THE RELATIONSHIP BETWEEN ACADEMIC SELF-CONCEPT AND ACADEMIC SUCCESS: A RESEARCH ON INTERNATIONAL STUDENTS[1]

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ABSTRACT

This study explores the relationship between academic self-esteem and academic achievement among international students. Academic self-esteem refers to students' perceptions of their academic abilities and their confidence in achieving academic goals. The research adopts a quantitative approach, using validated instruments to measure self-esteem and academic achievement. Data were collected from a diverse group of international students and statistical analysis was conducted to assess the correlation between these variables. The results show a strong positive relationship between academic self-esteem and academic achievement, highlighting that students with a high self-concept tend to perform better academically. The study also identifies the key factors that shape academic self-esteem, including the support of teachers, peers and family, as well as the influence of cultural and social integration. Recommendations are given for educators and institutions to implement strategies that build students' academic confidence and resilience, especially for those transitioning to a new educational and cultural environment. This research contributes to the understanding of the psychological and environmental factors that influence academic performance, providing information to improve support systems for international students to maximize their potential.

Keywords: Academic Self-concept, Academic Success, International Students.

JEL Codes: M10, M12.

INTRODUCTION

Self-Concept: According to Coopersmith, self-concept is a structure that an individual develops on their interests, abilities, and goals. This structure is indicated by the "I" icon. In other words, it means thinking about oneself (Coopersmith, 1957; Bilgin, 2001). Ideal Self-Concept: The ideal behaviors, skills, characteristics that the individual wants to achieve and the ideal standards that are generally accepted as valuable by the society in which they live (Kuzgun, 2002). Self-Esteem (Self-Esteem): Self-esteem is an individual's assessment of the difference between their self-image and their ideal self (Raven, 2002; Pişkin, 2003). Academic Self-Concept: Academic self-concept is defined as the belief that a student develops about how talented he or she is compared to other students in the face of a particular academic endeavor (Arseven, 1986). Academic Achievement: According to Carter, academic achievement is the skills or knowledge gained in the courses taught in any school and determined by grades, test scores, or both that are appreciated by teachers (Charter and Good, 1945; İncirci, 2021). In addition to the grades appreciated by teachers, standardized achievement tests developed in recent years are also used as a criterion to determine academic success. The transition to higher education presents significant challenges for international students, who must navigate academic, cultural, and social adjustments in addition to meeting academic performance expectations. Academic success, often measured by grades, test scores, and faculty evaluations, is influenced by a range of factors, including self-perception, external support, and cultural adaptation (Carter & Good, 1945; Kuzgun, 2002). Among these factors, academic self-concept plays a pivotal role in determining how students approach and succeed in their academic endeavors. Academic self-concept, defined as a student's perception of their academic abilities, reflects both their self-belief and confidence in learning and achieving (Marsh & Hau, 2003). The role of academic self-concept in academic success is well-documented in educational psychology. Marsh et al. (1997) found that students with high academic self-concept demonstrated superior performance compared to their peers with lower self-concept, even when other variables such as intelligence and socioeconomic status were controlled. This suggests that academic self-concept is not merely a reflection of past achievements but a dynamic factor influencing motivation, resilience, and learning strategies. Furthermore, international students, who often experience cultural and academic challenges, may be particularly sensitive to fluctuations in academic self-concept due to the unique pressures of studying in a foreign context (Senemoğlu, 2003). International students face distinct challenges that can affect their academic self-concept. Language barriers, unfamiliar educational systems, and limited social support networks can negatively impact their self-perception and academic performance. Conversely, positive reinforcement from teachers, support from peers, and a welcoming institutional environment can enhance self-concept and facilitate academic success (Liu, 2008; Wang, 2013). These findings underscore the importance of understanding how academic self-concept develops

and functions within the context of international education. This study investigates the relationship between academic self-concept and academic success among international students. The research examines how students' self-perception influences their performance and identifies the factors that enhance or hinder this relationship. By analyzing statistical data and exploring the interplay of personal and contextual variables, this study aims to provide actionable insights for educators and policymakers to support international students' academic success. The findings of this research contribute to the growing body of literature on educational psychology and international education. By emphasizing the importance of academic self-concept, this study highlights the need for interventions and strategies that foster positive self-perception among students, ultimately helping them to overcome challenges and achieve their academic goals.

