.9
20-24 years	30	6.8
More than 24 years	18	4.1
TOTAL	440	100.0

In Table 7, statistics indicate that out of the 440 respondents, 100 (22.7%) have taught for less than five years. 102 (23.2%) for 5-9 years; 98 (22.3%) for 10-14 years; 92 (20.9%) for 15-19 years 30 (6.8%) for 20-24 years and 18 (4.1%) have taught for more than 24 years. It can therefore be deduced that 202 (45.9%) of the respondents have less than 10 years of teaching experience and 238 (54.1%) have more than ten years teaching experience. This shows a fair representation of teaching experience.

4.2 MAIN RESULTS OF THE STUDY

4.2.0 *Introduction*

The main assumption underlying the study was that the needs and perception of teachers are important factors to the successful implementation of the distance education programme in Ghana. In respect of teachers needs for the distance education programme, four hypotheses were formulated from section 2, comprising of questions 10 - 27 of the questionnaire. The section was used to analyse teachers needs so far as the distance education programme is concerned. The items under this section depict the financial stand of teachers - that is whether they can bear at least part of the cost of distance education (cost sharing). The needs also embrace time factor, reliability of the postal system, access to electricity and electronic devices, library facilities and the ability to read at a relatively fast rate.

In respect of teachers perception of the distance education programme four hypotheses were again formulated from section 3, that is questions 28-42 of the questionnaire. The section was used to assess teachers perception of Distance Education. The items under this section include how teachers look at distance education in terms of quality of the programme, validity of certification, entry qualification and accessibility.

4.2.1 HYPOTHESIS ONE: GENDER PERCEPTION

Ho: There is no significant difference in perception held by male and female teachers about the distance education programme.

Hi: There is significant difference in perception held by male and female teachers about the distance education programme.

Responses of teachers on the four point scale strongly agree, agree, disagree, strongly disagree for male and female participants is shown in Table 8.

TABLE 8: PERCEPTION AND GENDER RESPONSES

GENDER	RESPONSES			
	SD	D	A	SA
FEMALE	729	717	837	957
MALE	735	757	913	955
TOTAL	1464	1474	1750	1912

Table 8 shows the observed frequencies of responses and their sums as well as the grand total. Table 8.1 shows the observed and expected frequencies of responses.

TABLE 8.1: DISTRIBUTION OF GENDER RESPONDENTS' PERCEPTION OF OBSERVED AND EXPECTED FREQUENCIES

GENDER	RESPONSES							
	SD		D		A		SA	
FEMALE	729	(719)	717	(724)	837	(859)	957	(939)
MALE	735	(745)	757	(750)	913	(891)	955	(973)

X^2 cal = 2.19 df = 3 $P \leq 0.05$ $X^2_t (3, 0.05) = 7.8$

Using the scores obtained in the above table the X^2 statistics was computed. (See Appendix 4). The X^2 cal value was 2.19. The critical value (ie. X^2 tab) with 3 degrees of freedom at alpha = 0.05 was 7.8. Since the calculated X^2 value was less than the critical value the null hypothesis (Ho) was accepted. It is therefore concluded that there is no significant difference between the perception of male and female teachers of the distance education programme.

Under item 30 (Distance Education will help me to achieve my ambition for higher academic laurels) in Appendix 13; 64 (29.6%) females and 79 (35.3%) males said they agreed, while 141 (65.3%) females and 141 (62.9%) males responded strongly agree to the item. This gives a total of 205 out of the 216 female respondents and 220 out of the 224 male respondents who agreed to the item. The indication is that 425

(96.6%) respondents were in agreement with the item.

In the same vein, item 32 (I am interested in the distance education programme) shows that 91 (42.1%) and 112 (51.9%) female respondents who responded agree and strongly agree respectively to the item; whereas 87 (38.8%) and 127 (56.7%) male respondents said they agree and strongly agree respectively to the item. These sum up to 203 female and 214 male respondents or 417 (94.8) respondents who said they are interested in the distance education. programme.

Item 34 (Distance education is a good programme) has 96 (44.4%) and 105 (46.9%) females and males responded agree and strongly agree to the item respectively; while 116 (53.7%) and 112 (50.0%) females and males responded agree and strongly agree respectively. This gives a total of 212 female and 217 male respondents out of the total of 440 respondents. This shows that under item 34, 429 (97.5%) respondents are of the view that distance education is a good programme. These statistics indicate that both male and female teachers who participated in the study hold positive perception towards the distance education programme.

4.2.2 HYPOTHESIS TWO: NEEDS BY GENDER

Ho: There is not significant difference between the needs of male and female teachers of distance education.

Hi: **There is significant difference between the needs of male and female teachers of distance education.** Responses of teachers on the Yes and No items for male and female participants is shown in Table 9.

TABLE 9: RESPONSES OF NEEDS BY GENDER

GENDER	RESPONSES	
	NO	YES
FEMALE	1040	2848
MALE	1062	2970
TOTAL	2102	5818

Table 9 shows the observed frequencies of responses, their sums and the grand total. Table 9.1 shows the observed and expected frequencies of responses.

TABLE 9.1: DISTRIBUTION OF GENDER RESPONDENTS' OBSERVED AND EXPECTED NEEDS FREQUENCIES

GENDER	RESPONSES			
	NO		YES	
FEMALE	1040	(1032)	2848	(2856)
MALE	1062	(1070)	2970	(2962)

X^2 cal = 0.166 df = 1 $p \leq 0.05$ X^2_t (1, 0.05) = 3.8

From the scores obtained in the above table the X^2 statistics was computed. (See Appendix 8). The X^2 cal value was 0.166. The critical value (ie. X^2 tab) with one degree of freedom at alpha = 0.05 was 3.8. Since the calculated X^2 value was less than the critical value, the null hypothesis (Ho) was accepted. The conclusion is that there is no significant difference between the needs of male and female teachers on the distance education programme.

Some of the items in Appendix 12 which were used to determine teachers needs on distance education indicate that both male and female respondents have similar needs for the distance education programme. For instance, statistics in item 10 (Are you interested in university education) indicate that 211 (97.7%) female and 217 (96.6%) males out of the total of 216 and 224 female and male respondents respectively said 'yes' to the item. This gives a total of 428 (97.3%) out of the 440 participants.

Again, responses in item 12 (If you are offered the opportunity to pursue diploma/degree programme by distance education, would you accept the offer?) indicate that 207 (95.8%) females and 214 (95.5%) males responded 'yes' to the item. The difference in percentage between female and male respondents are 0.1 in item 10 and .0.3 in item 12. This negligible difference might have brought about the "no significant difference" for hypothesis two.

4.2.3 HYPOTHESIS THREE: PERCEPTION AND TEACHING EXPERIENCE

Ho: There is no significant difference between the perception of teachers with ten or more years of teaching experience and those with less than ten years teaching experience.

Hi: There is significant difference between the perception of teachers with ten or more years of teaching experience and those with less than ten years teaching experience.

Responses of teachers on the four point scale (strongly agree, agree, disagree, strongly disagree) is shown in Table 10.

TABLE 10: PERCEPTION AND TEACHING EXPERIENCE RESPONSES

TEACHING EXPERIENCE	RESPONSES			
	SD	D	A	SA
LESS THAN TEN YEARS	694	671	775	890
TEN OR MORE YEARS	770	803	975	1022
TOTAL	1464	1474	1750	1912

Table 10 depicts the observed frequencies of responses and their respective totals. Table 10.1 shows the observed and expected frequencies of responses.

TABLE 10.1 DISTRIBUTION OF PERCEPTION AND TEACHING EXPERIENCE OBSERVED AND EXPECTED FREQUENCIES

TEACHING EXPERIENCE	RESPONSES			
	SD	D	A	SA
LESS THAN TEN YEARS	694 (672)	671 (677)	775 (803)	890 (878)
TEN OR MORE YEARS	770 (792)	803 (797)	975 (947)	1022 (1034)

X^2 cal = 3.54 df = 3 $P \leq 0.05$ X^2_t (3,0.05) = 7.8

Using the scores obtained in the above table the X^2 statistics was computed (see Appendix 5). The X^2 cal value was 3.54. The critical value (ie. X^2 tab) with 3 degrees of freedom at alpha = 0.05 was 7.8. Since the calculated X^2 value was less than the critical value, the null hypothesis (Ho) was accepted. It is therefore concluded that there is no significant difference between the perception of teachers with ten or more years of teaching experience and those with less than ten years teaching experience on the distance education programme. Statistics under item 31 in table 18 (Pursuing a degree/diploma at the university by distance education is really a waste of time and money) indicate that 127 (62.9%) of teachers who have taught for less than ten years responded strongly disagree to the item whereas 64 (31.7%) said they disagreed. With teachers who have taught for ten or more years, 159 (66.8%) and 72 (30.3%) responded strongly disagree and disagree respectively. This

gives a total of 191 (94.6%) out of the 202 teachers who have taught for less than ten years and a total of 231 (97.1%) out of the 238 teachers who have taught for ten years and above whose responses show they are not in favour of the item. The 2.5 difference in percentage is negligible.

Furthermore, under item 39 (Distance education is only good for candidates/students who are not academically good) 167 (82.7%) and 26 (12.9%) of teachers who have taught for less than ten years responded strongly disagree and disagree respectively. Similarly, 186 (78.2%) and 46 (19.3%) of teachers who have taught for ten years and above responded strongly disagree and disagree respectively to the item. It is inferred from this that there are 193 (95.6%) of teachers who have taught for less than ten years and 232 (97.5%) of teachers who have taught for ten years and above who are not in favour of the item. The difference in percentage is only 1.9. It can therefore be concluded that both teachers who have taught for less than ten years and those who have taught for ten years and above have positive perception towards the distance education programme.

4.2.4 HYPOTHESIS FOUR: NEEDS AND TEACHING EXPERIENCE

Ho: There is no significant difference between the needs of teachers with ten or more years of teaching experience and those with less than ten years teaching experience.

Hi: There is significant difference between the needs of teachers with ten or more years of teaching experience and those with less than ten years teaching experience.

Responses of teachers with ten or more years of teaching experience and those with less than ten years teaching experience on the Yes and No items is shown in Table 11.

TABLE 11: NEEDS AND TEACHING EXPERIENCE RESPONSES

TEACHING EXPERIENCE	RESPONSES	
	NO	YES
LESS THAN TEN YEARS	952	2684
TEN OR MORE YEARS	1150	3134
TOTAL	2102	5818

Table 11 depicts the observed frequencies of responses and their totals.

Table 11.1 shows the observed and expected frequencies of responses.

TABLE 11.1 DISTRIBUTION OF RESPONDENTS' NEEDS AND TEACHING EXPERIENCE OBSERVED AND EXPECTED FREQUENCIES

TEACHING EXPERIENCE	RESPONSES			
	NO		YES	
LESS THAN TEN YEARS	952	(965)	2684	(2671)
TEN OR MORE YEARS	1150	(1137)	3134	(3147)

X^2 cal = 0.441 df = 1 $P \leq 0.05$ X^2_t (1,0.05) = 3.8

Using the scores obtained in the above table the X^2 statistics was computed (see Appendix 9). The X^2 cal value was 0.441. The critical value (ie. X^2 tab) with one degree of freedom at alpha = 0.05 was 3.8. Since the calculated X^2 value was less than the critical value, the null hypothesis (Ho) was accepted. The conclusion from the statistics is that there is no significant difference between the needs of teachers with ten or more years of teaching experience and those with less than ten years teaching experience for the distance education programme. In Appendix 12, statistics under items 10, 13 and 26a throw more light on this conclusion. Figures under item 10 (Are you interested in university education?) reveal that 5(2..5%) of teachers with less than ten years teaching experience and 7 (2.9%) of teachers with ten or more years of teaching experience responded 'no' to the item. Again, 197 (97.5%) of teachers with less than ten years teaching experience and 231 (97.1%) of

teachers with ten or more years of teaching experience responded 'yes' to the item.

Under item 13 (Are you prepared to pay for the cost of educational materials that you will be supplied in the programme?) 38 (18.8%) of teachers with less than ten years teaching experience and 47 (17.6%) of teachers with ten or more years teaching experience responded 'no' to the item while 164 (81.2%) of teachers with less than ten years teaching experience and 196(82.4%) of teachers with ten or more years of teaching experience responded 'yes' to the item.

Furthermore, statistics under item 26a (Do you have access to any electronic media?) show that 12(5.9%) of teachers with less than ten years teaching experience and 14(5.9%) of teachers with ten or more years of teaching experience responded 'no' to the item whereas 190(94.1%) of teachers with less than ten years teaching experience and 224 (94.1%) of teachers with ten or more years of teaching experience responded 'yes' to the item.

4.2.5 HYPOTHESIS FIVE: PERCEPTION AND LOCATION

Ho: There is no significant difference between the perception of rural and urban teachers about the distance education programmes.

Hi: There is significant difference between the perception of rural and urban teachers about distance education programmes.

Responses of teachers on the four point scale strongly agree, agree, disagree, strongly disagree for rural and urban participants is shown in Table 12.

TABLE 12: PERCEPTION AND LOCATION RESPONSES

LOCATION	RESPONSES			
	SD	D	A	SA
RURAL	725	749	927	870
URBAN	739	725	823	1042
TOTAL	1464	1474	1750	1912

Table 12 shows the observed frequencies of responses and their totals.

Table 12.1 below shows the observed and expected frequencies of responses.

TABLE 12.1 DISTRIBUTION OF RESPONDENTS' PERCEPTION AND LOCATION OBSERVED AND EXPECTED FREQUENCIES

LOCATION	RESPONSES			
	SD	D	A	SA
RURAL	725 (726)	749 (731)	927 (867)	870 (948)
URBAN	739 (738)	725 (743)	823 (883)	1042 (964)

X^2 cal = 21.839 df = 3 $P \leq 0.05$ X^2_t (3,0.05) = 7.8

From the scores obtained in the above table the X^2 statistics was computed (See Appendix 6). The X^2 cal value was 21.839. The critical value (i.e. X^2 tab) with three degrees of freedom at alpha = 0.05 was 7.8. Since the calculated X^2 value was more than the critical value, the null hypothesis (Ho) was rejected. The conclusion is that there is significant difference between the perception of rural and urban teachers on the distance education programme. Items 32, 34 and 41 in Appendix 13 bring out some significant differences in perception. Under item 32 (I am interested in the distance education programme) 100 (45.9%) rural teachers and 78 (35.1%) urban teachers said they agreed to the item out of the total of 218 rural and 222 urban teachers. The difference in percentage is 10.8.

In item 34 (Distance education is a good programme) 114(52.3%) rural teachers and 87(39.2%) urban teachers responded that they agreed to the item. The difference in percentage is 13.1.

Under item 41 (The products of distance and conventional education programme should be of the same calibre) 128 (58.7%) rural teachers and 89 (40.1%) urban teachers said they agreed to the item. The difference in percentage is 18.6. All the differences in percentage in the three items are remarkable and bring out the fact that rural teachers have a more positive perception about distance education programme than their urban counterparts.

4.2.6 HYPOTHESIS SIX: NEEDS AND LOCATION RESPONSES

Ho: **There is no significant difference between the needs of rural and urban teachers for distance education.**

Hi: There is significant difference between the needs of rural and urban teachers for distance education.

Responses of teachers on the items Yes and No for rural and urban teachers is shown in Table 13.

TABLE 13: NEEDS AND LOCATION RESPONSES

LOCATION	RESPONSES	
	NO	YES
RURAL	1160	2764
URBAN	942	3054
TOTAL	2102	5818

Table 13 shows the observed frequencies of responses, their sums and the grand total. Table 13.1 below shows the observed and expected frequencies of responses.

TABLE 13.1 DISTRIBUTION OF NEEDS AND LOCATION OBSERVED AND EXPECTED FREQUENCIES

LOCATION	RESPONSES	
	NO	YES
RURAL	1160 (1041)	2764 (2883)
URBAN	942 (1061)	3054 (2935)

X^2 cal = 36.6df = 1 $P \leq 0.05$ X^2_t (1,0.05) = 3.8.

Using the scores obtained in the above table, the X^2 statistics was computed (see Appendix 10). The X^2 cal value was 36.6. The critical value (ie. X^2 tab) with one degree of freedom at alpha = 0.05 was 3.8. Since the calculated X^2 value was greater than the critical value, the null hypothesis (Ho) was rejected. It is therefore concluded that there is significant difference between the needs of rural and urban teachers for distance education programme. Statistics under items 18, 21a and 27a indicate some significant differences in needs. Under item 18 (Do you have electricity in your residential area?) 114 (52.3%) rural teachers and 6(2.7%) urban teachers responded in the negative while 104 (47.7%) rural teachers and 216 (97.3%) urban teachers responded in the affirmative.

In item 21a (Do you have access to a library?) 186 (85.3%) rural teachers and 50 (22.5%) urban teachers said they do not have access to a library while 32 (14.7%) rural teachers and 172 (77.5%) urban teachers

said they have access to a library.

Similarly, item 27a (Is the distance between your station and your regional capital far?) 109 (50.0%) rural teachers and 165 (74.3%") urban teachers responded 'no' to the item whereas 109 (50.0%) rural teachers and 57 (25.7%) urban teachers responded 'yes' to the item. These responses indicate that the needs of rural teachers in respect of the distance education programme differ from that of the urban teachers.

4.2.7 HYPOTHESIS SEVEN: PERCEPTION AND MARITAL STATUS RESPONSES

Ho: There is no significant difference between the perception of married and unmarried (single) teachers about distance education.

