

A Study on the Relationship between the Frequency of Subordinate Clause of Cause and Reason as Responded in the Child's Composition, and his Academic Achievements and Affective Qualities

Hwa-Yeop Park
(Department of Education)

Problem

The purpose of the present study was to identify the relationship between the frequency of subordinate clause of cause and reason as responded in the child's composition, and his academic achievements and affective qualities. The problems to be investigated were as follows:

1. Is there any relationship between the frequency of subordinate clause of cause and reason as responded in the child's composition, and scores of IQ, total academic achievements, Korean language, and mathematics?
2. Is there any relationship between the frequency of subordinate clause of cause and reason as responded in the child's composition, and scores of achievement motivation-oriented self-concept and three factors of the meaning of 'school life' in semantic differential?

Previous studies and theoretical assumptions have generally shown that verbal ability takes many implications with an active force helping to shape the child's abilities and attitudes. It is also subsequently a main factor influencing school learning. Jensen(1967) writes: '...the kinds of functions the language serves in the child's experiences, actually shape his intellectual development, especially the development of the ability for abstraction and conceptual learning. Poor development of this ability places a low ceiling on educational attainment.'(p.14)

Watts(1970) indicated a positive relationship between the degree of parent-child interaction and language development. He wrote:

The degree of contact a child has with his parents, the quality of the language model they provide for him, and their reinforcement of his speech activities are important determinants of his language and cognitive development. Children who have a high degree of contact with their parents show marked language development. (p.96)

Bernstein(1961a and b) argued a sociological view of language: differences between (a) the cognitive styles of lower and middle class families, (b) a public or restricted language code and a formal or elaborated one. He takes the restricted language code as major cause of educational difficulty for lower-class children, because it produces a specific order of learning in every educational context requiring higher level of conceptualization.

To the positive relationship between language and intellectual abilities, the following research findings were shown as follows: (a) social system and structure shaping communication and language which develop thought and cognitive styles of problem solving(Hess and Shipman, 1965:870-1), (b) parent-child relationship and verbal ability, symbolic reward and tangible reward, thing-oriented expression and idea-oriented expression(Watts,1970:102-3).

The language code of middle class child which has, in general, such patterns as symbolic reward, idea-oriented expression is much more likely to lead to efficient learning in the school context in which the most frequent interaction medium is language.

Bigge(1964), taking a learning view of language, summarized Spence's quantitative S-R theory: '...study and analysis of language behavior of human beings is the key to investigations of complex motives, human adjustments, conflict and anxiety, attitudes and interests, and problem solving and reasoning.' (p.171) He defined that, 'Words are a type of human stimulus and response...' And he refined:

1. Words are stimuli.
2. Words are responses.
3. Conditioning may be a verbal process.
4. Words become secondary drive objects.
5. Incentive motivation can be affected by verbal cues.(pp.171-2)

Russell(1961) pointed out seven characteristics of language, which were explained on the basis of almost the same paradigm as Spence's theory. He wrote:

1. Language is a human tool.
2. Language is one of man's most important activities.
3. Language is a form of behaving.
4. Language is an acquired form of behavior.
5. Language is based on symbols and conventions.

6. Language is essentially a social activity.

7. Language has individual as well as social significance. (pp.40-7)

Kimble(1961) claimed that, 'So much human behavior involves language as a mediating link between stimulus and response.' (p. 475)

Thorndike and Hagen(1971) emphasized the importance of the verbal ability part in cognitive ability test, which consists of four subtests of the verbal battery: Vocabulary, Sentence Completion, Verbal Classification, and Verbal Analogies. They claimed that, 'Since the bulk of education is presented through verbal symbolism, the relevance of a verbal test for educational prognosis and diagnosis is clear. Tests of verbal reasoning have always been among the best predictors of educational progress.' (p. 3)

Verbal behavior involves interaction, and contributes to develop child's language, which shapes cognitive abilities and affective qualities.

Stott(1967) claimed the importance of family interaction variables: interpersonal attitudes and feelings, emotional climate of the home, mutuality of interests and activities, and parental guidance.

Watts(1970) summarized Dave's environmental process variables to educational achievement. He identified the following home variables: ' (a) achievement press, (b) language models in the home, (c) academic guidance provided in the home, (d) stimulation provided in the home to explore various aspects of the larger environment, (e) the intellectual interests and activities of the home, and, (f) the work habits emphasized in the home.' (pp.89-90)

A positive relationship between verbal behavior and affective quality is based on the assumption that some associations are related to emotional response in thinking behaviors. Therefore, the self-concept can be operationally defined and verified in empirical level, only through verbal referents.

On the basis of these studies and assumptions, the hypotheses in this study were established as follows:

- 1-a: There is a significant relationship between the frequency of subordinate clause of cause and reason as responded in the child's composition and scores of IQ.
- 1-b: There is a significant relationship between the frequency of subordinate clause of cause and reason as responded in the child's composition and scores of total academic achievements.

- 1-c: There is a significant relationship between the frequency of subordinate clause of cause and reason as responded in the child's composition and scores of Korean language.
- 1-d: There is a significant relationship between the frequency of subordinate clause of cause and reason as responded in the child's composition and scores of mathematics.
- 2-a: There is a significant relationship between the frequency of subordinate clause of cause and reason as responded in the child's composition and scores of achievement motivation-oriented self-concept.
- 2-b: There is a significant relationship between the frequency of subordinate clause of cause and reason as responded in the child's composition and scores of evaluative factor of the meaning of 'school life' in semantic differential.
- 2-c: There is a significant relationship between the frequency of subordinate clause of cause and reason as responded in the child's composition and scores of potency factor of the meaning of 'school life' in semantic differential.
- 2-d: There is a significant relationship between the frequency of subordinate clause of cause and reason as responded in the child's composition and scores of activity factor of the meaning of 'school life' in semantic differential.