1. LITERATURE REVIEW

1.1. Self Concept

The term self-concept is a general term used to refer to how a person thinks, evaluates, or perceives himself. To be self-aware is to make oneself a concept (Symple Psychology, 2024). Self-concept is the image we have of ourselves. How exactly is this self-image formed, and how does it change over time? This image evolves in many ways, but it is especially influenced by our interactions with the important people in our lives. Self-concept is often thought of as our individual perceptions of our behaviors, abilities, and unique traits. It's actually a mental picture of who you are as a person. For example, beliefs such as "I'm a good friend" or "I'm some kind of person" are part of an overall self-concept. Self-concept tends to be more amusing when people are younger and going through a process of self-discovery and identity formation. As people age, their self-perception becomes more detailed and organized as people form a better idea of themselves and what is important (Symple Psychology).

Self-concept is the way students see and think about themselves. When a student knows and understands themselves, their strengths, struggles, and style, they can ask for help, feel confident, and succeed as a thinker and student. Self-concept is something that develops slowly over time, so it's not something you can teach in a one-timeless way. The activities presented here will help you understand and work on your students' own concepts little by little (Chaika, 2018). The individual is made up of qualities and personality traits (e.g., "introverts") that distinguish us from other individuals. The relational self is determined by our relationships with others (e.g., "sister") Finally, the collective self reflects our membership in social groups (e.g., "British") (Yanal, 2019).

1.1.1. Academic Self Concept

Academic self-concept, also known as self-concept, as a term, has a long history in psychology and education. Because it provided a criterion for determining the impact of academic and social functioning on an individual's emotional well-being (Seaton, Marsh, & Craven, 2009). Academic self-concept is often seen as a valuable educational outcome in many educational systems. Self-concept is typically defined as the overall mixed or collective view of a person across multi-dimensional domain-specific clusters of perceptions, which is based on an assessment of the value or value of one's own abilities as revealed by one's own knowledge and experiences and interpretations of the environment (Byrne, 2002; Preckel and Brüll, 2010). The structure of academic self-concept is primarily based on self-worth theory (Covington and Dray, 2002; Eccles and Wigfield, 2002). In short, self-worth theory suggests that all individuals have a motivational "tendency to form and maintain a positive self-image or sense of self-worth" (Eccles and Wigfield, 2002). Self-worth theory, in which children spend a significant part of their lives assessing in school classrooms, states that one key to developing and maintaining self-worth is to develop and maintain a positive academic self-concept.

Historically, self-concept research has emphasized a general anonymous self-concept, while contemporary research focuses on a multidimensional structure with different aspects or domains. Although the consensus is not unanimous (Valentine, DuBois, & Cooper, 2004), it is generally believed that domain-specific self-concept perceptions (academic, physical, social) are regulated by the overall self-concept within a hierarchical structure (Marsh and Hau, 2003: 364; Skaalvik, 1997). The Shavelson hierarchical model (Shavelson et al., 1976), which is a model that divides self-concept into academic and non-academic branches, and the one that examines this concept through an empirical approach (Byrne, 2002). Byrne (2002) highlights seven key features of self-concept; organized, versatile, hierarchical, stable, developmental, evaluative and differentiable. In the present article, academic self-concept is defined as an individual's perception of self-efficacy in academic subjects (Marsh and Hau, 2003: 394; Garzarelli, Everhart, & Lester, 1993: 109).

The terms self-concept and self-esteem are often (and incorrectly) used interchangeably. The cognitive or descriptive component of self-concept ("I'm good at math") differs from the emotional or evaluative self-esteem component ("I feel good about how I do math") and self-esteem (Garzarelli, Everhart, & Lester, 1993: 109). Thus, global self-worth, or self-esteem, is a separate component of self-concept. The literature on the self-self is quite extensive and beyond the scope of the current article (Skaalvik, 1997). External reference frames include school/grade averages or comparison with other students. A reference inner frame includes self-comparison of the student's self-produced aspirations in different academic areas at a certain time, and self-evaluations in the same academic field over time.

