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FACULTY OF EDUCATION

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MOTIVATIONAL POTENTIAL OF AN INCENTIVE-BASED READING GAME

Diploma Thesis

Brno 2019

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Brno, 30th March 2019

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Tomáš Průdek

Acknowledgements

I would like to thank my supervisor, doc. Mgr. Světlana Hanušová Ph.D., for her professional guidance, infinite patience, kindness, and valuable advice throughout the process of writing this thesis and the whole course of my studies.

Tomáš Průdek

Annotation

The diploma thesis *Motivational potential of an incentive-based reading game* explores the possibility of enhancing pupils' motivation to read through a reading game designed for this purpose. The first part presents the theoretical background concerning other incentive-based reading programmes, factors influencing the amount of reading, and the behaviourist learning theory. The second part then presents the methodology used for designing and evaluating the game, together with the results and their interpretation. The experiment itself was conducted in grades 4 and 6 of a Czech elementary school over a period of four weeks. Overall, the game did not motivate a sufficiently large number of pupils to read in order to be considered successful.

Keywords

reading, incentives, motivation, attitude towards reading, reading programme

Anotace

Diplomová práce Motivační potenciál čtenářské hry založené na odměnách zkoumá možnosti zvýšení motivace žáků ke čtení pomocí čtenářské hry vytvořené pro tento účel. První část práce představuje teoretické pozadí týkající se jiných čtenářských programů fungujících na bázi odměn, faktorů ovlivňujících množství čtení a behavioristické teorie učení. Druhá část poté představuje metodologii použitou k vytvoření a vyhodnocení hry, společně s výsledky a jejich interpretací. Experiment byl proveden ve čtvrté a šesté třídě základní školy po dobu čtyř týdnů. Celkově, tato hra nedokázala motivovat dostatečně velké množství žáků, aby se dala považovat za úspěšnou.

Klíčová slova

čtení, odměny, motivace, postoj ke čtení, čtenářský program

Table of contents

Introduction **7**
THEORETICAL PART **9**
1 Literature review **9**
1.1 Incentive-based reading programs 9
1.2 Factors influencing the amount of reading 12
1.2.1 Access to books 12
1.2.1.1 Role of libraries 13
1.2.2 Reading experience and models 14
1.2.3 Attitude towards reading 14
1.2.4 Motivation to read 15
1.2.4.1 Intrinsic and extrinsic motivation 16
1.2.5 A case for reading 18
1.2.5.1 Reading and flow 19
1.4 Study of behaviour 20
1.4.1 Behaviourism 20
1.4.2 Key terms 21
1.4.3 Explaining behaviour 23
EMPIRICAL PART **25**
2 Introduction of the experiment **25**
3 Methodology **26**
3.1 Research questions 26
3.2 Hypotheses 27
3.3 Participants 28
3.3.1 Group A 29
3.3.2 Group B 29
3.3.3 Control group 29
3.7 School description 29
3.4 Data collection 30
3.4.1 Data collection from the experiment 30
3.4.2 Archival research 31
3.4.3 Questionnaire 31
3.4.3.1 Questions regarding the attitude towards reading 32
3.4.3.2 Questions regarding the reading environment 33

3.4.3.3 Questions concerning reading English books and the game 34
3.5 Classification 35
3.6 Degree of the facilitator's intervention 36
3.7 Description of the experiment in behaviourist terms 37
4 The reading game experiment 37
4.1 Introducing the game to pupils 38
4.2 Rewards 38
4.3 Element of uncertainty 39
4.4 Voluntary basis 40
4.5 Target group 40
4.6 Rules for giving tickets 41
4.6.1 Rules for obtaining tickets 42
4.7 Language of selected books 43
5 Results 44
5.1 Overall reception of the game 44
5.2 Participation rate 45
5.3 Analysis of the submitted books 46
5.4 School library attendance 47
5.4.1 Group A 47
5.4.2 Group B 48
5.4.3 Control group 49
5.4.4 Comparison 49
5.5 Questionnaire 51
5.5.1 Evaluation of the questionnaire for group A 51
5.5.1.1 Attitude towards reading 51
5.5.1.2 Reading environment 53
5.5.2 Evaluation of the questionnaire for group B 54
5.5.2.1 Attitude towards reading 55
5.5.2.2 Reading environment 56
5.5.3 Reading books in English 57
5.5.4 Suggestions for motivating people to read 58
5.5.5 Complete evaluation of the questionnaire and summary 59
5.6 Winners of the game 61
6 Discussion 62
6.1 Evaluation of hypotheses 62

6.2 Implications for future 63
Conclusion 66
References 68
Appendices 70

Introduction

Since the invention of writing, books have been one of the primary sources of knowledge preservation and allowed humanity to progress in an extraordinary manner, never seen before in nature. Prior to that, ideas had to be transferred orally, but with the dawn and development of literature, one could be introduced to ideas of someone who had lived several centuries before. It is thus no coincidence that intelligence and wisdom are being closely associated with books.

Reading itself offers many opportunities for both language teachers and language learners. From one perspective, books provide much needed contact with the target language and allow the reader to encounter new vocabulary and observe grammatical structures in a more natural context than a textbook offers. Another advantage of reading is that it allows the reader to experience hundreds of situations without the need to ever leave the comfort and safety of their room (the issue of neural changes during and after reading were studied for example by Berns et al., 2013).

