

Academic Self-Concept of Gifted Pupils

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Abstract

There are many different factors that self-concept is formed on. Those factors include such factors as teacher's personality, classroom atmosphere, school grades, teaching material and so on. Self-concept related to educational process is known as the academic self-concept and is one of the main components of general self-concept. The self-concept model created by Marsh and Shavelson in 1985 has hierarchic structure. The highest level of the self-concept is known as the general self-concept. It is divided into academic self-concept and non-academic self-concept. The academic self-concept contains mathematics self-concept, verbal self-concept and school self-concept. Academic self-concept can be defined as the pupil's view of his intellectual ability compared to others. And therefore, the school self-concept depends on pupil's school performance. The Self-Description Questionnaire - short form (SDQ-II-S) was the research tool used to measure pupil's self-concept. We have searched for the correlation between individual areas of self-concept and GPA (Grade Point Average). The research sample consisted of 207 gifted pupils at secondary school. In all three areas of academic self-concept we have found certain degrees of correlation. This means that pupils with an increase (better) in mathematics, in verbal and in school self-concept also improve their grades.

Keywords: *self-concept, academic self-concept, SDQ-II-S, secondary school.*

1 Introduction

As noted in review studies [1,2,3] the recurrent topics in the research of gifted pupils are the personality characteristics of gifted pupils and the issues of their education. The first psychologist who dealt with the theory of self-concept was William James. Self-concept in general is, in the broadest sense, the perception of one-self. Self-concept includes what one thinks about himself, how one perceives picture of himself, how one feels about himself and experiences himself [4]. Self-concept is being formed from early childhood, especially based on adult assessment. In the period of adolescence, its formation is influenced by peers in the sense of how we feel and, in the way, other consider us to be. Thus, we can say that self-concept reflects how one thinks that he or she is perceived by others. The basics of self-concept come from childhood, but they change throughout life. The self-concept also evolves through social relationships, in contact with parents, siblings, peers, friends and other people. The self-concept as a holistic concept of his self, but also as a complex relationship to himself [5]. The self-concept is an idea of an individual about them-self, while stating that it develops in relation to the outside world [6]. Shavelson defined self-concept as self-perception. Such perception is formed through personal experience and interpretation from the outside [7]. Shavelson presented one of the possible models of self-concept [8]. With the regard to the internal structure of self-concept, together with colleagues, they have designed a multidimensional and hierarchical construct. The highest level of the self-concept is known as the general self-concept. It is divided into academic self-concept and non-academic self-concept. The academic self-concept incorporates mathematics self-concept, verbal self-concept and school self-concept. At the same time, this model provided the basis for creating a self-concept tool known as the Self-Description Questionnaire - SDQ I-III. Figure 1 shows the Shavelson model of self-concept from year 1976. This model was reviewed in 1985 by Marsh and Shavelson [9]. The original two factors (academic and non-academic self-concept) were replaced by three factors (non-academic, academic/verbal and academic/mathematics). This change was based on research that showed that mathematics and verbal self-concept were almost in non-correlation.