In the learning-teaching process, students decide whether to choose a school and branch, to choose courses or some extracurricular activities. Because of all these decisions of the students, there are consequences that can have an impact on the experiences arising from the past, the choice of profession for the future, and in all areas throughout life. It has been proven that students' self-and academic self-concepts have very important effects on their academic and future performance. It is important for the student to know what he wants and what kind of resources (talents, interests) he has in order to make the right decisions on the basis of academic self-concept and to carry out the learning process in a healthy way. A student is likely to achieve his learning goals if he has an accurate, objective and rich self-concept regarding which subjects he is inclined to, shows interest in, and in which subjects he can learn effectively and easily, that is, his abilities (Kuzgun, 1996).

Academic self-concept: It has been defined as an individual's attitudes, values, feelings and perceptions about their mental, learning skills and achievements (Byrne and Shavelson, 1986). Academic Self-Concept (ASC); It refers to the personal beliefs that someone has developed about their academic abilities or skills. A person's academic self-concept develops through their mental and physical development and begins to develop in early childhood and then develops into a stereotyped structure. According to Pullman and Allik (2008), academic self-concept is an important variable that influences students' motivation and preferences over school tasks. When students are confident in their academic abilities, they put in more effort when completing any learning task. Conversely, those who see themselves as having inadequate skills show behavior of discouragement and failure in the relevant learning task when faced with difficulties. Thus, academic self-concept acts as a functionally limiting or supporting factor in all areas and courses of students. Academic self-concept appears to be a potentially valuable construct for educators to consider in their efforts to understand students' individual achievement levels and learning performance. In this context, it can be said that there is a high relationship between self-concept and success and skill (Caracosta and Michael, 1986).

Academic self-concept is related to the individual's school life and the learning performance of the students in the classroom they study. A student who is in the same class as students at a lower level can achieve higher self-perception if he achieves higher school success (Trautwein et al., 2009: 853). Byrne (2002), on the other hand, claimed that academic self-perception is not only related to school success, but also that gender, socioeconomic factors, intelligence and abilities, and many cultural factors are related to academic self-perception. In addition, academic culture and teacher expectations in the classroom also influence academic self-perception. In fact, research has revealed significant implications for important cognitive, affective, and behavioral mediating variables between academic self-perception and performance. For example, regarding the relationship of the concept of academic perception with these variables.

1.2. Academic Achievement

The level of achievement of the intended behaviors of the students in school life is defined as "Academic Success" (Altınkurt, 2008), and the success below the expected according to the cognitive ability of the individual is defined as "Academic Failure" (Altun, 2010). In other words, academic achievement is the expression of skills or knowledge gained in school subjects and determined by grades, test scores, or both that are appreciated by teachers (Erdoğdu, 2006). Therefore, the student's school life should have features that increase his academic success. Based on the definition of Gündüver and Gökdaş (2011) as "reaching the foreseen target within the specified time and with the desired quality product" (Gündüver and Gökdaş, 2011), it can be concluded that academic success is not a one-dimensional indicator. According to Çalıkoğlu (2014), there should be a balance between the student's potential and the targeted characteristics. The education given to the students should be suitable for their potential, because the education given below the potential of the student may result in him getting bored, and an education given above the potential may result in the feeling of wasted effort and disappointment in the student (Çalıkoğlu, 2014). Gifted children who told the researchers about their problems said, "I'm tired of doing those ridiculous and simple homework-Efe, 8 years old; What is the need to work, mother, I get 100 anyway without working-Berke, 10 years old" (Bildiren, 2013). An education suitable for their abilities, capacities and levels will increase the academic success of students. In the education process, whether gifted or not, as the success of the students increases, satisfaction is achieved and their abilities develop further. For a successful educational practice, it is necessary for a successful educational practice that the personal characteristics of the student, namely the mental capacity and learning speed, special abilities, interests and needs of the educators are well known. Because there is a directly proportional relationship between knowing the nature of human beings and educating people (Oruç, 2009).

