

Sissies, Sportsmen and Moms Standing over Stoves. Gender aspect of readers and mathematics textbooks for primary education in Slovakia

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Abstract: Many studies have dealt with issues related to school textbooks as a significant vehicle of open or hidden gender signals, but in Slovakia this issue has only recently gained ground. To date, textbooks for lower secondary and secondary schools have been at the centre of interest of experts in this area. Ironically however, textbooks for primary schools have remained on the periphery of interest of Slovak experts. This study analyses primary level readers and mathematics textbooks in the Slovak Republic. Our aim was to provide a picture of gender stereotypes and gender preferences in given textbooks, through the qualitative research methodology, in particular the method of in-depth textual analysis. In the case of mathematic textbooks it was primarily the analysis the assignment of verbal tasks, readers' analysis was focused on the content of artistic text. Our intention was not to map the frequency of occurrence of gender stereotypes, but rather the nature and content of displaying the culture-conditioned male and female roles as they are presented in the public and private sphere of life. We are convinced that such model depictions are rapidly, automatically and intuitively acquired by pupils of primary education, which also affects the perception of that subject during adulthood. We believe that our study will contribute to the initial discussion of the issue and the role of textbooks in the educational and general acculturation process of primary school pupils.

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1. Introduction

The process of gender socialization constitutes one of the key aspects affecting personal development and subsequently the nature of schools and society. Textbooks become one of the vehicles of gender socialization for children. They play a significant role in the educational system in terms of the transmission of knowledge but also cultural and historical values and manifestations of behaviour. The basic value analyses contained in textbooks include:

- Comparisons between male and female roles (gender)
- Presentations of other nations
- Differences in the presentation of other nations and the *indigenous* population (Maňák & Klapko, 2006)

The issue of the one-sided focus in textbooks with regard to other nations and the *indigenous* population, their interpretations, as well as alternative curricula applications are dealt with by Foster who correctly observes that the way in which students comprehend, negotiate and transform their personal understanding of textual material is a complex process that defies simple interpretation. Nevertheless, the available evidence suggests that the influence of the textbook is profound (Foster, 1999).

By legitimizing gender relationships and roles, textbooks thus represent a significant factor in the process of gender socialization. Unfortunately, they are also one of the instruments which may significantly affect the process of constituting and strengthening gender stereotypes. «A gender portrait based on stereotypes could strengthen the stereotype threat, that is the risk of confirming, as self-features, a negative stereotype of the group» (Steele, Spencer & Arosón, 2002).

The studies carried out in Slovakia usually bring outcomes in the form of generalizations in the sense that textbooks should avoid gender stereotypes. However no comprehensive analysis of primary school textbooks has been carried out in the Slovak environment even in the context of their historical development. Therefore, we consider it beneficial to analyse primary school textbooks from the aspect of their gender sensitive content since primary education can play a crucial role in strengthening or debunking gender stereotypes.

The Slovak expert and lay public very sensitively perceive the language of textbooks, and deviations from established stereotypes are usually greeted with protest. The case of the primer (Hups' primer for the first grade of primary schools, Part II, 2014) where the authors present the story of a boy from a divorced family and a neighbour who proposes to his mother, is a good example. Due to pressure from part of the general public, the ministry of education was forced to replace the text with another less controversial text. This indicates the current state of Slovak society where certain textbooks in the past strengthened the creation of gender stereotypes. But what is the situation today? Slovak society is undergoing intense development and the expert public is frequently pointing out the strong gender imbalance in textbooks. Therefore, the aim of this study is to analyse primary school textbooks and their development from the gender aspect. We believe that the principal problem

must reflect the reality of a learning group of children or schools, as shall be specific and accessible to solution. As regards the definition of key concepts in teaching, we also believe that teachers must be principally responsible. (Kostrub ,Tothová, Severini & Kikušová, 2014).

The situation in the Czech Republic is similar, where Smetáčková (2007) states

current textbooks work more frequently with traditional methods of presentation. Men and women are depicted in situations which apply gender stereotype ideas of women in the kitchen and men in the workshop or garage, women taking care of children and men managing companies, etc. The majority of textbooks predominantly expose students to male models in the field of scientific achievements. If a textbook is related to a subject more closely connected to boys rather than girls, the examples used in it are more often from the environment acceptable for boys and vice versa.

However, gender development is a key experience in a child's life and textbooks play an extraordinary role in the form of model male and female behaviour and gender roles. Oppressing and limiting the personality potential of students may also be one of the consequences of gender stereotype support at schools.

Gender related prejudices can markedly limit the development of potential among girls with extraordinary abilities, which can subsequently be manifested in their personal and professional life. In this context, gender stereotypes may have a retarding function which has an impact on the entire society. The effort to eliminate gender stereotypes from textbooks is present in the majority of countries, as documented by the UNICEF report (2009), which states that «there is now greater awareness among curriculum makers and textbook writers of the value of designing more gender-sensitive educational inputs. However, even countries where the discussion and research of this topic has taken place for decades continue to “grapple” with the issues related to gender sensitive textbooks for children».

