COGNITIVE-MOTIVATION STRATEGIES OF LEARNING REGULATION ON THE EXAMPLE OF THE FANTASY NOVEL PINOCCHIO

Abstract: The goal of this research is to look at the developmental path of Collodi’s hero Pinocchio, from egocentric to self-responsible in setting goals and monitoring, regulating and controlling his own behavior, learning and motivation through the prism of the SRL model (Pintrich, 2004). By applying the qualitative methodology, we have tried to examine whether and in what way the teaching practice of SRL encourages students. The research corpus from which we sample units for qualitative thematic analysis constitutes the very content of the story. The text of the novel is, at the same time, a medium for viewing the representation of SRL elements in said content and teaching practice through the eyes of children (49 second-grade students) and teachers (7) from primary schools in Podgorica through focus group and individual interviews. The research results indicate clear SRL developmental stages of the main character in the story, according to the proposed model. Children recognize their goals, intentions, and values, supporting their insights with examples from the work itself but also from their own experience. Teachers cite reasons for the inadequate application of SRL in teaching, such as their own insufficient preparation, overprotective upbringing of children, and beliefs about a desirable model of behavior.

Keywords: child/student, goals, motivation, self-regulated learning

INTRODUCTION

Education and upbringing, as rather complex and uncertain processes with fluid trajectories and diffuse outcomes, provoke an unending re-examination of the validity and expediency of regulative-disciplinary procedures in the broadest sense. In the foundations of theoretical-scientific models that inherit
certain scientifically postulated perceptions of appropriate behavior and, accordingly, upbringing models that create professional and public opinion about the “desirable” child, as obedient vs critically autonomous, one finds different determining assumptions.

Within the theoretical complex of postulates that “supervise” the behavioral directions of the child in the family and society, learning theories, which holistically cover all developmental domains of the child/personality and their inherent processes, occupy a very prominent place. Cognitive development, based on age-related and naturally maturing assumptions, rests to a significant extent on learning, relationships with others and various situations (temporal, spatial, cultural, etc.), as supported by multiple arguments by constructivists, extended by interactionists and humanistically oriented psychologists/pedagogues (Piaget, Vygotsky, Bruner, Bandura, Kohlberg, Maslow, etc., and, more recently, poststructuralists (Derrida, Foucault, etc.). In his sociocognitive theory, Bandura (1997) notes that any factor that influences choice behavior can contribute to personal development because social agents improve certain competencies, values and interests. Strong self-confidence and belief in personal efficiency, coupled with the continuous presence of internal interests, contribute to success, subjective well-being and clearer determination of long-term goals.

This paper addresses pedagogical aspects of self/regulatory processes in learning and maturation that are in multiple ways connected with mechanisms/constructs of self-determination (Decy & Rayan, 1985), self-efficacy (Bandura, 1977), autonomy, and even self-actualization (Maslow, 1974). The maturation and crystallization of the integrated part of the personality, as the essence of the autonomous, metacognitive structure of the character, occurs through constant interaction with the environment, learning and internal processing of the insights or cognitions reached, as well as strongly intrinsically motivated orientation toward autonomously set goals. The subject of the research or corpus that we will use to analyze the aspects of the development of self-regulated and intrinsically motivated learning is an interesting, timeless text of the children’s “fantasy” novel about Pinocchio written by Carlo Collodi. This fantasy novel is mandatory and a favorite reading material for early school-age students. Dealing with the aforementioned concepts, interconnected and necessarily intertwined, we will especially apostrophize the relationship between the cognitive and motivational aspects of the regulation of children’s behavior, learning and action.
MOTIVATIONAL SELF-DETERMINATION AS THE BASIS OF SELF-EFFICACY

One of the most popular concepts that necessarily connects the mechanisms of internal motivation, critical judgment, self-regulation and self-efficacy, elaborated in the 1980s, is the theoretical construct of motivational self-determination (Self-determination theory – SDT) (Lalić-Vučetić et al., 2009). The creators of SDT theory, Deci and Ryan (1985), point out that the satisfaction of vital psychological needs, such as autonomy, competence and connection with others, is the foundation of human well-being, functional identity and integral development of personality.

The construct of self-determination departs from human nature as proactive, dynamic, naturally inclined to internal revitalization, continuous, more or less organized actualization of latent personality potentials and includes internal locus of control, will and perceived choice (Alispahić, 2012). The mentioned locus of control is found along the continuum, ranging from external to internal, which implies an individual’s belief that his behavior is dominantly regulated by internal or external influencing factors (Tutić, 2012). Humanist-oriented pedagogues and psychologists emphasize the internal locus of control and individual latent potential for self-actualization as the naturally inherent human need of the highest order (Stojiljković, 2002). In line with internal or external circumstances and the locus of control that determines the behavior and choices of an individual, the will to act, as well as different levels of persistence in certain behavioral actions, appear. In doing so, voluntary action is accompanied by desire, a sense of freedom, inspiration and self-determination, which arises from an internal locus of control (Deci & Ryan, 1996). Self-determination is also based on the degree of cognitive-moral maturity, and autonomous ethics is a prerequisite for self-regulation and internalized self-efficacy. Autonomy is a natural psychological need based on the urge of each individual to follow their own path, choice, interest and goal toward self-realization (Rajić, 2012). In this intertwining of cognitive-moral maturation and motivational-regulated learning, Ugurel-Semin (1952) distinguishes the following developmental stages: egocentrism; sociocentrism or acceptance of community rules; awareness of social reactions, i.e., fear of social condemnation; superficial reciprocity accompanied by a feeling of guilt if something is shared unequally; deeper and enlarged reciprocity, that is, the desire for good relations; and altruism as a sense of justice.