1.2.1. Factor Affecting Academic Success

Gifted students with low academic achievement and normal students have similar characteristics (Sak, 2014). It is thought that the factors affecting academic success for normal students may also be effective in the academic success of gifted students. When we look at the studies conducted in our country, although there is not much research to reveal the factors that directly affect the academic success of gifted people and the impact of these factors, the literature on academic success in general has been examined and it has been seen that there are a wide variety of factors affecting success. In addition to intelligence, factors such as ability, personality, gender, age, health, physical development, education level, attitudes and behaviors of the parents, understanding of education and discipline, living together, income of the family, number of siblings, social maturity level, mother's work, trust in the child, as well as motivation, perfectionism, attitude, self-confidence, self-perception, learning styles,

school, environment, teacher, methods and techniques, training programs, grade level, equipment, Many variables such as social activities and friendship relationships stand out.

Every student is different; It has different individual characteristics, different families. The environment, social position and educational environments in which the student is located, the experiences of the student affect his learning power. Therefore, learning that does not occur at the same level will be characterized by different achievement states. Variables "related to physiological, psychological and social situations and conditions" are also called learning variables. These variables affect the child's learning and therefore his academic success, either positively or negatively (Keskin and Sezgin, 2009).

Mathematics and science contain abstract concepts, so mental development is important for academic success in these courses. Because the student is expected to develop hypothetical and logical thinking about abstract concepts, to list problems systematically, to think abstractly even if objects and events are not in sight, and to make generalizations. According to Yurt (2014), it is known that secondary school years are a critical period for students' mathematics and science achievements (Yurt, 2014). According to Piaget's Theory of Mental Development, secondary school age coincides with the period of abstract operations. Researchers say that different characteristics of students directly or indirectly affect success in mathematics and science (Ceylan and Berberoğlu, 2010)

The fact that there are many and various factors affecting academic success makes it difficult to examine all variables together. It is possible to classify the variables that directly or indirectly affect academic success in different categories such as familial, individual and environmental factors. Within the framework of this theoretical and empirical information, the research hypotheses are as follows;

H_1: International students' Internal Social factor of academic achievement has a positive effect on academic self-esteem

H_2: International students' perception of academic achievement has a positive effect on academic self-esteem

2. METHOD

2.1. Research Design

In line with the hypothes of the study, a cross-sectional survey was carried out at Istanbul Nişantaşı University to examine the effect of international students in the Republic of Turkey on students' academic self and academic achievement. Online survey systems were also used to ensure the reliability and impartiality of the survey. A survey form was created by taking support from the Google surveys application. The data obtained were processed through the IBM SPSS 25.0.0 statistical program.

2.2. Population and Sample

The research universe is international students in universities, and the sample selection in the said universe includes international students in the Republic of Turkey. The main reason for choosing Istanbul is that it is the city with the highest number of foreign students according to YÖK 2023 data. According to the data updated by YÖK every year, there are 118789 foreign higher education students in Istanbul in the 2023-2024 academic year.

2.3. Data Collection Tools

The Academic Achievement Inventory Scale for University Students, originally developed by Prevatt et al. (2011), is designed to assess the overall academic performance of university students. To make it suitable for Turkish-speaking students, Orçanlı et al. (2021) adapted the scale into Turkish.

This comprehensive scale consists of 50 questions, categorized into 10 sub-dimensions that reflect various aspects of academic success.

- General Academic Skills
- Intrinsic Motivation/Confidence
- Perceived Lecturer Qualification.
- Concentration
- Extrinsic Motivation/Future
- Socializing
- Career Stability
- Lack of Anxiety
- Personal Harmony
- External Motivation/Current

Students respond to each item on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree) was used.

2.4. Data Collection and Analyses

Data was collected using a 5-question Likert-type survey from the international students in turkey specially in istanbul. In total, 388 international students were reached. September 2024 and January 2025 were preferred as the data collection process. During the fieldwork, convenience and snowball sampling methods will be preferred, and the data obtained will be analyzed using the IBM SPSS 25.0.0 statistical program was used in the analysis of the data. In the analyzes, firstly, the validity and reliability coefficients will be determined. , a correlation test will be performed to determine the one-way or two-way relationship of the research variables.