Hi: There is significant difference between the perception of married and unmarried (single) teachers about distance education.

Responses of teachers on the four point scale strongly agree, agree, disagree, strongly disagree for single and married participants in the study is shown in Table 14.

TABLE 14: PERCEPTION AND MARITAL STATUS RESPONSES

MARITAL STATUS	RESPONSES			
	SD	D	A	SA
SINGLE	655	723	831	866
MARRIED	809	751	919	1046
TOTAL	1464	1474	1750	1912

Table 14 depicts the observed frequencies of responses and their totals. Table 14.1 also shows the observed and expected frequencies of responses.

TABLE 14.1 DISTRIBUTION OF PERCEPTION AND MARITAL STATUS OBSERVED AND EXPECTED FREQUENCIES

MARITAL STATUS	RESPONSES			
	SD	D	A	SA
SINGLE	655 (682)	723 (687)	831 (815)	866 (891)
MARRIED	809 (782)	751 (787)	919 (935)	1046 (1021)

X^2 cal = 7.43 df = 3 $P \leq 0.05$ X^2_t (3,0.05) = 7.8

From the scores obtained in the above table the X^2 statistics was computed (See Appendix 7). The X^2 cal value was 7.43. The critical value

(ie. X^2 tab) with 3 degrees of freedom at alpha = 0.05 was 7.8. Since the calculated X^2 value was less than the critical value, the null hypothesis (Ho) was accepted. This pre-supposes that there was no significant difference between the perception of single and married teachers on the distance education programme. Items 29 and 30 in Appendix 13 show no marked difference in perception in relation to marital status. Under item 29(The entry qualification for both the conventional university and the Distance Education programme should be the same) 43 (21.0%) single and 46 (19.6%) married teachers responded 'strongly disagree' to the item out of a total of 205 single and 235 married teachers. 71 (34.6%) single and 77 (32.8%) married teachers responded 'disagree' to the item while 59 (28.8%) single and 71 (30.2%) married teachers responded 'agree' to the item. Again, 32 (15.6%) single and 41 (17.4%) married teachers responded 'strongly agree' to the item.

Statistics under item 30 (Distance Education will help me to achieve my ambition for higher academic laurels) reveal that 1 (0.5%) single teachers and 2 (0.9%) married teachers responded 'strongly disagree' to the item while 6 (2.9%) single and 6 (2.6%) married teachers responded 'disagree' to the item. Also, 71 (34.6%) single and 72 (30.6%) married teachers responded 'agree' to the item whereas 127 (62.0%) single and 155 (66.0%) married teachers responded 'strongly agree' to the item. It can be inferred from the above statistics that both single and

married teachers have positive perception towards the distance education programme.

4.2.8 HYPOTHESIS EIGHT: NEEDS AND MARITAL STATUS RESPONSES

Ho: There is no significant difference between the needs of married and unmarried (single) teachers for distance education.

Hi: There is significant difference between the needs of married and unmarried (single) teachers for distance education.

Responses of teachers on the items Yes and No for single and married participants of the study is shown in Table 15.

TABLE 15: DISTRIBUTION OF NEEDS AND MARITAL STATUS RESPONSES

MARITAL STATUS	RESPONSES	
	NO	YES
SINGLE	988	2702
MARRIED	1114	3116
TOTAL	210[illegible]	5818

Table 15 shows the observed frequencies of responses, their sums and the grand total. Table 15.1 shows the observed and expected frequencies of responses.

TABLE 15.1 DISTRIBUTION OF NEEDS AND MARITAL STATUS OBSERVED AND EXPECTED FREQUENCIES

MARITAL STATUS	RESPONSES			
	NO		YES	
SINGLE	988	(979)	2702	(2711)
MARRIED	1114	(1123)	3116	(3107)

X^2 cal = 0.211 df = 1 $P \leq 0.05$ X^2_t (1,0.05) = 3.8.

From the scores obtained in the above table, the X^2 statistics was computed (see Appendix 11). The X^2 cal value was 0.211. The critical value (ie. X^2 tab) with one degree of freedom at alpha = 0.05 was 3.8. Since the calculated X^2 value was less than the critical value, the null hypothesis (Ho) was accepted. This indicates that there is no significant difference between the needs of single and married teachers about the distance education programme. Items 10, 24a and 25a in table 17 depict statistical data to substantiate the finding of hypothesis eight. In item 10 (Are you interested in university education?) 6 (2.9%) single and 6 (2.6%) married teachers responded 'no' to the item whereas 199 (97.1%) single and 229 (97.4%) married teachers responded 'yes' to the item.

Under item 24a (Do you have much time after your normal school session to study your distance education materials?) 21 (10.2%) single and 29 (12.3%) married teachers responded 'no' to the item while 184 (89.8%) single and 206 (87.7%) married teachers responded 'yes' to the item.

Similarly, statistical data under item 25a (Do inland letters take long to reach you from a distance of over 100 km?) show that 105 (51.2%) single and 122 (51.9%) married teachers responded 'no' to the item whereas 100 (48.8%) single and 113 (48.1%) married teachers responded 'yes' to the item.

Table 16 depicts a summary of computed statistics and results of hypotheses tested.

TABLE 16: SUMMARY OF COMPUTED STATISTICS AND RESULTS OF HYPOTHESES TESTED

HYPO-THESES	DESCRIPTION	SUM OF RESPONSES	DF	X^2 CAL VALUE	CRITICAL VALUE	DECISION
1	Teachers Perception Vrs Gender	6600	3	2.19	7.8	Hypothesis Accepted
2	Needs of Teachers Vrs Gender	7920	1	0.166	3.8	Hypothesis Accepted
3	Teachers Perception Vrs Teaching Experience	6600	3	3.54	7.8	Hypothesis Accepted
4	Needs of Teachers Vrs Teaching Experience	7920	1	0.441	3.8	Hypothesis Accepted
5	Teachers Perception Vrs Location	6600	3	21.839	7.8	Hypothesis Rejected
6	Needs of Teachers Vrs Location	7920	1	36.6	3.8	Hypothesis Rejected
7	Teachers Perception Vrs Marital Status	6600	3	7.43	7.8	Hypothesis Accepted
8	Needs of Teachers Vrs Marital Status	7920	1	0.211	3.8	Hypothesis Accepted

KEY: ALPHA = 0.05 STATISTICAL TOOL = X^2

4.3 OPINIONS ON DISTANCE EDUCATION

Section Four of the questionnaire comprising of numbers 43-45 dealt with three open-ended questions which sought to bring out the various opinions teachers have on the distance education programme.

ITEM 43: State why you think the distance education programme is important or not important.

Out of the 216 female teachers who participated in the study., 200 (92.6%) said the programme is important and 16(7.4%) said it is not important. Similarly, out of the 224 male teachers who participated in the study, 215 (96%) said it is important and 9(4.0%) said it is not all that important.

ITEM 44: Why are you interested or not interested in the distance education programme? In expressing their opinions, 192(89%) of the female participants out of the total female participants of 216 said they were interested in the programme while 24(11.0%) said they were not interested. With the male participants, 220 (98.2%) out of the total of 224 said they were interested and 4(1.8%) said they were not interested.

ITEM 45: · Give your general impression about the distance education programme. Under this item, 210 (97.2%) female and 220 (98.2%) male participants said they think distance education is a good programme which must be implemented sooner than later.

4.4 FREQUENCIES, PERCENTAGES AND CHI-SQUARE ANALYSIS OF TEACHERS NEEDS AND PERCEPTION ON DISTANCE EDUCATION

Appendices 12 and 13 have been built to give detailed information on the individual items of the questionnaire which were used to test the

needs and perception of teachers. (See pages 154-170).

They include the various responses to the questionnaire and their chi-square (X^2) analysis.

CHAPTER FIVE

DISCUSSION OF ANALYSIS

5.0 INTRODUCTION

This chapter discusses information gleaned from the demographic data of teachers, results obtained from the analysis of teachers needs and perception and how they relate to the various categories of the study in the context of the eight null hypotheses formulated for the study. It discusses the major results of the study. The chapter is therefore sub-divided into two major sections; first demographic trends; and second, hypotheses.

5.1 DEMOGRAPHIC TRENDS

This section involves level and location of school; marital status; academic qualification, gender, age and teaching experience.

5.1.1 *Level of School*

This involves the particular level of school in which respondents' teach, be it first cycle or second cycle. Data analysed show that out of the 440 teachers who participated in the study, 423 (96.1%) were teaching in first cycle schools while 17(3.9%) were teaching in second cycle schools.

5.1.2 ***Location of School***

This is concerned with the area in which the respondent's school is located. Some schools are located in urban areas while others are located in rural areas. In this study, 218 (49.5%) and 222 (50.5%) out of the total of 440 participants were teaching in rural and urban areas respectively.

5.1.3 ***Gender***

The study embraced both male and female respondents so as to get a fair representation of both sexes. In all, 216 (49.1%) male teachers and 224 (50.9%) female teachers participated in the study.

5.1.4 ***Marital Status***

This is in connection with teachers who are married and those who are not married. Analysed data reveal that 205 (46.6%) and 235 (53.4%) single and married teachers respectively responded to the questionnaires.

5.1.5 ***Age***

The age range of respondents of the questionnaire is between 20 and 50 years and above. Statistical figures indicate that no respondent was below the age of 20 years and only 41 (9.3%) of them were 50 years

and above. The majority of the respondents were between the ages of 20 and 39.

5.1.6 ***Qualification of Teachers***

Statistical analysis on teachers qualification show that most of the teachers - 373 (84.8%) hold the Certificate 'A' 4-year and 'A' 3-year Post Secondary certificates. The rest - 67 (15.2%) were either certificate 'A' 2-year Post Secondary holders, specialists or diplomats.

5.1.7 ***Teaching Experience***

This deals with the number of years teachers have taught. There was the indication that out of the 440 respondents, there were 202 (45.9%) who had taught for less than ten years and 238 (54.1%) who had taught for ten years and above.

5.2 HYPOTHESES

This section involves a discussion of results of the eight null hypotheses formulated for the study.

5.2.1 HYPOTHESIS 1

There is no significant difference in perception held by male and female teachers about the distance education programme.

Results of data analysed for hypothesis one indicate that the perception held by male and female teachers about the distance education programme is not significantly different.

Under item 28 (Distance Education is a popular programme in Ghana) 69 (31.9%); 112 (51.9%); 27 (12.5%); and 8 (3.7%) female teachers responded strongly disagree; disagree; agree and strongly agree to the item respectively as against 72 (32.1%); 111 (49.6%); 30 (13.4%) and 11 (4.9%) male teachers who responded in the same order.

Item 33 (The duration for a distance education programme should be the same as that of the conventional programme) indicate that 42 (19.4%); 98 (45.4%); 52(24.1%) and 24 (11.1%) female teachers responded strongly disagree; disagree; agree; and strongly agree respectively to the item as against 41 (18.3%); 101 (45.1%) 57 (25.4%) and 25 (11.2%) male teachers who responded in the same order. These and all other items under gender with the exception of items 29 (The entry qualification for both the conventional university and the Distance Education programme should be the same) and 36 (The distance education programme will reduce the number of qualified applicants who do not gain admission to the conventional universities each year) in Appendix 13 show that gender perception tilts to the positive. In item 29 the differences in percentages ranged between 3.5 and 12.4 and 2.2 to 9.8 for item 36.

The overall results of hypothesis one which indicates no significant difference support research findings by Deaux, 1984, 1985; Frieze et al, 1982; and Hyde 1983, 1984a. According to them, average differences between the sexes tend to be tiny ones that are commonly thought to have little practical significance.

Davidoff (1987) explains further that psychologists find much more variability within each sex than between them. Similarities between males and females are often more striking than differences. This may be the reason for the no significant difference in gender perception about the distance education programme.

5.2.2 HYPOTHESIS 2

There is no significant difference between the needs of male and female teachers of distance education .

The hypothesis above was supported by findings of this research. All the items with the exception of 18 (Do you have electricity in your residential area?) and 25a (Do inland letters take long to reach you from a distance of over 100 km?) in Append : 12 point to the fact that gender needs are about the same in relation to Distance Education. Under item 10 (Are you interested in university education?) for instance, 5(2.3%) female and 7 (3.1%) male teachers responded 'no' to the item while 211

(97.7%) female and 217 (96.9%) male teachers responded 'yes' to the item.

Item 11 (Would you like to acquire diploma or degree through the distance education programme?) indicate that 15 (6.9%) female and 16 (7.1%) male teachers responded 'no' to the item as against 201 (93.1%) female and 208 (92.9%) male teachers who responded 'yes' to the item.

However, items 18 and 25a under item by item analysis show some marked differences. Under item 18, 46 (21.3%) out of the 216 female respondents said they do not have electricity in their residential areas as against 74 (33.0%) out of the 224 male participants. This gives a total of 120 (27.3%) respondents who do not have electricity in their residential areas out of the total of 440. With item 25a, 227 (51.6%) of males and females said inland letters do not take long to reach them from a distance of over 100km while 213 (48.4%) said it does. These differences did not alter the findings of the study since as many as 320 (72.7%) respondents have electricity in their residential areas.

According to Houdek (1990) course materials for distance education range from very simple photocopied notes to packages that integrate the most advanced electronic technologies. It could be deduced from this that electricity is an important component in the effective implementation of any distance education programme. All the same

72.7% of the participants having electricity in their residential area is quite encouraging for a distance education programme to take off.

5.2.3 HYPOTHESIS 3

There is no significant difference between the perception of teachers with ten or more years of teaching experience and those with less than ten years teaching experience.

Results for hypothesis three indicated that there was no statistical difference between the perception of teachers with ten or more years of teaching experience and those with less than ten years teaching experience.

Analysed results indicated that both of them exhibited positive perception towards the distance education programme.

This is shown in most of the items under item by item analysis in Appendix 13. Statistical figures in item 29 (The entry qualification for both the conventional university and Distance Education programme should be the same) for example, indicate that 43 (21.3%) teachers with less than ten years teaching experience responded strongly disagree to the item while 68 (33.7%) said they disagree; 60 (29.7%) said they agreed and 31 (15.3%) responded strongly agree.

Concerning teachers with ten or more years of teaching experience 46 (19.3%) responded strongly disagree; 80 (33.6%) said they disagreed;

70 (29.4%) and 42 (17.6%) responded agree and strongly agree respectively.

Again, responses under item 40 (The distance education programme has the capacity to reach people in isolated areas and to increase access to education) reveal that 8 (4.0%) of teachers with less than ten years teaching experience responded strongly disagree to the item; 4 (2.0%) said they disagreed; 85 (42.1%) said they agreed and 105 (52.0%) responded strongly agree. With teachers who have taught for ten or more years, 6 (2.5%) responded strongly disagree; whereas 6 (2.5%); 102 (42.9%) and 124 (52.1%) responded disagree, agree and strongly agree respectively to the item.

All the same, items 28 (Distance Education is a popular programme in Ghana) and 42 (Studying for degrees and diplomas through distance education is inferior, as compared to the conventional mode or campus-based programme) indicated some significant differences.

Under item 28 for instance, 108 (53.5%) out of the total of 202 respondents with less than ten years teaching experience said they disagreed to the item, 15 (7.4%) said they agreed and 8 (4.0%) said they strongly agreed. This is against 115 (48.3%) teachers with ten or more years of teaching experience who said they disagreed, 42 (17.6%) who responded agreed and 11 (4.6%) who said they strongly agreed to the item out of the total respondents of 238 in this category. This supports

the view that experience can influence perception (Houston et al, 1989; Bruner et al, 1956).

This significant difference may be due to the fact that teachers with less than ten years teaching experience being young in the teaching field may not be saddled with any problem that will hinder them from entering conventional universities. Hence they are not interested in any alternative solution. As discussed under the theoretical literature review, (Houston et al, 1989; Weiten, 1986) are of the view that the perceivers needs, interests and values can affect his character of perceptions. A person who needs to see something may be "ready" to see it and more likely to notice it if it does appear (Mills, 1980; Postman, Bruner and McGuinnies, 1948). This goes to strengthen the point above.

Similarly, 104 (51.5%), 72 (35.6%) 18 (8.9%) and 8 (4.0%) of teachers with less than ten years teaching experience and 117 (49.2%), 100 (42.0%), 7 (2.9%) and 14 (5.9%) of teachers with ten or more years of teaching experience responded strongly disagree, disagree, agree, and strongly agree respectively to item 42. Looking at the statistics critically, one realizes that teachers with less than ten years teaching experience are more in favour with item 42 than those with ten or more years of teaching experience. This also boils down to the fact that teachers with less than ten years teaching experience assume that they still have a lot of chances to enter the conventional universities. As a result, they look on

the distance education programme as inferior when compared to the conventional mode or campus-based programme.

5.2.4 HYPOTHESIS 4

There is no significant difference between the needs of teachers with ten or more years of teaching experience and those with less than ten years teaching experience.

Findings of the study is in favour with hypothesis four above. The needs of teachers irrespective of their teaching experience are about the same in relation to distance education. With the exception of items 15 (Would you expect someone else to bear the cost of your distance education programme?) and 21a, (Do you have access to a library?) all other items measuring needs indicate no significant difference in the needs of teachers with less than ten years teaching experience and those with ten or more years of teaching experience. (See Appendix 12). Under normal circumstances one may think that long service could affect ones needs at least in terms of finances ..ut Perraton (1991), writing on "Recurrent Costs" under "Finance and Resources in Distance Education" came out to say that; in the past, many programmes for teachers have been financed by international agencies such as UNICEF or UNESCO. One may infer from this that teaching experience does not necessarily or automatically affect ones needs. Table 17 below which is built from item

22b (see Appendix 1), one of the items testing for teachers needs throws more light on the issue.