The SDT creators Ryan and Deci (2000) point out that intrinsic motivation actualizes the positive potential of human nature more strongly than any other driver, thus contributing to the systemic expansion of learning capacity. A child’s natural urge for exploration, questioning, and interaction is limited due to various internal and external directives or spontaneous regulatory
circumstances. Therefore, the construct of intrinsic motivation directly correlates with natural and primordial children’s curiosity and spontaneous interest in exploration (Harter, 1978).

The authors of self-determination theory point out that psychological needs for self-realization, self-determination, and proactivity are universal and characteristic of members of different cultures, both individualistic and collectivist ones (Deci & Ryan, 1991). Intrinsic motivation fosters autonomous guidance toward better cognitive outcomes, such as increased retention and deep learning, choosing and varying optimal challenges (Benware & Deci, 1984). The concept of autonomy occupies a special place within self-determination theory. It develops and splits into two complementary modalities: reactive – as a relatively independent action of the individual – and reflexive – as a person’s ability to make a choice in line with their own interests (Benware & Deci, 1984).

**SELF-REGULATION, SELF-EFFICACY AND MOTIVATIONAL STRATEGIES**

Motivation is a complex and multidimensional construct with many qualitatively layered varieties. As previously pointed out, it occupies a significant place in the extensive constructive substrate of self-determination and the related concept of self-efficacy. A child’s functional self-determining motivation is influenced by numerous internal factors, such as intrinsic, integrated self-regulations but also much less influential and inevitable external, often introjected regulations (Alispahić, 2012). Nevertheless, the best learning outcomes manifested through the most effective achievements and cognitive processing are evident if intrinsically determined goals correlate with a supportive context (Vansteenkiste et al., 2004). The regulation of emotions of an extrinsic and intrinsic nature contributes to more effective learning, self-control and self-determined actions directed toward reaching set goals (Thompson, 1994).

In his sociocognitive theory, Bandura (2006) points out that man is a self-organizing, self-reflecting and proactive being. The results of numerous studies point to the justification and sustainability of Bandura’s thesis that self-efficacy arises as a result of a functional coupling between skills, a realistic self-image and a willing, intrinsically conditioned investment of effort and perseverance (Pajares, 1996). Bandura, unlike Piaget, believes that cognitive aspects are not the dominant predictors of a child’s success but that in the development of self-efficacy, motivation and learning by model are of particular importance as a way of assessing the probability of success in performing tasks (Bandura, 1997). Self-image is a precondition for the functional integration of knowledge and skills into more comprehensive self-efficacy (Ivanov & Penezić, 2001).
According to Zimmerman (2001), self-regulation theory is based on the idea that a child can improve their abilities and efficiency in reaching set goals by applying and developing cognitive-motivational learning strategies. This theory goes into more detail to explain why certain children, despite their high intellectual abilities, do not have significant success in learning, while others with lower potential progress more efficiently on the academic achievement scale. Intrinsically motivated learning strategies, persistence in mastering the given academic goals, and voluntary connotation of the child’s behavioral actions are logical assumptions for arguing the level and quality of the child’s/student’s results. Pintrich therefore points out that self-regulation is “an active, constructive process whereby learners set goals for their learning and then attempt to monitor, regulate, and control their cognition, motivation, and behavior, guided and constrained by their goals and the contextual features in the environment” (Pintrich, 2000, p.453). Boekaerts (as cited in Corno, 2005) notes that the self-regulation system consists of complex, supervisory functions in the area of goals/cognition, problem solving, motivation, will and learning. Self-regulated learning represents a proactive view of learning to the extent necessary to include metaconative, intrinsically determined motivational processes (Lončarić, 2008a). Boekaerts and Nimivirta (2000) define self-regulation as a systematic and proactive process that implies setting personal goals, persistence and flexibility. Obligatory, self-regulating behavior includes certain skills and strategies, which are built within different learning models, and in addition to cognitive, newer models also include motivational dimensions (Pintrich et al., 2000). The motivational dimension of self-regulation implies goal orientation, personal interests and accentuated emotions, while the cognitive components are focused on conceptual and metacognitive knowledge (Pintrich et al., 2000). Cognitive-motivational strategies of self-regulation of learning (SRL) (Pintrich et al., 2000) include goal setting, planning, self-testing, activation or restructuring with continuous in-depth processing of knowledge and learning achievements. In this model of self-regulation, setting goals is part of the planning phase of the regulation of learning (Vizek Vidović, 2019).

Within SDT, Deci and Ryan (1985) developed a subtheory of organismic integration (Organismic Integration Theory – OIT), explaining the continuum of extrinsic-intrinsic motivation and the importance of contextual factors that contribute to the internalization and regulation of certain behaviors. Using said continuum (Deci & Ryan, 2001), on the self-determination scale of motivation, we find six qualitatively operationalized stages:

1. Amotivation implies the absence of the will to act and any self-regulation, as well as insufficient competence and effective goal planning.
2. External motivation is regulated by external factors, where actions are conditioned by an externally perceived locus of control; therefore, ex-
ternal regulation is at the opposite pole of intrinsically determined motivation.

3. Introjected regulation is determined and controlled by external stimuli, such as the previously mentioned externally regulated motivation, whereby behavior occurs to avoid guilt or anxiety and achieve certain progress and reputation with an external perceived locus of causality (Deci & Ryan, 2001).

4. On the way to an autonomous, self-determining form of extrinsic motivation, we recognize regulation through identification, which implies a conscious evaluation of an external goal or regulation, and behavior is strongly directed toward certain values that are believed in.

