Socio-emotional predictors of school success at the beginning of school years

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Abstract

The present study proposes the identification of the maturity profiles at the age of 6-7 years by analyzing the features of the dynamics of social and emotional factors with the aim of identifying the socio-emotional predictors of the school success at the end of the first grade. The predictive non-experimental study performed on a sample of 106 children advocates the acknowledged idea according to which knowing the factors which come in the structure of social and emotional competence and whose variation explains school success best, we can initiate development and training programs for the optimization of school adaptation and implicitly of performances in the school activity of the I-st grade pupils.

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1. Introduction

School readiness is a term frequently used when we speak about the beginning of formal schooling, but there is no unity as regards its definition or its modalities of formation. A general definition of the phenomenon is given by Lewit&Baker (1995): „child’s abilities to learn and to adapt efficiently at school”. The specialty literature confirm that the reaching of certain level of school maturity (physical, cognitive, affective, social), as well as the influence exerted by the family, school environment, pedagogical factors upon the child lead to school adaptation which implicitly determines adequate conditions for school success and the obtaining of high school performances. Thus, the school learning activity imposes the child to integrate in a common activity, which involves a minimal moderation and

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self-control, the capacity to assume and execute verbally formulated tasks, to collaborate with the educator as well as with the classmates. On the other hand, the child must mobilize for a continuous activity which has a strictly determined duration, which can be expressed through a superior capacity of maintaining attention. This implies an energetic-emotional side, having natural limits and oscillations, and an emotional side, a minimal self-regulation and self-control conditioned by the development of internal inhibition, by the interiorization of the verbal action, by the formation of self-knowledge (T. Kulesar, 1978). The readiness for school implies the acquisition of certain basic capabilities and skills which allow the child to function successfully in the school environment, to adapt both at academic and social level. (Hair & al, 2006). The latest research in the Early Education domain analyzes mainly the prominence of the social and emotional factors, as being criteria with a fairly influential impact in school success (Goleman, 2001; Zins et al., 2004; Ladd&Price, 1987). Under optimal conditions, children acquire basic social and emotional competences during preschool years in the kindergarten, which enable them to establish and to maintain their first friendship and to get on well as members of their community on an equal basis. Children with impediments in the acquisition of such types of competences demonstrate an increased risk of behavioural difficulties when they enter the 1-st grade which can degenerate in serious emotional difficulties and antisocial behaviours during adolescence.

In the present study we refer to the definition of the social competences as being those adequate and socially accepted behavioural manifestations having positive consequences upon the involved persons and which enable the attainment of certain goals (Ştefan, C. & Kallay, E., 2007), and to the emotional competences as being manifestations of children’s abilities to adapt to own and to others’ emotions (Ştefan, C. & Kallay, E., 2007).

2. Objectives

We propose to build a valid prediction system of the success in the learning activity at the beginning of schooling, by analyzing the development level of the social and emotional factors of school learning and by identifying the role of the above mentioned factors in the performance of the learning activity. To this effect, we assume that social factors (cooperation, assertion, responsibility, self-control, social abilities) and emotional (recognition of emotions, emotional expression, and emotional control) are predictors of the performances of school acquisitions at the end of the 1-st grade. Thus, knowing the causal relations between the investigated variables (the development level of social and emotional factors of the 6-7 years child) we could imagine the subsequent evolution of other related issues with an acceptable probability (in our case, the performance in the learning acquisition).

3. Method

3.1. Participants

The research has been performed on a fixed non-aleatory sample, the lot of subjects being made up of 106 children, having the average age of m= 6.53, SD= 0.27, which come from school units of the Argeş district, both from urban – 79 children (74.53%), and from rural background – 27 children (25.47%).