TABLE 17: TEACHERS' SOURCES OF INCOME

	FREQUENCY	PERCENTAGE (%)
ONLY SALARY	327	743
TRADING	18	41
SUPPORT FROM FRIENDS AND RELATIVES	51	116
ALL OF THE ABOVE	5	11
TRADING AND SUPPORT FROM RELATIVAES	8	18
OTHERS	31	71
TOTAL	440	100.0

The table indicates that 327 (74.3%) of the total number of respondents said they have only their salaries as their major source of income. Assuming all the other respondents - 113 (25.7%) who said they had other source(s) of income were teachers with more than ten years teaching experience, there will still be left with 125 (52.5%) of teachers with more than ten years teaching experience out of the total of 238 who still do not have any other source of income aside their salaries. This may be the reason why there is no significant difference between the needs of these two categories of teachers.

All said and done, items 15 and 21a as individual items indicate significant differences in needs in relation to teaching experience.

Under item 15, 60 (29.7%) of teachers with less than ten years teaching experience and 100 (42.0%) of teachers with ten or more years of teaching experience said they do not expect someone to bear the cost of their distance education programme whereas 142 (70.3%) of teachers with less than ten years teaching experience and 138 (58.0%) of teachers with ten or more years of teaching experience said they expect someone to do so for them.

With item 21a, 83 (41.1%) of teachers with less than ten years teaching experience and 121 (50.8%) of teachers with ten or more years of teaching experience said they had access to a library.

Statistics from these individual items indicate that teachers with ten or more years of teaching experience are slightly better equipped for the distance education programme than teachers with less than ten years teaching experience.

5.2.5 HYPOTHESIS 5:

There is no significant difference between the perception of rural and urban teachers about distance education.

Results of data analysed for hypothesis five indicate that there is significant difference between the perception of rural and urban teachers about distance education.

Rural environments have often been characterized as having an agricultural economic base and low population density and being relatively isolated from large population centres (Youmans, 1977). These characteristics may be associated with values, life styles, and behaviour different from those in urban areas (Coward & Smith, 1982; Krout, 1986; Youmans, 1977). This implies that the individuals location or residential area as well as his cultural background can have a powerful effect on his sensory perception and hence his behaviour.

Under item 28 (mentioned above) which showed a significant difference, 85 (39.0) rural teachers and 56 (25.2) urban teachers said they strongly disagree that distance education is a popular programme in Ghana. Again, 7 (3.2) and 12 (5.4) rural and urban teachers respectively said they strongly agree that distance education is a popular programme in Ghana. Looking at these figures, one realizes that urban teachers are more informed about the distance education concept than rural teachers and this may affect their perception. Similarly, figures under items 32, 34, 38 and 41 in Appendix 13 show that urban teachers have better understanding of the distance education programme. These differences may be due to the fact that urban teachers are exposed to a lot of social

amenities unlike their rural counterparts. All the same, overall statistics indicate that even though urban teachers are more informed and therefore have a better understanding of the distance education concept, rural teachers exhibit a higher level of positive perception than urban teachers.

5.2.6 HYPOTHESIS 6:

There is no significant difference between the needs of rural and urban teachers in relation to distance education.

Results for the above hypothesis indicated that there was a significant difference between the needs of rural and urban teachers in relation to distance education. Items 18, 21, 23 and 25a-27a under item by item analysis in Appendix 12 bring out detailed statistical differences on the needs of teachers in rural and urban areas.

Item 18 which talked of access to electricity in one's residential area brought about a great statistical difference between rural and urban teachers. Out of the 222 urban teachers who participated in the study only 6 (2.7%) said they did not have electricity in their residential areas. On the contrary 114 (52.3%) rural teachers out of 218 said they did not have electricity in their residential areas. Mahlck and Temu (1989) writing on "Availability of equipment and instructional materials" stressed the importance of electricity in the distance education programme. in a case study of distance education in Tanzania, Mahlck and Temu (1989) said

the dependence on batteries is obvious. In most training centres, they were the only source of electricity for the operation of the equipment. Distance education implementers in Ghana should therefore think of producing or introducing equipment that can at least use batteries as a source of electricity for the sake of rural teachers.

Under item 21a (Do you have access to a library?) 186 (85.3%) rural teachers and 50 (22.5) urban teachers said they did not have access to a library. The use of a library is important in the life of every student hence libraries should be set up at central points to be used by teachers who do not have access to libraries.

Item 25a (Do inland letters take long to reach you from a distance of over 100 km?) is a reinforcer to item 17(Is the postal system in your area reliable?). It is because the postal system in the rural areas is not reliable that letters take a long time to get to their destinations. According to item 25a under Appendix 12, 140 (64.2%) of rural teachers said letters take a long time in getting to them. This is against 73 (32.9) urban teachers who also said letters take long in getting to them. Since distance education materials will have to be distributed at all cost, a better method of delivery should be sought for by the implementers rather than relying on postage.

Finally, item 27a talking on the distance between the teacher's station and his regional capital brings about some significant differences.

Out of the 218 rural teachers who participated in the study 109 (50.0%) said from their station to their regional capitals is far. This is against 57 (25.7%) of the total of 222 urban teachers who participated in the study.

Literature reveal that both urbanization and "ruralization" can affect the needs of settlers and for that matter teachers. According to Antwi (1992), rural dwellers experience low income and continuing poverty, lack of adequate infrastructural and social amenities. Even though teachers in the rural areas may not be affected by the low income and continuing poverty mentioned above since they are on the same salary scale with their urban counterparts; they still lack certain social amenities. Antwi (1992) backs his argument up by stressing that the rural exodus is a symptom of the problem of rural neglect. As Lewis (1969:30) has aptly stated:

> The governments levy heavy taxes on the farmers and use the money to provide water supplies, medical services, secondary schools, electricity and transport not in rural areas but in the towns.

This pre-supposes that rural dwellers have a lot of needs that urban dwellers do not have.

On urbanization Youmans (1997), in an article published in Rural Sociology (56, 1991) states that as population size increases, the struggle to acquire resources becomes more acute, thereby creating a

need for adaptation that make more efficient use of the environment. The implication here is that urban dwellers by the nature of their environment have the desire and hence crave to buy consumption goods such as sound systems, television and video decks. The research finding therefore fits well into existing literature.

5.2.7 HYPOTHESIS 7:

There is no significant difference between the perception of married and unmarried (single) teachers about distance education.

The perception of both single and married teachers was found not to hold any significant difference in relation to distance education.

Under item 30 (Distance Education will help me to achieve my ambition for higher academic laurels) in table 18, 1(1.5%) single teacher out of the total of 205 responded strongly disagree to the item; 6(2.9%) responded disagree while 71 (34.6%) and 127 (62.0%) responded agree and strongly agree respectively. This is against 2(0.9%) of married teachers who responded strongly disagree; 6(2.6%) who said they disagree; 72(30.6%) and 115 (66.0%) who responded agree and strongly agree respectively out of the total of 235.

Again, figures under item 32 (I am interested in the distance education programme) indicate that 3(1.5%) single teachers responded strongly disagree to the item; 6(2.9%) responded disagree whereas 88

(42.9%) and 108 (52.7%) responded agree and strongly agree respectively. In the case of the married teachers, 8(3.4%) responded strongly disagree; 6(2.6%) said they disagreed; 90(38.3%) said they agreed and 131(55.7%) responded strongly agree to the item. Similarly, statistics under item 36 (The distance education programme will reduce the number of qualified applicants who do not gain admission to the conventional universities each year) reveal that 4(2.0%) of single respondents said they strongly disagreed to the item; 5(2.4%) said they disagreed; 71(34.6%) said they agreed and 125 (61.0%) responded strongly agree to the item. In the same vein, 3(1.3%) married teachers responded strongly disagree to the item while 7(3.0%); 85(36.2%) and 140(59.6%) responded disagree, agree and strongly agree respectively to the item.

Furthermore, item 41 (The products of both distance and conventional education programme should be of the same calibre) indicates that 3(1.5%) of single teachers responded strongly disagree; 19(9.3%) said they agreed; 101(49.3%) responded 'agree' and 82(40.0%) said they strongly agreed to the item.

In relation to married teachers, 4(1.7%) responded strongly disagree to the item. 15(6.4%) said they disagreed; 116(49.4%) said they agreed and 100(42.6%) responded strongly agree to the item. All these

statistics indicate that both single and married teachers have positive perception about the distance education programme.

A number of studies have revealed that there is no evidence to indicate that distance students should be regarded as homogeneous group. The only common factor is that, with few exceptions, these students are adults and consequently are gainfully employed and/or look after their families. The 25-35 age group seems to be the largest in most organizations. But older students too, not only those around 40 and 50 but also old-age pensioners, seem to show a preference for distance education. (Glatter, 1968; Glatter and Wedell, 1971; McIntosh, Calder, and Swift 1976; Ansere 1978; Flinck 1980; McIntosh, Woodley, and Morrison, 1980; Woodley, 1986b).

Similarly, Stanford (1980:22) in a survey on "Characteristics of the Distance Learner" reported that out of the total number of enrollment for the study, mothers at home with children unable to study by other means constituted (28 percent); shift workers (nurses, police, librarians, factory workers) unable to study by other means (22 percent); institution bound (prisoners, home, or hospital bound; 21 percent); students who chose to study at a distance due to its flexibility or better standards (15 percents); individuals who for psychological reasons, are unable to cope with classroom or group situations, or are unable to study by other methods (6 percent); defence force personnel (4 percent); handicapped or disabled

(3 percent); and school students seeking subjects that were unavailable at a particular school (1 percent).

All these statistics boil down to the fact that distance education learners are virtually adults. By definition, an adult is a person who is old enough to vote or marry (Hornby 1980). If this is the case, then it implies that the adult population is made up of both married and single people or teachers for that matter.

This might have accounted for the no significant difference in perception. The distance learners see themselves as adults rather than being single or married and therefore view distance education from the same angle.

5.2.8 HYPOTHESIS 8

There is no significant difference between the needs of married and unmarried (single) teachers about distance education.

Results of data analyzed for hypothesis eight indicate that there is no significant difference between the needs of single and married teachers about distance education. For instance, under item 10 (Are you interested in University education?) 6(2.9%) single teachers and 6(2.6%) married teachers responded 'no' to the item while 119(97.1%) single teachers and 229(97.4%) married teachers responded 'yes' to the item.

In item 16 (Can you effectively combine your teaching/office work with your distance education study?) 18(8.8%) single teachers and 17(7.2%) married teachers responded 'no' to the item as against 187 (91.2%) single teachers and 218(92.8%) married teachers who responded 'yes' to the item.

Similarly, item 13 (Are you prepared to pay for the cost of educational materials that you will be supplied in the programme?) shows that 38 (18.5%) single teachers and 42 (17.9%) married teachers responded 'no' to the item whereas 167(81.5%) single and 193 (82.1%) married teachers responded 'yes' to the item.

The above statistics in Appendix 12 point to the fact that marital status does not affect teachers needs in relation to distance education.

The United States Census data indicate that persons who live alone are more likely to be poor than persons who live in families (US Bureau of Census 1985b). In support of this, Warlick (1985) after a study reported that older women living alone depended on their husbands for economic security and have never been employed. Thus, when a marriage ends through death or divorce, the woman frequently is left with minimal resources (Minkler and Stone (1985).

These findings deal solely with financial resources and since the needs of single and married teachers in terms of distance education go beyond financial resources, the findings of this study do not support the

above view. In effect, both single and married teachers have similar needs so long as the distance education programme is concerned.

CHAPTER SIX

CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

6.0 INTRODUCTION

This concluding chapter involves a summary of the research findings, which reveal that gender, teaching experience and marital status do not seriously affect the perception and needs of teachers on distance education programme. Again it reveals that rural and urban location of teachers can affect their perception and needs on the distance education programme. The chapter also looks at the theoretical and educational implications of distance education and their recommendations.

6.1 SUMMARY OF FINDINGS

The summary of research findings for this study were derived from the results of the eight hypotheses formulated based on the research questions.

Results in hypothesis one show that gender perception is positive in relation to the distance education programme.

In hypothesis two, result findings indicated that the needs of male and female teachers in relation to distance education are about the same.

Statistics in this hypothesis do not show any marked difference. The difference in percentage was 0.8.

Hypothesis three revealed that both teachers with less than ten years teaching experience and those with ten or more years of teaching experience viewed distance education as a positive programme.

Under hypothesis four, analysed data indicated that the needs of teachers with less than ten years teaching experience and those with ten or more years of teaching experience are almost the same in relation to distance education.

Statistical figures under hypothesis five indicate that the perception of rural and urban teachers have some significant differences. While both of them exhibit positive tendencies towards the programme, urban teachers can be said to be more informed about the programme than their rural counterparts.

The needs of teachers in relation to distance education treated under hypothesis six revealed that the needs of urban teachers differ from those of rural teachers. Statistics in this hypothesis reveal that most of the teachers in rural areas do not have access to electricity and library while most of the teachers in urban areas have access to these amenities.

Results in hypothesis seven indicate that marital status do not create differences in perception so long as the distance education

programme is concerned. Both married and single teachers showed positive perception towards the programme.

Research findings in hypothesis eight reveal that the needs of single and married teachers in relation to the distance education programme are about the same.

6.2 THEORETICAL IMPLICATIONS

Some theoretical implications are derived from this study. In the first place, the perceptual expectancy theory hypothesized by Wortman et al, 1992; Houston et al, 1989; Weiten, 1986; Turnbull, 1961; Bruner and Mintum, 1955 is pertinent here. Normally, people perceive what they expect. In this research teachers who expect to go through a type of education like distance education in which one can study at his own time and pace and continue to earn a living perceived distance education more positively. These teachers include teachers with long teaching experience and those in the rural areas.

Furthermore, the perceivers needs, interests and values also affect the character of perceptions (Houston et al, 1989; Weiten, 1986). If one is in need of something he looks out for it and when he finds it, he welcomes it. This showed in the results of the research where teachers with long teaching experience and those in the rural areas embraced the idea of the

distance education programme by responding positively to most of the items testing for perception.

Again, ones cultural background can have a powerful effect on his sensory perceptions. What may be news to a rural dweller may be nothing at all to an urban dweller. The result of this research work has shown that, urban teachers, because of their cultural background are more informed about the distance education programme than their rural counterparts.

Finally, the findings of this research work, support the study results of Deaux, 1994, 1995; Frieze et al, 1982; Hyde 1983, 1984a. They are of the view that average differences between the sexes tend to be tiny ones that are commonly thought to have little practical significance. Davidoff (1987) strengthened this argument by adding that similarities between males and females are often more striking than differences. All these imply that there is no statistical difference between gender perception.

6.3 EDUCATIONAL IMPLICATIONS

Several educational implications could be derived from this study in relation to distance education on the part of both the educator and the educand as explained in the following section:

6.3.1 *Demographic Trends*

Statistics under level of school indicate that most of the **respondents** were teaching in first cycle schools. This implies that only a **few teachers** from the second cycle schools completed the questionnaires **given to them.** This may be due to the fact that most of these teachers **hold diploma** certificates and may not see the importance of further studies through distance education.

Under location of school, one realizes that the number of teachers who responded to the questionnaires in the rural areas was very close to those who responded in the urban areas. The implication here is that both rural and urban teachers are interested in the distance education programme.

Again, statistics under gender implies that both male and female teachers are interested in the distance education programme. Hence educational policy implementers should give equal opportunity to both of them in the distance education programme. Statistics under marital status reveal that both single and married teachers may want to pursue diploma and degree courses through distance education.

In relation to age distribution, statistics reveal that most of the teachers are young and active who can be helped to further their education. If quite a good number of these teachers will be offered the opportunity to further their education through the distance education

programme, it will benefit the country a great deal in the implementation of the New Educational Reforms particularly the FCUBE.

The findings on qualification of teachers reveal that as many as 91.6% of the respondents have academic qualifications lower than the diploma certificate. It is therefore imperative that the teachers are helped to further their education so as to fit squarely into the rampant changes in education. As revealed by Beeby (1966), it is highly essential for the teacher in the classroom to update himself because the educational background of classroom teachers is the major constraint on the quality of what they do in the classroom.

Statistical analysis on teaching experience reveal that teachers with ten or more years of teaching experience are slightly more than those with less than ten years teaching experience. This implies that most of the teachers are experienced in the teaching profession. Experience and other characteristics of distance education learners are essential in the effective planning of any distance education programme. Holmberg (1995:37) writing on "Planning Distance Education", said:

> It is evidently important to know what type of students are to be taught. Their general education and previous study experiences, if any, as well as their specific prior knowledge of the subject to be learnt must necessarily exert decisive influences on the teaching.

6.3.2 HYPOTHESES

Statistical data under analysis of hypotheses indicate that hypotheses one, three, five and seven revealed positive perception on the part of respondents.

Similarly, hypotheses two, four and eight reveal that there is no significant difference between the needs of respondents.

These findings imply that:

1. The programme, if implemented may be embraced by teachers.
2. It will help to solve the backlog problem of teachers who want to enter university for further studies. It can absorb thousands of prospective candidates into tertiary and other higher institutions (Reddy, 1988).
3. It will also bring about equality of opportunities for education for all citizens of a particular country (Selim, 1986) and therefore Ghana.
4. Again, it will provide continuing education to meet the changing requirements of people working in various walks of life. This will help policy makers to fit round pegs into round holes instead of fitting them into square holes.
5. Furthermore, the programme will help people to study at their own time and pace while still working to earn a living.