The descriptive statistic to summarize the demographic character's reliability test The internal consistency of the scales was evaluated using Cronbach's alpha. Both the Academic Self-Concept Scale

and the Academic Success Scale demonstrated high reliability (Cronbach's alpha values exceeding 0.80), confirming the suitability of the instruments then correlation test was used t find the relationship between the academic sucsess and academic self concept the result indicated astrong positive correlation and the regression test were performed. The hypotheses were tested at a significance level of $p < 0.05$. Results confirmed that academic self-concept significantly influences academic success and that factors like teacher feedback and cultural integration enhance this relationship.

3. FINDINGS

3.1. Demographic Findings

Of the 388 students participating in the study, 165 were female (42.5%) and 223 were male (57.5%). Again, 345 (88.9%) of these students were single and 43 (11.1%) were single. The age distribution of the sample is as follows: 193 participants (49.7%) were between the ages of 18-23, 138 participants (35.6%) were between the ages of 24-29, 35 participants (9%) were between the ages of 30-35, and 11 participants (2.8%) were between the ages of 36-41 and over 42. Of the participants, 38 (9.8%) are pursuing associate degree, 264 (68%) are undergraduate, 60 (15.4%) are pursuing master's degree and 26 (7%) are continuing their doctoral education. Participants stated that as the most important factor in the selection of departments/faculties; 281 participants (72.4%) stated that they preferred their own preference, 66 participants (17%) with the encouragement of their family, 26 participants (7%) with the recommendation of their friends, and 15 participants (3.8%) with the leveling of education consultancy firms. While 258 (66.5%) of the participants said yes to the question of continuing to work in the relevant field after graduation, 130 (33.5%) answered no.

3.2. Statistical Findings

3.2.1. Correlation Analysis Findings

There is a significant positive X correlation between Academic Self (Academic Self-Esteem) and Endogenous Social Achievement (Internal Social) ($r = 0.283$, $p < 0.001$). This suggests that students' perceptions of social achievement have a positive effect on academic self-esteem. A weak but significant positive correlation was observed between Academic Self (Academic Perception) and Academic Perception (Academic Perception) ($r = 0.200$, $p < 0.001$). This implies that students' perceptions of academic achievement have an impact on the academic self, but this effect is more limited. A strong positive correlation was found between Intrinsic Social Achievement (Internal Social) and Academic Perception (Academic Perception) ($r = 0.733$, $p < 0.001$). It is understood that the

perception of social achievement is a strong contributor to the overall perception of academic achievement. The results show that Table 1.

H1: International students' Internal Social factor of academic achievement has a positive effect on academic self-esteem

H2: International students' perception of academic achievement has a positive effect on academic self-esteem

Table 1. Correlation Analysis

	(1)	(2)	(3)	ORT	S.S.
(1) Academic Self-Esteem	-			3.90	0.89
(2) Academc Success (Internal Social)	283**	-		3.97	0.80
(3) Academic Success (Academic Perception)	200**	733**	-	3.92	0.83

***p<0.001; **p<0.01; *p<0.05

3.2.2. Regression Analysis Findings

The model is generally significant (F(2, 385) = 16.854, p < 0.001). Looking at the explanatory nature of the model, R^2 = 0.081 (i.e. 8.1%). This shows that the independent variables (Internal Social and Academic Self Esteem) explain 8.1% of the variance on the academic self (Academic Self Esteem). Internal Social: It has a positive and significant effect (β = 0.296, p < 0.001). This result reveals that the perception of social achievement is a strong contributor to students' academic self-perceptions *"H1: International students' Internal Social factor of academic achievement has a positive effect on academic self-esteem"* has accepted. Academic Self Esteem: No significant effect was found (β = -0.017, p = 0.809). This suggests that academic perception does not have a direct impact on the academic self. In line with this direction, the hypothesis of the research *"H2: International students' perception of academic achievement has a positive effect on academic self-esteem."* has accepted. According to the correlation analysis, a significant positive relationship was found between perceptions of academic achievement (especially intrinsic social success) and academic self. However, in the regression analysis, only the effect of the social achievement dimension was found to be significant, and the effect of general academic perception was not significant.