3.2. Instruments

a. With a view to evaluate the social competence we have used Socials Skills Rating System (Frank M. Gresham, Stephan N. Elliott, 1990), which represents an evaluation instrument for social behaviours, of
screening and classification for social behavior problems. The applied form was that used for parents. The instrument presents a good internal consistency in the study (Chronbach $\alpha = .75$ to $.83$).

b. To evaluate emotional competences we have used different instruments according to the targeted competence. Thus, for recognition of emotions we have used an instrument adapted after Denham Affective Knowledge Test (C. Ştefan, 2010). We have evaluated this type of competence by selecting five suggestive images of a female face which expressed undifferentiated emotions such as: joy, fury, sadness, fear, indifference, measuring also emotional expression, capacity of receiving emotions.

c. To evaluate the strategies of solving problems we have used a procedure adapted after Wally Problem Solving Test (Webster-Stratton, C., 1990). Children are presented five problem situations, having a potential conflict, each of them being accompanied by a suggestive image: rejecting a friend, assuming a mistake, unjust treatment from another child, the limitation of access to a toy, the disapproval of an adult.

d. The evaluation of school acquisitions at the end of the 1-st grade has been achieved through three experiments elaborated by us in the domain of mathematical learning, written expression and the reception of the message written-reading. The acquisition samples show good values of the internal consistency coefficient: the sample related to mathematical acquisitions has the coefficient $\alpha$ Chronbach of 0.79, for the sample which evaluates the acquisitions in the domain of written expression (writing) the coefficient $\alpha$ Chronbach is of 0.72, and for the sample which evaluates the acquisitions in the domain of the reception of the written message $\alpha$ Chronbach is of 0.82.

4. Results

The results confirm that school performance at the level of mathematics and language and communication associates intermediate to high with the socioemotional variables: assertion, responsibility, emotional regulation, recognition of emotions and emotional expression (Table 1).

Table 1. The coefficients of Pearson correlation between the criteria school acquisition performance and socioemotional predictors

| Variables           | Mathematical acquisition performance | Written expression acquisition performance | Written message reception acquisition performance |
|---------------------|--------------------------------------|---------------------------------------------|--------------------------------------------------|
| Cooperation         | 0.037**                              | 0.112**                                    | 0.023**                                          |
| Assertion           | 0.307**                              | 0.182*                                     | 0.304**                                          |
| Responsibility      | 0.338**                              | 0.331**                                    | 0.360**                                          |
| Self control        | 0.100**                              | 0.180**                                    | 0.038**                                          |
| Recognition of emotions | 0.248**                              | 0.375**                                    | 0.249**                                          |
| Emotional expression| 0.266**                              | 0.313**                                    | 0.238**                                          |
| Emotional regulation| 0.258**                              | 0.267**                                    | 0.230**                                          |

$p < .05$, ** $p < .01$, $N = 106$

The use of regression with a predictive goal aims at finding an equation which would estimate the evolution of the criterion at its best. The chosen prediction model is the multiple linear regression equation (Stepway) with a view to select a minimum number of predictor variables which would explain maximum of variations for the criterion variable.

The analysis has been performed at the level of each type of school performance (school performance at the level of mathematical acquisitions, at the level of the written expression and of the written message reception). Thus, a percentage of 22% from the variation of scores at the variable criterion performance in school acquisition at mathematics is explained by the combined effect of the predictor variables assertion ($\beta=.16$, $B=.37$), positive strategies ($\beta=.18$, $B=.19$) and expression ($\beta=.11$, $B=.18$), $R^2 = .25$, $F (3, 105) = 11.39$, $p < .001$. A percentage of 21% from the variation of schol performances in the written expression is
explained by the combined effect of the variables recognition of emotions ($\beta=.23$, $B=.06$), responsibility ($\beta=.06$, $B=.02$) and emotional regulation ($\beta=.13$, $B=.06$), $R^2=.23$, $F(3,105)=13.43$, $p<.001$. The multiple regression analysis of the socioemotional predictors offers us the model through which the combined effect of the predictors responsibility ($\beta=.16$, $B=.37$), emotional expression ($\beta=.12$, $B=.20$) and assertion ($\beta=.04$, $B=.21$) explains 15% from the variations of scores at the school performance of the written message reception acquisition, $R^2=.41$, $F(3,105)=10.56$, $p<.001$.

