

A Comparative Study on Learning Stress and Academic Self-Concept: A Small Town vs. a Metropolitan City

Keun Huh*

Department of Children's English, Hannam University, Daejeon, 306-791, South Korea;
keun@hnu.kr

Abstract

The purpose of this study was to identify the difference both English learning stress and academic self-concept of students from two schools, one located in a small town and the other in a metropolitan city, and the subjects of this study were a total of 313 elementary school students from both schools. The research was conducted through five-point Likert score surveys, and the data were analyzed via Multivariate Analysis of Variance (MANOVA). The students from the small town were found to exhibit higher levels of stress from learning English and a lower academic self-concept than the students in the metropolitan city. The results imply that elementary school teachers need to reduce stress that students experience when learning English as well as strengthen the level of academic self-concept by providing a context-appropriate learning environment.

Keywords: Academic Self-concept, Elementary English, Learning Stress

1. Introduction

Learning stress is an important consideration for a modern school environment. In particular, as English has become a global language, English Language Learners (ELL) experience stress from learning English, and this is an important issues for English Foreign language education. Researchers believe that the self-concept affects learning itself since it incorporates elements derived from psychology, sociology, and educational theory^{1,2}. The self-concept refers to “the totality of the individual’s thoughts and feelings having reference to himself as an object”³, and similarly, the academic self-concept, which is a component of the self-concept, can be defined as the “individuals’ knowledge and perceptions about themselves in achievement situations”⁴.

In general, a positive self-concept is an important mediator for other outcomes⁵. Moreover, prior studies have indicated that there is a positive relationship between the academic self-concept and achievement⁶. However, there is currently a lack of research on discipline-specific academic self-concept as well as of its relationship with learning stress, particularly for English language education. Few studies have addressed the contextual difference and the grade-level differences between learning stress and the academic self-concept.

Therefore, the present study investigates the differences and similarities in the academic stress from learning English and the academic self-concept of two groups of elementary school students from two different locations. This study has a twofold purpose. First, the study identifies differences and similarities between the

* Author for correspondence

two groups of students in terms of the academic stress that they experience when learning English and their academic self-concept. Second, the study investigates the differences and similarities according to grade level in terms of the stress that students experience when learning English and their academic self-concept.

2. Literature Review

2.1 Learning Stress

Sarafino and Armstrong⁷ indicate that stress in children is sourced from family, peers, and illness, and competition, success, and expectations become intertwined in stressful situations. When children begin attending elementary school, they face a number of stressful situations due to examinations, parental expectations, peer relationships, and tensions with their teachers. Stress related to achievement, examinations, assessments, and any other learning issues is a particular form of stress referred to as academic stress or learning stress. This learning stress is a focal issue in Korea for students from elementary to high school who study English since English is taught extensively in and out of school and has become a burden for almost all of the elementary school students in Korea.

A number of studies have investigated the relationship between learning stress and both physical and mental health⁹ as well as the relationship between learning stress and emotions. For example, Min¹⁰ found that academic stress negatively impacts children's self-esteem and self-efficacy. Leung, Yeung, and Wong¹¹ also found that academic stress in primary school students increased their anxiety levels.

However, there is a general lack of research on the specific relationship between learning stress and the academic self-concept of children. Moreover, studies that investigate the level of stress induced when learning English under different local environments and the relationship between learning stress and academic self-concept according to grade levels have not been performed. Therefore, the present study aims to identify the differences or similarities between two groups of elementary school students, one group from a small town and the other from a metropolitan city, in terms of the stress from learning English and the academic self-concept.

2.2 The Self-Concept of Children

The self-concept can be defined as individuals' concept

of themselves formed through their experience with the environment and their interactions with others¹². Numerous studies have identified self-related concepts, and many models of such self-concepts in children have been developed in order to explain the effect or function on their learning. In particular, an increasing amount of attention has been made on the self-concept, and researchers claim that the self-concept can be divided into different domains, including academic, social, emotional, and physical. These are then also divided into several sub-domains. Harter¹³, for instance, states that academic self-concept can be divided into several subject areas, including math, P.E., and reading.