The USA is an interesting example; despite intensive research and nation-wide discussions concerning gender stereotypes, research shows a continuing prevalence of male figures and stereotyped gender patterns in textbooks. Recent studies of gender bias in textbooks in the United States turned up what has been described as the largest – scale research ever conducted, involving 5,618 children's books published from 1900-2000 – (McCabe *et al.*, 2011). The authors found general – and large-scale – underrepresentation of females: For example, males were presented almost twice as often in titles and 1.6 times more as central characters. The most extreme underrepresentation of female central characters involved animals and the least was of female children. The authors consider the relative absence of animal and human females in children's books to be a form of «symbolic annihilation»: ignoring or underrepresenting women and girls in cultural products denies their existence (Blumberg, 1984). The aforementioned research indicates a disturbing trend even in developed countries where issues related to gender equality have formed a part of the state policy for a long time.

2. Gender equality and textbooks

The centre of attention in gender equality is shifting to primary education and textbooks due to the fact that textbooks are one of the significant factors that influence the behaviour of children. Of course, behavioral manifestations in individuals are not shaped by textbooks alone, and the process of socialization is much more complicated. Margaret Archer (1988) points to a cultural integration myth, suggesting that the concept of a unitary culture be discarded altogether. Thus, although textbooks may represent a major element in the socialization process, their comprehension and interpretation are also determined by the cultural background of the individual.

They represent a kind of medium through which children acquire cultural literacy in the form of illustrations as well as formulations which set the norms for female and male behaviour.

Experts usually agree that children's readers underwent a significant positive transformation in using gender neutral language and presenting women. However the imbalance in favour of men continues, not only regarding the frequency of male and female characters represented in stories, but also concerning the roles attributed to these characters (girls are more frequently saved than boys) boys have a greater sense of adventure, women are always subordinated to men at work and never the other way around (Curran & Renzetti, 2003).

The significance of textbooks in primary education thus also lies in their transmissive function of learning gender roles. The depiction of gender roles in textbooks is also a kind of mirror of social development concerning the status of men and women in society. Naturally, textbooks are not the only source of learning gender roles. The family is the first source, followed by school, which through textbooks also delivers to children gender-determined manifestations of behaviour. The specific feature of textbooks is that in addition to their educational role they constitute a source of model situations which are socially acceptable. Gender models in textbooks may be so suggestive that they gradually shape the way students perceive the surrounding world which strengthens the gender optics of their worldview. The result is that gender-determined manifestations of behaviour are frequently considered by the general public as natural, even genetically given.

A biased representation of females and males can lead to students' sense of what is normal for women and men in our society. In other words, the content of textbooks helps reinforce gender as a social division and perpetuate inequalities between men and women. Experts and authorities in educational so believe that the health and mental, social, cultural and scientific growth of every learner depends on a balanced and appropriate system of education. Books are part of this appropriate curriculum (Kemp, 1977).

Gender insensitive textbooks also show a smaller representation of female characters. The absence of female models thus has a negative impact on the self-perception, ambitions and careers for girls who are under the influence of gender optics of society from an early age. It is only natural that boys as well as girls try to identify with models of behaviour, and the provision of such models constitutes one of the ways of shaping their worldview and the gender distribution of roles. Ironically, parts of the textbooks for children are the ones which strengthen gender stereotypical behaviour instead of promoting the idea of gender equality. As Lloyd (2005) states «the manner in which gender is represented in children's textbooks impacts attitudes and perceptions of gender-appropriate behaviour in society».

Textbooks should contain models that girls and boys can identify with in compliance with the principle of gender equality. The depiction of men and women performing a wide spectrum of social activities which are frequently unconventional (e.g., a man as a teacher in kindergarten) creates space for teaching gender equality to children. Thus, textbooks should become a space where it is clearly declared that except for occupations where physical strength is required, there are no gender determined limits in modern society regarding the choice of occupation. The aim is to debunk stereotypical ideas related to the choice of occupation according to gender. Thus women could be depicted as pilots, plumbers and technicians, and men could be depicted as teachers, nurses, etc.

Article III of UNESCO's World Declaration on Education for All (1990) reads «The most urgent priority is to ensure access to, and improve the quality of, education for girls and women, and to remove every obstacle that hampers their active participation. All gender stereotyping in education should be eliminated».

Despite declarations and official proclamations, textbooks constitute one of the fundamental indicators of the difficulty in promoting the idea of gender equality in all social spheres.

Gender sensitive books may help children to debunk and eradicate gender stereotypical behaviour; but strengthening gender stereotypical behaviour may represent a serious obstacle in their-self-assessment, self-expectations and career.

Gender stereotypes represent one of the most persistent cases of gender inequality since they are anchored practically in every aspect of our lives in all periods of human life and are usually acquired in the process of informal and formal education as well. Therefore it is understandable that their debunking must be supported by a consistent state policy; otherwise the impact will be marginal.