5. Discussion

Researches in the domain show the direct implication of social and emotional competences in obtaining school performances (Duncan et. al., 2007; Hair et al., 2006; Childeres, P.R., Matusiak, I., 2006).

In order to meet the new requirements the pupil in the 1-st grade can manage his own emotions and control his own behavior in the context of the daily interactions with the teacher and the classmates (Zins et. al., 2004). Entering school implies the competence to observe, understand, express, interpret and manage own and others’ emotions in the new social context represented by the school environment. Competences like compliance, empathy, prosocial behaviours represent predictors of social behaviours and of the ability to interact and establish relations (Carter et. al., 2003). At the level of the emotional competence the emotional regulation factor represent the predictor which explains the variation of the school performances in the three measured learning domains. Emotional regulation enables behavioural adaptation. As a behavioural regulator, this factor is involved in the capacity of behavioural organization and motivation, in the inhibition process and in the planning one (Thompson, 1990). When they enter school, children’s emotion are regulated by those around him – parents, educators, while within schooling, the child develops his own self-regulatory emotional system due to neurocognitive development, to the development of the language and to the development of the self. Emotional regulation indicates a better cognitive competence which indirectly reflects in high school performances. To know how to manage behaviours and emotions represent a factor of cognitive development (Boer, B.J., et al., 2010). When the child uses emotional regulation through reactive modalities, through withdrawal, hypervigilance rather than through processes implying superior cognitive abilities like memory, attention, planning, problem-solving, these modalities reflect directly upon abilities through consistent non-development.

The recognition of emotions – represents a predictor of the school performances variant at the level of the written expression competence, in our study. It implies beside verbal designation (he is glad/ he is sad/ he is furious), a nonverbal component, too. The deciphering of others’ emotions is performed by means of the reactions at the mimicry, gestures, tonality level etc. The primary mechanisms lying at the basis of „reading” others’ emotions are represented by the perceptive and cognitive mechanisms (memory, the understanding capacity, problem solving), involved directly in the acquisition of the written expression competences. The emotional expression represents the predictor from the sphere of the emotional competence included in the school performances linear regression equation of written language reception competence. This factor refers to the child’s capacity to transmit affective messages. Emotional expression helps the child to adapt in the different social contexts he approaches to. Modality, intensity and duration are indicators of the expression. The reception of the written language does not refer only to the decoding of the transmitted message, to the ability to read, but through reading, it must also convey the affective state implied by the message. One of the components of the written language reception competence is represented by the expressive reading.

At the level of social competence, assertion and responsibility represent predictors of school performances. Assertion represents the ability to become known to the others through the competences he
develops. It is well-known that at the level of Romanian school “the best pupils at maths” obtain a more rapid valorization and social recognition than other children who have performances in other learning domains. The pupils around understand the meaning of the message which is read. Expressive reading implies assertion, and assertion manifest itself through expressive, fluent, coherent, in fact by the performance level of this competence. The responsibility at the level of school tasks manifests at the child of 7 years mainly through the relation he establishes with the schoolteacher. The observance of the imposed rules, the observance of time limits, the observance of new working modalities contribute to the development of responsibility and implicitly implies academic performances beyond the average.

6. Conclusions

The involvement, development and optimization of the non-cognitive factors engaged in the prediction of school performances at the level of 1-st grade seem to be a necessity. In character with our study the structuring level of the social and emotional factors represent predictors which explain the school performances variant registered by pupils at the end of the 1-st grade, at the mathematical, written expression and reception of the written message competences. For these reasons, it is necessary to develop the elaboration and promotion of the intervention programs as far back as early stages with a view to develop and to involve the social and emotional competences, accompanied ideally by the adequate curricular stipulations.

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