The self-concept is an important characteristic for individual development and has been a vital theme in many developmental studies². For example, researchers in the area of self-concept have noted that a high self-evaluation is essential for all human beings. In fact, the idea of self-concept has a bearing in many areas, such as education, psychology, and sociology, in that diverse theories are strongly related to one's own experience or behavior. Several elements of self-concept have been proposed, and the specific self-concept related to academic achievement is referred to as the academic self-concept, as previously mentioned.

To date, the relationship between academic self-concept and achievement^{14,6} and that between self-concept and academic issues, such as studying, learning, and motivation, have been studied^{15,2}. The findings show that the self-concept has a great effect on students' academic self-perception and that it is also highly related to student achievement. In addition, some researchers¹⁶ have developed a self-enhancement program with the belief that an improvement in self-concept will result in a gain in academic achievement.

On the other hand, Helmke and Alen¹⁴ indicated that a "prior self-concept does not significantly contribute to the prediction of subsequent achievement in elementary school." Thus, discrepancies seem to exist with regard to the relationship between self-concept and academic performance. However, these discrepancies might be influenced by the difference of various constructs, such as measurement, grade levels, time intervals, assessment, and academic domain.

Researchers also studied the relationship between academic self-concept and behavior¹⁵⁻¹⁷ and found that these two are positively correlated. Other studies have focused on gender differences with respect to self-

concept, including achievement-related self-concepts in children¹⁸⁻²⁰. Bae and Shin¹⁹ indicated that male students' degree of self-concept was higher than that of female students and also found a significant difference in the relationship between self-concept and academic achievement according to gender. However, other studies that investigated gender issues in the self-concept of children have not yet formed a consensus, showing a variation in the results from no difference to large differences²¹⁻²³.

In short, although the findings vary according to the domain in which each study was conducted, it is clear that the self-concept of children largely affects their school life and their academic concerns, including achievement, motivation, attitudes, and psychological functions, such as self-regulation. However, little research has addressed the relationship between self-concept and academic stress that results within certain subject areas. In this respect, Harter¹³ found that the self-concept of children between 8 to 12 years of age has become more subject-specific and differentiated. In other words, children develop the ability to discriminate between their self-concept in general content areas and specific areas of competency. Therefore, the subject of a specific self-concept mediates the effect of poor academic achievement on a low general academic self-concept.

2.3 Learning Stress and Academic Self-Concept

Few studies have investigated the relationship between academic stress and the academic self-concept. For example, Lim and Chae²⁴ found that students who showed a low academic self-concept experienced a higher level of academic stress than students who did not. Similarly, Koo²⁵ showed that English achievement influenced stress from learning English, and that the achievement also influenced the academic self-concept of middle school students. Therefore, the results from previous studies imply that children's achievement in English language learning seems to be related to both academic stress and their academic self-concept. In other words, the academic self-concept is correlated with achievement as well as with academic stress.

However, studies on the relationship between English learning stress and the academic self-concept at elementary levels are particularly scarce. Moreover,

distinct schools located in different contexts have not been compared in terms of the students' levels of stress and their academic self-concept. Therefore, the result of the present study is to contribute to the area of English as a Foreign Language by providing concrete evidence of the differences and similarities between two groups of elementary school students with respect to the academic stress they endure when learning English and their self-concept.

2.4 Academic Self-Concept and the Role of the Teacher

Teachers are the primary caregivers in schools, particularly for elementary school students. Previous studies have indicated that teacher counseling improved students' self-concept²⁶, meaning that acceptance and respectful treatment by the teachers can positively influence the self-concept of students²⁷⁻²⁹. In other words, a teacher's attitude and behavior, as perceived by children, affects children's self-concept and motivation. For example, Kim³⁰ found that fourth to sixth grade elementary school students had an academic self-concept that was affected by their teacher's behavior. In particular, children's academic self-concept improved when the teacher provided various opportunities, choices, support, and positive feedback.

Molly, Ram, and Gest³¹ performed a longitudinal study with 514 participants from the 3rd to the 7th grade and found that a student's self-concept corresponded with their teacher's and peer's evaluations of their competence. In fact, researchers argue that the self-concept is developed in early childhood and tends to endure once it is formed³². However, it can be changed through interactions with significant others, such as teachers. Henderson and Kelbey³³, for instance, found that the self-concept of an experimental group increased after they participated in a stress management program. The result indicates that training students how to manage stress can positively influence their self-concept. Therefore, the learning environment that is provided by the teacher largely impacts students' self-concepts.

