

# HOW RORY'S STORY CUBES CAN IMPROVE THE ABILITY OF STORYTELLING IN WRITING AND SPEAKING

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## Abstract

Using board games in the classroom is an opportunity for experiential learning and teaching. The presentation is an example of how board games can be used in mother tongue teaching. Our previous questionnaire proves that 9–10-year-old children show a positive attitude towards board games, and its use in lessons helps to increase interactions between students. In addition, cooperation within the group was strengthened. We have reflected on this with a new project. Our goal is to examine how the popular board game, Rory's Story Cubes, can develop written and oral communication of 9–10-year-old students. In the first period, essays were written by the members of the experimental group and the control group, in which five previously specified words were used. The quantitative and qualitative indexes of the data were analysed by Mean Length Utterance (MLU) and the Hungarian adaptation of Developmental Sentence Scoring (KFM), and creativity was considered. In the second phase, the members of the experimental group took part in an activity process that lasted 15 weeks and was held twice a week. The games with the Story Cubes were carried out under the supervision of the methodical leader of the experiment and recorded with the video camera. The oral texts were analysed in the same way. In the last period of the process, the participants again wrote an essay. The results show that the consistent use of the given board game is beneficial for the semasiological and syntactic cohesion of the students' oral and written texts. The project's achievements may contribute to the widespread use of Rory's Story Cubes, thereby expanding the methodology of native language teaching.

*Keywords: Board games, Rory's Story Cubes, primary school, creativity, cooperation.*

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## 1. Introduction

During the pedagogical use of board games, students participate in a complex but at the same time indirect educational process. On the one hand, the primary goal is not the development of a skill, but one of the essential areas of the human psyche, the playfulness, which promotes the improvement of numerous essential areas (Aczél 2015: 2). On the other hand, the educators can fulfil the role of a supporter or even a player, while they are leading the game themselves. The tasks of the educators in this form of activity are to provide board games adapted to the subject matter and the pedagogical goals to be achieved, to explain the rules and to motivate the students. As a result, the after-school care centres or the surrounding atmosphere of the extracurricular activities enable the pedagogical use of board games. In addition, it can be imagined as part of a project, but it does not exclude the appearance of board games in the lesson. The mentioned features together mean that the students can step out of the usual frontal form of activity, in addition, their inner motivation increases noticeably in order to solve problems constructed in the game situation (Jesztl–Lencse, 2018; Zsiray 2020). This form of learning and teaching has a positive effect on many areas, for example it promotes critical thinking, social skills, empathy, tolerance, interpersonal communication and strategic awareness (Mayer–Harris 2010).

## 2. Methods

The results of our previous questionnaires proved that 99% of 9-10 year old students have positive experiences with board games, and two-thirds of the respondents enjoy playing board games in which communication plays an essential role. In addition, this shows the relevance of the chosen topic, that in the case of the mother tongue lessons, the children have the second greatest need for games. In the next period of previous research, the developmental areas of the core curriculum were compared to the developmental effects of board games we tried. Taking our knowledge into account, a board

game-oriented activity was designed and implemented, the aim of which was to deepen the content of an already familiar fairy tale (Angi Máté: Az emlékfoltozók). The students formed groups and were able to solve tasks at different stations that were connected to various modern board games. Board games selected included, for example, Concept, Dixit and Scrabble. In our experience, board games can be effectively included in native language lessons, and the consistent use of them has a positive effect on cohesion between group members and can increase the number and quality of interactions. The acquired results and observations have motivated us to start a new project. Our current research has been accomplished with the support of the Új Nemzeti Kiválósági Program. It is considered a scholarship program whose goal is to support students interested in scientific careers.

In the board game, Rory's Story Cubes, players can create interesting stories alone or together, in which the motives thrown with the dice are to be linked. We have assumed that regular and guided play with Rory's Story Cubes can promote oral and written communication. In the beginning of the research, an experimental group and a control group of 8-8 people from the fourth grade of the ELTE János Bolyai elementary and high school in Szombathely were created. First, the selected students from both groups wrote an essay using five previously specified words. The definite words had different frequency indexes, and among them there were three nouns, one verb and one adjective. After that, the fifteen-week activity process with the experimental groups started. The project consisted of thirty opportunities held twice a week. The narratives were recorded - both on video and audio - to study the children's communication and attitudes. After all the events, essays were written again. During the research, both oral and written texts were analysed and evaluated in terms of grammatical and semantic complexity. Finally, the performances of the experimental and control groups were compared in many ways.

