CHAPTER III
DERIVATION OF HYPOTHESES

Based on the several studies reviewed in the earlier chapter, the following hypotheses were generated for the present study.

Hypothesis 1

Curiosity and Intelligence

A review of studies in the literature, indicate the importance of curiosity in the allround growth and development of the young child in general, and intellectual development in particular. Studies in the area of curiosity and intelligence have indicated a positive relationship between them (Maw and Maw 1960; Inagaki and Hatano 1971; Munichin 1971b; Kakkar 1977; and Kauser 1978). Though studies in general have revealed a positive relationship between curiosity and intelligence, there have been at least a few studies which have failed to indicate any relationship between them (Penney and McCann 1964; Day 1968 a, b; and Langevin 1971). Divergent results of this kind may be due to different kinds of tests used and the type of samples on which studies were conducted.
However, importance of this problem cannot be over emphasized.

In view of the fact that irrespective of the tests used and samples studied, the general trend of the results is in the direction of a positive relationship between curiosity and intelligence, the hypothesis therefore will be:

"There will be a significant and positive relationship between curiosity and intelligence."

Hypothesis 2

Curiosity and Creativity

The relationship between curiosity and creativity has attracted a great deal of research. Berlyne (1960) and Golann (1963) suggest that the creative individual would prefer to expose himself to stimuli which allow him greater scope for manipulation. Penney and McCann (1964) have also emphasized that a curious child would tend to approach and explore rather than withdraw in situations characterized by high levels of novelty and complexity. A perusal of the studies relating curiosity to creativity reviewed in Chapter II, indicate a significant and positive
relationship between them (Patrick 1937; Mooney 1954; Torrance 1960; Mednick 1962; McClelland 1963; Barron 1963, 1965; Maw and Maw 1964, 1965 and 1970; Taylor 1964; Cummings 1967; Eisenman and Robinson 1967; Day 1967, 1968a, b; and Day and Langevin 1969). There is no study in the literature revealing negative relationship, although a few studies have pointed to an absence of relationship between certain aspects of curiosity and creativity (Getzels and Jackson 1962; Hutt and Bhavnani 1972; Cohen 1974; and Voss and Keller 1977). In view of the above findings, it is plausible to presuppose that curiosity and creativity will be related. Therefore the following hypothesis has been generated:

"There will be a significant and positive relationship between curiosity and creativity."

**Hypothesis 3**

**Curiosity and Extraversion**

From a perusal of the review of literature, it is observed that there is a dearth of studies in the area of the relationship of curiosity to personality
dimensions in children. The studies indirectly related to the problem (Eysenck 1941, 1947; Whiting and Mowrer 1943; Berlyne 1950; Hebb 1955; McReynolds 1958; McReynolds, Archer and Pietila 1961; Zuckerman, Kolin, Price and Zoob 1964; Penney 1965; Levitt 1967; and Leherissey 1972) have also not given clearcut results. In the absence of direct evidence on the problem it was considered proper to study this aspect.

Personality, according to Eysenck (1947) has a very definite biological basis and extraversion-introversion is one of the two major dimensions of personality relating to arousal and emotion. Eysenck's main contribution concerns itself with interpreting individual differences in terms of inhibitory potentials. He has sought to distinguish the psychological types of extraverts and introverts in terms of the excitatory and inhibitory balance. Extraverts according to Eysenck (1957, 1964 and 1967) have a tendency to seek stimulation from the environment, and are characterized by a kind of stimulus hunger. Exploratory behaviour which involves seeking of new stimuli, and investigatory activities relating to the
environment is indicative of curiosity (Maw and Maw 1961). In the light of the foregoing factors, it may be deduced that there could be a relationship between curiosity and extraversion and it is therefore possible to look for such a relationship. Keeping the above theoretical background in view, the following hypothesis has been derived:

"There will be a significant and positive relationship between curiosity and extraversion."

Hypothesis 4

Curiosity and Neuroticism

A scrutiny of the studies in the literature under the section of curiosity and personality indicates that there have not been any studies in this area, relating the concepts of curiosity and neuroticism. A few studies (McReynolds 1958; McReynolds, Archer and Pictila 1961; Zuckerman, Kolin, Price and Zoob 1964; Penney 1965; and Leherissey 1972) have shown a negative relationship between curiosity and anxiety. Studies have also indicated a significant and positive relationship (r = .90) between anxiety and neuroticism, (Eysenck 1967, p.118) as measured by
the Taylor's Manifest Anxiety Scale (TMAS). Taking results of curiosity and anxiety into account it was reasoned that there would be a significant and negative relationship between curiosity and neuroticism. The hypothesis therefore is:

"There will be a significant and negative relationship between curiosity and neuroticism."

**Hypothesis 5**

**Influence of Sex on Curiosity**

Sex is an important determinant in the course of the development of a child (Hurlock 1972). From birth the child is expected to conform to the sex role patterns of behaviour prescribed by the culture, to which it belongs. In the conforming process, children are denied opportunities to learn sexually inappropriate patterns of behaviour. At no age is a sex-inappropriate person admired or accepted by the group (Gough 1952; and Sheriffs and Jarrett 1953). Studies of sex preferences for offspring have revealed that the traditional preference for male offspring persists (Dinitz, Dynes and Clarke 1954). This in turn has a strong influence on parents' attitudes, which in turn affects their treatment of the child. This
leads to the formation of certain definite ideas and beliefs in the roles the child is expected to learn depending on its sex. These mental attitudes relate to and influence every sphere of the child's personality development—emotional, intellectual and social. This logic can be extended to include the possibility of sex differences in the area of curiosity behaviour in children as well.

The majority of the studies reviewed in the previous chapter on the influence of sex differences on curiosity indicate the presence of differences in curiosity between the sexes. Based on the above theoretical premises and empirical studies, the following hypothesis has been formulated:

"There will be significant differences in curiosity between boys and girls."

Hypothesis 6

Influence of Socio-Economic Status on Curiosity

A review of the literature on the section on curiosity and socio-economic status reveals a paucity of studies in this area. However, socio-economic status is an important factor in a child's life, as
indicated by various studies (Brown and Bond 1955; and Hurlock 1964). Differences in socio-economic levels are reflected in the child's attitudes towards his school, his peers and also in the various aspects of his growth and development. Children from a high socio-economic background come from an enriched environment while those from a low socio-economic level, reflect the poor and impoverished environment, they belong to. In this context, it is pertinent to refer to Piaget's (1956) 'Stimulation Deprivation' theory. This theory postulates essentially that a child who has been deprived of stimuli in the environment is likely to be deficient in learning. Stimulus deprivation is found to have effects on the child's behaviour in perceiving and responding to stimuli in the environment and in the actual content of the child's knowledge and comprehension.

In view of the above theoretical premises, it can be argued that children from a low socio-economic status background will show lesser curiosity when compared to their high socio-economic counterparts. Hence, it can be expected that socio-economic status will be an influencing factor in the curiosity behaviour
of boys and girls. This leads to the formulation of the following hypothesis:

"There will be significant differences in curiosity in boys and girls of the high and low socio-economic-status groups."