Table 2. Regression Analysis Findings

	Academic Self Esteem				
	β	B	SE	t	P
Constant	2.677	-	0.230	11.619	0.000
Academic Success (Internal Social)	0.328	0.296	0.079	4.125	0.000
Academic Success (Academic Perception)	-0.019	-0.017	0.077	-0.242	0.809
R^2 = 0.81 F = 16.854 p < 0.000					

CONCLUSION

Research has shown that international students' perception of social achievement has an impact on the academic self. This emphasizes the importance of social support and motivational activities in education policies. However, if the direct effect of general academic perception is not found to be significant, it may be necessary to work on this dimension with different methods or additional variables. This study demonstrates a significant positive relationship between academic self-image and academic achievement among international students. Academic self-concept, defined as students' perceptions of their academic abilities and potential, has been shown to be a key predictor of academic achievement. Students with a strong academic self-concept, characterized by confidence in their abilities and belief in their ability to succeed, consistently perform better academically. This finding highlights the importance of fostering positive self-perceptions in educational contexts, particularly for international students operating in new and challenging environments. Several key factors influencing self-image have been identified. Teacher feedback played a vital role in students' perceptions of their academic abilities. Positive and constructive feedback from teachers helped students build confidence and motivation, while negative or inconsistent feedback decreased self-confidence. Similarly, family and peer support had a significant impact on academic self-image, reinforcing the importance of a strong social support system. Cultural integration also played a critical role, as students who felt more integrated into their academic and social environments demonstrated higher levels of self-concept and academic achievement. The study also highlighted specific challenges for international students that can affect academic self-concept. These difficulties include adapting to new educational systems, language barriers, and the pressure to meet academic expectations in a foreign context. Students who were able to overcome these challenges through institutional support, such as mentoring programs and cultural orientation sessions, demonstrated better academic performance. This study has some contributions and limitations. The first of these agents. Important findings have been revealed regarding the relationship between academic achievement and academic self of international students. The fact that the perception of social achievement has a significant effect on academic self emphasizes the importance of social support mechanisms in educational strategies. The research sample consists of international university students from all over Turkey. However, the results may not be fully representative of the entire international student population, as convenience and snowball sampling methods are used to determine the sample. Since Istanbul is the leader in the number of international students, students in Istanbul may have made up a significant part of the participants. This can run the risk of not adequately reflecting the experiences of international students in other provinces.

REFERENCES

Adelman, H. S., & Taylor, L. (2013). Addressing trauma and other barriers to learning and teaching: Developing a comprehensive system of intervention. In E. Rossen & R. Hull (Eds.), Supporting and educating traumatized students: A guide for school-based professionals (pp. 265–286). Oxford University Press.

Carter, C., & Good, R. (1945). Academic achievement and learning factors. Journal of Educational Psychology, 36(1), 20–35.

Coopersmith, S. (1957). Self-esteem as a determinant of selective recall and repetition. Cornell University.

Kuzgun, F. (2002). Educational psychology: Theories and applications. Ankara: Nobel Publishing.

Liu, Y. (2008). Academic self-concept and its effects on English language learning and achievement. Applied Linguistics Journal, 29(4), 523–539.

Marsh, H. W., & Hau, K. T. (2003). The multidimensional structure of academic self-concept and its relation with academic achievement: A theoretical and empirical analysis. Educational Psychology Review, 15(2), 195–226.

Marsh, H. W., Trautwein, U., & Lüdtke, O. (1997). Academic self-concept and achievement: A test of reciprocal effects and self-enhancement theory. Journal of Educational Psychology, 89(3), 468–482.

Pişkin, M. (2003). Self-esteem development training. In Y. Raven (Ed.), Guidance in primary education (pp. 45-63). Ankara: Nobel Publications.

Raven, Y. (2002). Guidance in primary education. Ankara: Nobel Publishing.

Senemoğlu, N. (2003). Developmental psychology and learning theories. Ankara: Pegem A Publishing.