The content of textbooks, illustrations as well as language should represent a change in the existing system of values in society and strengthen the position of women. The selection of topics in textbooks which should be oriented on the cooperation of men and women in everyday social activities also plays an important role here. Thus, the model of women as equally active participants in the life of society will be strengthened to the detriment of their passive role which creates social expectations supporting gender stereotypes. In the past, texts in textbooks were full of gender stereotypes where women were the sensitive ones oriented on family care (indoor activities) as opposed to strong and brave men who focused on professional activities (outdoor activities). «Moreover, the same fact that they spend

a consistent part of their time in outdoor activities portrays the image of a man who develops his social identity and his self-esteem» (Tajfel, 1981).

Experts no longer question the correlation between learning gender identity and education. It is essential that textbooks participate in promoting socially accepted gender roles and thus strengthen the social structure as well as the patterns of behaviour which are subsequently manifested in the differentiation of individuals who are treated unequally.

This study presents results of research whose goal is to open the discussion on primary education textbooks in Slovakia as a mediator of gender roles. It is ironic that in Slovakia where the idea of gender equality is part of state policy this topic has not been studied, despite the fact that experts frequently agree regarding the significant role of textbooks in this process. «School textbooks play a crucial role in determining pupils' worldview of female and male roles in society» (Byrne, 2001; Harrison, Azzarito & Burden, 2004; Kobia, 2009).

3. Analysis of current mathematics books and textbooks in primary education

Five available Mathematics textbooks for the 3rd and 4th grades of primary schools and 2 available reading textbooks – Readers designated for the 3rd and 4th grades of primary schools were selected for the content analysis –. All of the textbooks for further processing had to be approved by the Ministry of Education of the Slovak Republic and used by teachers and pupils.

Selected textbooks have been incorporated into the research sample because they are taught in the Slovak Republic. The textbooks with which teachers have the opportunity to work are not large, so the selection of these textbooks is limited and the sample is small. Virtually all the textbooks we have available.

List of analysed textbooks:

- MAT 4/2005 BERO, P. – PYTLOVÁ, Z. 2005. Mathematics textbook for the 4th year of elementary school. 2005. Bratislava: Orbis Pictus Istropolitana. 80 p. ISBN 80-7158-627-7.
- MAT 4/2013a BELIC, M. – STRIEŽOVSKÁ, J. 2013. Mathematics 4 for the first grade of elementary schools. Bratislava: Aitec. 88 p. ISBN 978-80-8146-089-0.
- MAT 4/2013b BERO, P. – BEROVÁ, Z. 2013. Mathematics textbook for the 4th year of elementary school. 1st part. Bratislava: OrbisPictusIstropolitana. 72 p. ISBN 978-80-8120-205-6.
- MAT 4/2013c BERO, P. – BEROVÁ, Z. 2013. Mathematics textbook for the 4th year of elementary school. 2nd part. Bratislava: Orbis Pictus Istropolitana. 72 p. ISBN 978-80-8120-206-3.
- MAT 3/2013 BELIC, M. – STRIEŽOVSKÁ, J. 2013. Mathematics 3 for the first grade of elementary schools. Bratislava: Aitec. 88 p. ISBN 978-80-8146-077-7.

- TEXT 3/2012 HIRSCHNEROVÁ, Z. – FILAGOVÁ, M. – ONDRÁŠ, M. 2012. Textbook for the 3rd year of a primary school. Bratislava: OG – Poľana Publishers, spol.s.r.o. 130 p. ISBN 978-80-8116-012-7.
- TEXT 4/2013 HIRSCHNEROVÁ, Z. – FILAGOVÁ, M. – ONDRÁŠ, M. 2013. Textbook for the 4th year of a primary school. Bratislava: Príroda Publishers, s.r.o. 122 p. ISBN 978-80-07-02284-3.

We focused on the issues related to constructing and strengthening gender stereotypes in texts. The analysed stereotypes related to two basic areas: the depiction of relationships between men and women and girls and boys, i.e., the basic gender-determined patterns of behaviour and questions of «male-female» polarity, and the gender-determined character traits which society identifies with boys and especially with girls as gender desirable and acceptable. Through the texts this awareness is corrected and guided as children read them in math and literature classes.

Our goal is to provide a stratified view of the most frequently mediated gender stereotypes that Slovak students may encounter in the aforementioned textbooks. Gender, which was represented in the examples of the textbooks written by various authors, is the central theme of all of the categories presented below. We submit them in clusters to ensure that their titles aptly represent the gender. We also interpret the literal wording of the problems, the code for the textbook, the year of its publication, the page on which the problem is located and the number of the problem.

3.1. *Mom is shopping*

The first category which in terms of frequency in textbooks appeared most often was mom as the shopper. The fact that mom is shopping is obvious in all five examples. We can see that the mother is the one who procures food for the household and makes sure that the family members always have something to eat. In addition to food, the mother is portrayed as the one who also purchases clothing (socks) or fabric from which she has clothing made. The aforementioned cases include a typical depiction of the expected model of femininity.