5. At the end or at the highest level of the autonomous understanding of extrinsic motivation is integrated regulation, which is fully assimilated and highly congruent with the internal values and needs of the individual.

6. Finally, at the other end of the continuum or scale of self-determination is intrinsic motivation, characterized by an internal locus of causality and intrinsic regulation of intention (Deci & Ryan, 2001).

The concept of cognitive-developmental and motivational regulation of behavior and learning includes the mechanism of spontaneous, direct and indirect adoption of values. Veugelers (2000) notes that children can be taught certain values through discussion and critical questioning, relying on cognitive maturity, intrinsically oriented motivation, dominantly directed by the internal locus of control, and “contextual characteristics of the environment” (Pintrich, 2000). Therefore, it is not superfluous to teach children the truth, care for others and respect for others, as well as other moral values, even when, in accordance with developmental possibilities, external motivation regulated by external factors prevails, whereby behavior is conditioned by an externally perceived locus of control.

As we have already said, we will deal with the concept of self-regulated motivationally determined learning through the perspective of analyzing the content of the well-known romantic fairy tale about Pinocchio, which abounds in many interesting examples from the fantastically created developmental journey of “an ordinary wooden marionette” (Collodi, 2002).

**PINOCCHIO – A FANTASY NOVEL WITH PEDAGOGICAL MESSAGES**

Pinocchio is a story that belongs to the literary genre of a fairy tale – a rather specific form that yields wide possibilities and “always depicts the real world, and resorts to unreality in order to better depict its reality” (Crnković, 1986, p. 58). The fantasy story of Pinocchio, timeless and omni-contextual, has yielded
countless “readings” and interpretations from different angles of recipients, lay, professional, scientific, literary-artistic and other optics and receptive decoding. As Samardžija points out, a fairy tale is a “well-developed, stylized story of fantastic content, the truth of which is not believed” (Samardžija, 2011, p. 231).

The fantastic story about the wooden marionette Pinocchio was developed by Collodi (2015) (whose real name was Carlo Lorenzini Collodi, 1826–1890) through 36 exciting chapters connected in a complete continuous composition, originally published in sequels in “Il Corriere dei Piccoli”, under the title “Storia di un burattino” (1881–1883), while a complete work entitled “The Adventures of Pinocchio” was published in Florence in 1883 (Popović, 2014).

As regards Regarding the Montenegrin educational environment, Pinocchio is on the list of mandatory reading materials for the second grade of the first cycle of primary school and is intended for seven-year-olds, who can understand and experience the content of the fairy tale with interest, gradually “establishing an attitude toward the concept of good” (Bežen, 2005, p.15), as a fluid and timelessly constructed value. In our paper, Pinocchio is a student/the subject of upbringing, the truth of a fantastic substrate, which goes through adventurous lessons, experiential insights, cognitive and moral dilemmas, socioemotional, and even physical gradations (in the end, the wooden marionette Pinocchio “deserves” to transform into a real boy), traversing from “disobedience” to self-responsibility. Interestingly, “our” subject of upbringing or the hero of this prose fantasy has no age, family background, or genetic or cultural framework. Nevertheless, his motivational-cognitive and integral maturation process is convincing, pedagogically “readable”, multilayered and illustrated with interesting creative-imaginative examples from the world in which this lively Collodi’s “wooden marionette” has his adventures.

In this layered fantasy prose drama, the contents and messages are perceived by the imaginative-interpretive “sensory eye” of the recipient, since in this case rational reasoning cannot fit into real “tangible” coordinates (Kršenković Brković, 2011). A fairy-tale drama with peculiar plots, characters, motivators/regulators of the protagonist’s actions in an unrealistic-imaginatively created “space-time” concept contains interesting, pedagogically multiresourceful lessons (Popović, 2018). Vučković (2020) notes that every fairy tale, despite its basic weaving as a narrative verse or prose work, inevitably contains strong dramatic elements. A fantasy story, which does not serve as a mimetic imitation of reality, contains, in the essential sphere, very realistic characters, their layered relationships and educational interactions (Vuković, 1984). Thus, the fantastic discourse of the story of Pinocchio reconciles two interfering perspectives of reality, marking the timeless life concepts of truth, lies, benevolence, selfishness and hypocrisy in a metaphorical and rather symbolic manner. From a pedagogical point of view, it is possible to consider several significant and intriguing questions, which are raised in the story, so in our case, we direct our
attention to the focused issue of intrinsically motivated regulation of learning (self-regulation), which leads to the effective advancement of the individual, the never-ending pursuit of goals, determined by the internal control locus.

Although the biographical information about the novel’s main character remains a typical place of indeterminacy or “empty place”, which is one of the necessary and defining determinants in the pedagogical perspective, in the story itself, we can still follow the learning and maturation of Pinocchio based on his experiential insights and the increasingly strong awakening of intrinsic motivation (Vuković, 2015). Reading the work, one can observe a clear path of maturation of the main character, which usually starts “within oneself”, through egocentric thinking, moral reasoning and action, as well as unmotivated learning (Deci & Ryan, 2000). After that, he begins noticing and admitting his own shortcomings, facing crisis challenges and valuable messages from the actors in the fairy-tale dynamic arena of this prose “drama”. In the course of his further development, through spiritual maturation and reaching psychological balance, the protagonist gradually overcomes the crises and internal dilemmas (Deci & Ryan, 2000). However, in this fairy-tale narrative, the realistically expected school environment is missing, and there are no academic lessons and metacognitive guidance strategies in the domain of mastering complex educational content. However, there are other valuable lessons, external and internal regulatory mechanisms, learning by model, experiential and motivated associative linking, and self-monitoring achieved for more efficient progress toward increasingly clear intrinsically motivated goals.