They will not leave their posts to go on study leave so as to create inconveniences for the various institutions they work in.

6. The cost effectiveness of the programme (Perraton, 1982, 1993; Lyle, 1967; Zhamin and Remennikov, 1972; Deakin University, 1989, Open University, 1991 and Rumble, 1981, 1982) will go a long way to alleviate the economic crises in terms of increasing educational facilities especially at the tertiary level.

Hypothesis six which indicated a significant difference in the needs of rural and urban teachers in relation to distance education imply that the needs of rural teachers in terms of logistics is very important in the successful implementation of any distance education programme. As a result, policy makers must see to it that rural teachers are well equipped before a programme takes off.

6.4 RECOMMENDATIONS

From the findings of the study, it is being recommended that:

1. Distance Education is a programme which when established will be patronised by many teachers, particularly old experienced and rural teachers so it should be well established and maintained.

2. In the initial stages print materials should be used as the main media. This is so because teachers are generally familiar with reading. Under items 19 and 20 (see Appendix 12) 367 (83.4%) out of the total respondents of 440 said they were fast readers (item 19) while 381 (86.6%) out of the total number said they could use at most three days to read story books of about 100 pages (item 20). These figures run through all the various categories. There is therefore the implication that all teachers will be comfortable with the use of print materials.

3. By all indications, the mode of delivery of distance education materials goes a long way to enhance the effectiveness of the programme. The earlier students receive their learning materials, the better. This could be done through the use of State Transport Services as well as the services of the Ghana Private Road Transport Union of the Trade Union Congress (GPRTU of TUC).

4. Distance Education implementers should not worry about whether teachers on the job will have time to study their distance education materials. Statistical analysis shows that out of the 440 respondents 390 (88.6%) said they have time to study their materials while 50 (11.4%) said they would not

have time to study their distance education materials. (See Table 17, Item 24a).

6. The use of electricity in the distance education programme is an important factor. Policy makers should therefore take a serious look at it.. Again, complicated electronic media should be done away with at the initial stages.

6.5 AREAS FOR FURTHER RESEARCH

Even though the findings of this study can be effectively generalized to cover the whole country, there is still the need for further research since distance education is relatively new in Ghana. It is therefore being suggested that further research should be made into:

1. Distance education at the second cycle level.
2. Parents' attitudes and response to distance education
3. The perception of working mothers other than teachers on the distance education programme.
4. An evaluation of the quality of teaching done by teachers trained by the distance mode in comparison to those trained under the conventional mode.

REFERENCES

Akwesi, C.K. (1981). Psychology of Human Learning and Teaching. University of Cape Coast, Ghana: Faculty of Education.

Allport, F.H. (1955). Theories of Perception and Concept of Structure. New York: John Willey & Sons, Inc. 14.

Allport, G.W. (1985). The Historical Background of Social Psychology. In G. Lindsey and E. Aronson (Eds). Handbook of Social Psychology (3rd ed.). New York: Random House, 1, 1-46.

Alschuler, A.S., and associates (1970). Teaching Achievement Motivation. Middletown, Conn: Education Ventures.

Antwi, Moses K. (1992). Education, Society and Development in Ghana. Accra-North, Ghana: Unimax Publishers Limited.

Ansere, J.K. (1978). 'A Profile of Correspondence Students in Ghana', Epistolodidaktika, 2, 3 -28.

Atkinson, J.W. (1964). An Introduction to Motivation. Princeton, N.J.: Van Nostrand Publishers.

Balogun, D.A.; Okon, S.E.; Musaazi, J.C.S.; Thakur, A.S. (1981). Principles and Practice of Education. London and Basingstoke: Macmillan Publishers.

Barker, B.O., Frisbie, A.G., and Kenneth R.P. (1989). Broadening the Definition of Distance Education in Light of the New Telecommunications Technologies. The American Journal of Distance Education 3, (1), 20-29.

Bartley, Howard S. (1969). Principles of Perception (2nd Ed.) New York, Evanston, and London: Harper & Row Publishers.

Beeby, C.E. (1966). The Quality of Education in Developing Countries-Cambridge, Mass: Harvard University Press 31-32.

Best, J.B. (1986). Cognitive Psychology. St. Paul, MN: West.

Bexton, William., and others (1954). Effects of Decreased Variation in the sensory environment. Canadian J Psychol. 8, 70-6.

Biehler, Robert F. (1974). Psychology Applied to Teaching (Second Edition) Boston: Houghton Mifflin Company.

Bigge, M.L; Hunt, M.P. (1968). Psychological Foundations of Education, An Introduction to Human Development and Learning. New York: Harper & Row, 310.

Bilston, B. (1989). Teaching the older learner, Adult Learning, 1, (I).

Borg, W.R. and Gall, M.D. (1989). Exploring relationships between variables: The causal - comparative method. In Educational research: An introduction, (5th ed.). New York: Longman.

Bruner, J.S., and Goodman, C.C. (1947). Value and Need as Organizing Factors in Perception. A journal of Abnormal and Social Psychology, 42, 33-44.

Bruner, J.S., Goodnow, J.J.; and Austin, G.A. (1956). A Study of Thinking. New York: Longman.

Bruner, J.S., and Postman, L. (1948). An Approach to Social Perception. In W. Dennis (Ed.). Current Trend in Social Psychology. Pittsburgh: University of Pittsburgh Press 76.

Bruner, J.S. and Minturn, A.L. (1955). Perceptual Identification and Perceptual Organization. Journal of General Psychology, 53, 21 - 28.

Bruner, J.S. (1960a). The Functions of Teaching. Rhode Island College Journal, 1, 35 - 42.

Bruner, J.S. (1960b). The Process of Education. New York: Vintage Books.

Burger, J.M. (1986). Increasing Compliance by improving the deal: The-that's-not-all technique. Journal of Personality and Social Psychology, 51, 227-283. (11).

Carter, D.S.G. (1990). Knowledge Transmitter, Sonal Societies or Reflective Thinker, Three Images of the Practitioner in Western Australian High Schools. Theory and Research in Sonal Education, 28, (3), 274-308.

Cialdini, R.B., Cacioppo, J.T., Bassett, R., and Miller, J.A. (1978). Low-ball procedure for producing compliance. Committment then cost. Journal of Personality and Social Psychology, 9, 502-516, (19).

Clennell, S., (Ed.), Bilston B., Butterworth, W., Cutress, N., Kelly P., Lawless, C., Morrison, V., Proctor, P., Varney, P., Wareham, C. and Watts, G. (1987). Older Students in adult education. (Open University Regional Academic Services).

Clennell, S. (Ed.), Bilston, B., Kelly, P., Proctor, P., Thompson, J., Varney, P., and Watts, G. (1993). Older students and employability (Open University Regional Academic Services).

Clennell, S., (Ed.), Bilston B., Kelly P., Watts, G. (1995). Training opportunities for older adults. (Open University Regional Academic Services and School of Health and Social Welfare).

Cohen, L.J. (1981). Can human irritionality be experimentally demonstrated? Behaviour and Brain Science, 4, 317-331, (18).

Coldeway, D. (1982). What does Educational Psychology Tell Us About the Adult Learner at a Distance? In Daniel, J.S. et al (Eds.). 1982. Learning at a Distance, Hughes, L.J. (1980).

Coleman, J.S., and associates (1966). Equality of educational opportunity Washington, D.C.: U.S. Department of Health, Education, and Welfare.

Conference of African States on the Development of Education in Africa. Outline of Plan for African Educational Development (UNESCO, 1961).

Coren, S. and Girgus, J.S. (1980). Principles of Perceptual Organization and Spatial distortion: The Gestalt Illusions. Journal of Experimental Psychology: Human Perception and Performance, 6, 404-412.

Coren, S; Porac, C; Ward, L.M. (1984). Sensation and Perception. (2nd ed.) Orlando: Academic Press.

Coward, R.T. and Smith, W.M. Jr. (1982). Families in Rural Society 77-93 in Don A. Dillman and Daryl J. Hobbs (ed.) Rural Society in the US.: Issues for the 1980's. Boulder, Colo: West View Press.

Davidoff, L.L. (1987). Introduction to Psychology. Mc Graw-Hill Inc.

Deakin University (1989). Further Investigations into Activity Costing in a Mixed Mode Institution. Canberra: Department of Employment, Education and Training.

Deaux, K. (1984). From Individual Differences to Social Categories. Amer. Psychol., 39, 195-116.

Deaux, K. (1985). Sex and Gender. Annv. Rev. Psychol., 36, 49-81.

Dovidio, J.F., and Gaertner, S.L. (Eds) (1986). Prejudice, Discrimination and Racism - New York: Academic Press. (18).

Dovidio, J.F., Evans, N., and Tyler, R.B. (1986). Racial Stereotypes: The contents of their cognitive representations. Journal of Experimental Social Psychology, 22, 22-37. (18).

Ebel, Robert L. (1972). Essentials of Educational Measurement. N.J.: Prentice Hall, Inc.

Edwards, R. (1991). The Inevitable Future? Post-Fordism and open learning in Open Learning, 6, 2, 36-42.

Evans, Terry and Nation, Daryl (Eds). (1989). Critical Reflections On Distance Education. U.K. USA: The Falmer Press.

Farrant, J.S. (1980). Principles and Practice of Education. (New Ed.). England: Longman Group Limited.

Fleming, D. (1991). The Concept of Meta-Competence. Competence and Assessment, 16, 9-12.

Flinck, R. (1980). 'The Research Project on Two-way Communication in Distance Education: An Overview: Epistolodidaktika 1-2: 3-10.

Frieze, I.H., Whitley, B.E., Jr., Hanusa, B.H., and McHugh, M.C. (1982). Assessing the Theoretical Models for Sex Differences in Causal Attributions for Success and Failure. Sex Roles, 8, 333-343.

Glatter, R. (1968). 'The Manchester Home Study Research Product', CEC. Yearbook, 34-52, Copenhagen: CEC.

Glatter, R. Wedell E.G. (1971). Study by Correspondence. An Enquiry into correspondence Study for Examinations for Degrees and other Advanced Qualifications, London: Longman.

Gay, L.R. (1987). Educational Research Competencies for Analysis and Application (3rd ed); Columbus: Merrill Publishing Company.

Ghana (1984):. Population Census. Accra: Statistical Service, 3.

Government of India, Ministry of Education (1985). 'Challenge of Education' - Policy Perspective: Chp II.

Hebb, D.O., (1958). The Organisation of Behaviour. New York: John Wiley & Sons, Inc.

Hill, W.F. (1985). Learning: A Survey of Psychological Interpretations (4th Ed) New York: Harper & Row.

Holmberg, Börje (1995). Theory And Practice of Distance Education. (Second Edition) London and New York: Routledge.

Hornby, A.S., Cowie, A.P., and Gimson, A.C. (1980). Oxford Advanced Learners' Dictionary of Current English. Oxford University Press.

Houdek, Elizabeth (1990). Managing Distance Education Courses. The Board of Trustees of the University of Illinois ISBN 1-877847-08-9.

Houston, J.P.; Hammen, Constance; Padilla, Amando; Bee, Helen (1989). Invitation to Psychology (Third Edition). New York, London, Toronto: Harcourt Brace Jovanovich, Publishers.

Hull, C.L. (1943). Principles of Behaviour New York: Appleton.

Hummel, R., and Sprinthall, N. (1965). Under-achievement related to interests, attitudes and valves. Personnel and Guidance Journal, 44, 338-395.

Hyde, J.S. (1983). The Genetics of Agonistic and Sexual Behaviour. In J.L. Fuller & E.C. Simmel (Eds). Behaviour Genetics (409-434).

Hyde, J.S. (1984a). How Large are Gender Differences in Aggression? Develop. Psychol., 20, 722-736.

Jenkins and Koul (1991). The invisible college: Broadsheets on distance learning 15, Cambridge: International Extension College.

Jevons, F.R. (1983). The Role of Distance Education: Towards Parity of Esteem. In Technological Innovation: University Roles. London: Association of Commonwealth Universities.

Keegan, D.; and Rumble, G. (1982). Distance Teaching at University Level. In Rumble, G. & Harry, K. (Eds.) (1986). Distance Teaching Universities, London: Groom Helm.

Keegan, D. (1986). The Foundations of Distance Education. London: Groom Helm. p.50

Kelly, H.H. (1950). The warm-cold variable in the first impression of persons. Journal of Personality, 18, 431-439.

Kounin, J. (1970). Discipline and group management in the classroom. New York: Holt, Rine and Winston.

Krajnc, A. (1988). 'Social Isolation and Learning Effectiveness in Distance Education', Ziff Papiere 71, Hagen: Fernuniversitat, 5.

Krout, John A. (1986). The Aged in Rural America. New York. Green Wood Press.

Lewis, R. and Spencer, D. (1986). What is Open Learning? London: Council of Educational Technology.

Lewis, W.A. (1969). Some Aspects of Economic Development (Accra-Tema, Ghana Publishing Corporation, 30.)

Ljosa, E. (1975). The System of Distance Education. Papers to the ICCE International Conference (10th, Brighton, Great Britain, May 12-16). International introduction (ERIC Document Reproduction Service, ED 170549).

Lyle, J. (1967). 'The in-service teacher training programme for UNRWA/UNESCO teachers, in W. Schramm (Ed.): New Educational Media in Action: Case Studies for Planners, 2. Paris: UNESCO/International Institute for Educational Planning.

Maccoby, E.E. & Jacklin, C.N. (1975). The Psychology of Sex Differences. LA: Standford University Press.

Mählch, Lars & Temu, E.B. (1989). Distance Versus College Trained Primary School Teachers: A Case Study from Tanzania: Paris; International Institute for Educational Planning 7-9 rue Eugène - Declacroix, 75116 Paris. UNESCO. 1989.

Maslow, A.H. (1943). A Theory of Human Motivation Psychological Review, 50, 370-396.

Maslow, A.H. (1962). Toward a Psychology of Being. Princeton, N.J.: Van Nostrand,.

Maslow, A.H. (1968). Toward a Psychology of Being. (2nd Ed.). Princeton N.J.: Van Nostrand.

Maslow, A.H. (1970). Motivation and Personality. (2nd Ed.). New York: Harper & Row.

McClelland, D.C. (1965). Toward a theory of motive acquisition. American Psychologist, 20, (2), 321-333.

McClelland, D. (1961). The Achieving Society. Princeton, N.J.: Van Nostrand.

Mc. Gregor, Douglas (1960). The Human Side of Enterprise. New York: McGraw Hill Bk. Company.

McIntosh, N., Calder, J. and Swift, B. (1976). A Degree of Difference. A Study of the First Year's Intake to the Open University of the United Kingdom, Guildford: Society for Research in Higher Education.

McIntosh, N., Woodley, A. and Morrison, V. (1980). 'Students Demand and Progress at the Open University - The First Eight Years', Distance Education 1, 1: 37-60.

McWilliam, H.O.A.; and Kwamena-Poh, M.A. (1975). The Development of Education in Ghana. (New Ed.) London: Longman Group Limited.

Melton, Reginald F. (1994). Competences in Perspective. Educational Research, 36, 3.

Mills, C.B. (1980a). Effects of the Match Between Listener Expectancies and Coarticulatory cues on the Perception of Speech. Journal of Experimental Psychology: Human Perception and Performance, 6, 528-535.

Mills, C.B. (1980b). Effects of Context on Reaction Time to Phonomes. Journal of Verbal Learning and Verbal Behaviour, 19, 75-83.

Mills, R., and Tait, A. (Eds.), (1996). Pearson Professional Limited: Supporting the Learner in Open and Distance Learning. London: Pitman Publishing.

Minkler, M. and Stone, R. (1985). The Feminization of Poverty and Older Women. The Gerontologist 25, (4) 351-57.

Ministry of Education: Foreign Affairs Bureau (1985). 'Zhonggou Jiaoyu Gaikuang' (State of Education in China), Wuhan University Press.

Moore, M. G. (1973). Toward a Theory of Independent Learning and Teaching. Journal of Higher Education, 44, 661 - 679.

Moore, M. (1983). 'The Individual Adult Leaner' in Tight, M. (Ed.), Adult Learning and Education, London: Croom Helm, 157-8.

Moore, R. (1986). Continuing Education from the Academic Afairs Perspective), The Journal of Continuing Higher Education 34, 4 (Spring 1986).

Nacino-Brown, R; Oke, F.E; Brown, D.P. (1982). Curriculum and instruction. An Introduction to methods of teaching. London and Basingstroke: The Macmilan Press Ltd.

Open University (1991). Review of the open University: Conducted by the Department of Education and science and open university, Milton Keynes: Open University.

Osuala, E.C. (1987). Introduction to Research Methodology. Cameroon. Africana – Fep Publishers Limited (1987: 181).

Paul, Ross (1986). 'Athabasca University' In Mugridge. I. and Kaufnman D. (Eds.) (1986). Distance Education in Canada.

Pavlov, I.P. (1927). Conditioned Reflexes (G.V. Anrep, Trans). London: Oxford University Press, (6).

Peraton, Hilary (1982). Alternative routes to formal education : distance teaching for school equivalency . Baltimore: John Hopkins University Press.

Perraton. Hilary (1991). Training Teachers at a Distance. Malborough House London: Commonwealth Secretariat.

Perraton, Hilary (1993). Distance Education For Teachers Training. London and New York: Routledge p.382.