Method

Measurement

The criteria of analysis model of subordinate clause of cause and reason(Jespersen, 1969 : 369—373) were the frequencies as responded in the child's composition, which has the same denotative meaning as English syntax in Korean language structure(as shown in Model I).

Semantic differential scales were constructed on the basis of Osgood's principle of measurement of meaning. It measured the connotative meaning of 'school life'.

IQ and academic achievements without the scores of athletics, music, and fine arts were given by the teachers.

Achievement motivation-oriented self-concept was constructed by Educational Psychology Research Center in College of Education, Seoul National University.

The model used for analyzing the child's composition was as follows:

	Korean	English
Subordinate clause of cause and reason: adjective	...han iyu ...han(in) ko-lo ...han(in) kkatalk	the reason why the causality why the cause why
Subordinate clause of cause and reason: adverbial	...ha kittaymunae ...han(in) kolo ...hanikka ...ini-kka ...way'n ya hamyen	because, as, since, while

<Model 1> Analysis model of subordinate clause of cause and reason

Sample

Out of approximately one thousand five hundred junior high school boys in H town located in Choong-Nam Province, who responded in writing their own compositions to neutral topics that were not purposefully intended to prompt statements involving subordinate clauses of cause and reason, one hundred and eight boys were chosen by random sampling with replacement.

<Table 1> Samples and their psychological traits

	Boys responding one more than subordinate clause of cause and reason in their own composition		Boys not responding any subordinate clause of cause and reason in their own composition	
	M	SD	M	SD
IQ	96.89	14.76	86.93	12.11
Academic achievement	57.31	16.30	36.19	6.39
Korean language	62.35	17.18	48.20	9.25
Mathematics	48.98	18.72	24.54	12.11
Self-concept	112.87	18.28	108.93	20.48
Evaluative factor	15.51	3.08	14.83	2.42
Potency factor	14.76	2.20	13.43	2.86
Activity factor	14.22	4.63	13.13	3.74
	N=54		N=54	

Procedure

To verify the significance level of hypotheses, Chi-square analysis was conducted. The

independent variable (the frequencies of subordinate clause of cause and reason) and the dependent variables (scores of IQ, academic achievement, self-concept, and 'school life' in semantic differential) were all changed into two nominal variables. The criteria of classifying the independent variable were frequency level: one more than or none. The criteria of the dependent variable were differently classified, according to its own unique principle as scaling, into two nominal variables. Each critical score is: (a) 100 in IQ, (b) 60 in academic achievement, (c) 110 in self-concept, (d) 4.00 in semantic differential scale. Score above critical point was high level, and score below low one.

Results and Discussion

Hypothesis(1-a), Hypothesis(1-b), Hypothesis(1-c), Hypothesis(1-d), and Hypothesis(2-a) were confirmed at .05 level of significance. But Hypothesis(2-b), Hypothesis(2-c), Hypothesis(2-d) were rejected ($p > .05$).

From the above verification, it was to be assumed that there can be a possibility of a positive relationship between the frequency of subordinate clause of cause and reason as responded in the child's composition and academic abilities, especially related with verbal abilities. But it was indicated that there can not be any causal relationship between the frequency of subordinate clause of cause and reason as responded in the child's composition and affective traits, especially a connotative meaning of 'school life' in semantic differential.

On the basis of the above findings, the following discussions could be led to control uncontrolled rival-hypotheses for the further studies. And also, to construct a generalization about the relationship between language code, and academic abilities and affective qualities, the following statements were to be verified in that they are both logically true and empirically true.

1. There were many uncontrolled rival-hypotheses, or intervening variables in manipulating the independent variable. For example, they were: quantitative and figural abilities in cognitive domain, motivation, adjustment, and attitudes and interests. It is because the ability of responding subordinate clause of cause and reason in the child's composition is only one of language abilities.
2. Another dominant dependent variables, such as learning behaviors in class-room context, interests and attitudes in instructional procedure can be inquired to find a causal or positive relationship between them.

3. These findings are far from being sufficient to draw any generalizing conclusion about the relationship between two variables, language ability and the other psychological behavior, of this study, because it was much limited in samples, situational variables, and measurements.

On the basis of the above results, the followings were drawn:

1. There is a positive relationship between the frequency of subordinate clause of cause and reason as responded in the child's composition and his academic abilities in school context.
2. There is no relationship between the frequency of subordinate clause of cause and reason as responded in the child's composition and a connotative meaning of 'school life' in semantic differential.

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兒童作文에 使用된 因果律의 從屬接續詞의 頻度數와 學業成績 및
情意的 特性 要因과의 關係

朴 鏞 燁
(教育學科)

要 約

兒童作文에 사용된 因果律의 從屬接續詞의 頻度數와 知的, 非知的 能力要因과의 關係가 존재하는 것을 探究하기 위해서, 종속접속사의 빈도수를 獨立變因으로 想定하고, 다른 心理的 要因들——知能, 學業成績, 自我概念, 意味辨別——을 從屬變因으로 想定하였다. 두 變因들 간의 關係를 規明하기 위해서, 지방 邑의 1個 中學을 標集하여 研究절차에 따라 조사하였다. 연구의 經營을 合理化시키기 위해서, 標集, 節次, 상황, 측정과정 등 가능한 한 모든 조건을 無選標集되도록 진행하였다. 종속접속사의 사용 有無에 따라 知的行動特性에 는 높은 水準의 聯關性을 나타냈으나 情意的 特性은 거의 關係가 없는 것으로 判明되었다.