The aim of our research is to look at the developmental path of Collodi’s hero, Pinocchio, who progresses from an egocentric and unmotivated individual to one who is self-responsible in setting goals, self/monitoring, regulating and controlling one’s own behavior, learning and motivation through selected “events” in the story and text analysis. Another qualitative research aspect of looking at the mentioned concept of self-regulation through the prism of children/learners and teachers arises from the stated goal. The main intention is to examine, through the entire story of Pinocchio, whether and in what way self-regulated learning is encouraged in second-grade primary school students (seven-year-olds) in teaching practice, as well as whether it is possible to recontextualize knowledge and skills in the direction of the more purposeful setting of and reflection on individual goals for children.

**METHODOLOGY**

Departing from the key topic of our interest – self/regulation of learning as a complex and ambiguous construct – through a qualitative thematic analysis of the content (Braun & Clarke, 2006) of the novel, we “engage with” the process of maturing of the protagonist’s self-regulating behavior. The analysis of the text
is done through the prism of the adapted/reduced cognitive-motivational model instrument by Pintrich (2004), which is structured through three subunits and their inherent subcategories: cognitive regulatory strategies, cognitive beliefs and values, and cognitive-motivational regulatory learning strategies. By applying the qualitative content analysis method as a leading research method and departing from the key guidelines from the specified model, we selected content units that represent representative responses to the set requirements/criteria from the used model.

Content analysis as a scientific method can be performed in the spirit of the constructivist and interpretive traditions. It can also be addressed from the aspect of critical theory so that the focused subject is critically treated through content analysis (Bešić, 2021). Stemler (2001) points out several ways to determine the units of content analysis, emphasizing that the first are units with natural boundaries, while the second are syntaxes that the author themselves has separated in some way. In his sequential model of content analysis, Mayring distinguishes three stages: extraction, which reduces the scope of the material while taking into account the essence and the basic text; an explanation that implies a more precise determination of lexical-grammatical definitions and accompanying context; and structuring the corpus according to content and form (Mayring, 2000).

With the intention of structuring the focused subject of content analysis more comprehensively and extracting more efficiently the key elements that support the answers to the crucial research question or goal, we singled out the “critical points” of maturation and regulation of learning in our “fantasy hero” by extracting statements/examples from the story that illustrate described categories and reducing the volume of material while respecting the essence of the basic text (Mayring, 2000). To achieve a higher level of reliability when extracting statements from the text that validly and essentially correspond to the developmental categories in the instrument, we relied on the intersubjective agreement of “revealing the true meaning and consensus” (Bulatović et al., 2021, p. 85) between the author and two teachers from the sample.

After identifying the key content-indicative sequences of SRL in the text of the story, we talked with the teachers, who then discussed with the children the plot, the characters in this fantasy fairy tale, and their perception of the protagonist’s maturation, that is, his way of “learning lessons”. During the conversations/individual interviews, we asked the teachers to describe the way of working on the topic, which was the primary medium for addressing the SRL construct (the story of Pinocchio), as well as strategies for supporting children’s self-regulatory activity in the classroom. The research corpus from which we sampled the units of analysis relates to the very content of the story about Pinocchio. The text of the fantasy novel is also a medium for analyzing the representation of SRL elements in the mentioned content (the novel Pinocchio).
from the point of view of children (49 children/pupils of the second grade of primary school, from two classrooms), who engaged in discussion with two teachers from a primary school in Podgorica (focus group interviews). We specifically discussed how to foster SRL development in the school environment with teachers from primary school in Podgorica (7 individual interviews).

**RESULTS AND DISCUSSION**

When it comes In regard to the developmental stages leading to self-determined self-regulated learning guided by the intrinsic motives of the protagonist, we extracted responses to key determinants within each of the three subunits of the SRL model (Pintrich, 2004) – cognitive regulatory strategies, cognitive beliefs and values, and cognitive-motivational regulation learning strategies.

**Table 1**

*Cognitive regulation strategies of Pinocchio’s “teacher-upbringer”*

<table>
<thead>
<tr>
<th>category</th>
<th>subcategory</th>
<th>example</th>
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<tbody>
<tr>
<td>Cognitive regulation strategies of Pinocchio’s teacher-upbringer</td>
<td>1. The development of the plan:</td>
<td>I promise you, Father, that I’ll learn a trade, and I’ll be the comfort and staff of your old age.</td>
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<td></td>
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<td>(chapter 8)</td>
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<td>In school today, I’ll learn to read, tomorrow to write, and the day after tomorrow I’ll do arithmetic. Then, clever as I am, I can earn a lot of money.</td>
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<tr>
<td></td>
<td></td>
<td>With the very first pennies I make, I’ll buy Father a new cloth coat. Cloth, did I say? No, it shall be of gold and silver with diamond buttons.</td>
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<td></td>
<td></td>
<td>(Chapter 9)</td>
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<td>I want to go back to my house, I want to study, to be an honor to the school, as all good boys do.</td>
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<td>(chapter 31)</td>
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Table 1 (continues)