The opportunities of the activity process are based on the RJR model (*ráhangelődés – jelentésteremtés – reflektálás*), in which three phases are distinguished. In the introduction (*ráhangelődés*) we talked about how to create an interesting and meaningful story, and what to pay attention to when telling it. During the creation of the meaning (*jelentésteremtés*) even the game with the dice happened. In general, the activities consisted of two rounds with two different forms of playing. Most of the time, the students chose a dice and threw it. In case a player had new ideas, then he could start the story. The game lasted until the last dice. In the other forms of playing, the players followed each other in a predetermined order. In the beginning, all players had to throw three dice, later more like two, and start, continue or end the story. We considered it important to use different game forms in parallel because we want to examine how they affect the structure of the stories. The last phase, reflection, is about evaluating the tale. Players could express their feelings and opinions and share positive and negative comments with each other.

The grammatical and syntactic complexity of the texts was determined using Mean Length Utterance (MLU) and the Hungarian adaptation of Developmental Sentence Scoring (KFM). When analysing speech production, a ubiquitous test method is the determination of communication length, that is, how many words are in a message (Crystal 1998). Meaningful words are taken into account while assessing the statement (Deme 1971; Keszler 1983), that is, articles, conjunctions and unjustified repeated words are not counted. In determining the MLU number, the meaningful words are divided by the number of well-formed messages.

We calculated the syntactic complexity of the children's language by calculating the so-called KFM value (Gerebenné – Gósy – Laczkó 1992). The method was developed by Lee and Carter (1971) in the 1970s. The approach examines the structure of the sentences, the level of use of each part of speech, and the presence of the different tenses, interrogative and negative words in the language. Certain parts of speech do not get any points themselves (e.g. *the verb, the noun*), but the pronouns, the number adjectives, the adverbs, the postpositions and conjunctions do. Conjugation and the complements represent their own values in the structures. In the case of determining the KFM value, the count of well-formed messages must be added to the scores of words and grammatical structures, then the sum raised must be divided by the number of messages totalled (Laczkó 2011: 445).et al. 2002).

### **3. Results – Oral storytelling**

#### **3.1. Individual development**

At the first opportunity of the activity process, all participants independently created a story using six dice. This measured the level of children's storytelling ability at the beginning. At the end of the process, another measurement was carried out. The results show unmistakable development.

In the early days, students could only focus on connecting motives, so they didn't bother about cohesion. This causes problems several times when there was no living being among the randomly appearing images because they couldn't decide who the main character is. They have not understood that an animal, person or object may be involved in the action even if it is not among the motives being

thrown. After thirty occasions their need for cohesion has increased noticeably. This means that they considered the given motives only as a basis and they added further elements (e.g. *adverbs, attributes*) to the fairy tale. It follows that their narratives became more complex, longer, and more coherent. At first they could not abstract at all from the verbal meaning of the pictures, but today it is not a problem for them.

In the first measurement, the macrostructural units of the narratives could not be separated from each other because the oral texts were too short. At the end of the activity process, the structure (*introduction, main part, conclusion*) can be clearly excluded. The stories often started with typical fairy tale beginnings (e.g. *Egyszer volt, hol nem volt...*) and consisted of one statement. Usually the substantive elements of global cohesion (e.g. *intimation for time and place*) have appeared. At the last measurement, the presentation of the main characters played an important role. They liked to tell both about the appearance and the inner qualities of the characters. During the main part, the children have created a fictional world in which the action has progressed in time and place. The conclusions were the final communications of the tales, and often involved solving a problem and describing the outcome.