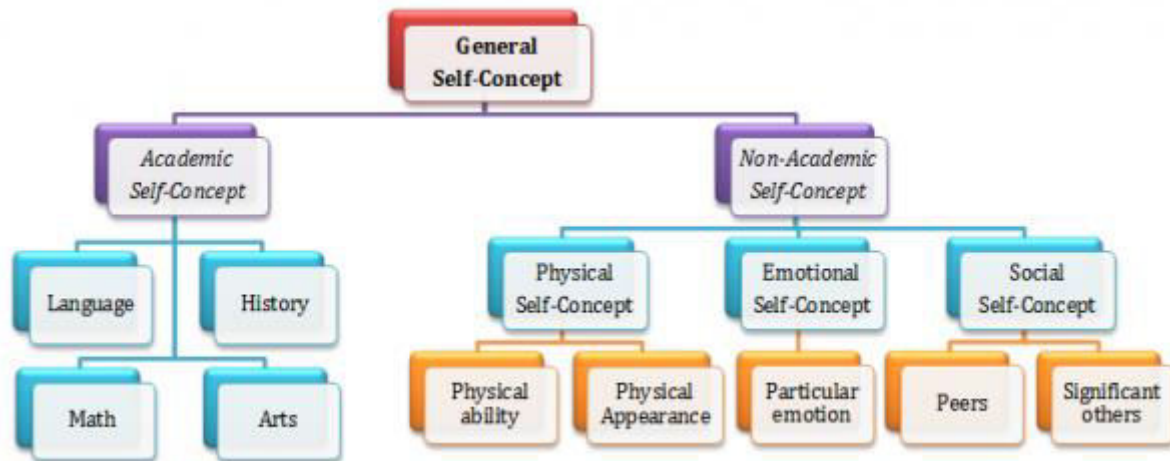


Fig.1. Structure of self-concept by Shavelson et al. [8]

2 Academic self-concept

Academic self-concept is considered to be a multidimensional construct that includes internal and external comparisons. Pupils compare their performance with other classmates as well as with their own performance. Marsh described the comparison of his performance with others as well as to his own performance as an internal and external system of self-concept [10]. The school should develop support programs and activities aimed at preventing problems in social relations, acquiring social skills and adequate self-concept of the pupil. In school age, the self-concept is flexible, and it can change quickly. The positive judgment of teachers leads to positive growth and improve in the self-concept of pupils. Another very important factor that forms self-concept is the group of peers, its importance grows with age and dominates them during the puberty. Acceptance by peers is a prerequisite for inclusion in the adult world towards independence and maturity. The development of self-concept is primarily identified with the family environment, with parents, but in time it moves to the school environment [11]. Self-concept in relation to school is called academic self-concept, which is one of the main components of general self-concept. The self-concept in the area of school performance significantly affects the pupil's performance motivation and their aspiration [12]. Accordingly, it can evoke different motivational tendencies in relation to results achieved, the purpose is to identify the causes of self-performance so that they do not conflict with the formed image of themselves. In pedagogical research, based on the frequent failure at school and dissatisfaction on the part of parents, pupils assessed themselves below average, even though the grade they received was not worse than two [13]. In doing so, we can say that, based on the evaluation of others, pupils create their own self-concept. If a pupil believes it is evaluated positively achieves better performance. Gifted pupils should be able to maintain high academic self-concept thanks to their skills compared to their classmates, these findings have been investigated [14, 15, 16, 17].

3 Methods and Participants

For the purpose of the work, we used the SDQ-II-S abbreviated SDQII questionnaire from Ellis, Marsh and Richards [18]. So far, the questionnaire was not used in Slovakia, so it was necessary to obtain its interpretation. Older questionnaires such as the Piers-Harris Children's Self-concept Scale, Rosenberg Self-Esteem Scale and Self-Perception Profile for Children still prevail in our self-concept research. It is this questionnaire that is suitable for examining the issue of self-concept, because it is composed of 11 factors and each area of self-concept can tell us a lot not only about the complex examination of this issue, but also about every single student. Pupils have completed the questionnaire by self-rating items on a 6-point, Likert-type scale. This scale ranges from 1 (I do not agree) to 6 (I agree). We used the academic part from the questionnaire, which, as we can see in Figure 2 consists of three categories. The research sample consisted of 207 gifted pupils at secondary school. These pupils attend segregated classes for the gifted (School for Gifted Students).