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<th>category</th>
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<th>example</th>
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<tr>
<td>2. Recognizing one’s own mistakes (supervision)</td>
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<td>However, from now on, I’ll be different and I’ll try to become a most obedient boy. I have found out, beyond any doubt whatever, that disobedient boys are certainly far from happy, and that, in the long run, they always lose out. (chapter 20)  “Good boys go gladly to school.”  “And I get sick if I go to school. From now on, I’ll be different.” (chapter 25)  (Pinocchio to the cricket)  You’re right! Drive me away, throw a wooden hammer at me too (I’m bad!)... but have mercy on my poor father... (chapter 36)</td>
</tr>
<tr>
<td>3. Assessment of success in achieving goals:</td>
<td></td>
<td>Pinocchio kept his word throughout the rest of the school year. In addition, in the final exams, he had the honor of being the most diligent in the school. In addition, not only did he manage to support his always frail parent almost lavishly, but he even set aside forty-five pennies for a new suit. (chapter 36)</td>
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Table 2

Cognitive beliefs and values related to tasks within the field

<table>
<thead>
<tr>
<th>Category</th>
<th>Subcategories</th>
<th>Examples of beliefs and values</th>
</tr>
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<tbody>
<tr>
<td>Cognitive beliefs and values related to tasks</td>
<td>1. The egocentric phase</td>
<td>1. As for me, let me tell you, I hate to study! It’s much more fun, I think, to chase after butterflies, climb trees..., (fun, easy life)</td>
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<tr>
<td>within the field</td>
<td>2. Instrumentisation of behavior and learning (superficial reciprocity...)</td>
<td>2. Then, and there, the book changed hands, for a ticket to the circus (Chapter 9) ...for these four gold pieces will become two thousand (chapter 13). (easy money)</td>
</tr>
<tr>
<td></td>
<td>3. Intrinsically motivated and self-regulated behavior</td>
<td>3. Because you should know that I’m a marionette with all the flaws of a human being, but holding a bag for a dishonest crowd – that’s not me! (chapter 22) Pinocchio, spurred on by the hope of finding his father and of being in time to save him, swam all night long. (chapter 23) From that day on, for more than five months, Pinocchio got up every morning just as dawn was breaking and went to the farm to draw water. In addition, every day he was given a glass of warm milk for his poor old father. What’s a new suit to me? I would sell these rags of mine even to help the Fairy! (honesty, truth, love, sincerity and loyalty, clear goals, sincere repentance, recognition of own mistakes)</td>
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Table 3

Cognitive-motivational strategies of learning/behavior regulation

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<tr>
<th>Categories</th>
<th>Subcategories</th>
<th>Examples</th>
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<tbody>
<tr>
<td>Cognitive-motivational regulation strategies</td>
<td>1. Clear behavioral intentions</td>
<td>1. In school today, I’ll learn to read, tomorrow to write, and the day after tomorrow I’ll do arithmetic.</td>
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<td>of learning/behavior</td>
<td>External motivation and introjected regulation&lt;sup&gt;1&lt;/sup&gt;</td>
<td></td>
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<tr>
<td></td>
<td>2. Connecting intentions and behavior</td>
<td>2. “Careful, boys, I haven’t come here to be made fun of. I’ll respect you and I want you to respect me.”.</td>
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<td></td>
<td>Integrated regulation and evaluation of goals</td>
<td>As the days passed into weeks, even the teacher praised him, for he saw him attentive, hard-working, and wide awake, always the first to come in the morning, and the last to leave when school was over. Until now I worked to support my father, from now on I will work five hours more for my good mother. “What does that matter? I should like to sell these rags I have on to help her more. (chapter 25)</td>
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<td></td>
<td>3. The processes of dealing with different characters (reduced negative emotion)</td>
<td>3. It was the Fox and the Cat, but one could hardly recognize them, they looked so miserable. The Cat, after pretending to be blind for so many years had truly lost the sight of both eyes. In addition, the Fox, old, thin, and almost hairless, had even lost his tail. That sly thief had fallen into deepest poverty, and one day he had been forced to sell his beautiful tail for a bite to eat. “Addio, false friends. Remember the old proverb which says: ‘Bad wheat always makes poor bread!’” (Chapter 36).</td>
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### Table 3 (continues)

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<thead>
<tr>
<th>Categories</th>
<th>Subcategories</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Persistence in carrying out the plan despite obstacles</td>
<td>Intrinsic motivation and internal regulation of intention</td>
<td>4. Little by little his diligence was rewarded. He succeeded, not only in his studies but also in his work, and a day came when he put enough money together to keep his old father comfortable and happy. In addition to this, he was able to save the great amount of fifty pennies. With it he wanted to buy himself a new suit. (chapter 36).</td>
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<tr>
<td>5. Modifying the plan</td>
<td>Intrinsic motivation and self-regulation</td>
<td>5. “With these words Pinocchio took his father by the hand and, always walking on tiptoes, they climbed up the monster’s throat for a second time. They then crossed the whole tongue and jumped over three rows of teeth. However, before they took the last great leap, the Marionette said to his father: “Climb on my back and hold on tightly to my neck. I’ll take care of everything else.”” (Chapter 36)</td>
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Analyzing the content of the text of *the story* in our research, we looked for key reference points for which we believe (intersubjective agreement) to correspond, in their essential meaning, to certain criteria variables within the aforementioned areas of cognitive-motivational strategies of self-regulation that are mutually conditioned, congruent and coherently reflect the development of the aforementioned concept. Through a thematically focused reading of the novel’s content, we learn about all the developmental stages of the protagonist’s learning and maturing, such as planning and activation, monitoring, setting and revising goals, and the maturation of his inner responsibility. At the same time, we observe the change in motivational beliefs, the goals that the protagonist in the story sets in the process of learning, the maturation of intrinsic motivation for learning and the value he attributes to achievement (Jandrić, 2018).
Self-regulated learning of fantasy hero Pinocchio from the point of view of seven-year-olds and their teachers