The development can be observed in the growth of KFM values and MLU numbers. It was difficult to determine the limits of the statements, when defining them we took the sum of the content and the intonation into account. (Laczkó 2011). The individual stories consisted of 3-4 statements at the first measurement, at the end it increased fourfold on average. At the same time, the number of words per sentence shows an increasing tendency. During the first measurement, the average value of the MLU numbers was 6.41 points. This value has increased to 10.58. The MLU count and the KFM values are related. The higher the MLU number, the higher the KFM value. The average of the KFM values was 21.5 points at the first measurement, then they increased to 43.33 points. As for the grammatical complexity, we can notice significant development. At first, the children mainly supplemented the statements consisting of subject and predicate with object, location or temporal determination at most. In the last measurement numerous attributes (e.g. *a másik törp száz tonnás volt*) and adverbial clauses (e.g. *átváltozott a professzorrá, erőt nyer magának*) can be found. Conjugation became more varied, both subjunctive (e.g. *nem sportolhat*) and imperative (e.g. *adjanak egy kis adatot a vírusról*) can be perceived. Besides the past tense, the future tense (e.g. *meg fogja állítani*) can also be observed.

### 3.2. Collective development

At the beginning of our research we consciously considered a concept for the activities and it was adapted to the needs of the participants. The first couple of occasions served to get to know the board game. The children could immerse themselves in the experience offered by playing and learn about the possibilities of the game. Then the students gradually had to take many factors into account (e.g. *using several attributes*). Initially, we wanted to encourage the development of connections between themes, so we preferred the three-dice game form. In addition, the game form with a dice was used until the end of the activity process, because the children could better concentrate on the symesiological and grammatical aspects. From the twentieth occasion on, the form of the game with two dice dominated, because we noticed that the connection of the motives no longer caused problems for the students, so we were able to pay more attention to the semantic aspects. On some of the latest occasions we have tried double play.

During the occasions, a growing trend in semantic cohesion can be observed. At the beginning of the process, it often happened that the children continued the story together with thoughts that were not related to the original idea. The improvement in this area is noticeable. The children regularly strive for the preservation of the train of thought they have begun and the convergence of the introduction and conclusion. Although the fitting of random motives in common fairy tales is more complicated than in individual stories, group members can adapt to the ideas of other players more easily and quickly than before. We noticed that hesitation phenomena (e.g. *hát, ugye*) that arise as a result of linguistic planning occurred less frequently. The correct ending of the story causes problems for most of the children, so we gave all participants the opportunity to finish the common fairy tales. During the reflection, they enthusiastically shared how the story should end. We concluded that they are interested in the further fate of their fictional characters. Thanks to the grandly refined style, the stories become more and more exciting, apart from the necessary statements, the students give short descriptions of the place of the message, identify the characters. There used to be no fixed character traits for the characters, so from the two-thirds point of the action process we made the decision that the children should provide the main character with traits at the introductory stage. After that, they could identify with the characters better.

The average of the KFM scores on the first ten occasions was 34.94 points. This value increased to 40.76 points in the next ten occasions, then it increased to 45.85 points in the end. In this case, too, the MLU numbers and KFM values show correlation. The average of the MLU numbers grew from 8.47 to 9.76, then to 10.83. During the shared narratives, they rarely made mistakes in grammar. It follows from their age and the development of their grammatical competence. They created long and complex sentences that were connected with often recurring conjunctions or temporal adverbs. In their communications, the coordinate and subordinate structures combined.

## 4. Results – Written storytelling

Furthermore, the first and last written essays are compared. On the one hand, the initial and final performances of the experimental group are studied. On the other hand, the differences between the written results of the experimental and control groups are explored. For both essays, participants were required to use five pre-determined words in their texts. The words of the first essay were the next ones: the squirrel, the balloon, the umbrella, dirty, curls (*mókus, léggömb, esernyő, piszkos, csalogat*). In the second essay they would have to fit the following words: the cord, the path, the coin, tricky, suddenly become aware (*madzag, ösvény, pénzérme, csalafinta, rádöbben*). The essays written alone were analysed in a similar way to the oral texts.

### 4.1. Semantic cohesion

Some of the elements that ensure semantic cohesion can only be explored in the written texts. The following remarks identify the first and last essays. All participants in the research gave a title to the essay that was related to the content, which means that the global cohesion was created in the title and relevance. The macrostructural units were generally judged correctly and there was a substantive relationship between sentences. The introduction consisted of a message, and at the same time the time and place and the naming of the main character were implemented. The main part was mostly made up of 5-10 sentences and was not divided into further paragraphs. Compared to oral narration, story completion was planned more consciously because they had more time to think. The plot was characterised by a linear train of thought, so the continuity of the process was not broken.