Piaget, J. (1952). The origins of Intelligence in children (M. Cook, Trans.). New York: International University Press. (1).

Postman, L; Bruner, B. and McGinnies, E. (1948). Personal Values as Selective In Perception. Journal of abnormal and social psychology, 43, 143-154.

Reddy, G.R. (1986). Planning, Management and Monitoring of Distance Education. Asian Development Bank (1986). Distance Education, 1 and 2.

Reddy, G.R. (1988). Open Universities The Ivory Towers Thrown Open. New Delhi: Sterling Publishers Private Limited L-10 Green Park Extension

Rogers. C.R (1951). Client - Centred Therapy: Its Current Practice, Implications, and Theory. Boston: Houghton- Mifflin.

Rogers, C.R. (1961). On Becoming a Person. A Therapist's view of Psychotherapy. Boston: Hougton - Mifflin.

Rogers, C.R. (1970). On Becoming a Person. A Therapist's View of Psychotherapy. (2nd Edition). Boston: Houghton Mifflin.

Rowntree, Derek (1990). Revised Ed. Teaching Through Self- Instruction. How to develop Open Learning Materials. London. Kogan Page Ltd.

Rowntree, Derek (1992). Exploring Open and Distance Learning. 120 Pentonville Road London NI 9JN: Kogan Page Limited.

Rumble, G. (1981). 'The Cost Analysis of Distance Teaching: Costa Rica's Universidad Esatatal a Distancia: Higher Education, 10, 375-401.

Rumble, G. (1982). 'The Cost Analysis of Learning at a Distance: Venezuela's Universidad Nacional Abierta: Distance Education, 3, 2, 116-40.

Rural Sociology. 56. 4. Winter 1991, 649. Published at Texas A & M University, College Station.

Schuller, T. and Bostyn, A.M. (1992). Learning: Education, training and information in the third age. Research Paper 3 (UK Trust).

Sears, D.O.; Freedman, J.L.; and Peplau, L.A. (1985). Social Psychology (5th ed) Englewood cliffs, N.J: Prentice-Hall.

Selim, M. (1986). Distance Education in Asia and Pacific. Asian Development Bank (1986) Distance Education I & II.

Sewart, D. Keegan, D. and Holmberg B. (1983). Distance Education: International Perspectives (New York: St. Martin's 1983).

Sewart, D. Keegan, D; and Holmberg, B. (Eds). (1988). Distance Education International Perspective. London and New York; Routledge.

Shale, Doug (1982). 'Alhabasca University, Canada', In Rumble, G. and Harry K. (Eds.) (1982). The Distance Teaching Universities. London; Croom Helm.

Sharma, M. (1986). Issues in Distance Education. Asian Development Bank (1986) Distance Education, I & II.

Sisk, H.L. (1969) Principles of Management. A System Approach of the Management Process. Cincinnati, Ohio; South-Western Publishing Company.

Singer, W. (1986). Neuronal activity as a shaping factor in post-natal development of visual cortex. In W.T. Greenough and J.M. Juraska (Eds.), Development Neurospychobiology (271-293). New York; Academic Press (4).

Skinner, B.F. (1948). Walden Two – New York: Macmillan (1).

Skinner, B.F. (1953). Science and Human Behaviour. New York; Macmillan.

Sprinthall, N.A., and Sprinthall, R.C. 1990). Educational Psychology. A Development Approach (5th ed.) New York; McGraw-Hill Inc.

Stanford, G.K. and others; (1980). Distance Education: Occasional paper Number 9. Submission to Committee of Enquiry into Education in South Australia – Adelaide, Australia: Committee of Enquiry into Education in South Australia, 1980, Abstract (ED 208156).

Sutherland, M.B. (1981). Sex bias in Education Blackwell. Oxford.

Tagiuri, Renato and Luigi Petrullo (1958). Person Perception and Inter-Personal Behaviour. Stanford, California; Stanford University Press.

Taylor, J. (1986). Application of Distance Education in Formal and Non-Formal Education. Asian Development Bank (965) Distance Education. I & II.

Thomdike, E.L. (1932). The Fundamentals of Learning. New York: Teachers College (6).

Thorpe, Mary (1988). Longman Open Learning Evaluating Open and Distance Learning. U.K. Longman Group Limited.

Tumbull, C.M. (1961). Some Observations regarding the experiences and behaviour of BaMbuti pygmies. American Journal of Psychology, 74. 304-308.

U.S. Bureaua of the Census (1985b). Washington, D.C.: U.S. Government Printing Office.

Warlick, Jennifer L. (1985). Why is Poverty After 65 a Woman's Problem? Journal of Gerontologist 40, (6): 751-57.

Wedemeyer, C. (1983). Characteristixcs of Open Learning Systems. In Open Learning Systems. (Washington, D.C.: Nati. Assn. Of Educational Broadcasters. 1974) Quoted in Keegan, D. The Foundations of Distance Education. London: Croom Helm Ltd. 1986. 57.

Weiten, Wayne (1986). Psychology Applied to Modern Life. Adjustment in the 80s. (2nd Ed.) Pacific Grove, California: Brooks/Cole Publishing Company.

Woodley, A. (1986b). Distance Students in the United Kingdom, Open Learning, 1,2, 11-13.

Wortman, Camille B.; Loftus, Elizabeth F.; Marshall, Mary E. (1992) Psychology (Fourth Edition) New York, Sydney. London. Toronto: McGraw-Hill Inc.

Wundt, W. (1904) Principles of Physiological Psychology (5th Ed.) New York: Macmillan. (Original Work Publisahed 1874).

Yinger, M.J. (1965). Toward a Field Theory of Behaviour Personality and Social Structure. New York; McGraw Hill Book Company, 64.

Youmans, E.G. (1977). The Rural Aged. Annals of the American Academy of Political and Social Science 429. (January): 81-91.

Youmans, E.G. (1977). Perspectives on the Older American in a Rural Setting. 65-85 in John G. Cull and Richard E. Hardy (eds). The Neglected Older American Springfield Ill. Charles C. Thomas.

Zhamin, V. and Remennikov, B. (1972). USSR Comparative Costs and Efficiency of Full and Part-time Education; in P.H. Coombs and J. Hallak (Eds.): Educational Costs Analysis in Action: Case Studies for Planners, Paris: UNESCO/International Institute of Educational Planning.

Zigerell, J. (1964). Distance Education: An Information Age Approach to Adult Education. (Columbus, Ohio:; National Centre Publiations. National Centre for Research in Vocational Education) 2.

APPENDIX 1

QUESTIONNAIRE ON DISTANCE EDUCATION PROGRAMME IN GHANA FOR NON-GRADUATE TEACHERS

INTRODUCTION:- The government of Ghana has decided to help teachers who cannot go to the conventional universities because of their children, financial problems, marriage and other factors. These teacher will be made to stay at home and pursue diploma and degree courses through DISTANCE EDUCATION.

To help the government plan effectively, you are please requested to respond to the following questionnaire. The information you will provide will be treated as confidential. THANK YOU FOR PARTICIPATING.

SECTION ONE: DEMOGRAPHIC DATA

INTRODUCTION:- Please tick, underline or supply the appropriate response.

1. NAME OF SCHOOL:-.....
.....

2. LEVEL OF SCHOOL:- ☐ **Primary** ☐ **JSS** ☐ **SSS**

3. LOCATION OF SCHOOL:-
   ☐ **Rural** ☐ **Semi-Urban**
   ☐ **Urban** ☐ **City**

4. NAME OF DISTRICT:- .....

5. SEX:- ☐ **Male** ☐ **Female**

6. MARITAL STATUS:- ☐ **Married** ☐ **Single**

7. AGE AT LAST BIRTHDAY:-
   ☐ **Below 20 years** ☐ **40-49 years**
   ☐ **20-29 years** ☐ **50 and above**
   ☐ **30-39 years.**

8. ACADEMIC QUALIFICATION:-
   ☐ **Cert 'A' 4 year.**
   ☐ **Cert 'A' 2-year Post Sec.**
   ☐ **Cert. 'A' 3-year Post Sec.**
   ☐ **Specialist Certificate.**
   ☐ **Diploma Certificate.**

9. TEACHING EXPERIENCE:-
   - ☐ **Less than five years.**
   - ☐ **5-9 years.**
   - ☐ **10-14 years.**
   - ☐ **15-19 years.**
   - ☐ **20-24 years.**
   - ☐ **above 24 years.**

SECTION TWO:- NEEDS OF THE DISTANCE EDUCATION LEARNER

10. ARE YOU INTERESTED IN UNIVERSITY EDUCATION
    ☐ **Yes** ☐ **No**

11. WOULD YOU LIKE TO ACQUIRE DIPLOMA OR DEGREE THROUGH THE DISTANCE EDUCATION PROGRAMME?
    ☐ **Yes** ☐ **No**

12. IF YOU ARE OFFERED THE OPPORTUNITY TO PURSUE DIPLOMA/DEGREE PROGRAMME BY DISTANCE EDUCATION, WOULD YOU ACCEPT THE OFFER?
    ☐ **Yes** ☐ **No**

13. ARE YOU PREPARED TO PAY FOR THE COST OF EDUCATIONAL MATERIALS THAT YOU WILL BE SUPPLIED IN THE PROGRAMME?
    ☐ **Yes** ☐ **No**

14. CAN YOU SPEND ABOUT 15% OF YOUR MONTHLY SALARY ON MATERIALS FOR DISTANCE EDUCATION?
    ☐ **Yes** ☐ **No**

15. WOULD YOU EXPECT SOMEONE ELSE TO BEAR THE COST OF OUR DISTANCE EDUCATION PROGRAMME?
    ☐ **Yes** ☐ **No**

16. CAN YOU EFFECTIVELY COMBINE YOUR TEACHING/OFFICE WORK WITH YOUR DISTANCE EDUCATION STUDY?
    ☐ **Yes** ☐ **No**

17. IS THE POSTAL SYSTEM IN YOUR AREA RELIABLE?
    ☐ **Yes** ☐ **No**

18. DO YOU HAVE ELECTRICITY IN YOUR RESIDENTIAL AREA?
    ☐ **Yes** ☐ **No**

19. ARE YOU A FAST READER?
    ☐ **Yes** ☐ **No**

20. CAN YOU TAKE AT MOST THREE DAYS TO READ A STORY BOOK OF ABOUT 100 PAGES?
☐ Yes ☐ No

21a). DO YOU HAVE ASSESS TO A LIBRARY?
☐ Yes ☐ No

21b). IF NO, HOW FAR ARE YOU FROM THE NEAREST LIBRARY?
☐ Less than 10 km.
☐ 10-20 km.
☐ 20-30 km.
☐ More than 30 km.

22a). APART FROM YOUR SALARY DO YOU HAVE ANY OTHER MAJOR SOURCE(S) OF INCOME TO FINANCE YOUR EDUCATION?
☐ Yes ☐ No

22b). IF YES, WHICH OF THESE? (TICK AS MANY RESPONSES THAT APPLY)
☐ Trading
☐ Trading/Business
☐ Support from relatives or friends
☐ All the above sources
☐ Trading and support from relatives
☐ Others (specify)

23a). IN CASE YOU ARE PURSUING A DISTANCE EDUCATION PROGRAMME, WOULD YOU LIKE TO MEET THE COST?
☐ Yes ☐ No

23b). IF YES, THROUGH WHICH MEANS?:-
☐ Trading
☐ Trading/Business
☐ Support from relatives or friends
☐ All the above sources
☐ Trading and support from relatives
☐ Others (specify)

24a). DO YOU HAVE MUCH TIME AFTER YOUR NORMAL SCHOOL SESSION TO STUDY YOUR DISTANCE EDUCATION?
☐ Yes ☐ No

224b). FOR HOW LONG EACH DAY CAN YOU STUDY YOUR DISTANCE EDUCATION MATERIALS?
☐ Below 2 hours
☐ 2 hours.
☐ 3 hours.
☐ 4 hours.

☐ **6 hours.**
☐ **above 6 hours.**

25a). DO INLAND LETTERS TAKE LONG TO REACH YOU FROM A DISTANCE OF OVER 100KM?
☐ **Yes** ☐ **No**

25b). IF YES, HOW LONG, IF NO HOW LONG?
☐ **3 Days** ☐ **1 Week** ☐ **1½ Weeks**
☐ **2 Weeks** ☐ **Any others**

26a). DO YOU HAVE ASSESS TO ANY ELECTRONIC MEDIA?
☐ **Yes** ☐ **No**

26b). IF YES, WHICH OF THE FOLLOWING:-
☐ **Radio** ☐ **Tape Recorder** ☐ **Television**
☐ **Video Deck** ☐ **All the above (Tick all that you have).**

27a). IS THE DISTANCE BETWEEN YOUR STATION AND YOUR REGIONAL CAPITAL FAR?
☐ **Yes** ☐ **No**

27b). WHAT IS THE DISTANCE BETWEEN YOUR STATION AND YOUR REGIONAL CAPITAL?
☐ **Less than 10 km.**
☐ **21-40 km.**
☐ **60-80 km.**
☐ **Above 80 km.**

SECTION THREE:- TEACHERS PERCEPTION OF DISTANCE EDUCATION

INTRODUCTION:- Please tick only one column in the following categories for each statement.

SA = Strongly Agree **A = Agree**
D = Disagree **SD = Strongly Disagree**

	SA	A	D	SD
28. Distance education is a popular programme in Ghana.				
29. The entry qualification for both the conventional university and the distance education programme should be the same.				
30. Distance Education will help me to achieve my ambition for higher academic laurels.				
31. Pursing a degree/diploma at the university by distance education is really a waste of time and money.				
32. I am interested in the distance education programme.				
33. The duration for a distance education programme should be the same as that of the conventional programme.				
34. Distance education is a good programme.				
35. Distance education will be the last alternative of educational programme I will choose.				
36. The distance education programme will reduce the number of qualified applicants who do not gain admission to the conventional universities each year.				
37. Distance education is better than the conventional education.				
38. Distance education will enable adults to learn in their own time and place while they continue to earn a living.				
39. Distance education is only good for candidates/students who are not academically good.				
40. The distance education programme has the capacity to reach people in isolated areas and to increase access to education.				
41. The products of both distance and conventional education programme should be of the same calibre.				
42. Studying for degrees and diplomas through distance education is inferior, as compared to the conventional mode or campus-based programme.				

SECTION FOUR:- OPINIONS ON DISTANCE EDUCATION

INTRODUCTION:- Please supply the appropriate response.

43. **STATE WHY** YOU THINK THE DISTANCE EDUCATION PROGRAMME IS **IMPORTANT OR NOT**

.....

.....

.....

.....

.....

.....

44. **WHY ARE YOU** INTERESTED OR NOT INTERESTED IN THE DISTANCE **EDUCATION PROGRAMME?**

.....

.....

.....

.....

.....

.....

45. **GIVE YOUR GENERAL IMPRESSION ABOUT THE DISTANCE EDUCATION PROGRAMME**

.....

.....

.....

.....

APPENDIX 2

UNIVERSITY OF CAPE COAST
CAPE COAST, GHANA
FACULTY OF EDUCATION
DEPARTMENT OF EDUCATIONAL FOUNDATIONS

TELEPHONE 32440-9 & 32480-9
Head Ext. 286
TELEX 2552, UCC, GH.

Cables & Telegrams: UNIVERSITY , CAPE (

Our Ref.: DE. 71.

Your Ref.:

LETTER OF INTRODUCTION

Mrs Josephine Sam-Tagoe the bearer of this note is an M.Phil.II student University.

As part of her degree requirements, she is expected to work on a project entitled:

"TEACHERS' PERCEPTION AND NEEDS OF THE DISTANCE EDUCATION PROGRAMME IN GHANA".

She has opted to make a study of your institution/establishment for the project.

I should be most grateful if you could afford her opportunity to make the study.

Any information provided will be treated as strictly confidential.

(DR. J.K. ESSUMAN)
AG. HEAD.

APPENDIX 3
SCORING FORMAT FOR TEACHERS PERCEPTION ON DISTANCE EDUCATIO

ITEMS	SCORING	ITEMS	SCORING	ITEMS	SCORING
28:	4-3-2-1	33:	4-3-2-1	38:	4-3-2-1
29:	4-3-2-1	34:	4-3-2-1	39:	1-2-3-4
30:	4-3-2-1	35:	1-2-3-4	40:	4-3-2-1
31:	1-2-3-4	36:	4-3-2-1	41:	4-3-2-1
32:	4-3-2-1	37:	4-3-2-1	42:	1-2-3-4

APPENDIX 4
COMPUTATION OF PERCEPTION AND GENDER RESPONSES

GENDER	R E S P O N S E S				TOTAL
	SD	D	A	SA	
FEMALE	729	717	837	957	3240
MALE	735	757	913	955	3360
TOTAL	1464	1474	1750	1912	6600

fo	fe	fo-fe	$(fo-fe)^2/fe$
729	719	10	0.139
735	745	-10	0.134
717	724	-7	0.068
757	750	7	0.065
837	859	-22	0.563
913	891	22	0.543
957	939	18	0.345
955	973	-18	0.333
			$\Sigma = 2.19$

X^2 cal = 2.19. Table value of X^2, at $\propto = 0.05$ and df = 3 is 7.8

APPENDIX 5

COMPUTATION OF PERCEPTION AND TEACHING EXPERIENCE RESPONSE

TEACHING EXPERIENCE	R E S P O N S E S				TOTAL
	SD	D	A	SA	
LESS THAN TEN YEARS	694	671	775	890	3030
TEN OR MORE YEARS	770	803	975	1022	3570
TOTAL	1464	1474	1750	1912	6600

fo	fe	fo-fe	$(fo-e)^2/fe$
694	672	22	0.720
770	792	-22	0.611
671	677	-6	0.053
803	797	6	0.045
775	803	-28	0.976
975	947	28	.828
890	878	12	0.164
1022	1034	-12	0.139
			$\Sigma = 3.54$

X^2 cal = 3.54. Table value of X^2, at $\alpha = 0.05$ and df = 3 is 7.8.