As we pointed out at the beginning, the story of Pinocchio is intended for seven-year-olds in the second grade of primary school. The conversation with children, i.e., Forty-nine students from two classes of the second grade of a primary school in Podgorica, Montenegro, followed the instructions we previously agreed with the two teachers. We examined the teaching framework in which the concept of self-regulated learning can be affirmed using the example of the fantasy novel Pinocchio through the perceptions of children, which were monitored and recorded by teachers. They looked at the children’s insights about the development of the SRL of the protagonist of the story through his planning, goal setting, self/monitoring, actions and persistence in his intentions and actions, including his internal motivation, thinking determined by the internal locus of control and self-determining choices of goals. The reading of the story, the discussion about the children’s observations and general impressions of the novel’s content, ended with questions aimed at the children’s understanding of the behavior of the main character in the story: what do they hold against him, how do they perceive his mistakes and failures, what are the positive aspects of his behavior, what they think about Pinocchio’s initial efforts to gain more profit more easily, why it is important to make efforts and study hard, what the behavior of the main character of this fairy-tale adventure teaches them, and how they perceive the other heroes in the story and their characteristics. Therefore, how do children analyze the intentions, goals, and motives of the main character in the story, and what kind of comparisons can they make with their own experiences?

In the next part of the research, in the context of individual interviews, we looked at teachers’ assessments of the way and efficiency of developing SRL strategies in school work. Based on conversations with children and teachers about these issues, we single out three topics: 1. beliefs and values related to the hero’s behavior in the story; 2. cognitive-motivational learning/behavior regulation strategies of Pinocchio, intentions and plans (internal motives and self-regulation); and 3. development of SRL from the perspective of teachers.

General data on the manner of processing the story from the teacher’s perspective

The teachers point out that the story of Pinocchio is part of the set of suggested readings, which the children read during the winter holiday to provide answers to the questions in the Reading Diary. The teachers talk with the children about the content of the story, its characters, and the messages based on their answers in the Reading Diary. They reported that the children reacted
to the story’s content with pronounced interest, curiosity, emotions, alertness and critical maturity. Due to the volume of the text, the teachers worked on its content in a series of classes (5 school classes, 45 minutes each) on this fantasy story full of events, interesting imaginative content, life messages and a unique literary style. On the other hand, the messages about the imaginary, yet strong and significant actions of the main character, who crosses “seas and skies” to achieve goals, are unusually significant for children, and these specific “temporal and spatial determinants” indicate the complexity of the path to success, which is strewn with thorns (Vučković & Mašnić, 2018).

How do students “perceive” the participants in the story and their characteristics (beliefs and values)?

The teachers pointed out that the children’s first impressions of the work are extremely interesting and that they reflect a special and bubbling curiosity about numerous dramatic plot situations in the story. At the very beginning, the children reacted with delight hearing about the quarrel between Geppetto and Master Antonio. They pointed out interesting details about Geppetto’s dispelling of fear with song, evoking their own experiences when they themselves used similar defense mechanisms in challenging situations. They were truly looking forward to the reconciliation of the old masters in the story, accompanied by a “promise to remain friends for life”. Again, they “imprinted” their own experiences about fears, their own ways of “fearing off”, the beauty of forgiveness and the continuation of friendship.

Based on the answers that the teachers collected from the children during the conversation about the characters from the novel and their characteristics, we divided them into several key categories according to the meaning of the related and accordingly classified contents.
Table 4

Traits/values of the heroes in the story according to students

<table>
<thead>
<tr>
<th>Categories</th>
<th>( f(\text{students}) )</th>
<th>Subcategories-heroes and their traits/parallels with own experience</th>
<th>Students’ examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive heroes/ desirable traits and values</td>
<td>44 (89.8%)</td>
<td>Pinocchio (in the second part of the story)</td>
<td><em>Pinocchio is bad until he jumps into the sea to save his father and becomes good (Class I)</em>&lt;br&gt;<em>He draws water from the well for a cup of milk, earns money, gives money to the fairy to help her, and helps his father... (Class II)</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td>kindness, responsibility, honest work, empathy, forgiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>48 (97.9%)</td>
<td>Geppetto – the father of the “wooden marionette” and the good fairy (caring, sacrifice, empathy)</td>
<td><em>The fairy and father always helped Pinocchio when he would get into trouble, the fairy and his father would forgive him, so he started working to improve (Class II). That is exactly how mom and dad take care of us. They rarely have fun and do a lot of work, so that I can play as much as I want (Class I)</em></td>
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<tr>
<td></td>
<td>42 (85.7%)</td>
<td>The cricket is benevolent and wise (wisdom, cleverness) “Pinocchio’s guilty conscience” (Juul &amp; Jensen, 2002)</td>
<td><em>The cricket whispers to Pinocchio how to be smart! It is important to be smart! (Class II)</em></td>
</tr>
</tbody>
</table>
Table 4 (continues)