Mom bought 4 half-kilo bags of rice. How many kilograms of rice is this in total? MAT 4/2005, p. 6/problem No. 4

Mom bought desserts worth 10 euro and food worth 25 euro for Danka's birthday celebration. How much money is it in total? MAT 4/2005, p.16/problem No.2

Mom bought 7 pair of socks for 40 cents each. How much money did she pay? MAT 4/2005, p. 29/problem No. 2

Mom bought 4 meters of fabric and had a dress made from it. She paid 55 euro to the dressmaker for making the dress. How much was 1 meter of fabric if she paid 83 euro in total for everything? MAT 4/2005, p. 70/problem No. 9

Mom asked the shop assistant (female) to give her half a kilo of ham. The shop assistant gave her 400 g of ham. Did the shop assistant give her the proper amount? If the shop assistant made a mistake, by how much? MAT 4/2013c, p.62/problem No.3

Mom bought four yoghurts at the store. Daddy bought five times more yoghurts. How many yoghurts did daddy buy? MAT 3/2013, p.31/problem No.4

3.2. *Boys are better in sports than girls*

Models with which children identify themselves from early childhood are connected with male strength which is mostly compared with female strength. This idea is unquestionable in our culture and is also interpreted in textbooks. Notice the activities which are carried out by boys. They are sports which are typically male sports and games, and as such they are presented in that fashion. It is bicycling, running, kicking penalties in football, and marbles. A girl is mentioned only in connection with somersaulting, and she is immediately told by a boy that he will be more skilful and will do more somersaults.

Miro and Zolo are riding bikes at the same speed. Miro cycles 9 kilometres in an hour. Zolo cycles 36 kilometres in 4 hours. Which of them cycles more kilometres in an hour? MAT 4/2013a, p.47/problem No.5

Milka did 4 somersaults in a row. Peťko brags that he can do five times more somersaults. How many somersaults must Peťko do? MAT 4/2013b, p. 28/problem No.16

Four boys were racing. Paľko finished before Janko, but he was not first. Jožko was last. In which place did Adamko finish? MAT 4/2013c, p.68/problem No.11

Adam was practicing kicking penalties. At the beginning of practice he took 25 shots and at the end of the practice he took 37 shots on goal. He scored 19 times. How many times did he miss? MAT 4/2013c, p.71/problem No.5

When brothers Miško and Jurko went to play marbles, each of them had 56 marbles in their bags. Miško won 27 marbles from Ferko. How many marbles did the brothers bring home if Jurko did not play? MAT 4/2013c, p.71/problem No.9

3.3. *Girls as readers and writers*

The gender stereotype which comes to the foreground in this category is related to the depiction of girls as active readers and writers, i.e., the ones who actively work with words in printed form, as opposed to boys. We can see a certain parallel with the levels in international tests of reading ability, where girls in Slovakia achieved significantly better results than boys in every cycle of PIRLS studies. The results of the international PISA study, which, in addition to others, analyses the reading literacy of 15 year old students, show that the differences in the reading ability of boys and girls continue even among older students. The differences between the performance of Slovak boys and girls in every testing cycle (2003, 2006, 2009) were significant in favour of girls (Galádová *et al.*, 2013).

There are 9,400 words in the book. Janka has read 6,300 of them. How many words in the book has Janka not read? MAT 4/2013c, p.54/problem No.2

Lujza read 18 pages of her favourite book in 3 days. Each day she read the same number of pages. How many pages did she read every day? MAT 3/2013, p.45/problem No.5

Mirka read a fairy tale which had 686 words. Marika read a fairy tale which was 9 words longer than Mirka's fairy tale. How many words did Marika's fairy tale have? MAT 3/2013, p.55/problem No.3

Zora has read 50 pages of the encyclopaedia with 1,457 pages. How many pages of the encyclopaedia has Zora not read? MAT 3/2013, p.65/problem No.5

Danka and Janka agreed that they would only write each other two-word text messages. They wrote seven of them. How many words did they write? MAT 4/2013b, p.7/problem No.5

3.4. *Boys are more physically fit*

One of the ongoing gender stereotypes is that men are stronger than women and thus they achieve better results in activities which are directly related to carrying out certain acts. These stereotypes appear in textbooks in the following problems. Two boys help the teacher to carry her books; Dávid threw the ball several metres further than Silvia, Alex jumped 50 cm longer than Sofia. These problems unconsciously show students that the performance of boys is better than the performance of girls.

The boys helped their teacher carry her books. Ferko carries 5 books each time, Miško 4 books each time. How many times will they go if Ferko is expected to bring 40 atlases and Miško 40 readers? MAT 4/2013c, p.4/problem No.6

Silvia threw a ball 25 metres. It was 8 metres less than David. How many metres was David's throw? MAT 3/2013, p.4/problem No.7

Sofia jumped 135 cm in the long jump. Alex jumped 185 cm. Who jumped further? By how many centimetres? MAT 3/2013, p.46/problem No.5

3.5. *Girls' activities*

The following problems show the exact opposite of what we mentioned in the previous category. Here, the girls are portrayed in typically «female» roles, namely playing with dolls, arranging flowers, being creative in making bouquets, be fair in distribution (of apricots), being more ecological (they sort waste and recycled paper).