Based on the previous two paragraphs, it seems logical that a teacher should promote reading and actively encourage their pupils to read more. And fortunately, many teachers do. However, the number of avid readers is almost always lower than the teacher desires. In many cases, there seem to be pupils who digest one book after another without any specific instruction to read. Those pupils are usually not the reason for the teacher's dreamless nights. On the other hand, there are pupils who roll their eyes the moment a book is mentioned. That is the moment when we, teachers, start thinking about the ways of motivating pupils to read more. And a similar moment sparked the idea for writing this thesis.

Before switching into the impersonal, academic style, I would like to use this opportunity to speak for myself. When I was thinking about the topic for my diploma thesis, I wanted it to be useful for my future work. And for a language teacher, reading is a very powerful tool. Unfortunately, from my experience both as a student and a teacher, I have noticed that many people do not fully employ this power to their benefit (i.e., they do not like reading). Naturally, I started thinking about the reasons for their behaviour and the ways I could help my future students to make friends with books. And from a large part, this is the purpose of this work – a selfish attempt to better understand the instruments that I as a teacher have at my disposal.

From a smaller part, the purpose of this thesis is to help me get better at collecting and analysing data, which, in my opinion, a good teacher should aspire to. An intuition might be an efficient tool when contemplating the effectiveness of a method or approach, but without solid (or

at least some) data, one can never know the real impact. Being familiar with methods of processing and collecting data enables the teacher to keep and develop methods that work, while abandon the ones that do not. Therefore, this thesis employs three different methods of data collection. The first one is the reading game itself, the second is a questionnaire that explores attitudes and reading environments of pupils in the experimental groups, and the third, loan records from the school library. These three methods are then combined to get a better insight into the composition of the groups (reading-wise) and evaluate the effectiveness of the reading game.

To get to the point, this thesis is built around a reading game which was designed for this purpose and was tested in grades 4 and 6 of one Czech elementary school. The principle of the game is simple – the pupils obtain tickets upon presenting a book they read during the game period and at the end, one pupil is randomly selected in a raffle and receives a prize. The participation is 100% voluntary and the selection of books depends solely on the pupil.

The theoretical part of this thesis presents research from the areas that shaped the designing process of the game. Those areas are other incentive-based reading games, the factors influencing the amount of reading and some parts of the behaviourist learning theory. The ideas from the theoretical part are then used as justifications for the decisions in the practical part.

Lastly, it should also be said what this thesis is not. The aim is not to deal with literacy or evaluate the reading game in terms of improving reading skills. To achieve this goal, completely different methodology would have to be employed. In addition, many other works have dealt with, and to a great extent have determined the benefits of reading and effects of reading for pleasure. Therefore, this work almost axiomatically presumes that any effort in increasing the amount of reading is for a good cause. The very last thing which needs to be addressed is the issue of language. In an ideal world, this work would be entirely dedicated to reading English books. However, many pupils have not even developed reading habits in Czech yet. Therefore, focusing solely on reading in English would be largely limiting and might even discourage the pupils from future learning. In simple terms, the idea is that if we want children reading in English, we must make sure they enjoy reading in their first language. This issue is properly explained in the methodology and the experiment itself.

THEORETICAL PART

1 Literature review

It is a truth universally acknowledged that an academic work must be commenced by a review of literature concerning the work and the key terms associated to it. Therefore, the first, theoretical part of the thesis presents a review of literature concerning the areas that lay at the foundations of this work. Those areas are reading programmes (with subchapters dealing with the issues of attitude, rewards and motivation), effects of reading, and the behaviourist learning theory. The presented arguments are then used to justify the decisions in the designing process of the game in the practical part and later in the discussion part of the thesis to evaluate the results of the game.

1.1 Incentive-based reading programs

This chapter aims to provide an overview of the research concerning reward-based reading programs and the spread of their usage. Two important keywords are used throughout this thesis – rewards and incentives. Although there are semantical differences between these two terms and they have different connotations, their function (motivate someone to do something) is similar enough that the researches and programs can be grouped together. In cases when the difference in these two terms matter, an appropriate remark is made in the text.

The very first question someone who is considering using or designing an incentive-based reading programme should ask, is whether it is something that is worth spending energy on. One possible way to start answering the question is to look at the extent to which these programs are used. For example, P. C. Fawson and S. A. Moore (1999) in their survey of five school districts in the U.S. found out that "one hundred percent of principals who responded indicated that there are reading programs in their schools" (p. 330). Not only teachers are interested in ways that would motivate children to read, but even companies do so. In his book *Punished by Rewards* (1993), A. Kohn says that "tens of thousands of schools now use corporate-sponsored reading incentives. At least as disturbing as Pizza Hut's 'Book It!'[1] is something called Accelerated Reader" (p. 268). On a similar note, J. W. Fantuzzo et al. (1991) discovered that 81% of teachers use some kind of incentive to promote reading in their classes.

[1] Book It! programme is still active to this day and recently celebrated 30 years.