<table>
<thead>
<tr>
<th>Categories</th>
<th>$f$ (students)</th>
<th>Subcategories - heroes and their traits/parallels with own experience</th>
<th>Students’ examples</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Harlequin and Pulcinella, buffoons, and marionettes, are interesting to children and make them laugh and imitate them</td>
<td>My mom says that we have to have a little fun and “goof around”, but also that we have to be serious... (Class II).</td>
</tr>
<tr>
<td></td>
<td>33 (67.4%)</td>
<td>Mangiafuoco, the good-natured, seemingly hard and cold owner of the theatre (acts are important!)</td>
<td>He pretends to be dangerous, but gives Pinocchio five gold coins to take to his father Geppetto. My dad frowns and gets angry when I make mistakes, but he defends me from everyone and helps me! (Class I).</td>
</tr>
<tr>
<td>Negative heroes</td>
<td>45 (91.8%)</td>
<td>Pinocchio – selfish and irresponsible, frivolous at an early stage</td>
<td>Wooden marionettes do not have souls, and when someone does not have a soul, it means that he is bad..., (Class II). They believe that Pinocchio is naive and that he got into trouble because he was disobedient – because he did not listen to his elders, he did not choose his company. (Class I). He doesn’t care about his father; he skips classes. (Class I)</td>
</tr>
</tbody>
</table>
Looking at children’s explanations of the behavioral actions of the hero in the story, it becomes evident that in addition to cognitive skills, children develop noncognitive “tendencies, values and self-concepts” (Toomela, 2008, p.19). At the same time, all three developmental spheres – cognitive, affective and conative – are mutually intertwined and strongly influence self-regulating learning and orientation toward internalized values and goals (Rakić & Vukušić, 2010).

Helwig et al. (1997) point out that in building a moral personality, it is important to build virtues specific to different societies and cultures, singling out justice and honesty as timeless categories. In our research, the children clearly indicate the importance of these values in the story through conversations with the teachers and skillfully make analogies with the examples from their own lives. They single out the chief values in the story, such as honesty, truthfulness, responsibility, love, diligence, and wisdom, and are highly congruent in their responses. When these concepts are dedicatedly treated in teaching practice, they can gradually become the child’s inner reality through introspection and internalization (Stojiljković, 2002).

**Cognitive-motivational learning/behavior regulation strategies of Pinocchio from the student’s point of view – intentions and plans**

Pintrich (2004) explains self-regulated learning as an active, constructive process in which children set learning goals and then try to monitor and control their own actions, motivation and behavior.

Through the discussion about Pinocchio’s behavior, the teachers explored children’s perceptions about the intentions of the main character, the lessons he received and the changes in his actions in relation to all the actors.

<table>
<thead>
<tr>
<th>Categories</th>
<th>( f \text{(students)} )</th>
<th>Subcategories-heroes and their traits/parallels with own experience</th>
<th>Students’ examples</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>48 (97.9%)</td>
<td>The Fox and the Cat - manipulative, untruthful</td>
<td>They are frauds. They lied to Pinocchio, promising gold coins to him, and he was happy that he could gain respect and wealth without work – explains one of the students. (Class II).</td>
</tr>
</tbody>
</table>
### Table 5

Cognitive-motivational learning/behavior regulation strategies (protagonist’s intentions, according to students)

<table>
<thead>
<tr>
<th>Categories</th>
<th>Subcategories</th>
<th>f</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning and Activation</td>
<td>Insights into one’s own mistakes</td>
<td>44</td>
<td>(89.8%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>48</td>
<td>(97.9%)</td>
</tr>
<tr>
<td></td>
<td>Understanding and supporting others (especially the father)</td>
<td>21</td>
<td>(42.8%)</td>
</tr>
<tr>
<td></td>
<td>Learning and guiding oneself toward clear goals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self/observation</td>
<td>Does Pinocchio see that he is wrong? When does he notice it? Does he have any regrets?</td>
<td>47</td>
<td>(95.9%)</td>
</tr>
<tr>
<td>Goal-setting and control</td>
<td>Pinocchio makes efforts to achieve goals</td>
<td>48</td>
<td>(97.9%)</td>
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<td></td>
<td></td>
<td></td>
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</tbody>
</table>
Considering the self-regulatory actions of the hero in the story, children deftly evoke their own experiences of changes in behavior and their motivated striving toward the precious goals they set. Although goals are set before starting to perform the task, it is also possible to set them during the process of carrying out activities, when actions are additionally adjusted and reshaped, as a result of continuous monitoring and intrinsically motivated reflection (Nikčević-Milković & Lončarić, 2014).

Students recognize how Pinocchio sets and “sees” goals, which strengthens his self-motivation and inner interest focused on activity and learning (planning and activation).

Students observe and analyze the conditions in which the “journey” and development of the main character of the story take place, the way of overcoming obstacles and the consequences that his actions cause. They observe that Pinocchio is prone to self-reproach and changes his steps on the way to increasingly clearly set goals (Pavlin-Bernardić & Vizek Vidović, 2019). More demanding tasks encourage the protagonist to work harder and more diligently (monitoring).

Students evaluate the main character’s progress in the process of achieving the goals he has set for himself. They notice how Pinocchio controls his actions more purposefully, becomes more persistent on that path despite all the obstacles (goal-setting and control), makes strong efforts and shows a high degree of motivational regulation.

Development of SRL from the point of view of teachers

Do teachers work ON affirming self-regulated learning strategies in children, enabling them to develop their own paths of cognition, fuelled by inner curiosity, and connecting intentions determined by the internal locus of control with adequate external motivational incentives?

When it comes In regard to considering the construct of self-regulated learning, the teachers with whom we talked about the content of the story and the way children react to certain concepts in the story point out that they encourage students to think critically, to learn by pursuing their interests, to make self-assessments and to set their own goals.

I try to encourage children to love what they learn, to help them think freely, to rectify their own actions, to develop learning strategies..., one of the teachers told us. (teacher II 1).

I try to avoid telling children what I see as a problem. I want them to look forward to new lessons. I do not want a blank sheet of paper to make them afraid and nervous like it used to make me feel that way, but to inspire them to create, draw, write in their original language... (teacher II2)

I often apply a wonderful example from the seminar regarding how one can help children think about their goals: (teacher II4). Figure 1
Traditional behavioral notions about the value pendulum that shifted toward the external locus of control and the displacement of responsibility from the internal to the external plan are visible through some of the highlighted messages and lessons of the teachers (Adults know better!)

