

CHAPTER V



SUMMARY AND RECOMMENDATION

The purpose of this study was to investigate the development of central and incidental memory of Thai children in an urban area (Bangkok-Thonburi). The subjects were 80 children from 4-15 years of age, randomly selected from pupils in one kindergarten, one elementary school and one middle school, and 20 adults selected from volunteers from Faculty of Education at Chulalongkorn University. All the subjects were divided into 5 groups by age level, and each group had equal number of males and females.

In order to test for central and incidental memory test materials were adapted from Hagen.¹ The test materials consisted of 14 sets of seven cards, each containing two pictures one animal and one object. For the short-term memory performance, each subject was tested individually in the situation defined as a game to recall the location of a particular animal or object from the seven cards presented to him. After the completion of central memory performance, the incidental memory was tested. The subject was asked to match the animals (objects) with the objects (animals) with which they had always appeared in the central memory performance, but which the subject was not told to focus his attention on.

¹ Hagen, loc. cit.

The central memory scores were the total number of correct responses over 14 trials of all age groups and number of correct responses for each serial position. Comparisons were made of performance among all age groups and for three serial positions: primacy, recency, and middle positions. Comparisons were also made to find out the relationship in the central memory of male and female subjects.

Incidental memory performance scores were the number of correct pairings of animals and objects recalled following completion of the central memory performance. Comparisons were made of incidental performance of subjects of different age groups, and of two sexes. Finally, central and incidental memory performance scores were correlated for all age groups.

The results for central memory performance were 1) central memory scores generally increased with age from 4 to 21 years old. 2) performance of central memory on primacy increased with age more than the performance on the recency and middle positions, and the highest performance of each age group was at the recency. 3) both age and serial position influenced the performance of the subjects, but there was no interaction between age and serial position. 4) there were differences in every age group on primacy, recency and middle positions. 5) central memory scores of subjects ages 20-21 were significantly higher than those of subjects ages 4-5, 7-8, 10-11, and 14-15. The central scores of subjects age 14-15 were significantly higher than those of 4-5 and 7-8. 6) there were no sex

differences in the performance on central memory test. For incidental memory performance:- 1) incidental memory scores increased with age through 10-11 years and then declined from 12 to 21 years old. 2) the performance of the oldest subjects (ages 20-21) was lower than that of ages 7-8 and 10-11. 3) there were no sex differences at any age level. 4) individual correlations of central and incidental memory showed no significantly relationship between those two types of memory.

Limitations of the Present Study and Recommendation

One of the major problems of this study is a methodological weakness which is common to several studies. First and foremost, the present study was conducted in one urban area using only one group to represent all the urban subjects. Thus, the author would like to suggest that the future study should be replicated with other urban group subjects to examine whether these findings hold for all urban subjects.

Second, this present study investigated only subject from middle-class background and from private schools. Various groups of subjects from different types of background should be studied and compared, such as subjects from upper-class or from slum, to examine what effect does social class have on learning.

Third, for the present study intelligence was not controlled among the subjects. Various I.Q. level of subjects should be studied

and controled in order to compare the ability in central and incidental memory among all different intelligence subjects.

Fourth, only urban subjects from the Bangkok-Thonburi were investigated. Therefore, the future study should investigate the development of central and incidental memory of subjects in partially urban areas and in rural areas to examine the effects of urbanization and modernization on the two types of memory.

Fifth, it should be noted that as the subjects' age increased, the level of education attended by all subjects also increased. So it is not clear whether the improvement in the central and incidental memory performance is a function of age or educational level. Future research studies should include groups of nonschool subjects and subjects with different educational level to examine the effects of age and level of education on central and incidental memory.

Finally, since the present study used only one type of test material and one procedure of experiment in testing central and incidental memory, other test materials and procedures should be used to investigate central and incidental memory in order to examine whether the results still hold when different types of tasks are used.