Unfortunately, there is no similar large-scale study concerning attitude of Czech teachers towards incentives, therefore only fragmental evidence can be used at this point. For example, Robert Čapek in his book *Odměny a Tresty ve Školní Praxi* (2014) discusses the use of rewards and claims that "just as a little puppy needs a treat after following a command, a child should be also rewarded for a correct behaviour" (p. 50). There is also a small number of Czech bachelor and diploma theses that deal with the use of rewards and punishments in the classroom, but none of them examines the issue of reading programs, only of rewards in a general sense. For example, Kunstová (2014) in her diploma thesis found out that "teachers from the research sample perceive verbal praise as the most effective reward" (p. 96).

On the other hand, there are many reading oriented initiatives from different non-profit organisations or public libraries that cooperate with elementary schools. Most of these initiatives are not incentive-based, but experience-based. Among the most popular ones are *Noc s Andersenem*, where children go to a library at night and participate in activities related to literature. According to their website[2], 571 libraries and 588 schools in the Czech Republic are participating in the recent year (2019). Another popular initiative is the project called *Celé Česko čte dětem*. Their mission is to promote reading to young children by their parents, thus creating reading habits, positive attitude to reading and reinforcing of family relationships. They also organise monthly reading contest KNIHO-REJ, where children can win a book after they answer questions about a book that has been selected for that month. There is also a project called *Čtení pomáhá*, where children can donate to a charity of their choice by reading books from their list (the foundation already has the money, but children can allocate it after reading a book). This project is very successful – according to their website[3], more than 253 000 students had registered and together they allocated 50 million CZK to 512 different charities. Another large-scale project called *Dílna čtení* (reading workshop) was created by Nadace The Kellner Family Foundation. This project is focused directly on schools and provides help to both teachers and pupils. The reading workshop is a unique opportunity for some children to pick up a book, read silently for 15 to 20 minutes and then share their reading experience with others (Co pomáhá dětem). This concept is very similar to the sustained silent reading method.

[2] http://www.nocsandersenem.cz/
[3] http://www.ctenipomaha.cz/

Of course, one cannot make a case for something based on its popularity. Although it is clear that all sorts of reading programs exist and are often used, their effectiveness is seldom questioned and the opinion that they work is in many cases almost axiomatic. For example, Fawson and Moore (1999) suggest that "initial data analyses indicated that reading programs are varied, widespread, and generally perceived as desirable by all groups surveyed. Some respondents expressed dismay that anyone would wish to investigate the efficacy of such programs" (p. 330). In a more general sense, A. Kohn in his book *Punished by Rewards*[4] traces the idea of motivating people by rewarding them to something he calls pop behaviourism:

> The core of pop behaviourism is "Do this and you will get that". The wisdom of this technique is very rarely held up for inspection; all that is open to question is what exactly people will receive and under what circumstances it will be promised and delivered. We take for granted that this is the logical way to raise children, teach students, and manage employees. (p. 3)

Czech educators and writers on education also identify the problems with the concept of rewards and punishments. For example, Kopřiva et al. (2017) see the similarity in rewards and punishments in the fact that both of them are an impulse from outside and is not getting inside the child (p. 156). On the other hand, V. Mertin in his book *Výchova bez Trestů* (2013) mitigates possible radical distancing from using rewards by saying that the greatest pitfall of using rewards lays not in the nature of rewards themselves but in their inappropriate usage (p. 43). As an alternative to rewards, Kopřiva et al. (2017) suggest transforming the environment into one where children can experience the natural positive consequences of their actions and behaviour (p. 155).

In 1997, J. McQuillan published a meta-study of ten studies on reading incentives where five studies have shown a positive effect on incentives and five have shown a negative effect. His conclusion is that "there is no clear causal relationship in any of the studies conducted so far between the use of rewards and improvement in reading abilities, achievements, or habits" (p. 111). Another study by Beavers (2013) investigated the effect of rewards in reading incentive programs in middle school students, more specifically the effects of reading related and non-reading related rewards. She concluded that "the non-reading reward does increase participation in the programme,

[4] The title of the book is a clever word play. In behaviourist terminology, to be punished means that a frequency of a behaviour was decreased. Rewards, according to the public understanding of the word, should increase the occurrence of a behaviour. The reason for this title is that many studies discovered that this is in fact the effect of rewards.

but does not impact the motivation to read, either academically or for recreation" (p. 15). She also concluded that extrinsic rewards did not cause a decline in pupils' motivation to read, which is contrary to the notion that extrinsic rewards decrease motivation. On the other hand, the research sample was very small (approx. 15 students participated each week), therefore the results are not conclusive.

There are many difficulties that make evaluating the effectiveness of reading programs complicated. The first problem arises from the number of reading programs. It is problematic to group together programs that work with different demographical groups, use different incentives, have different length, requirements, degree of freedom, etc. There are also differences in the amount of information that each study includes in the final paper. McQuillan (1997) in his study writes that "a statistical meta-analysis of the results was not possible due to insufficient information reported to determine effect sizes in nearly every study" (p. 114). Thus, the lack of unity in methodology and reporting causes any attempt for a large-scale review to be an extremely challenging task.

It can be concluded that reading programs are frequently used in both the USA and the Czech Republic. It seems that incentive-based reading programs are more prevalent in the USA, whereas in the Czech Republic, the programs are more focused on the experience from reading. The idea of using rewards or incentives to promote reading (or any other behaviour) is very often taken for granted but seldom questioned.