3. Method

3.1 The Subjects

The subjects of this study were a total of 313 elementary school students, consisting of 121 students from a small

town and 192 students from a metropolitan city. The group of students from the small town included sixty-seven third grade students and fifty-four fifth grade students. The school was located in a working-class community in city C. The group of students from the metropolitan city included one hundred-four third grade students and eighty-eight fifth grade students. Their school was located in central area of the city. The economic status of the school in the metropolitan city is higher than that of the small town school, but the socioeconomic status of the individual students was not assessed in this study. However, most students in the metropolitan city were predominately from families with a high socioeconomic status, according to the information provided by their teachers.

3.2 The Instruments

Two types of survey instruments were used in this study. First, Koo's Questionnaire²⁵ was employed in order to examine students' academic stress resulting from learning English. The questionnaire consisted of twenty-three items under three factors related to their exam, class, and English learning. An edited version of Song's academic self-concept questionnaire² was used to measure students' English ASC. This questionnaire contained twenty items and consisted of three factors, i.e., a sense of achievement, sense of ability, and sense of expectations with respect to English.

3.3 Data Collection and Analysis

The students' responses were collected to assess their academic stress from learning English and their academic self-concept. Then, a Multivariate Analysis of Variance (MANOVA) was conducted in order to identify the differences between the group of students from the small town and the metropolitan city in terms of their stress due to learning English and their academic self-concept. In addition, the differences between the third and fifth grade students with respect to learning stress and their academic self-concept were examined, and the data were then compared.

4. Results and Discussions

4.1 The Differences in the Stress from Learning English

The results showed that there are apparent differences

between the two groups of students with respect to stress from learning English. The students living in the small town had a higher level of stress than those in the metropolitan city, and the differences in all three factors of learning stress were statistically significant. Specifically, a big difference was found in stress from exams and from classes.

In Korea, academic achievement is highly valued all over the country. Therefore, parents emphasize and set high standards for of their children's academic achievement. For example, many children perceive English to be one of the most important subjects for which they have to have a high level of achievement, and thus have a constant pressure to study English.

In this study, however, the local environment in the small town was not supportive for the students to learn English, except during regular class. There were no private cram schools for English around their school, and moreover, most students that lived in the small town were from a double-income family, and their socioeconomic status belonged to middle-low class. Therefore, the students did not have enough opportunities to review and/or to engage in enriched learning. On the other hand, students from the metropolitan city received private English lessons. Furthermore, the differences in the English learning environment seem to be related to the English learning stress.

Table 1. The difference in stress from learning english at the two schools

Learning stress from English	Group Means		F
	Small town (n=121)	Metropolitan city (n=192)	
Exam stress	1.86	1.55	13.85***
Class stress	1.52	1.23	21.02***
Study stress	1.56	1.36	6.60**
F-value	703.758		

***p<.001, **p<.01

4.2 The Differences in English Academic Self-Concept

In terms of the academic self-concept, students from the small town had a lower academic self-concept than those from the metropolitan city. In particular, the differences in English academic self-concept were highly significant for both achievement and ability (**p<.01).

Table 2. The difference in english academic self-concept between two schools

English academic self-concept	Group Means		F
	Small town (n=121)	Metropolitan city (n=192)	
Achievement	3.42	3.67	7.02**
Ability	3.48	3.71	7.09**
Expectation	3.69	3.94	5.99*
F-value	2367.775		

**p<.01, *p<.05

Previous studies suggest that parents of high achievers were more supportive of their children's education, and family support was positively related to the academic self-concept^{34,35}, and the results of the present study are consistent with such findings. As previously noted, students from the metropolitan school received sufficient opportunities to study English, and they could therefore have a strong academic confidence in their English. Accordingly, this could positively affect their academic self-confidence.

4.3 The Difference in the Stress from Learning English and English Academic Self-Concept by Grade Levels

In terms of the grade-level difference, no significant differences were found between the third and fifth graders from the small town school, which is not consistent with previous studies that showed a gradual decrease in self-concept when students reach at the ninth grade²³. Such inconsistency seems to come from the local circumstances that do not show infrequent changes in terms of the opportunities to participate in additional lessons or support from other influential people when studying English. This might not bring about any changes in their self-concept as well as in the English learning stress.