APPENDIX 6

COMPUTATION OF PERCEPTION AND LOCATION RESPONSES

LOCATION	RESPONSES				TOTAL
	SD	D	A	SA	
RURAL	725	749	927	870	3271
URBAN	739	725	823	1042	3329
TOTAL	1464	1474	1750	1912	6600

fo	fe	fo-fe	$(fo-fe)^2/fe$
725	726	-1	0 001
739	738	1	0 001
749	731	18	0 443
725	743	-18	0 436
927	867	60	4 152
823	883	-60	4 077
870	948	-78	6 418
1042	964	78	6 311
			Σ = 21 839

X^2 cal = 21.839. Table value of X^2 at α = 0 05 and df = 3 is 7 8

APPENDIX 7

COMPUTATION OF PERCEPTION AND MARITAL STATUS RESPONSES

MARITAL STATUS	R E S P O N S E S				TOTAL
	SD	D	A	SA	
SINGLE	655	723	831	866	3075
MARRIED	809	751	919	1046	3525
TOTAL	1464	1474	1750	1912	6600

fo	fe	fo-fe	$(fo-fe)^2/fe$
655	682	-27	1.069
809	782	27	0.932
723	687	36	1.886
751	787	-36	1.646
831	815	16	0.314
919	935	-16	0.273
866	891	-25	0.701
1046	1021	25	0.612
			$\Sigma = 7.433$

X^2 cal = 7.433. Table value of X^2, at $\alpha = 0.05$ and df = 3 is 7.8.

APPENDIX 8

COMPUTATION OF NEEDS AND GENDER RESPONSES

GENDER	R E S P O N S E S		
	NO	YES	TOTAL
FEMALE	1040	2848	3888
MALE	1062	2970	4032
TOTAL	2102	5818	7920

fo	fe	fo-fe	$(fo-fe)^2/fe$
1040	1032	8	0.062
1062	1070	-8	0.060
2848	2856	-8	0.022
2970	2962	8	0.022
			$\Sigma = 0.166$

X^2 cal = 0.166. Table value of X^2, at $\propto = 0.05$ and df = 1 is 3.8.

APPENDIX 10

COMPUTATION OF NEEDS AND LOCATION RESPONSES

LOCATION	R E S P O N S E S		
	NO	YES	TOTAL
RURAL	1160	2764	3924
URBAN	942	3054	3996
TOTAL	2102	5818	7920

fo	fe	fo-fe	$(fo-fe)^2/fe$
1160	1041	119	13.6
942	1061	-119	13.3
2764	2883	-119	4.9
3054	2935	119	4.8
			$\Sigma = 36.6$

X^2 cal = 36.6. Table value of X^2, at $\propto$ = 0.0 and df = 1 is 3.8.

APPENDIX 11

COMPUTATION OF NEEDS AND MARITAL STATUS RESPONSES

MARITAL STATUS	R E S P O N S E S		TOTAL
	NO	YES	
SINGLE	988	2702	3690
MARRIED	1114	3116	4230
TOTAL	2102	5818	7920

fo	fe	fo-fe	$(fo-fe)^2/fe$
988	979	9	0.083
1114	1123	-9	0.072
2702	2711	-9	0.030
3116	3107	9	0.026
			$\Sigma = 0.211$

X^2 cal = 0.211. Table value of X^2, at α= 0.05 and df = 1 is 3.8.

APPENDIX 12

FREQUENCIES, PERCENTAGES AND CHI-SQUARE ANALYSIS OF TEACHERS NEEDS ON DISTANCE EDUCATION

NO.	DESCRIPTION OF ITEM	CATEGORY	RESPONSES		TOTAL	X^2 VALUE	PROBABILITY VALUE (SIGNIFICANCE)	DECISION
			NO	YES				
10	Are you interested in University Education ?	SINGLE	6 (2.9)	199 (97.1)	205 (46.6)			
		MARRIED	6 (2.6)	229 (97.4)	235 (53.4)	05762	81030	**
			12 (2.7)	428 (97.3)	440 (100.0)			
		RURAL	8 (3.7)	210 (96.3)	218 (49.5)			
		URBAN	4 (1.8)	218 (98.2)	222 (50.5)	1.44662	22907	**
			12 (2.7)	428 (97.3)	440 (100.0)			
		LESS THAN TEN YEARS	5 (2.5)	197 (97.5)	202 (45.9)			
		TEN OR MORE YEARS	7 (2.9)	231 (97.1)	238 (54.1)	08941	76493	**
			12 (2.7)	428 (97.3)	440 (100.0)			
		FEMALE	5 (2.3)	211 (97.7)	216 (49.1)			
		MALE	7 (3.1)	217 (96.9)	224 (50.9)	27208	60194	**
			12 (2.7)	428 (97.3)	440 (100.0)			
11	Would you like to acquire diploma or degree through the distance education programme ?	SINGLE	12 (5.9)	193 (94.1)	205 (46.6)			
		MARRIED	19 (8.1)	216 (91.9)	235 (53.4)	83246	36156	**
		-	31 (7.0)	409 (93.0)	440 (100.0)			
		RURAL	8 (3.7)	210 (96.3)	218 (49.5)			
		URBAN	23 (10.4)	199 (89.6)	222 (50.5)	7.51817	00611	*
			31 (7.0)	409 (93.0)	440 (100.0)			
		LESS THAN TEN YEARS	12 (5.9)	190 (94.1)	202 (45.9)			
		TEN OR MORE YEARS	19 (8.0)	219 (92.0)	238 (54.1)	69609	40410	**
			31 (7.0)	409 (93.0)	440 (100.0)			
		FEMALE	15 (6.9)	201 (93.1)	216 (49.1)			
		MALE	16 (7.1)	208 (92.9)	224 (50.9)	00661	93520	**
			31 (7.0)	409 (93.0)	440 (100.0)			

KEY: ALPHA LEVEL (α) = 0.05 DEGREE OF FREEDOM = 1 SIGNIFICANT DIFFERENCE = *

NO SIGNIFICANT DIFFERENCE = **

[illegible] 12 (CONT'D)

NO.	DESCRIPTION OF ITEM	CATEGORY	RESPONSES		TOTAL	X^2 VALUE	PROBABILITY VALUE (SIGNIFICANCE)	DECISION
			NO	YES				
12	If you are offered the opportunity to pursue diploma/degree programme by distance education, would you accept the offer?	SINGLE	5 (2.4)	200 (97.6)	205 (46.6)			
		MARRIED	14 (6.0)	221 (94.0)	235 (53.4)	3.28046	.07011	**
			19 (4.3)	421 (95.7)	440 (100.0)			
		RURAL	9 (4.1)	209 (95.9)	218 (49.5)			
		URBAN	10 (4.5)	212 (95.5)	222 (50.5)	.03765	.84615	**
			19 (4.3)	421 (95.7)	440 (100.0)			
		LESS THAN TEN YEARS	6 (3.0)	196 (97.0)	202 (45.9)			
		TEN OR MORE YEARS	13 (5.5)	225 (94.5)	238 (54.1)	1.64211	.20004	**
			19 (4.3)	421 (95.7)	440 (100.0)			
		FEMALE	9 (4.2)	207 95.8)	216 (49.1)			
		MALE	10 (4.5)	214 (95.5)	224 (50.9)	.02357	.87797	**
			19 (4.3)	421 (95.7)	440 (100.0)			
13.	Are you prepared to pay for the cost of educational materials that you will be supplied in the programme?	SINGLE	38 (18.5)	167 (81.5)	205 (46.6)			
		MARRIED	42 (17.9)	193 (82.1)	235 (53.4)	.03247	.85699	**
			80 (18.2)	360 (81.8)	440 (100.0)			
		RURAL	47 (21.6)	171 (78.4)	218 (49.5)			
		URBAN	33 (14.9)	189 (85.1)	222 (50.5)	3.31391	.06870	**
			80 (18.2)	360 (81.8)	440 (100.0)			
		LESS THAN TEN YEARS	38 (18.8)	164 (81.2)	202 (45.9)			
		TEN OR MORE YEARS	42 (17.6)	196 (82.4)	238 (54.1)	.09966	.75224	**
			80 (18.2)	360 (81.8)	440 (100.0)			
		FEMALE	42 (19.4)	174 (80.6)	216 (49.1)			
		MALE	38 (17.0)	186 (83.0)	224 (50.9)	.45470	.50011	**
			80 (18.2)	360 (81.8)	440 (100.0)			

KEY: ALPHA LEVEL (α) = 0.05 DEGREE OF FREEDOM =1 SIGNIFICANT DIFFERENCE = *

NO SIGNIFICANT DIFFERENCE = **

APPENDIX 12 (CONT'D)

NO.	DESCRIPTION OF ITEM	CATEGORY	RESPONSES		TOTAL	X^2 VALUE	PROBABILITY VALUE (SIGNIFICANCE)	DECISION
			NO	YES				
14	Can you spend about 15% of your monthly salary on materials for distance education?	SINGLE	51 (24.9)	154 (75.1)	205 (46.6)			
		MARRIED	73 (31.1)	162 (68.9)	235 (53.4)	2.06993	.15023	**
			124 (28.2)	316 (71.8)	440 (100.0)			
		RURAL	58 (26.6)	160 (73.4)	218 (49.5)			
		URBAN	66 (29.7)	156 (70.3)	222 (50.5)	.53044	.46642	**
			124 (28.2)	316 (71.8)	440 (100.0)			
		LESS THAN TEN YEARS	50 (24.8)	152 (75.2)	202 (45.9)			
		TEN OR MORE YEARS	74 (31.1)	164 (68.9)	238 (54.1)	2.16993	.14073	**
			124 (28.2)	316 (71.8)	440 (100.0)			
		FEMALE	67 (31.0)	149 (69.0)	216 (49.1)			
		MALE	57 (25.4)	167 (74.6)	224 (50.9)	1.68687	.19401	**
			124 (28.2)	316 (71.8)	440 (100.0)			
15.	Would you expect someone else to bear the cost of your distance education programme ?	SINGLE	65 (31.7)	140 (68.3)	205 (46.6)			
		MARRIED	95 (40.4)	140 (59.6)	235 (53.4)	3.59626	.05791	**
			160 (36.4)	280 (63.6)	440 (100.0)			
		RURAL	79 (36.2)	139 (63.8)	218 (49.5)			
		URBAN	81 (36.5)	141 (63.5)	222 (50.5)	.00292	.95689	**
			160 (36.4)	280 (63.6)	440 (100.0)			
		LESS THAN TEN YEARS	60 (29.7)	142 (70.3)	202 (45.9)			
		TEN OR MORE YEARS	100 (42.0)	138 (58.0)	2[illegible] (54.1)	7.15962	.00746	*
			160 (36.4)	280 (63.6)	440 (100.0)			
		FEMALE	76 (35.2)	140 (64.8)	216 (49.1)			
		MALE	84 (37.5)	140 (62.5)	224 (50.9)	.25463	.61383	**
			160 (36.4)	280 (63.6)	440 (100.0)			

KEY: A LPHA LEVEL (α) = 0.05 DEGREE OF FREEDOM = 1 SIGNIFICANT DIFFERENCE = *

NO SIGNIFICANT DIFFERENCE = **

APPENDIX 12 (CONT'D)

NO.	DESCRIPTION OF ITEM	CATEGORY	RESPONSES		TOTAL	X^2 VALUE	PROBABILITY VALUE (SIGNIFICANCE)	DECISION
			NO	YES				
16	Can you effectively combine your teaching/office work with your your distance education study?	SINGLE	18 (8.8)	187 (91.2)	205 (46.6)			
		MARRIED	17 (7.2)	218 (92.8)	235 (53.4)	35762	54983	**
			35 (8.0)	405 (92.0)	440 (100.0)			
		RURAL	16 (7.3)	202 (92.7)	218 (49.5)			
		URBAN	19 (8.6)	203 (91.4)	222 (50.5)	22327	63656	**
			35 (8.0)	405 (92.0)	440 (100.0)			
		LESS THAN TEN YEARS	15 (7.4)	187 (92.6)	202 (45.9)			
		TEN OR MORE YEARS	20 (8.4)	218 (91.6)	238 (54.1)	14263	70568	**
			35 (8.0)	405 (92.0)	440 (100.0)			
		FEMALE	19 (8.8)	197 (91.2)	216 (49.1)			
		MALE	16 (7.1)	208 (92.9)	224 (50.9)	41059	52167	**
			35 (8.0)	405 (92.0)	440 (100.0)			
17	Is the postal system in your area reliable?	SINGLE	65 (31.7)	140 (68.3)	205 (46.6)			
		MARRIED	52 (221.1)	183 (77.9)	235 (53.4)	5.14738	02328	*
			117 (26.6)	323 (73.4)	440 (100.0)			
		RURAL	94 (43.1)	124 (56.9)	218 (49.5)			
		URBAN	23 (10.4)	199 (89.6)	222 (50.5)	60.46896	00000	*
			117 (26.6)	323 (73.4)	440 (100.0)			
		LESS THAN TEN YEARS	59 (29.2)	143 (70.8)	202 (45.9)			
		TEN OR MORE YEARS	58 (24.4)	180 (75.6)	238 (54.1)	1.31025	25215	**
			117 (26.6)	323 (73.4)	440 (100.0)			
		FEMALE	52 (24.1)	164 (75.9)	216 (49.1)			
		MALE	65 (29.0)	159 (71.0)	224 (50.9)	1.37684	24064	**
			117 (26.6)	323 (73.4)	440 (100.0)			

KEY: ALPHA LEVEL (α) = 0.05 DEGREE OF FREEDOM = 1 SIGNIFICANT DIFFERENCE = *

NO SIGNIFICANT DIFFERENCE = **

APPENDIX 12 (CONT'D)

NO.	DESCRIPTION OF ITEM	CATEGORY	RESPONSES		TOTAL	X^2 VALUE	PROBABILITY VALUE (SIGNIFICANCE)	DECISION
			NO	YES				
18.	Do you have electricity in your residential area?	SINGLE	62 (30.2)	143 (69.3)	205 (46.6)			
		MARRIED	58 (24.7)	177 (75.3)	235 (53.4)	1.70832	.19120	**
			120 (27.3)	320 (72.7)	440 (100.0)			
		RURAL	114 (52.3)	104 (47.7)	218 (49.5)			
		URBAN	6 (2.7)	216 (97.3)	222 (50.5)	136.37491	.00000	*
			120 (27.3)	320 (72.7)	440 (100.0)			
		LESS THAN TEN YEARS	63 (31.2)	139 (68.8)	202 (45.9)			
		TEN OR MORE YEARS	57 (23.9)	181 (76.1)	238 (54.1)	2.88637	.08933	**
			120 (27.3)	320 (72.7)	440 (100.0)			
		FEMALE	46 (21.3)	170 (78.7)	216 (49.1)			
		MALE	74 (33.0)	150 (67.0)	224 (50.9)	7.64040	.00571	*
			120 (27.3)	320 (72.7)	440 (100.0)			
19.	Are you a fast reader?	SINGLE	27 (13.2)	178 (86.8)	205 (46.6)			
		MARRIED	46 (19.6)	189 (80.4)	235 (53.4)	3.24453	.07166	**
			73 (16.6)	367 (83.4)	440 (100.0)			
		RURAL	39 (17.9)	179 (82.1)	218 (49.5)			
		URBAN	34 (15.3)	188 (84.7)	222 (50.5)	.52685	.46793	**
			73 (16.6)	367 (83.4)	440 (100.0)			
		LESS THAN TEN YEARS	33 (16.3)	169 (83.7)	202 (45.9)			
		TEN OR MORE YEARS	40 (16.8)	198 (83.2)	238 (54.1)	.01745	.89491	**
			73 (16.6)	367 (83.4)	440 (100.0)			
		FEMALE	34 (15.7)	182 (84.3)	216 (49.1)			
		MALE	39 (17.4)	185 (82.6)	224 (50.9)	.22161	.63782	**
			73 (16.6)	367 (83.4)	440 (100.0)			

KEY: ALPHA LEVEL (α) = 0.05 DEGREE OF FREEDOM = 1 SIGNIFICANT DIFFERENCE = *

NO SIGNIFICANT DIFFERENCE = **

[illegible] (CONT'D)