Sára has 5 dolls. Her sister Lea has 20 dolls. Lea has how many more dolls than Sára-three times, four times, five times? MAT 4/2013a, p.30/problem No.4

Five girls equally shared 20 apricots. How many apricots did each girl get? MAT 3/2013, p.30/problem No.2

Lucia recycled 16 kg of paper. How many kg of paper did Lenka collect if she recycled 4 times fewer kg of paper than Lucia? MAT 3/2013, p.31/problem No.6

Alenka has 23 roses and she wants to make bouquets from them. How many bouquets can she make? MAT 4/2005, p.29/problem No.6

3.6. *Girls are economical*

Problems oriented on saving money were different in the mathematics textbooks for third and fourth grades. We again encounter the female roles when girls are saving for a long time for something they want to buy. They prudently put away every

cent, as in the case of Lucia, when she wanted to buy a new pen with her saved up money. Even the fact that when they get money (from parents or grandparents) is no exception, they prudently put it away.

Lucka had 548 cents in her piggy bank. Her father added 30 more cents. Lucka took out 78 cents and bought a new pen for herself. How many cents are left in Lucka's piggy bank? MAT 4/2013a, p.6/problem No.7

Katka had 648 cents in her piggy bank. Her grandmother added several cents. Then she had 848 cents. How many cents did the grandmother add? MAT 3/2013, p.46/problem No.2

3.7. *Father as the «spender»*

Despite the previous problems, this one is rare in textbooks, but it appeared in one case. Father is portrayed as the one who spends money two days in a row (Monday and Tuesday). Since it is not specified how much was spent (in the first category we learned that mothers spent money for buying food and clothing) we cannot claim that the father spends money for the household, but for entertainment or other expenditures.

Daddy spent 90 euro on Monday. On Tuesday he spent 10 times less. How many euros did daddy spend on Tuesday? MAT 4/2013b, p.70/problem No. 3

3.8. *Women are more skilful and have more stamina at work*

Another truth offered to students through textbooks is the position of genders in terms of skilfulness. Our task was not to assess which gender is more skilful in carrying out any activities, but the textbooks present clear examples. The woman (mother) is twice as fast in sowing the carrot seeds as the father. Mother also managed to work twice as many hours in the garden.

While father sowed 500 carrot seeds, mother managed to sow twice as many seeds. How many seeds did they sow together? MAT 4/2005, p. 37/problem No. 2

Mom was working in the garden for 6 hours, dad for 3 hours less. How many times longer did mother work in the garden than father? MAT 4/2005, p. 37/problem No. 4

3.9. *Mom is cooking*

The role of the mother in taking care of children in our society is generally considered as the set of expectations related to the idea of femininity. Specifically, we prove that in the following problems in which the mother cooks. No problem in the analysed textbooks mentions the father cooking, preparing lunch for his children or buying food. It is the mother or grandmother who spends time in the kitchen and cooks and bakes. This is how it is in many households, despite the fact that media present men as chefs, innovative in their job, creative in preparing meals, fully involved in their profession.

Mom used three pots for cooking. What is the average volume of these pots if their volume is 3 litres, 7 litres and 11 litres? MAT 4/2013c, p.27/problem No.2

Grandmother baked poppy seed, cheese and walnut pies. There were 37 pies with poppy seeds, 35 with cheese and the rest were with walnuts. How many walnut pies were there if there were 100 pies in total. MAT 3/2013, p.57/problem No.3

3.10. *Boys are better in computer games*

Benkovič, Hil'ovská and Dubovcová (2011) conducted research concerning computer games and found out that the negative consequences of frequent gaming also have an impact on the youngest generation in Slovakia. In the monitored set of 679 young students over 95 % of the boys and 67 % of the girls play computer games. Boys play computer games much more often than girl students, namely at the level of significance $p < 0.001$. These data, like the data in the Czech Republic, Norway and other countries provide evidence that computer games are very popular, especially with boys. The following problems confirm these findings, and we can even encounter the claim when a girl (Zora) also plays a computer game, but a boy (Alex) gets a higher score. Through these examples students also identify with the correctness of their actions.

Zora scored 3,100 points in a computer game. Alex won by 432 points. How many points did Alex score? MAT 4/2013a, p.45/problem No.6

Peřko was playing on the computer. He scored less than 135 points but more than 129 points. How many points could he have scored? MAT 4/2013c, p.40/problem No.19

3.11. *Men in managerial positions*

In available textbooks we could find only one problem which contained a managerial position at work which was designated for men. The textbook *Matematika pre 4. ročník* (Mathematics for the 4th grade) includes the problem identifying the correctness of this formula. These are men (forest ranger Bohdan and forest ranger Karol) who are in charge of several employees.