Table 3. The difference in the stress from learning English and academic self-concept according to grade level: a small town

Dependent variables (stress/self-concept)	Group Means		F
	3rd grade (n=67)	5th grade (n=54)	
Exam stress	1.80	1.94	.83
Class stress	1.56	1.49	.27
Study stress	1.59	1.53	.18
Achievement	3.43	3.41	.04
Ability	3.50	3.47	.04
Expectation	3.63	3.77	.71
F-value	1474.554		

On the other hand, as shown in Table 4, there are grade-level differences in the school in the metropolitan city. For example, fifth grade students showed a lower academic self-concept in the English subject than third grade students did. The result confirms previous research findings. In terms of the stress induced when learning English, fifth grade students presented a lower learning stress than students in the third grade in terms of achievement and ability, while there were no significant differences with respect to learning stress. These results imply that although students' self-concept decreases as they get older, their learning stress induced by learning English did not seriously influence their self-concept. Unlike the small town students, students in the metropolitan city received a constant support for learning English. In addition, and the students from the small town always had a high level of stress, but their confidence in English ability did not seem to change according to age.

Table 4. The difference in the stress from learning english and academic self-concept by grade level: a metropolitan city

Dependent variables (stress/ self-concept)	Group Means		F
	3rd grade (n=104)	5th grade (n=88)	
Exam stress	1.63	1.46	3.68
Class stress	1.24	1.22	.08
Study stress	1.40	1.30	1.12
Achievement	3.82	3.50	7.20**
Ability	3.85	3.56	6.99**
Expectation	4.06	3.79	4.65*
F-value	2031.002		

**p<.01, *p<.05

5. Conclusion and Implications

This study investigated the differences in the stress from learning English and the academic self-concept between two groups of elementary school students from a small town and metropolitan city. The results clearly indicate that differences exist between the two groups due to the different environments. The results imply that elementary school students that live in a metropolitan city have a lower level of stress from learning English with a higher academic self-concept than those from the small town. However, it is notable that the academic self-concept of the students from the metropolitan city decreases as they get older. On the other hand, the students from the small town did not show any significant difference in the stress

due to learning English and their academic self-concept according to grade level.

These findings suggest that less stress from learning English might be positively related with a higher academic self-concept. Therefore, teachers and parents who have a large impact on children's academic self-concept need to consider the reciprocal relationship between them and should help students to enhance their academic self-concept in a low-stress learning environment. For example, teachers who better understand their students' stress and provide a more supportive environment could have a positive influence on the students' academic self-concept.

This study can contribute to creating a positive school environment by raising the teacher's awareness of the need for stress-reduction and academic self-concept enhancement in English learning, and teachers should consider their students' learning stress and self-concept in order to create a healthy English learning environment across all grades.