	[illegible] OF [illegible]	CATEGORY	RESPONSES		TOTAL	X^2 VALUE	PROBABILITY VALUE (SIGNIFICANCE)	DECISION
			NO	YES				
8b	Can you take at most three days to read a story book of about 100 pages?	SINGLE	22 (10.7)	183 (89.3)	205 (46.6)			
		MARRIED	37 (15.7)	198 (84.3)	235 (53.4)	2.36967	12371	**
			59 (13.4)	381 (86.6)	440 (100.0)			
		RURAL	28 (12.8)	190 (87.2)	218 (49.5)			
		URBAN	31 (14.0)	191 (86.0)	222 (50.5)	11881	73032	**
			59 (13.4)	381 (86.6)	440 (100.0)			
		LESS THAN TEN YEARS	23 (11.4)	179 (88.6)	202 (45.9)			
		TEN OR MORE YEARS	36 (15.1)	202 (84.9)	238 (54.1)	1.31621	.25127	**
			59 (13.4)	381 (86.6)	440 (100.0)			
		FEMALE	29 (13.4)	187 (86.6)	216 (49.1)			
		MALE	30 (13.4)	194 (86.6)	224 (50.9)	00010	99188	**
			59 (13.4)	381 (86.6)	440 (100.0)			
2ta	Do you have access to a library?	SINGLE	116 (56.6)	89 (43.4)	205 (46.6)			
		MARRIED	120 (51.1)	115 (48.9)	235 (53.4)	1.34231	.24663	**
			236 (53.6)	204 (46.4)	440 (100.0)			
		RURAL	186 (85.3)	32 (14.7)	218 (49.5)			
		URBAN	50 (22.5)	172 (77.5)	222 (50.5)	174.42936	.00000	*
			236 (53.6)	204 (46.4)	440 (100.0)			
		LESS THAN TEN YEARS	119 (58.9)	83 (41.1)	202 (45.9)			
		TEN OR MORE YEARS	117 (49.2)	121 (50.8)	238 (54.1)	4.17789	.04095	*
			236 (53.6)	204 (46.4)	440 (100.0)			
		FEMALE	110 (50.9)	106 (49.1)	216 (49.1)			
		MALE	126 (56.3)	98 (43.8)	224 (50.9)	1.25343	.26290	**
			236 (53.6)	204 (46.4)	440 (100.0)			

KEY: ALPHA LEVEL (α) = 0.05 DEGREE OF FREEDOM = 1 SIGNIFICANT DIFFERENCE = *

NO SIGNIFICANT DIFFERENCE = **

(CONT'D)

		CATEGORY	RESPONSES		TOTAL	X^2 VALUE	PROBABILITY VALUE (SIGNIFICANCE)	DECISION
			NO	YES				
2b.	Apart from your salary do you have any other major source(s) of income to finance your education?	SINGLE	163 (79.5)	42 (20.5)	205 (46.6)			
		MARRIED	170 (72.3)	65 (27.7)	235 (53.4)	3.05984	.08025	**
			333 (75.7)	107 (24.3)	440 (100.0)			
		RURAL	165 (75.7)	53 (24.3)	218 (49.5)			
		URBAN	168 (75.7)	54 (24.3)	222 (50.5)	.00001	.99758	**
			333 (75.7)	107 (24.3)	440 (100.0)			
		LESS THAN TEN YEARS	160 (79.2)	42 (20.8)	202 (45.9)			
		TEN OR MORE YEARS	173 (72.7)	65 (27.3)	238 (54.1)	2.52287	.11221	**
			333 (75.7)	107 (24.3)	440 (100.0)			
		FEMALE	169 (78.2)	47 (21.8)	216 (49.1)			
		MALE	164 (73.2)	60 (26.8)	224 (50.9)	1.50956	.21921	**
			333 (75.7)	107 (24.3)	440 (100.0)			
2b.	In case you are pursuing a distance education programme would you like to meet the cost?	SINGLE	71 (34.6)	134 (65.4)	205 (46.6)			
		MARRIED	55 (23.4)	180 (76.6)	235 (53.4)	6.75655	.00934	*
			126 (28.6)	314 (71.4)	440 (100.0)			
		RURAL	78 (35.8)	140 (64.2)	218 (49.5)			
		URBAN	48 (21.6)	174 (78.4)	222 (50.5)	10.78891	.00102	*
			126 (28.6)	314 (71.4)	440 (100.0)			
		LESS THAN TEN YEARS	60 (29.7)	142 (70.3)	202 (45.9)			
		TEN OR MORE YEARS	66 (27.7)	172 (72.3)	238 (54.1)	.20789	.64842	**
			126 (28.6)	314 (71.4)	440 (100.0)			
		FEMALE	65 (30.1)	151 (69.9)	216 (49.1)			
		MALE	61 (27.2)	163 (72.8)	224 (50.9)	.44027	.50699	**
			126 (28.6)	314 (71.4)	440 (100.0)			

KEY: ALPHA LEVEL (α) = 0.05 DEGREE OF FREEDOM = 1 SIGNIFICANT DIFFERENCE = *

NO SIGNIFICANT DIFFERENCE = **

(CONT'D)

	DESCRIPTION OF ITEM	CATEGORY	RESPONSES		TOTAL	X^2 VALUE	PROBABILITY VALUE (SIGNIFICANCE)	DECISION
			NO	YES				
	Do you have much time after your normal school session to study your distance education materials?	SINGLE	21 (10.2)	184 (89.8)	205 (46.6)			
		MARRIED	29 (12.3)	206 (87.7)	235 (53.4)	.47779	48942	**
			50 (11.4)	390 (88.6)	440 (100.0)			
		RURAL	25 (11.5)	193 (88.5)	218 (49.5)			
		URBAN	25 (11.3)	197 (88.7)	222 (50.5)	.00466	94556	**
			50 (11.4)	390 (88.6)	440 (100.0)			
		LESS THAN TEN YEARS	21 (10.4)	181 (89.6)	202 (45.9)			
		TEN OR MORE YEARS	29 (12.2)	209 (87.8)	238 (54.1)	.34713	55574	**
			50 (11.4)	390 (88.6)	440 (100.0)			
		FEMALE	26 (12.0)	190 (88.0)	216 (49.1)			
		MALE	24 (10.7)	200 (89.3)	224 (50.9)	.19102	66207	**
			50 (11.4)	390 (88.6)	440 (100.0)			
25a.	Do inland letters take long to reach you from a distance of over 100km?	SINGLE	105 (51.2)	100 (48.8)	205 (46.6)			
		MARRIED	122 (51.9)	113 (48.1)	235 (53.4)	.02120	88424	**
			227 (51.6)	213 (48.4)	440 (100.0			
		RURAL	78 (35.8)	140 (64.2)	218 (49.5)			
		URBAN	149 (67.1)	73 (32.9)	222 (50.5)	43.24938	00000	*
			227 (51.6)	213 (48.4)	440 (100.0			
		LESS THAN TEN YEARS	100 (49.5)	102 (50.5)	202 (45.9)			
		TEN OR MORE YEARS	127 (53.4)	111 (46.6)	238 (54.1)	.65064	41989	**
			227 (51.6)	213 (48.4)	440 (100.0			
		FEMALE	122 (56.5)	94 (43.5)	216 (49.1)			
		MALE	105 (46.9)	119 (53.1)	224 (50.9)	.06329	04383	*
			227 (51.6)	213 (48.4)	440 (100.0			

KEY: ALPHA LEVEL (α) = 0.05 DEGREE OF FREEDOM = 1 SIGNIFICANT DIFFERENCE = *

NO SIGNIFICANT DIFFERENCE = **

12 (CONT'D)

	DESCRIPTION OF	CATEGORY	RESPONSES		TOTAL	X^2 VALUE	PROBABILITY VALUE SIGNIFICANCE	DECISION
			NO	YES				
	Do you have access to any electronic media?	SINGLE	11 (5.4)	194 (94.6)	205 (46.6)			
		MARRIED	15 (6.4)	220 (93.6)	235 (53.4)	.20373	.65173	**
			26 (5.9)	414 (94.1)	440 (100.0)			
		RURAL	19 (8.7)	199 (91.3)	218 (49.5)			
		URBAN	7 (3.2)	215 (96.8)	222 (50.5)	6.12096	.01336	*
			26 (5.9)	414 (94.1)	440 (100.0)			
		LESS THAN TEN YEARS	12 (5.9)	190 (94.1)	202 (45.9)			
		TEN OR MORE YEARS	14 (5.9)	224 (94.1)	238 (54.1)	.00067	.97940	**
			26 (5.9)	414 (94.1)	440 (100.0)			
		FEMALE	10 (4.6)	206 (95.4)	216 (49.1)			
		MALE	16 (7.1)	208 (92.9)	224 (50.9)	1.24924	.26370	**
			26 (5.9)	414 (94.1)	440 (100.0)			
27a.	Is the distance between your station and your regional capital far?	SINGLE	130 (63.4)	75 (36.6)	205 (46.6)			
		MARRIED	144 (61.3)	91 (38.7)	235 (53.4)	.21303	.64440	**
			274 (62.3)	166 (37.7)	440 (100.0)			
		RURAL	109 (50.0)	109 (50.0)	218 (49.5)			
		URBAN	165 (74.3)	57 (25.7)	222 (50.5)	27.70034	.00000	*
			274 (62.3)	166 (37.7)	440 (100.0)			
		LESS THAN TEN YEARS	116 (57.4)	86 (42.6)	202 (45.9)			
		TEN OR MORE YEARS	158 (66.4)	80 (33.6)	238 (54.1)	3.73437	.05330	**
			274 (62.3)	166 (37.7)	440 (100.0)			
		FEMALE	144 (66.7)	72 (33.3)	216 (49.1)			
		MALE	130 (58.0)	94 (42.0)	224 (50.9)	3.48669	.06186	**
			274 (62.3)	166 (37.7)	440 (100.0)			

KEY: ALPHA LEVEL (α) = 0.05 DEGREE OF FREEDOM = 1 SIGNIFICANT DIFFERENCE = *

NO SIGNIFICANT DIFFERENCE = **

APPENDIX 13

FREQUENCIES, PERCENTAGES AND CHI-SQUARE ANALYSIS OF TEACHERS PERCEPTION ON DISTANCE EDUCATION

NO.	DESCRIPTION OF ITEM	CATEGORY	RESPONSES				TOTAL	X^2 VALUE	PROBABILITY VALUE (SIGNIFICANCE)	DECISION
			SD	D	A	SA				
28	Distance Education is a popular programme in Ghana.	SINGLE	74 (36.1)	102 (49.8)	21 (10.2)	8 (3.9)	205 (46.6)			
		MARRIED	67 (28.5)	121 (51.5)	36 (15.3)	11 (4.7)	235 (53.4)	5.55072	.23531	**
			141 (32.0)	223 (50.7)	57 (13.0)	19 (4.3)	440 (100.0)			
		RURAL	85 (39.0)	102 (46.8)	25 (11.5)	7 (3.2)	218 (49.5)			
		URBAN	56 (25.2)	121 (54.5)	32 (14.4)	12 (5.4)	222 (50.5)	10.90632	.02764	*
			141 (32.0)	223 (50.7)	57 (13.0)	19 (4.3)	440 (100.0)			
		LESS THAN TEN YEARS	71 (35.1)	108 (53.5)	15 (7.4)	8 (4.0)	202 (45.9)			
		TEN OR MORE YEARS	70 (29.4)	115 (48.3)	42 (17.6)	11 (4.6)	238 (54.1)	11.56437	.02090	*
			141 (32.0)	223 (50.7)	57 (13.0)	19 (4.3)	440 (100.0)			
		FEMALE	69 (31.9)	112 (51.9)	27 (12.5)	8 (3.7)	216 (49.1)			
		MALE	72 (32.1)	111 (49.6)	30 (13.4)	11 (4.9)	224 (50.9)	1.55047	.81767	**
			141 (32.0)	223 (50.7)	57 (13.0)	19 (4.3)	440 (100.0)			
29	The entry qualification for both the conventional university and the Distance Education Programme should be the same.	SINGLE	43 (21.0)	71 (34.6)	59 (28.8)	32 (15.6)	205 (46.6)			
		MARRIED	46 (19.6)	77 (32.8)	71 (30.2)	41 (17.4)	235 (53.4)	.51860	.91479	**
			89 (20.2)	148 (33.6)	130 (29.5)	73 (16.6)	440 (100.0)			
		RURAL	47 (21.6)	83 (38.1)	56 (25.7)	32 (14.7)	218 (49.5)			
		URBAN	42 (18.9)	65 (29.3)	74 (33.3)	41 (18.5)	222 (50.5)	6.03612	.10987	**
			89 (20.2)	148 (33.6)	130 (29.5)	73 (16.6)	440 (100.0)			
		LESS THAN TEN YEARS	43 (21.3)	68 (33.7)	60 (29.7)	31 (15.3)	202 (45.9)			
		TEN OR MORE YEARS	46 (19.3)	80 (33.6)	70 (29.4)	42 (17.6)	238 (54.1)	.55915	.90572	**
			89 (20.2)	148 (33.6)	130 (29.5)	73 (16.6)	440 (100.0)			
		FEMALE	52 (24.1)	59 (27.3)	73 (33.8)	32 (14.8)	216 (49.1)			
		MALE	37 (16.5)	89 (39.7)	57 (25.5)	41 (18.3)	224 (50.9)	11.54635	.00911	*
			89 (20.2)	148 (33.6)	130 (29.5)	73 (16.6)	440 (100.0)			

KEY: ALPHA LEVEL (α) = 0.05 DEGREE OF FREEDOM = 3 SIGNIFICANT DIFFERENCE = *

NO SIGNIFICANT DIFFERENCE = **

TABLE 13 (CONT'D)

ITEM	DESCRIPTION OF ITEM	CATEGORY	RESPONSES				TOTAL	X^2 VALUE	PROBABILITY VALUE (SIGNIFICANCE)	DECISION
			SD	D	A	SA				
30	Distance Education will help me to achieve my ambition for higher academic laurels.	SINGLE	1 (.5)	6 (2.9)	71 (34.6)	127 (62.0)	205 (46.6)			
		MARRIED	2 (.9)	6 (2.6)	72 (30.6)	155 (66.0)	235 (53.4)	1.08003	78190	**
			3 (.7)	12 (2.7)	143 (32.5)	282 (64.1)	440 (100.0)			
		RURAL	1 (.5)	6 (2.8)	83 (38.1)	128 (58.7)	218 (49.5)			
		URBAN	2 (.9)	6 (2.7)	60 (27.0)	154 (69.4)	222 (50.5)	6.39396	09394	*
			3 (.7)	12 (2.7)	143 (32.5)	282 (64.1)	440 (100.0)			
		LESS THAN TEN YEARS	1 (.5)	5 (2.5)	69 (34.2)	127 (62.9)	202 (45.9)			
		TEN OR MORE YEARS	2 (.8)	7 (2.9)	74 (31.1)	155 (65.1)	238 (54.1)	.68704	87773	**
			3 (.7)	12 (2.7)	143 (32.5)	282 (64.1)	440 (100.0)			
		FEMALE	2 (.9)	9 (4.2)	64 (29.6)	141 (65.3)	216 (49.1)			
		MALE	1 (.5)	3 (1.3)	79 (35.3)	141 (62.9)	224 (50.9)	1.57271	66559	**
			3 (.7)	12 (2.7)	143 (32.5)	282 (64.1)	440 (100.0)			
31	Pursuing a degree/diploma at the university by distance education is really a waste of time and money.	SINGLE	124 (60.5)	72 (35.1)	6 (2.9)	3 (1.5)	205 (46.6)			
		MARRIED	162 (68.9)	64 (27.2)	4 (1.7)	5 (2.1)	235 (53.4)	4.39451	22189	**
			286 (65.0)	136 (30.9)	10 (2.3)	8 (1.8)	440 (100.0)			
		RURAL	135 (61.9)	75 (34.4)	5 (2.3)	3 (1.4)	218 (49.5)			
		URBAN	151 (68.0)	61 (27.5)	5 (2.3)	5 (2.3)	222 (50.5)	2.80015	42348	**
			286 (65.0)	136 (30.9)	10 (2.3)	8 (1.8)	440 (100.0)			
		LESS THAN TEN YEARS	127 (62.9)	64 (31.7)	7 (3.5)	4 (2.0)	202 (45.9)			
		TEN OR MORE YEARS	159 (66.8)	72 (30.3)	3 (1.3)	4 (1.7)	238 (54.1)	2.72379	43620	**
			286 (65.0)	136 (30.9)	10 (2.3)	8 (1.8)	440 (100.0)			
		FEMALE	143 (66.2)	66 (30.5)	3 (1.4)	4 (1.9)	216 (49.1)			
		MALE	143 (63.8)	70 (31.3)	7 (3.1)	4 (1.8)	224 (50.9)	1.57271	66559	**
			286 (65.0)	136 (30.9)	10 (2.3)	8 (1.8)	440 (100.0)			

KEY: ALPHA LEVEL (α) = 0.05 DEGREE OF FREEDOM = 3 SIGNIFICANT DIFFERENCE = *

NO SIGNIFICANT DIFFERENCE = **

(CONT'D)