1.2 Factors influencing the amount of reading

Offering an incentive as a motivation to read is one of many options for increasing the amount of reading. Thus, this chapter aims to present other factors that influence how much a person reads. Some of those factors are an access to books, reading models, reading experience, and attitude towards reading. The primary source for this chapter is the book *The Power of Reading* by Steven Krashen (2004) and a number of studies that have been conducted in the particular areas.

1.2.1 Access to books

It seems intuitive that a person who does not have access to books does not read, therefore ensuring that one who has enough reading material in their environment should logically be the first step when attempting to increase the amount of reading. The issue of accessibility could be explored from several perspectives, such as financial access to books (people affected by poverty

have arguably less access to books than wealthier people), or environmental access, be it at school, home, or community. Of course, simply providing books does not guarantee that a person will become an avid reader. Krashen (2004) comments on this issue by saying that "it is certainly true that you can lead a horse to water, but you cannot make them drink, but first we must make sure that the water is there" (p. 57). The following paragraphs introduce some of the studies that deal with the issue of access to books in more detail.

1.2.1.1 Role of libraries

Libraries play an important role in developing reading habits, as they provide both a wide variety of books and a quiet place for reading. This idea is supported by eight studies exploring the source of books for 11-year-old children presented by Krashen (2004). Although the studies report slightly different rates[5], Krashen states that "there is a good agreement in all studies that children get much of their reading material from some kind of library" (2004, p. 67).

When it comes to libraries, the role of librarians should not be neglected. A study conducted by the British Department of Education (2012) comments on the role of librarians by saying that "most librarians took an active role in promoting reading for pleasure with individuals and group of pupils. Activities that they were involved in included arranging reading clubs and author visits, providing exhibitions and displays" (p. 24).

A study by Clark and Hawkins (2011) offers an insight into the reasons for using and not using public libraries. Their results are drawn from a survey of over 17 thousand British pupils aged 8 to 16. Their findings are that "the most common reason young people did not go to their public libraries, cited by over half, was that their family did not go, even amongst older pupils" (p. 5). On the other hand, the most common reason for going to libraries was that "the library had interesting reading material" (p. 5). In addition, 38,2% of pupils believe that it will help them to perform better at school. There were also "significant differences in factors influencing library use […] depending on gender, age, ethnicity, and socioeconomic background" (p. 5).

In conclusion, the importance of libraries and librarians is recognised by both researchers and pupils. It is therefore desirable to reinforce the relationship between the school and public libraries (or school libraries), and make sure that they can offer an interesting reading material. The roles of reading models and social aspect should also not be neglected.

[5] Only one study reports the percentage of books from library below 50 %, while the rest report a percentage above 50 %.

1.2.2 Reading experience and models

In the page 82, Krashen (2004) mentions the concept of "home run" books. This could be explained as "a single very positive reading experience that can create a reader". Studies conducted on this topic seem to confirm that the concept of a "home run" book is recognised by many children and that they can in fact identify such book in their reading experience (ibid.). Having a positive experience with reading in an early stage of life might therefore be one of the easiest ways to introduce children to the world of reading.

Similarly, being read bedtime stories when young seems to be affecting the future attitude of children towards reading. Krashen (2004) reports that "parents of children who were heavy readers established a fixed routine early on of reading to their children when they were young" (p. 77). In addition, the results of controlled studies show that "children who are read to regularly, at home or at school, make superior gains in reading comprehension and vocabulary (p. 78). Thus, ensuring that our children/pupils have enough reading role models in their environment should be of a high importance.

1.2.3 Attitude towards reading

As the term attitude is frequently mentioned in this thesis, it should be properly defined first. One possible definition of attitude can be taken from the book *Belief, Attitude, Intention, and Behaviour: An Introduction to Theory and Research* (1975) by M. Fishbein and I. Ajzen, who define attitude as "a learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given subject" (p. 6). This definition is generally accepted, and its variations are used to this day. For example, M. C. McKenna et al. (2012) adjusted it to define reading attitudes. Their version, which is also accepted working definition of reading attitude for this thesis, is "acquired predispositions to respond in a consistently favourable or unfavourable manner with respect to aspects of reading" (p. 285).

McKenna et al. (2012) further comment on the aspects of Fishbein and Ajzen's definition. Firstly, the word acquired suggests that attitude is not innate, rather is "the product of innumerable episodes involving the object" (p. 284). The implication of this notion is following – the attitudes can change (both ways on the spectrum). Furthermore, each episode indirectly influences the subject's belief system. Those beliefs "include predictions about the object (e.g., pleasurable, boring, frustrating) and about how socially significant others view it" (ibid.). It can be concluded at this point that understanding the attitude of an individual in depth seems to be an extremely

demanding task, especially if a teacher would desire to manipulate these factors to affect pupil's attitude. On the other hand, one does not have to possess an exhaustive list of factors and their weights to be able to identify the ones that influence attitude the most.

Contrary to defining attitude toward reading, which is relatively simple, measuring it has proven to be rather complicated. Although there had been many attempts to measure it, reviewing the results of those studies is problematic. McKenna et al. (2012) identify the source of this problem as "ill-defined terminology and unreliable measures [that] are to blame for unclear – and occasionally inconsistent – findings" (p. 286).