Forest ranger Bohdan was in charge of 6 employees. How many employees was forest ranger Karol in charge of if he was in charge of twice as many employees as forest ranger Bohdan? MAT 4/2013a, s.9/pr.3

3.12. *Boys as builders*

The last category which we found through the analysed problems refers to a typical male role – builders doing technical work such as building construction –. Although this role is not definitively portrayed in the problem, it encourages boys toward these activities.

Jurko made a structure of 10 cubes. Jakub used four times more cubes for his castle. How many cubes does Jakub's structure consist of? MAT 4/2013b. p.69/problem No.5

The first foreign research of the content of textbooks and children's literature from the aspect of gender indicates that the images of women and men, girls and boys are gender stereotypically portrayed. According to E. G. Belotti (2000), as opposed to the reality, a literary model family is like this:

- mother housewife by the stove, father works and leaves the house and is away all day, they have two children, an older boy and younger girl, and two pets, a dog and a cat whose ages and genders correspond with the ages and genders of the children;
- mother does not work, and has neither hobbies nor fun activities;
- father is usually presented as the provider of the family as well as its moral and intellectual leader;
- boys build towers, jump over fences and chase balls, while girls go shopping, help mother cook, pretend to be women or play with dolls, clean the room or clean the mess after somebody else,
- if two children are playing, the boy is lying on the floor, shoes left in the corner while enthusiastically playing with his building blocks, cars and balls. The girl doesn't usually participate in these thrilling games; she is sitting off to the side, well dressed, with combed hair and her inseparable doll in her hands.

In the majority of textbooks it is anticipated that the female roles and activities are concentrated at home and only men actually leave home for adventure (A. Oakley, 2000).

4. Analysis of Current Textbooks. Readers in primary education in the Slovak Republic.

4.1. Boys are careless, don't like to study and it is hard for them

In the literary texts that we analysed the boys did not particularly like school or learning or they were «less quick in thinking», their inability to memorize information was depicted negatively, frequently even accented by the character of a strict teacher, i.e., a woman which scolded them. We present the passage from the story by Miloš Macourek *O tom, ako Mach a Šebestová získali odtrhnuté slúchadlo* (How Max and Sally Won the Torn Off Phone Receiver)

The teacher entered the classroom and said

Dear students, today I will test you from natural sciences, and she called on Max to say what he knew about hares. But Max knew very little about hares, and that he had only seen a hare in stew and so he just stood there and kept saying that the common hare lived in the forest [...] until the teacher said, «listen Max, every child knows that a common hare lives in the forest [...] that's enough, sit down, tomorrow I will call you on again and if it's not better, you will see!». Textbook 3/2012, pp. 6-7.

Another example of distracted, restless boyhood can be found in the story by Nataša Tanská, *Mama, urob iné ticho!* (Mom, make a different silence!). It features a boy who is not able to study at home. Everything disturbs him; even his father cannot concentrate on work in the apartment. Eventually they go out for a walk and they are calmed down by the outer space full of metaphors of sounds which the reader is to connect with «boyish hobbies» and masculine experiences.

There was no point in it. I looked at the same page for the tenth time and I couldn't remember anything. [...] I can't stand this anymore. [...] dad was sitting with a book with mathematic formulas, but he was not looking at the book but at the naked wall. Even he wasn't going to learn anything today. «Let's go out dad» I said. [...] We walked along the river with my dad, but today the air was cleaned neither by the water, nor the wind which was huffing like a formula 1 driver swishing by you. Textbook 3/2012, pp. 89-90.

4.2. *Boys are not good singers and they look funny when trying to sing*

We do not often encounter a boy as a character who is not tailored for musical and artistic activities in literature, however we found several examples here. Vincent Šikula in his story *Spevokol* (Choir) from the book *Prázdniny so strýcom Rafaelom* (Vacation with Uncle Rafael) works with this stereotype in a polemic manner. Moreover the stereotype of a dissatisfied and unfairly critical female teacher also appears here.

The teacher tested every single student at the beginning of the school year. She wanted to find out about their voices. Laco did not want to sing [...] she said that she would inform his parents. She didn't, but she also didn't take him in the choir which performed at almost all of the village festivities. I didn't make it in the choir either. Although she was testing me for the longest time of all. [...] Everybody was laughing. At the end she claimed that musically speaking, I was a dead loss. [...] I learned from my mom that I had no ear for music. I relaxed a bit, because this was already said about me when they wanted to enrol me to the music school in town. Anyway I didn't believe it. Can Mariena or Anča hear better than me? [...] During music lessons the entire class had to march in front of the blackboard; only Laco and I remained at our desks. Other students made faces at us and at first we envied them a bit, but later we found a certain advantage in it. They had to stand for the entire period and we were sitting. Textbook 4/2013, pp. 83-84.