6. References

1. Arens AK, Yeung AS, Craven RG, Hasselhorn M. The two fold multidimensionality of academic self-concept: domain specificity and separation between competence and affect components. *J Educ Psychol.* 2011; 103(4):970–81.
2. Song I. The developmental and differentiated changes in dimensionality self-concept across ages. *J Educ Res.* 1989; 27(1):85–103.
3. Rosenberg M. *Conceiving the Self.* New York: Basic Books; 1979.
4. Bong M, Skaalvik EM. Academic self-concept and self-efficacy: How different are they really. *Educ Psychol Rev.* 15(1):1–40.
5. Branden N. *Six pillars of self-esteem.* New York: Bantam; 1994.
6. Marsh JW, Martin AJ. Academic self-concept and academic achievement: relations and casual ordering. *Br J Educ Psychol.* 2011; 81:59–77.
7. Sarafino EP, Armstrong JW. *Child and adolescent development, 2nd ed.* St. Paul: West Publishing; 1986.
8. Whang HJ. A study on the stress and its relative effects of variables among children and adolescents. *The Journal of Elementary Education.* 2006; 19(1):193–216.
9. Roosa MW, Gensheimer LK, Short JL, Ayers TS, Shell R. A preventive intervention for children in alcoholic families: Results of a pilot study. *Fam Relat.* 1989; 38:295–300.
10. Min H. School age boys and girls' stress in daily stress types and their influences on depression. *Family and Culture.* 2009; 21(3):109–27.
11. Leung GSM, Yeung KC, Wong DFK. Academic stressors and anxiety in children: The role of parental support. *J Child Fam Stud.* 2010; 19:90–100.
12. Shaveloson RJ, Hubner JJ, Stanton GC. Self-concept: validation of construct interpretations. *Rev Educ Res.* 1976; 46:407–41.
13. Harter S. *Manual for the self-perception profile for learning disabled student.* Denver, Colorado:University of Denver. Unpublished manuscript; 1988.
14. Helmke A, Aken MAG. The causal ordering of academic achievement and self-concept of ability during elementary school: A longitudinal study. *J Educ Psychol.* 1995; 87(4):624–637.
15. Chapman JM, Lambourne R, Silva PA. Some antecedents of academic self-concept: A longitudinal study. *Br J Educ Psychol.* 1990; 60:142–52.
16. Marsh HW. Causal ordering of academic self-concept and academic achievement: A multiface, longitudinal panel analysis. *J Educ Psychol.* 1990; 82:107–16.
17. Song I, Hattie J. Relationship between self-concept and achievement. *J Res Pers.* 1985; 19:365–72.
18. Eccles J, Wigfield A, Harold RD, Blumenfeld P. Age and gender differences in children's self- and task-perceptions during elementary school. *Child Development.* 1993; 64:830–47.
19. Bae J, Shin SY. Gender-specific factors of self-concept in Korean middle school students. *The Korean Journal of Stress Research.* 2012; 20(2):87–95.
20. Stipek D, Gralinski JH. Gender differences in children's achievement-related beliefs and emotional responses to success and failure in mathematics. *J Educ Psychol.* 1991; 83:361–71.
21. Elbaum B, Vaughn S. School-based interventions to enhance the self-concept of students with learning disabilities: a meta analysis. *Elementary School Journal.* 2001; 101:303–29.
22. Chiam H. Change in self-concept during adolescence. *Adolescence.* 1987; 22:69–76.
23. Maqsd M. Age and gender effects in academic self-concepts of Batswana school children. *J Soc Psychol.* 1993; 133(3):399–400.
24. Lim JS, Chae KM. The psychological characteristics of stress of child with extra curricular activities. *Korean Journal of Health Psychology.* 2000; 10(3):295–311.
25. Koo B. The effects of stress from learning English and self-concept on English Achievement. Unpublished Master's Thesis. Seoul:Dankook University; 2011.
26. Pigge FL. Children and their self-concepts. *Child Education.* 1970; 47(2):115.
27. Ensor EG. A comparison of dyadic interactions between high and low self concept of ability children and their teachers. Unpublished Maters Thesis. Bradford University; 1976.
28. Kleinfeld J. The relative importance of teachers and parents in the formaton of Negro and white students' academic self-concepts. *J Educ Res.* 1972; 65:211–2.
29. Song IS. The relationship between student self-concept

- and teacher. *Society Education Science Research*. 2002; 6:3–21.
30. Kim H. Relationship between self-concept, parents' achievement pressure, teacher behaviors perceived by children and learning motivation. *J Educ Res. Mokpo National University*. 2002; 14(1):175–93.
 31. Molloy LM, Ram N, Gest S. The strom and stress(or calm) of early adolescent self-concepts: within- and between-person variability. *Dev Psychol*. 2014; 47(6):1589–607.
 32. Song I. The developmental and differentiated changes in dimensionality self-concept across ages. *J Educ Psychol*. 1997; 11(1):121–56.
 33. Henderson PA, Kelbey TJ. Effects of a stress-conntrol program on children's locus of control, self-concept, and coping. *School Counselor*. 1992; 40(2):125.
 34. Clark RM. *Family life and school achievement: Why poor black children succeed or fail*. Chicago:University of Chicago press; 1983.
 35. Felner R, Abu M, Primavera J, Cauce A. Adaptation and vulnerability in high risk adolescents: An examinaton of environmental mediators. *American Journal of Communication Psychology*. 1985; 13:365–80.