The attitude test which have been compiled for the purpose of this work builds on the information presented in this chapter – primarily an access to books (at home, in libraries) and reading models. Based on the definition of attitude (a predisposition to respond in a consistently favourable or unfavourable manner), the pupils with a positive attitude towards reading should therefore respond positively to the reading game.

1.2.4 Motivation to read

The word motivation evolved from the Latin word *movere* (to move)[6] and nowadays is generally understood as something that makes people move towards to their goal. Understanding motivation, on the other hand, is a more challenging task. The aim of this chapter is to introduce the concept of motivation and present the theories that are relevant for this thesis. The primary source for this part is the book *Motivace Chování* (2014) by Milan Nakonečný.

Right from the beginning, Nakonečný highlights that Psychology textbooks are very inconsistent when dealing with this issue. He offers a general definition of the professional use of the word motivation, which is a hypothetical scientific construct, the function of which is to describe or explain (or both) some psychological phenomenon (2014, p. 16). It is derived from observable behaviour which is attempting to generalize or expresses its psychological substance or causality (ibid.). Closely related to motivation is the concept of *a need* (understood as a lack of something). People thus use the concept of motivation to explain the roots of the behaviour that leads to elimination of that need. For example, the behaviour that we describe as drinking was motivated by the need to quench thirst. There are many theories of motivation, such as the humanistic theories of A. H. Maslow and C. R. Rogers, psychoanalytical theory, evolutionary

[6] The Latin word itself has the PIE root „*meue-„, meaning „to push away" - https://www.etymonline.com/word/motive

theory, cognitive theories of motivation (constructivism), etc. Those theories are undoubtedly interesting and have a lot to offer, but for the purpose of this thesis, only the concepts of intrinsic and extrinsic motivation, and the behaviourist theory of motivation and its criticism are presented in a greater detail.

1.2.4.1 Intrinsic and extrinsic motivation

A popular notion is to divide motivation into two types – intrinsic and extrinsic. Intuitively, intrinsic motivation can be understood as motivation coming from the inside of a person (the reasons for one's behaviour are coming from that person), while extrinsic motivation comes from outside (the reasons for one's behaviour are coming from outside of that person). However, such definition touches only the surface of the issue.

The first problem with this definition is that all motivation is intrapsychic, thus intrinsic (Nakonečný, 2014, p. 90). In this sense, the term intrinsic motivation becomes a tautology. This, however, is not the original understanding of the word by its coiner R. S. Woodworth. In his point of view, intrinsic means than an individual acts from their initiative, whereas extrinsic means that they act from an outside incentive (ibid.). Unfortunately, the division between those two types of motivation is very often blurred. An activity can be simultaneously both intrinsically and extrinsically motivating (e.g., a job that is also the worker's interest).

There is another problem with defining intrinsic motivation. Alfie Kohn explains it as "we need to decide whether it is to be defined negatively (specifically, as that which is present when an individual does something without expecting a reward), positively, or both" (1993, p. 290). This issue primarily concerns researching intrinsic motivation and are not very useful for this work. Kohn deals with this issue in essay *What is Intrinsic Motivation?* which is available as appendix B in his book *Punished by Rewards* (1993).

Nowadays, the concept of intrinsic and extrinsic motivation is gaining popularity in both academic and public discourse on a reform of the educational system. For example, Kopřiva et al. (2017) in their book *Respektovat a Být Respektován* write that:

> Many people believe that if we get children under a threat or a promise of reward to do something and they will do it for a sufficiently long time, they are going to eventually find pleasure in it and start doing it from their own initiative. This is a very serious error that bore bitter fruit for many teachers and parents. (p. 181)

This idea strongly resembles the Kohn's remark on the prevalence of "pop behaviourism". Although it undeniably applies to many people's experience with learning, its validity should not be taken for granted. This introduces another issue, which could be described as radical rejection of everything that resembles extrinsic motivation. Along with this comes the occasional confusion between a "reward" and a "reinforcer" (the concept of reinforcement is described in more detail in chapter 1.4.2) and is probably for the best to be dealt with simultaneously.

There is a practical and a philosophical problem with this. From the point of a behaviourist, there is a target behaviour (e.g., reading) and there are variables (or contingencies) that influence the frequency of the behaviour. The behaviourist then manipulates the variables in order to either increase or decrease the frequency (reinforcement or punishment). The variables must be quantifiable/observable to enable the researcher to evaluate the effectiveness of their intervention. Unfortunately, in many cases, the desired effect of a reward is reinforcement and consequently, the word reward acquires the characteristics of a reinforcer.

As was written in chapter 1.1, Kopřiva et al. (2017) suggest transforming the environment into a one where children can experience the natural positive consequences of their actions and behaviour (p. 155). Compared to the hypothetical behaviourist, there is not much difference. Both the behaviourist and Kopřiva had to select some target behaviour, identify the variables that might influence the frequency of that behaviour and decide whether they want to reinforce (increase the frequency) or punish (decrease the frequency) of the target behaviour. The difference is in the terminology of those definitions, and the extent of predictive utility and parsimony. If we as teachers must presume the existence of some "natural positive consequences", we must deal with the following things. Firstly, we are partly projecting our own expectations (a teacher who loves reading might presume that others will experience the same pleasure under similar conditions). Secondly, we are losing some insight into the process by relying on subjective perception. And lastly, we have to evaluate the effects of this intervention by observing the behaviour anyway. This issue of confusion is also addressed in *Applied Behaviour Analysis for Teachers* (2013), where the authors recommend "that teachers avoid using the term [behaviour modification] with uniformed or misinformed people" (Alberto & Troutman, p. 24). However, their statement should not be understood as an attempt to prevent parents or other people from knowing what is happening in a classroom. Their advice only concerns the careful usage of the terminology that suffered from decades of misuse.