*We tell them, your parents will always be your best friends!* – one the teacher underlines. (TeacherII 5).

This kind of upbringing is grounded in “obedience” as the fundamental value, which should give rise to internal responsibility (Juul & Jensen, 2002). The concept of “easy money” is not understood by everyone, one of the teachers explains to us (Teacher II 6). Seven-year-old students are cognitively and developmentally sensitive to understanding more complex abstract concepts, and it is necessary – in an atmosphere of support for critical thinking and interactive questioning of certain topics – to encourage students to understand the meaning of said higher-level complex topics. In this regard, the systematic development of strategies for self-regulated learning and critical reflection, which lead to the true internalization of prominent timeless value concepts, is of utmost importance. In a world of implicit “obedience-favoring” guidelines, there is a need for reconsideration and a fuller understanding of critical “nonservile” child behavior, which leads to individual and social maturation (Juul & Jensen, 2002).

The teachers point out that children are different, and it is not always easy to encourage their inner motivation, understanding of more complex concepts, recognition of values in their full meaning, perseverance and efficiency in completing tasks.

According to the interviewed teachers, there are multiple reasons for this:
- Children’s unrealistic self-images caused by an overprotective upbringing
in the family,

- Insufficient voluntary attention and perseverance, due to the prevailing “infantilized model of the child” (“they are small, they do not understand”),
- Lack of adequate work culture (everything is dealt with at the “story/lesson” level, not the action-oriented one),
- The dominance of goal orientations stemming from the external locus of control and external “regulators” of behavior, as well as pronounced instrumentalized behavior and learning (“adults always know better, listen, do not think”),
- Disregarding individual differences among children (“goals are the same for everyone at a certain age”),
- Insufficient reading literacy and uncontrolled spending of time with digital content can also lead to lower achievement, poorer skills and communication (Perić et al., 2022).

Bearing in mind that the reflection of behavior is expressed through the effort spent and the time devoted to tasks as an important dimension of self-regulated learning (Lončarić, 2008b), it is clear that much more attention must be paid to children’s learning strategies and reflective autonomy in teaching (Koestner & Losier, 1996). Among other things, children need to be provided with opportunities for reflection on cognitive-motivational processing and evaluation of their own behavior and achievements. Therefore, the teachers point out that training and education are needed for teachers and parents, as well as more trust in professionals and children, “but that does not suit many, it is better to be obedient, everything is easier” (teacher, class I). At the same time, from the teacher’s message to the children “Parents are your best friends and know best”, the internalized belief that some value concepts are provided “from above”, as unquestionable and not subject to re-evaluation, implicitly arises.

The teachers mention some of the strategies that support SRL at school, such as engaging in role-plays and “silence games” during which children are suggested to “self-negotiate” while establishing a balance between facing challenges and receiving support. In the process of developing self-regulated learning, mental maps and diagrams can be applied, which help students plan their directions for acquiring certain contents (Pavlin-Bernardić & Vlahović-Štetić, 2019). In this way, children perceive the values of tasks and goals more freely and are guided by their inner curiosity and motivation, without the pressure of external regulators. At the same time, teachers also need additional capacity-building training to systematically support their own teaching practice to encourage self-regulated learning in children, which results in more effective knowledge in the long term (Cepić & Jurčević, 2022).
CONCLUSION

In this paper, we addressed the concept of self-regulation of learning through the analysis of the text of the fantasy novel about Pinocchio, loading the content-meaning responses onto the variables/indicators set within the cognitive-motivational model of self-regulation (Pintrich, 2004). Since this fantasy story is processed with seven-year-olds, we examined their perceptions about self-regulated learning and the maturation of the main character in the fairy tale. At the same time, the interfering perspectives of students and teachers were a platform for analyzing the existing teaching practice and its level of responsiveness for the development of self-regulated learning of children on the way to intrinsically oriented goals.

Although Pinocchio is a fairy-tale narrative of a fantasy traveler/learner, we clearly “load” his progress onto the continuum of self-regulation of learning into the content of the story. In practice, the teachers we discussed emphasized the existence of different opportunities to practice self-regulation skills in a wide variety of situations by modeling opportunities to regulate behavior, emotions and learning. They cite some systemic circumstances as challenges, such as the dominant overprotective-permissive model of upbringing, the implicitly perpetuating concept of obedience (not listening to what children have to say) and the insufficient education of teachers for the true affirmation of the concept of SRL in the learning and behavior of children. From the teachers’ answers, we “read” further affirmative underlining of “obedience” as a permanent, implicit educational “value”. Therefore, this research has important implications for educational practice and the development of the concept of self-regulated learning.

Within the contemporary teaching approach, based on the constructivist paradigm, the participative role of the child in developing knowledge and skills and independent training of specific self-regulation skills should be particularly affirmed. In this way, children focus their energy on optimally set goals since they are “equipped” with the necessary skills (Rathunde & Csikszentmihalyi, 2006). In that process, the role of the teacher in improving cognitive learning strategies is important. Equally important are motivational dimensions of self-regulation that incline toward set goals and evaluation of achievements. Additionally, it is particularly important to train teachers to support students in active learning, expressing their interests, critical questioning, and strengthening their self-confidence and autonomy. It is also important to make them aware of certain stereotypes about the “desirable obedient child”, subject to shaping “from outside” (by parents and teachers), to overcome them more functionally in the future.
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