In this study, we understand creativity as linguistic creativity, which makes texts more versatile and expressive. In this area, most members of the experimental group have excelled. A significant difference between the groups is that the participants in the experimental group were able to pull the previously given words into the final essay without difficulty. It could be seen several times that the students from the control group often formed word structures consisting of two previously given words (e.g. *csalafinta ösvény*), from which we can conclude that they were trying to build in the words into the text as quickly as possible, and they didn't consider the logical connections in the first place. In addition, the children who regularly played with Rory's Story Cubes formed their stories imaginatively, naming their characters many times (e.g. *Morzsi, Erzsi néni*). It never happened in the case of the control group.

### 4.2. Grammatical cohesion

The linguistic creativity also arose in the syntactical solutions. While the students in the control group wrote thirty quality attributes in the essays, the others embellished the style of the story with fifty-seven quality attributes. The numbers of quantity attributes in their papers were more than twice as many as (14) as in the case of the control group (6). Differences can be observed in the area of conjugation, which show the progress of the experimental group. The use of the past tense subjunctive was found only in their texts (e.g. *akartam volna menni*). Adverbial participle developed late in speech production, although they can be detected in the stories of the experimental group (e.g. *haza felé közeledve*).

In the first essay, the experimental and control groups achieved similar results in terms of average MLU numbers and KFM values. The mean value of the MLU scores of the experimental group was 5.46 points. This value was 5.55 in the control group. Originally, the mean value KFM scores of the experimental group were 2.8 points (20.41 points) higher than the points of the control group (17.61 points). of written essays. The written texts are characterised by shorter sentences, but the units of communication in conversation consist of several complex grammatical structures. From the analysis of the experimental group's final essays, it can be observed that the MLU scores improved by an average of 2 points. The gain of the control group is 0.5 point.

Both groups have developed from the height of the KFM values since the first measurement, but the average value of the experimental group has increased by 2.3 points. In this field, all participants of the experimental group performed better than the first time. Compared to the first measurement, they soon collected an average of 8 more points. These positive changes are the result of regular and consistent use of Rory's Story Cubes. In the first essay, the experimental and control groups achieved similar results in terms of average MLU numbers and KFM values. The mean of the MLU scores of the experimental group was 5.46 points. This value was 5.55 in the control group. Originally, the mean KFM scores of the experimental group were 2.8 points higher (20.41 points) than the points of the control group (17.61 points). of written essays. The written texts are characterised by shorter sentences, but the units of communication in the conversation consist of several complex grammatical structures. From the analysis of the experimental group's final essays, it can be observed that the MLU scores improved by an average of 2 points. The gain of the control group is 0.5 point. From the point of view of the KFM values, both

groups have developed since the first measurement, but the average value of the experimental group has increased by 2.3 points more. In this field, all participants of the experimental group performed better than the first time. Compared to the first measurement, they soon collected an average of 8 more points. These positive changes are the result of regular and consistent use of Rory's Story Cubes.

Table 1. MLU numbers and KFM values average values based on the analysis of the essays from the experimental and control groups.

	Experimental group	Control group		Experimental group	Control group
1. Essay MLU number	5.46	5.55	1. Essay KFM values	20.41	17,61
2. Essay MLU number	7.4	6.03	2. Essay KFM values	29.38	24,19

## 5. Conclusion

During the process of activity, consisting of thirty opportunities, we experienced positive changes in the semantic and symesiologic area. Overall, it can be said that the oral and written texts of the participants became more complex and structured. The tendencies that emerged verbally early on can also be unmistakably noticed in writing. The MLU and KFM values of the experimental group increased significantly compared to the control group. When telling a story, the students could always use a variety of expressions and enrich the texts with additional attributes and various definitions. The development routes presented in the study show that the systematic use of Rory's Story Cubes in the methodology of native language teaching can be included as a playful method, because they are useful in the development of oral and written communication.

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