In conclusion, the topic of motivation might be a bit discouraging for a teacher genuinely trying to do the right thing, but in the end, we have to shape our pupils into something else, which requires some degree of manipulation. The least we can do is to be honest about the goals we have, the tools we use, the results those tools produce and act accordingly.

1.2.5 A case for reading

The act of reading is a complex behaviour requiring considerable cognitive effort. It could be argued that reading and being good at reading does not differ from any other human skill. For example, if one desires to be good at tennis, the best way to achieve that is to actually spend a lot of time playing tennis (also, playing a little bit of tennis is arguably better than playing no tennis at all). Additionally, by playing tennis one does not only improve the ability to play the game, but improves in other areas that are transferable to other activities, such as endurance, hand-eye coordination, strength, etc. In the same manner, by reading one does not only become better at reading, but in areas that reading consists of as well.

Although all that was said seems intuitive enough to be true, the scientific exploration of the effects of reading is another issue. Probably the greatest constraint in researching reading is that it is a highly subjective activity, i.e., most of the processes that we are interested in take place in the reader's mind, inaccessible for an outside observer (at least for those without access to fMRI device). In addition, most of reading is very often done in privacy. So, while it might be sufficient to simply observe a tennis player in order to know what is happening, observing someone read is to little use (one can for example measure the speed of reading or the characteristics of the reading material). This fact brings the issue of anecdotal evidence that is often used to promote reading. Many examples of anecdotal evidence can be found for example in Krashen (2004), who shares personal experiences of people who benefited from reading. Of course, enough accumulated anecdotal evidence can provide a useful insight, but the chance of omitting some important factor is simply too high to make generalisations (a popular aphorism on this issue is "The plural of anecdote is not data").

Other obstacles in the way of scientific exploration of the effects of reading are for example that many experiments take place in school classrooms, which usually do not enable proper randomisation and creation of control groups. Furthermore, the length of the research, individual differences, sample size or amount of reading are factors that must be considered when assessing the validity of the research.

1.2.5.1 Reading and flow

The very last thing presented here in favour of reading is rather peripheral one, but nonetheless interesting. It concerns a psychological concept that may sound strange for a first-time hearer, but it might be something that people experience regularly. The reason for mentioning it in this thesis is to support the idea that reading for pleasure is indeed a pleasurable activity.

The term flow was coined in 1975 by a psychologist M. Csíkszentmihályi. It is used in the field of positive psychology to describe a state of mind during an activity. The concept of flow is used to describe "intense engagement or complete absorption in a task" (Nell, 1988, p. 110). Csikszentmihalyi, in his original paper from 1975 describes flow as "the autotelic[7] experience". Although there are certain limitations of researching flow that arise from it being a highly subjective experience, there are numerous studies that make the existence of this phenomenon undeniable.

To briefly introduce the concept of flow, it is possible to cite six characteristics of flow from a research on the conditions of flow in reading by J. McQuillan and G. Conde (1988):

> First, a person's skill in a given activity must meet the challenge. […] Second, the activity must have relatively clear goals and feedback as to the doer's performance. Third, the optimal experience requires a focused concentration such that one's attention is totally devoted to the activity. […] Fourth, the doer feels that the outcomes of the activity are in some sense under one's own control. Fifth, the doer loses a sense of time while in flow […]. Sixth, the person in flow temporarily loses awareness of self. (p. 111)

Interestingly, some of the characteristics described above corelate to some extent with some didactical principles – such as the need for clear goals and feedback, necessity of pupil's skill meeting the challenge, or the need for a degree of autonomy in one's learning.

According to McQuillan and Conde (1988), "a re-analysis of the data from five studies of optimal experience by Massimini, Csíkszentmihályi, and Delle Fave (1988) reveals that more than twenty percent of the broad cultural groups surveyed […] said reading was the most frequent flow activity". In the same paper, they further investigated the relationship between reading and flow with a conclusion, that "flow in reading may thus be a key element for the acquisition of written language and the cognitive aspects of what we call literacy" (p. 131).

[7] something that has a purpose in and not apart itself

The most important finding of McQuillan Conde's study for this paper is, that flow during reading happens mostly when the reading material is self-selected and a) subjects had a prior knowledge or interest before reading; b) the text provided enough challenges to sustain the flow, and c) caused growth and perceived benefits from increased knowledge.

1.4 Study of behaviour

The aim of this part is to briefly present the history of behaviourism, together with the key terms and principles associated to it. The last part of this chapter offers the description of the reading game in the terms of behaviourism. Prior to further reading, an important disclaimer must be made. Although this experiment was inspired by the principles of these fields and it employs some of them, this work is not an accurate representation of the professional practice, mainly for two reasons. The first reason is a matter of credentials – the author is neither a trained psychologist nor a behaviour analyst. The second reason is the nature of the experiment and the circumstances in which it was conducted. Usually, scientific analysis of behaviour requires, among other things, direct observation of the behaviour, precise data collection, individual approach and little delay in presenting the reinforcer. Many compromises in these areas must have been made to conduct this experiment and they are addressed further in the thesis.