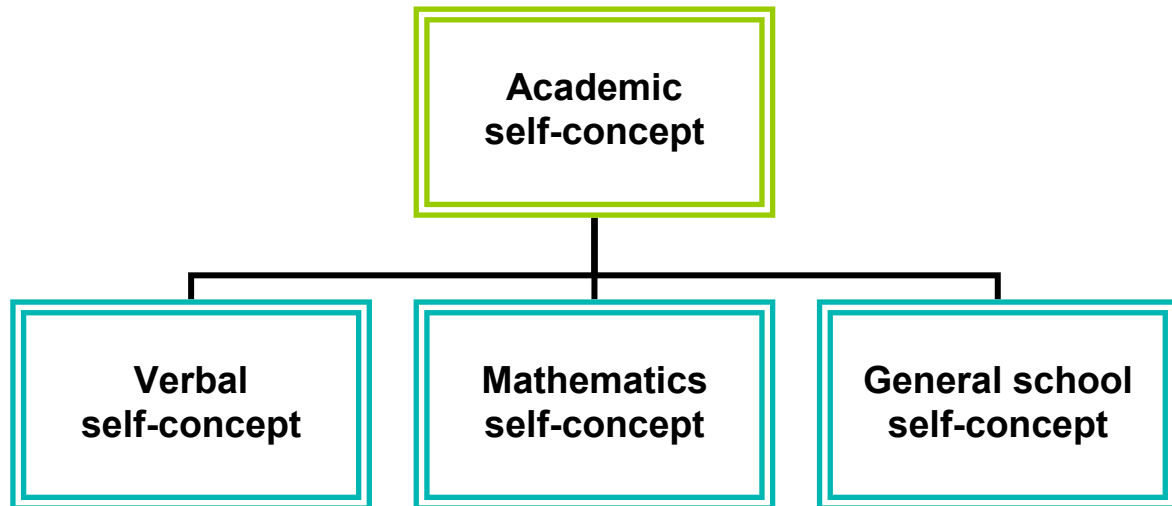


Fig.2. Structure of academic self-concept by SDQ-II-S

4 Results

Research in this area is not entirely unambiguous. Given that high performances are expected from the gifted, so excellent grades as well, we can assume that their self-concept will also be positive. Even though gifted pupils are more critical towards them-self. We have calculated Spearman's rank correlation coefficient between academic self-concept (in three areas: mathematics, verbal and school) and GPA in gifted pupils. The calculation was carried out in a specialized program called STATISTICA. The results are shown in Table 1.

Table 1. Spearman's rank correlation coefficient

Area of academic self-concept ↔ GPA	<i>R</i>
Mathematics self-concept ↔ GPA	-0.4867
Verbal self-concept ↔ GPA	-0.4751
General school self-concept ↔ GPA	-0.5925

Since the scaling of academic self-concept is from 1 to 6, where 6 is the best rating, however the scale of school grades has the opposite trend - value 5 is the worst grades, therefore all correlation coefficients are negative numbers. But all areas show positive correlation. Based on the calculated values of the Spearman's rank correlation coefficient, it can be argued that there is a moderate degree of binding between the GPA and the mathematics self-concept of gifted pupils ($R = -0.4867$), that means, the higher the mathematics self-concept of gifted pupils, the better the school results (grades). Regarding the verbal self-concept and the GPA, we also found a slight degree of inter-connection ($R = -0.4751$), that means, the higher the verbal self-concept of the gifted pupils, the better the school results (grades). In the last part of the academic self-concept, which is school self-concept, we even have a statistically significant degree of binding in the group of gifted pupils ($R = -0.5925$). From this, it is concluded that increase in school self-concept improves also GPA.

We can conclude that our assumption was confirmed by the specificity of the gifted pupil. The larger correlation came out in general school self-concept. Therefore, teachers should pay attention to the positive self-concept of each pupil, as this affects his performance in school.

5 Conclusions

We did not specify the degree of giftedness of the pupils who participated in our research. We relied solely on inclusion in the class for gifted and the fact that their intelligence quotient is above 130, which is a condition for the inclusion of a pupil in a class for gifted students, which is based on the law in the Slovak Republic. Having great results in mathematics, does not mean high mathematics self-concept. We cannot say that when a pupil is gifted, he is gifted in all areas. He can be gifted in certain fields such as mathematics, science, language skills or others. The need for success is closely related to school self-concept. Satisfying this need contributes to shaping the pupil's self-concept. The success rate can thus have both a motivational and a disincentive effect on its further performance.



There is close affiliation between need for success and school self-concept. The satisfaction of this need participates on the formation of self-concept. Thus, the success rate can have both encouraging as well as discouraging effect on further performance.

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