		CATEGORY	RESPONSES				TOTAL	X^2 VALUE	PROBABILITY VALUE (SIGNIFICANCE)	DECISION
			SD	D	A	SA				
	[illegible] interested in the distance education programme.	SINGLE	3 (1.5)	6 (2.9)	88 (42.9)	108 (52.7)	205 (46.6)			
		MARRIED	8 (3.4)	6 (2.6)	90 (38.3)	131 (55.7)	235 (53.4)	2.47464	.47989	**
			11 (2.5)	12 (2.7)	178 (40.5)	239 (54.3)	440 (100.0)			
		RURAL	8 (3.7)	4 (1.8)	100 (45.9)	106 (48.6)	218 (49.5)			
		URBAN	3 (1.4)	8 (3.6)	78 (35.1)	133 (59.9)	222 (50.5)	9.33978	.02510	*
			11 (2.5)	12 (2.7)	178 (40.5)	239 (54.3)	440 (100.0)			
		LESS THAN TEN YEARS	5 (2.5)	6 (3.0)	84 (41.6)	107 (53.0)	202 (45.9)			
		TEN OR MORE YEARS	6 (2.5)	6 (2.5)	94 (39.5)	132 (55.5)	238 (54.1)	.32449	.95536	**
			11 (2.5)	12 (2.7)	178 (40.5)	239 (54.3)	440 (100.0)			
		FEMALE	7 (3.2)	6 (2.8)	91 (42.1)	112 (51.9)	216 (49.1)			
		MALE	4 (1.8)	6 (2.7)	87 (38.8)	127 (56.7)	224 (50.9)	1.70460	.63591	**
			11 (2.5)	12 (2.7)	178 (40.5)	239 (54.3)	440 (100.0)			
13	The duration for a distance education programme should be the same as that of the conventional programme.	SINGLE	36 (17.6)	104 (50.7)	42 (20.5)	23 (11.2)	205 (46.6)			
		MARRIED	47 (20.0)	95 (40.4)	67 (28.5)	26 (11.1)	235 (53.4)	5.76383	.12368	**
			83 (18.9)	199 (45.2)	109 (24.8)	49 (11.1)	440 (100.0)			
		RURAL	45 (20.6)	98 (45.0)	54 (24.8)	21 (9.6)	218 (49.5)			
		URBAN	38 (17.1)	101 (45.5)	55 (24.8)	28 (12.6)	222 (50.5)	1.60853	.65746	**
			83 (18.9)	199 (45.2)	109 (24.8)	49 (11.1)	440 (100.0)			
		LESS THAN TEN YEARS	34 (16.8)	96 (47.5)	43 (21.3)	29 (14.4)	202 (45.9)			
		TEN OR MORE YEARS	49 (20.6)	103 (43.3)	66 (27.7)	20 (8.4)	238 (54.1)	6.56182	.08726	**
			83 (18.9)	199 (45.2)	109 (24.8)	49 (11.1)	440 (100.0)			
		FEMALE	42 (19.4)	98 (45.4)	52 (24.1)	24 (11.1)	216 (49.1)			
		MALE	41 (18.3)	101 (45.1)	57 (25.4)	25 (11.2)	224 (50.9)	.16164	.98353	**
			83 (18.9)	199 (45.2)	109 (24.8)	49 (11.1)	440 (100.0)			

KEY: ALPHA LEVEL (α) = 0.05 DEGREE OF FREEDOM = 3 SIGNIFICANT DIFFERENCE = *
NO SIGNIFICANT DIFFERENCE = **

(CONT'D)

	CATEGORY	RESPONSES				TOTAL	X^2 VALUE	PROBABILITY VALUE (SIGNIFICANCE)	DECISION
		SD	D	A	SA				
	SINGLE	2 (1.0)	3 (1.5)	103 (50.2)	97 (47.3)	205 (46.6)			
	MARRIED	2 (.9)	4 (1.7)	98 (41.7)	131 (55.7)	235 (53.4)	3.30733	.34662	**
		4 (.9)	7 (1.6)	201 (45.7)	228 (51.8)	440 (100.0)			
	RURAL	1 (.5)	5 (2.3)	114 (52.3)	98 (45.0)	218 (49.5)			
	URBAN	3 (1.4)	2 (.9)	87 (39.2)	130 (58.6)	222 (50.5)	10.3683	.01568	*
		4 (.9)	7 (1.6)	201 (45.7)	228 (51.8)	440 (100.0)			
	LESS THAN TEN YEARS	2 (1.0)	3 (1.5)	96 (47.5)	101 (50.0)	202 (45.9)			
	TEN OR MORE YEARS	2 (.8)	4 (1.7)	105 (44.1)	127 (53.4)	238 (54.1)	56911	.90347	**
		4 (.9)	7 (1.6)	201 (45.7)	228 (51.8)	440 (100.0)			
	FEMALE	1 (.5)	3 (1.4)	96 (44.4)	116 (53.7)	216 (49.1)			
	MALE	3 (1.3)	4 (1.8)	105 (46.9)	112 (50.0)	224 (50.9)	1.47105	.68897	**
		4 (.9)	7 (1.6)	201 (45.7)	228 (51.8)	440 (100.0)			
is	SINGLE	60 (29.3)	71 (34.6)	55 (26.8)	19 (9.3)	205 (46.6)			
Distance Education will be the last alternative of educational programme I will choose.	MARRIED	74 (31.5)	71 (30.2)	64 (27.2)	26 (11.1)	235 (53.4)	1.19234	.75484	**
		134 (30.5)	142 (32.3)	119 (27.0)	45 (10.2)	440 (100.0)			
	RURAL	59 (27.1)	74 (33.9)	61 (28.0)	24 (11.0)	218 (49.5)			
	URBAN	75 (33.8)	68 (30.6)	58 (26.1)	21 (9.5)	222 (50.5)	2.40343	.49300	**
		134 (30.5)	142 (32.3)	119 (27.0)	45 (10.2)	440 (100.0)			
	LESS THAN TEN YEARS	65 (32.2)	73 (36.1)	44 (21.8)	20 (9.9)	202 (45.9)			
	TEN OR MORE YEARS	69 (29.0)	69 (29.0)	75 (31.5)	25 (10.5)	238 (54.1)	5.95769	.11369	**
		134 (30.5)	142 (32.3)	119 (27.0)	45 (10.2)	440 (100.0)			
	FEMALE	70 (32.4)	71 (32.9)	54 (25.0)	21 (9.7)	216 (49.1)			
	MALE	64 (28.6)	71 (31.7)	65 (29.0)	24 (10.7)	224 (50.9)	1.34045	.71955	**
		134 (30.5)	142 (32.3)	119 (27.0)	45 (10.2)	440 (100.0)			

KEY: ALPHA LEVEL (α) = 0.05 DEGREE OF FREEDOM = 3 SIGNIFICANT DIFFERENCE = *
NO SIGNIFICANT DIFFERENCE = **

(CONT'D)

	...TION OF	CATEGORY	RESPONSES				TOTAL	X^2 VALUE	PROBABILITY VALUE (SIGNIFICANCE)	DECISION
			SD	D	A	SA				
	...the distance	SINGLE	4 (2.0)	5 (2.4)	71 (34.6)	125 (61.0)	205 (46.6)			
	education pro-	MARRIED	3 (1.3)	7 (3.0)	85 (36.2)	140 (59.6)	235 (53.4)	.53871	.91031	**
	gramme will		7 (1.6)	12 (2.7)	156 (35.5)	265 (60.2)	440 (100.0)			
	reduce the number of	RURAL	3 (1.4)	10 (4.6)	80 (36.7)	125 (57.3)	218 (49.5)			
	qualified	URBAN	4 (1.8)	2 (.9)	76 (34.2)	140 (63.1)	222 (50.5)	6.39198	.09402	**
	applicants who do not		7 (1.6)	12 (2.7)	156 (35.5)	265 (60.2)	440 (100.0)			
	gain admission to the conven-tional	LESS THAN TEN YEARS	5 (2.5)	6 (3.0)	66 (32.7)	125 (61.9)	202 (45.9)			
	universities each year.	TEN OR MORE YEARS	2 (.8)	6 (2.5)	90 (37.8)	140 (58.8)	238 (54.1)	2.90104	.40714	**
			7 (1.6)	12 (2.7)	156 (35.5)	265 (60.2)	440 (100.0)			
		FEMALE	1 (.5)	3 (1.4)	71 (32.9)	141 (65.2)	216 (49.1)			
		MALE	6 (2.7)	9 (4.0)	85 (37.9)	124 (55.4)	224 (50.9)	8.77585	.03242	*
			7 (1.6)	12 (2.7)	156 (35.5)	265 (60.2)	440 (100.0)			
37	Distance	SINGLE	46 (22.4)	132 (64.4)	21 (10.2)	6 (2.9)	205 (46.6)			
	education	MARRIED	61 (26.0)	157 (67.7)	9 (3.8)	6 (2.6)	235 (53.4)	7.39689	.06027	**
	is better than		107 (24.3)	191 (66.1)	30 (6.8)	12 (2.7)	440 (100.0)			
	the conven-tional	RURAL	63 (28.9)	136 (62.4)	12 (5.5)	7 (3.2)	218 (49.5)			
	education.	URBAN	44 (19.8)	155 (69.8)	18 (8.1)	5 (2.3)	222 (50.5)	6.11186	.10629	**
			107 (24.3)	191 (66.1)	30 (6.8)	12 (2.7)	440 (100.0)			
		LESS THAN TEN YEARS	55 (27.2)	125 (61.9)	15 (7.4)	7 (3.5)	202 (45.9)			
		TEN OR MORE YEARS	52 (21.8)	166 (69.7)	15 (6.3)	5 (2.1)	238 (54.1)	3.027052	.38177	**
			107 (24.3)	191 (66.1)	30 (6.8)	12 (2.7)	440 (100.0)			
		FEMALE	47 (21.8)	142 (65.7)	19 (8.8)	8 (3.7)	216 (49.1)			
		MALE	60 (26.8)	149 (66.5)	11 (4.9)	4 (1.8)	224 (50.9)	5.07071	.16669	**
			107 (24.3)	191 (66.1)	30 (6.8)	12 (2.7)	440 (100.0)			

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NO SIGNIFICANT DIFFERENCE = **

(CONT'D)

	DESCRIPTION OF ITEM	CATEGORY	RESPONSES				TOTAL	X^2 VALUE	PROBABILITY VALUE (SIGNIFICANCE)	DECISION
			SD	D	A	SA				
	Distance education will enable adults to learn in their own time and pace while they continue to earn a living.	SINGLE	2 (1.0)	3 (1.5)	80 (39.0)	120 (58.5)	205 (46.6)			
		MARRIED	2 (.9)	1 (.4)	102 (43.4)	130 (55.3)	235 (53.4)	2.02329	56759	**
			4 (.9)	4 (.9)	182 (41.4)	250 (56.8)	440 (100.0)			
		RURAL	0 (0.0)	0 (0.0)	90 (41.3)	128 (58.7)	218 (45.9)			
		URBAN	4 (1.8)	4 (1.8)	92 (41.4)	122 (55.0)	222 (50.5)	8.13029	04339	*
			4 (.9)	4 (.9)	182 (41.4)	250 (56.8)	440 (100.0)			
		LESS THAN TEN YEARS	2 (1.0)	2 (1.0)	75 (37.1)	123 (60.9)	202 (45.9)			
		TEN OR MORE YEARS	2 (.8)	2 (.8)	107 (45.0)	127 (53.4)	238 (54.1)	2.76342	42956	**
			4 (.9)	4 (.9)	182 (41.4)	250 (56.8)	440 (100.0)			
		FEMALE	1 (.5)	3 (1.4)	82 (38.0)	130 (60.2)	216 (49.1)			
		MALE	3 (1.3)	1 (.5)	100 (44.6)	120 (53.6)	224 (50.9)	4.03610	25759	**
			4 (.9)	4 (.9)	182 (41.4)	250 (56.8)	440 (100.0)			
39	Distance education is only good for candidates/ students who are not academically good.	SINGLE	159 (77.6)	39 (19.0)	2 (1.0)	5 (2.4)	205 (46.6)			
		MARRIED	194 (82.6)	33 (14.0)	4 (1.7)	4 (1.7)	235 (53.4)	2.71520	43765	**
			353 (80.2)	72 (16.4)	6 (1.4)	9 (2.0)	440 (100.0)			
		RURAL	166 (76.1)	42 (19.3)	3 (1.4)	7 (3.2)	218 (49.5)			
		URBAN	187 (84.2)	30 (13.5)	3 (1.4)	2 (.9)	222 (50.5)	5.99120	11204	**
			353 (80.2)	72 (16.4)	6 (1.4)	9 (2.0)	440 (100.0)			
		LESS THAN TEN YEARS	167 (82.7)	26 (12.9)	2 (1.0)	7 (3.5)	202 (45.9)			
		TEN OR MORE YEARS	186 (78.2)	46 (19.3)	4 (1.7)	2 (.8)	238 (54.1)	7.12490	06802	**
			353 (80.2)	72 (16.4)	6 (1.4)	9 (2.0)	440 (100.0)			
		FEMALE	174 (80.5)	35 (16.2)	1 (.5)	6 (2.8)	216 (49.1)			
		MALE	179 (80.0)	37 (16.5)	5 (2.2)	3 (1.3)	224 (50.9)	3.64880	30197	**
			353 (80.2)	72 (16.4)	6 (1.4)	9 (2.0)	440 (100.0)			

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(CONT'D)

	CATEGORY	RESPONSES				TOTAL	X^2 VALUE	PROBABILITY VALUE (SIGNIFICANCE)	DECISION
		SD	D	A	SA				
The distance education programme has the capacity to reach people in isolated areas and to increase access to education.	SINGLE	6 (2.9)	1 (.5)	94 (45.9)	104 (50.7)	205 (46.6)			
	MARRIED	8 (3.4)	9 (3.8)	93 (39.6)	125 (53.2)	235 (53.4)	6.60206	.08572	**
		14 (3.2)	10 (2.3)	187 (42.5)	229 (52.0)	440 (100.0)			
	RURAL	9 (4.1)	4 (1.8)	101 (46.3)	104 (47.7)	218 (49.5)			
	URBAN	5 (2.3)	6 (2.7)	86 (38.7)	125 (56.3)	222 (50.5)	4.63585	.20049	**
		14 (3.2)	10 (2.3)	187 (42.5)	229 (52.0)	440 (100.0)			
	LESS THAN TEN YEARS	8 (4.0)	4 (2.0)	85 (42.1)	105 (52.0)	202 (45.9)			
	TEN OR MORE YEARS	6 (2.5)	6 (2.5)	102 (42.9)	124 (52.1)	238 (54.1)	.86794	.83316	**
		14 (3.2)	10 (2.3)	187 (42.5)	229 (52.0)	440 (100.0)			
	FEMALE	6 (2.6)	6 (2.8)	89 (41.2)	115 (53.2)	216 (49.1)			
	MALE	8 (3.6)	4 (1.8)	98 (43.7)	114 (50.9)	224 (50.9)	.97810	.80655	**
		14 (3.2)	10 (2.3)	187 (42.5)	229 (52.0)	440 (100.0)			
The products of both distance and conventional education programme should be of the same calibre.	SINGLE	3 (1.5)	19 (9.3)	101 (49.3)	82 (40.0)	205 (46.6)			
	MARRIED	4 (1.7)	15 (6.4)	116 (49.4)	100 (42.6)	235 (53.4)	1.39155	.70752	**
		7 (1.6)	34 (7.7)	217 (49.3)	182 (41.4)	440 (100.0)			
	RURAL	6 (2.8)	14 (6.4)	128 (58.7)	70 (32.1)	218 (49.5)			
	URBAN	1 (.5)	20 (9.0)	89 (40.1)	112 (50.5)	222 (50.5)	21.29717	.00009	*
		7 (1.6)	34 (7.7)	217 (49.3)	182 (41.4)	440 (100.0)			
	LESS THAN TEN YEARS	5 (2.5)	13 (6.4)	96 (47.5)	88 (43.6)	202 (45.9)			
	TEN OR MORE YEARS	2 (.8)	21 (8.8)	121 (50.8)	94 (39.5)	238 (54.1)	3.32284	.34448	**
		7 (1.6)	34 (7.7)	217 (49.3)	182 (41.4)	440 (100.0)			
	FEMALE	5 (2.3)	20 (9.3)	103 (47.7)	88 (40.7)	216 (49.1)			
	MALE	2 (.9)	14 (6.3)	114 (50.9)	94 (41.9)	224 (50.9)	2.95547	.39854	**
		7 (1.6)	34 (7.7)	217 (49.3)	182 (41.4)	440 (100.0)			

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NO SIGNIFICANT DIFFERENCE = **

[illegible] 13 (CONT'D)

DESCRIPTION OF ITEM	CATEGORY	RESPONSES				TOTAL	X^2 VALUE	PROBABILITY VALUE (SIGNIFICANCE)	DECISION
		SD	D	A	SA				
Studying for degrees and diplomas through distance education is inferior, as compared to the conventional mode or campus-based programme.	SINGLE	92 (44 9)	89 (43 4)	17 (8.3)	7 (3.4)	205 (46 6)			
	MARRIED	129 (54 9)	83 (35 3)	8 (3 4)	15 (6.4)	235 (53 4)	10.55685	01418	*
		221 (50 2)	172 (39 1)	25 (5.7)	22 (5.0)	440 (100 0)			
	RURAL	97 (44 5)	96 (44 0)	15 (6.9)	10 (4.6)	218 (49 5)			
	URBAN	124 (55 9)	76 (34 2)	10 (4.5)	12 (5.4)	222 (50 5)	6 77024	07959	**
		221 (50 2)	172 (39 1)	25 (5.7)	22 (5.0)	440 (100 0)			
	LESS THAN TEN YEARS	104 (51 5)	72 (35 6)	18 (8.9)	8 (4 0)	202 (45 9)			
	TEN OR MORE YEARS	117 (49 2)	100 (42 0)	7 (2.9)	14 (5 9)	238 (54 1)	8 91342	03046	*
		221 (50 2)	172 (39 1)	25 (5.7)	22 (5.0)	440 (100 0)			
	FEMALE	109 (50 5)	84 (38 9)	12 (5.5)	11 (5.1)	216 (49 1)			
	MALE	112 (50 0)	88 (39 3)	13 (5.8)	11 (4.9)	224 (50 9)	02830	99874	**
		221 (50 2)	172 (39 1)	25 (5.7)	22 (5.0)	440 (100 0)			

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