No teacher has time nor tools to use scientific inquiry in the classroom in every matter. On the other hand, incentives and rewards are frequently used to produce the desired behaviour (good grades, gold stars, etc.). Therefore, the thesis' goal is to measure the effectiveness of a game that could be easily replicated without great time and financial investment.

1.4.1 Behaviourism

According to Nakonečný (2011), positivism (the idea that the subject of science should be only positive facts) stimulated the popularity growth of studying behaviour in psychology, as behaviour is the only objectively observable psychological phenomenon. This notion led to neglecting phenomena like consciousness or inner experience, as they are not objectively observable, therefore unscientific (p. 50). Such criticism of unscientific methods in psychology laid the foundations of the new psychological school of thought – behaviourism. Although the original ideas of behaviourism were criticised for its reductionism and are now effectively debunked, behaviourism provided psychology with much needed instruments for scientific exploration of humans and consequently, making psychology a science. In addition, the legacy of behaviourism

still lives in fields such as ethology (the study of animal behaviour), or applied behavioural analysis (ABA), which is a "scientific approach for discovering environmental variables that reliably influence socially significant behaviour and for developing a technology of behaviour change that takes practical advantage of those discoveries" (Cooper et al. 2014, 22). The revised ideas of this school of thought, primarily from applied behavioural analysis, are used for this thesis and are addressed in more detail in chapter 3.7.

Among the first people articulating the ideas of behaviourism were E. L. Thorndike (1874-1947) and J. B. Watson (1878-1958), whose experiments with animals (and sometimes humans, e.g., Watson's infamous experiment with conditioning a child to fear rats, now known as *Little Albert*) prepared the field for the scientists to come (Hunt, 2015). Other publicly known representatives of behaviourism are I. P. Pavlov, who became popular thanks to his experiments with dogs salivating upon the sound of bell, now referred to as classical conditioning, and B. F. Skinner, who spent his life developing his learning theory of reinforcement and punishment, now known as operant conditioning.

The original Watson's S - R paradigm (where S is a stimulus and R is a response) that was supposed to offer a general structure of behaviour had to be revised and changed into an S – O – R model (the addition here being O – an organism) under the weight of evidence. The primary reason for this revision was "a simple fact, that the same stimulus produced different responses from different people, thus there must be some personality factor that comes between the stimulus and reaction" (Nakonečný, 2011, p. 51). Consequently, the addition of "O" caused another paradigm shift and led to re-opening the areas of study that behaviourism successfully closed for many decades. The following chapters define the terminology and introduce the main reasons for selecting this approach.

1.4.2 Key terms

Before proceeding further, some important terms connected to behaviourism must be defined. Those terms are behaviour, punishment, reinforcement, variable (dependent and independent), and operant conditioning.

The book *Applied Behavioural Analysis* (Cooper et al., 2014) offers the following definition of *behaviour*, which is "that portion of an organism's interaction with its environment that is characterised by detectable displacement in space through time of some part of the organism and that results in a measurable change in at least one aspect of the environment" (p. 2). In other words,

behaviour is everything that an organism does. This behaviour is then subjected to the effects of punishment and reinforcement.

In simple terms, *reinforcement* occurs when "a stimulus change immediately follows a response and increases the future frequency of that type of behaviour in similar conditions" (Cooper et al., 2014, p. 14). The opposite of reinforcement is then *punishment*, which occurs "when stimulus change immediately follows a response and decreases the future frequency of that type of behaviour in similar conditions" (ibid.). It is probably best to talk about punishment and reinforcement in a relationship to a target behaviour, as the term punishment has a different meaning in the common language than in behaviourism. Assuming that reading is the target behaviour, then every manipulation with the environment that increases the frequency of reading is considered a reinforcer, while everything that decreases reading in the future functions as a punisher. Contrary to the common understanding of punishment, in behaviourism, punishment does not have to be unpleasant or cruel – important is the relationship to future behaviour. In addition, reinforcement and punishment can be both positive and negative, depending on whether something was added (positive reinforcement, positive punishment) or removed from the environment (negative reinforcement, negative punishment).

In an experiment, the term *variable* is used "to refer to any number of factors involved in research" (Alberto & Troutman, 2013, p. 125). These variables can be further distinguished as *independent variable*, which is "the variable that is systematically manipulated by the researcher in an experiment to see whether changes in the independent variable produce reliable changes in the dependent variable" (Cooper, Heron & Heward, 2014, p. 8). *Dependent variable* is then "the variable in an experiment measure to determine if it changes as a result of manipulations of the independent variable" (Cooper, Heron & Heward, 2014, p. 5).

Lastly, operant conditioning is a process "by which operant learning occurs; consequences result in an increased (reinforcement) or decreased (punishment) frequency of the same type of behaviour under similar motivational and environmental conditions in the future" (Cooper, Heron & Heward, 2014, p. 12). Behavioural learning theory directly draws from this understanding and defines learning as "a result of the consequences of behaviour. To put it very simply, behaviour that is followed by pleasant consequences tends to be repeated and thus learned. Behaviour that is followed by unpleasant consequences tends not to be repeated and thus not learned" (Alberto & Troutman, 2013, p. 11).