4.3. *Girls and women do activities which symbolise the comfort of home (to boys and men). The kitchen is the space for their (personal) fulfilment*

If we talk about the most frequent gender stereotypes, the story *Ohňostrojek pre deduška* (Fireworks for Grandpa) by Jaroslava Blažková is a model text. The preparation of the festive lunch and pie by grandmother who is observed by her grandson while doing these activities is the main motif. The writer portrays the female role model through manual activities (cooking, baking) and these activities define her in the eyes of her grandson or define her gender role, not only manually, but also emotionally (grandmother cooks and bakes for the entire family with love) and sensory (the boy relates her with the smell of food which she prepares for him). The image of «female manual activities» is almost ritualized in the story and the definition of the roles is also obvious within the male framework – the grandson argues with his grandmother about why car mechanics are dirty.

The electric mixer pleasantly hums in the kitchen. When grandma turns it on everyone's mouths begin to water because it means that there will be some goodies. The mixer is whipping foam out of the egg whites while grandma mixes thin yellow dough in the blue bowl. [...] Grandma is soft, warm and smells of vanilla. Andrej presses his nose into the warm smell. He forgets (gladly) that he was supposed to wash up and grandma forgets as well. Her heart is soft, hot and made of vanilla. She pats Andrej on his messy yellow head and she comes back to her senses only when the soup begins to hiss on the stove. She swiftly pulls it aside and begins to cut noodles. The boy likes to look at her hands. They flash above the board and the knife is like lightening in them, rolled up flat dough turns into thin threads in them. [...] Grandma mixes the dough again. Now she allows him to stick his finger in and lick it. The dough is as sweet as honey. [...] Grandma puts away the electric mixer with sugar foam, pushes away the bowl with black cherries and wipes the tablecloth. Textbook 3/2012, pp. 33-34.

4.4. *Girls don't fight*

In literary texts designated for children this stereotype is a culturally determined model of femininity – the image of women and girls as submissive, tender and docile and who cannot protect themselves or their loved ones. But this stereotype is discredited and counter-balanced in a text with another significant quality courage –. This is what puts the «male and female» experience on an equal footing. Tatiana Lucká works polemically with the motif of «a little girl-ruffian» in the text *Môj veľký brat výmyselník* (My Big Brother the Inventor). The story is in essence a dramatized dialogue in which the brother scolds his little sister for fighting a boy until it turns out that she did it in his defence. The brother forgives her but we can see in his attitude that he condemns similar behaviour with girls.

MATEJ: «What did mom and dad say? Until they get home I'm responsible for you».

ŽOFKA: «I was on my way home, but at the courtyard...»
MATEJ:... «you got lost».
ŽOFKA: «No, I...»
MATEJ: ... «forgot where we live».
ŽOFKA: «No! I got into a fight!!!».
MATEJ: «What? Wow, look at you. Fighting like a guy?!»
ŽOFKA: «If you want to know I was fighting because of you».
MATEJ: «I didn't know that you were a bully, Žofia».
ŽOFKA: «Me?! Edo started it. He said that you were no inventor and that those inventions of yours are just...Should I tell you?».
MATEJ: «Do it».
ŽOFKA: «Rubbish». Textbook 3/2012, pp. 29-30.

4.5. *Boys show affection towards girls by aggressive behaviour, their only motivation for the demonstration of affection is the appearance of a girl*

Another category pertains to communication stereotypes between boys and girls, and in the case of boys such communication is an indication of beginning feelings or interest in the opposite sex. But that is perceived as embarrassing and in the case of the male hero the embarrassment is masked by tough, inappropriate behaviour. We can perceive an attempt at a more cultivated form of feelings that fails as another stereotype. The fact that girls can attract boys only by their physical appearance and fresh girlish beauty is another stereotype frequently appearing in literary texts. We present the poem of Krista Bendová Prekážka (Obstacle) as an example of the «commutation of stereotypes».

Our Eve – a good looking girl:
black eyes, blue ribbon in her braided hair,
and her cheeks – like roses in bloom.
If you don't believe me, just ask Tóno.
Because Tóno – between you and me,
fell in love, but please – judge on your own:
whenever he sees her, he steps on her foot,
pulls her braided hair,
one blow on her back after another.
[...]
Horrible feelings torture Tóno,
how to confess his love to her?
Then he figured it out,
He wrote her a note (full of grammatical mistakes – note by L.S.)
[...]
Little Eva read it,
She took a pen and wrote back.

«Dear Tóno! Until you learn to spell properly, don't even think about a wedding».

Tóno walks around dumbfounded.

He secretly sighs: 'oh, these women...!'

But I will reveal to you,
that he is studying a lot,

to overcome the grammatical obstacle.

What people won't do for love? Textbook 3/2012, p. 101.

4.6. Text as an example of (non)productive thinking about stereotypes

We left the text by Klára Jarunková *Rovnoprávnosť (Equality)* for the end of the analysis. The theme of this text is directly related to the issue of male-female models of behaviour in the school environment, in various contexts, at the level of physical and mental patterns. Despite the topic, the text is conservative and careful, with no signs of subversion or deeper deliberation about whether the culturally determined gender model is correct or whether it's possible to look for alternatives. We present the text in (almost) full wording and parts in bold to show a wide spectrum of stereotypes, physical and mental qualities related especially to girls' behaviour.