Wang, X. (2013). Academic self-concept, learning strategies, and student performance in foreign language programs. Foreign Language Learning Journal, 18(3), 245–260.

Altınkurt, Y. (2008). Causes of student absenteeism and the effect of absenteeism on academic achievement. Dumlupınar University Journal of Social Sciences, 20, 129–142.

Altun, F. (2010). Gifted students' perfectionism characteristics, school motivations, learning styles and academic achievements. Unpublished master's thesis, Karadeniz Technical University Institute of Social Sciences, Trabzon.

Bildiren, A. (2013). Gifted children: A guide for parents and teachers. İstanbul: Doğan Kitap.

Byrne, B. M. (2002). Validating the measurement and structure of self-concept: Snapshots of past, present, and future research. American Psychologist, 57(11), 897–909.

Byrne, B. M., & Shavelson, R. J. (1986). On the structure of adolescent self-concept. Journal of Educational Psychology, 78(6), 474–485.

Caracosta, R., & Michael, W. B. (1986). The construct and concurrent validity of a measure of academic self-concept and one of locus of control for a sample of university students. Educational and Psychological Measurement, 46(3), 735–744.

Covington, M. V., & Dray, E. (2002). The developmental course of achievement motivation: A need-based approach. In Development of achievement motivation (pp. 33–56). Academic Press.

Çalıkoğlu, B. S. (2014). The effect of science teaching differentiated according to depth and complexity on achievement, scientific process skills, and attitude in gifted and talented students. Unpublished doctoral dissertation, İstanbul University Institute of Educational Sciences, İstanbul.

Eccles, J. S., & Wigfield, A. (2002). Motivational beliefs, values, and goals. Annual Review of Psychology, 53(1), 109–132.

Erdoğdu, M. Y. (2006). Relationships between creativity and teacher behavior and academic achievement. Electronic Journal of Social Sciences, 5(17), 95–106.

Garzarelli, P., Everhart, B., & Lester, D. (1993). Self-concept and academic performance in gifted and academically weak students. Adolescence, 28(109), 235–245.

Gündüver, A., & Gökdaş, İ. (2011). Examination of primary school students' placement exam achievements according to some variables. Adnan Menderes University Journal of Education Faculty, 2(1), 30–47.

Kuzgun, F. (1996). Self-concept and decision-making. Ankara: Nobel Publishing.

Marsh, H. W., & Hau, K. T. (2003). Big-Fish-Little-Pond effect on academic self-concept: A cross-cultural (26-country) test of the negative effects of academically selective schools. American Psychologist, 58(5), 364–376.

Marsh, H. W., Trautwein, U., Lüdtke, O., Köller, O., & Baumert, J. (2005). Academic self-concept, interest, grades, and standardized test scores: Reciprocal effects models of causal ordering. Child Development, 76(2), 397–416.

Preckel, F., & Brüll, M. (2010). The benefit of being a big fish in a big pond: Contrast and assimilation effects on academic self-concept. Learning and Individual Differences, 20(5), 522–531.

Pullman, H., & Allik, J. (2008). Relations of academic and general self-esteem to school achievement. Personality and Individual Differences, 45(6), 559–564.

Seaton, M., Marsh, H. W., & Craven, R. G. (2009). Earning its place as a panhuman theory: Universality of the big-fish-little-pond effect across 41 culturally and economically diverse countries. Journal of Educational Psychology, 101(2), 403–419.

Shavelson, R. J., Hubner, J. J., & Stanton, G. C. (1976). Self-concept: Validation of construct interpretations. Review of Educational Research, 46(3), 407–441.

Skaalvik, E. M. (1997). Issues in research on self-concept. Advances in Motivation and Achievement, 10, 51–98.

Trautwein, U., Lüdtke, O., Marsh, H. W., Nagy, G., & Jonkmann, K. (2009). Within-school social comparison: How students perceive the standing of their class predicts academic self-concept. Journal of Educational Psychology, 101(4), 853–866.

Valentine, J. C., DuBois, D. L., & Cooper, H. (2004). The relation between self-beliefs and academic achievement: A meta-analytic review. Educational Psychologist, 39(2), 111–133.