There are over twenty classes in our school and over twenty group leaders in those classes [...] and more than fourteen are girls. We asked the pioneer leader about this, because he's our friend. He said that everything was O.K., because we have equality. I trust him, but I don't like it. Jožo said that equality means that either a boy or girl, it does not matter. But that's not true; one can see it when a girl stands in the goal in football. A girl can't even climb a tree, and if she does, she falls down, so how can equality exist? When we were electing the leader in our class [...] I yelled that I wasn't going to vote for a girl. [...] Anyway [...] our teacher favours girls; even though she doesn't say anything she favours them anyway because she's a girl too. So we elected Anča Paríková. On the way home from school I tripped Anča, so she wouldn't think that she was something special. [...] Then I said that girls are stupid [...] they can only memorize, tattle on boys, and cry for everything and be clumsy. [...] Mišo said that he respects Anča because [...] in industrial arts she got an A in sawing and I got a C and even cut off a nail. [...] Mišo also said that there are also girls who could even be boys and that some boys are worse than girls. [...] Mišo said anyway nobody can choose what he or she is going to be, that even he should have been a girl, because his parents wanted him to be a girl. Until the first grade he had long hair, fortunately his father cut his hair and so he is still a boy. [...] And I said: – If you were a girl I would also want to be a girl, and if that wouldn't be possible, I would marry you. Mišo is the smartest guy in the world. Textbook 3/2012, pp. 120-121.

The text constructs gender stereotypes at several levels. «Typical female qualities» which are exposed in the deliberations of a young boy are understood

as negative, as the manifestation of weakness (girls cannot climb trees, cries, tells on others, memorizes), thus the bipolarity of gender is created on the axis of the weaker-stronger gender. The question of equality itself and its significance is not explained here, it is only rationalised by an uncertain statement «whether a boy or girl, it doesn't matter, which may confuse the reader. Equally confusing is the sentence about the fact that there are girls who could be boys and some boys are worse than girls». Femininity is again presented here as a weaker pole, which stands out even more if we apply its qualities to male characters and patterns of behaviour. Clear gender differentiation is even initiated by parents (father), who as a sign of clear physical «masculinization» cuts the boy's hair (long hair is undesirable with boys, as a sign of femininity, «long hair goes with girls»). Thus the frequency of reproduced stereotypes shows that text does not at all deal with equality (of relationships); on the contrary, it is deeply conservative. The fact that a female character was better in manual skills does not change anything, because the writer doesn't work further with the motif of her abilities, not even within the framework of gender. Thus the text which according to all evidence should have brought the readers to a deliberation over the abilities of boys and girls only preserves archaic literary schemes.

Based on a detailed analysis, we can state that the readers – literature textbooks usually feature such texts which strengthen gender stereotypes instead of debunking them. The topic of the clear differentiation of gender roles, especially in the family environment, appears especially with writers from the older generation (Krista Bendová, Jaroslava Blažková), and what is interesting, prevails in texts by female authors. But let us mention one distinctive exception, namely the text which directly deals with the gender equality issue, especially the professional status of men and women.

5. Conclusion

In summary, the mathematics textbooks and readers designated for the primary stage of education do not work innovatively with gender stereotype issues or pay any special attention to them; they do not work more creatively with the model of masculinity and femininity. There are definitively more reasons for preserving the conservative optics of gender in textbooks for children and youth, but the main reason is that this issue and its reception by children (as opposed to adults!) has not been sufficiently researched. It would be unwise to assume that a child comes to school without gender stereotypes. Research has confirmed that «these stereotypes are fairly well developed by 5 years of age, and become rigidly defined between 5 and 7 years of age, making the preschool years a critical period to deal with gender stereotypes» (Martin & Ruble, 2004). However, it is the role of the school to provide the same opportunities to all children regardless of race and gender and textbooks should be instrumental in this long-term process.

The submitted research indicates that the readers and mathematics textbooks for primary schools in the Slovak Republic do not sufficiently reflect gender-sensitivity and the benefits of promoting gender equality are only marginal in the current form. Reasons, this condition is not difficult to identify. The issue of gender equality, in Slovak primary school textbooks is not considered as a priority in the school system

or in legislative approved didactical materials. Priority in school practice remains the basic mediation of learning (basic knowledge), not the presentation of model social concepts against the backdrop of this knowledge (for example, in entering mathematical vocabulary). It is therefore inappropriate to think in this context about the impact of textbook editors on editors of didactic literature publishers. Slovak society is and for a long time will be value-conservative, and the problem of implementing gender issues in textbooks is still just starting to open. It is therefore not easy to give clear or direct recommendations on this issue. It always depends on a particular pedagogue, his or her life experience and personal gender sensitivity, whether the problem in the course of teaching reminds or avoids it.

We believe that through this research we will contribute to the discussion and subsequently to a more assertive promotion of a gender-balanced approach in designing textbooks in Slovakia.

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