It should be kept in mind that this overview is only a brief introduction to the topic. Even though that this work was largely inspired by these ideas, it does not represent nor tries to represent the common practice in psychology and applied behavioural analysis. Instead, the principles were adjusted to be used in a classroom by a teacher with no direct training in this field of psychology.

1.4.3 Explaining behaviour

People employ different strategies when trying to explain behaviour. Those strategies differ in several aspects that make them either more or less functional. Alberto and Troutman (2013) offer a brief overview of some approaches to this issue. Firstly, they present four requirements for a method of explaining behaviour to be useful for the practitioner. The first requirement is *inclusivity*, the ability to "account for a substantial quantity of behaviour" (p. 2). The second requirement is *verifiability* (i.e., it should be testable). The third requirement is *predictive utility*, which means that the explanation should consistently predict what is going to happen in certain conditions. The last requirement is *parsimony* of the explanation. That is closely related to the popular tool of science called the Occam's razor, which basically states that the explanation with the least variables and assumptions should be preferred over more complex ones.

One example of a poor explanation could be based on the nature of an individual's character. That usually works by assigning someone a trait (e.g., intelligent, stupid, etc.) in order to explain their behaviour. Typical example of this would be a pupil who regularly gets an A on a test. The teacher then assigns them the label "intelligent" and explains their success by them being intelligent. This, however, is not very logical approach, as it is a form of a fallacious circular reasoning. This could be simplified in the following way. The student is intelligent because they got an A, while the reason for getting the A is the fact that they are intelligent. This line of reasoning simply does not provide any useful insight about the actual reasons for their behaviour. What is worse, these labels can be crippling for the individual (no matter whether the label has positive or negative connotations), as they can accept this explanation and expect the same results in the future (a kind of self-fulfilling prophecy)[8]. In addition, it might also be detrimental for the person using these labels, as it prevents them from a deeper understanding of the issue. This might also be the case when it comes to reading, as in some point of view, people who like to read do it because they are intelligent, while they are intelligent because they read more than others. Relying on some

[8] Those effects are known as the Pygmalion effect for positive expectations, and the golem effect for negative expectations

personality traits is therefore useless for someone who is trying to motivate others to read. The goal therefore is to identify the real factors that influence the amount of reading.

Alberto and Troutman (2013) mention other forms of explanation as they were formed in the history. Those are biophysical and biochemical explanations that try to explain behaviour, for example by physical or chemical interactions in the individual's body[9]. The more recent explanations are based on the modern understanding of human psychology. Those would be developmental, cognitive and behavioural explanations, each drawing from their respective theoretical body of knowledge. When evaluated on the basis of the four requirements, the behavioural approach appears to be the most suitable approach to explaining behaviour (Alberto & Troutman, 20113, p. 15). The benefits of behavioural explanation could be summarised in the following way.

According to Alberto and Troutman (2013), "describing behaviour solely in terms of observable, verifiable, functional relations avoids the use of explanatory fictions. Such fictions are defined only in terms of their effects, resulting in the circular reasoning (p. 16). In addition, they say that "the teacher who concentrates on discovering and changing the environmental conditions maintaining students' inappropriate or maladaptive behaviour does not give up on them because they have cultural differences, retardation, brain damage, emotional disturbance, hyperactivity, […]; she teaches them" (p. 16).

On the other hand, behavioural approach is often criticised because "it leaves much of human behaviour unexplained, [such as] verbal behaviour and sociological, economic, political, and religious beliefs" (Alberto & Troutman, 2013, p. 15). This, however, does not prevent researchers to "isolate variables that influence important behaviour and manipulate those variables to make life better" (ibid.). Another criticism that the author of this thesis encountered is the idea that this approach turns people into robots, or simple deterministic machines. Although this criticism is from a large part mostly philosophical, it should be stated that "behavioural principles operate whether anyone is consciously using them" (Alberto & Troutman, 2013, p. 17). In conclusion, behaviourist explanations might not account for everything, but ignoring its principles would be as naïve as using them to explain everything.

[9] The most popular example would probably be the proposition of physicians of ancient Greece that „human behaviour was the result of interactions among four bodily fluids – blood, phlegm, yellow bile and black bile" (Alberto & Troutman, 2013, 2).

EMPIRICAL PART

2 Introduction of the experiment

This chapter introduces the general concept and the main rules of the experiment. The methodology and principles of the experiment are explained in more detail in chapters 3 and 4.

The experiment is designed as a two-week long game in which pupils read books and receive tickets upon presenting them to the facilitator (a teacher) of the game. The number of obtained tickets depends on the size and language of the book (for more information about the language, see chapter 4.6). At the end of the game, the tickets are collected, and one winning ticket is selected in a random raffle. The winner then gets a prize that was presented during the introduction of the game.

For the purpose of this thesis, two rounds of the game were conducted (therefore the whole experimental period spanned over four weeks), each with a different reward. In the first round, the winner could choose any book costing up to 350 CZK, while in the second round, the winner could select anything costing up to 350 CZK (illegal substances and age-inappropriate objects were excluded for obvious reasons). The main reason for implementing two different prizes was to find out whether more freedom in selecting the final reward would encourage more pupils to participate in the game, in comparison with the version where the reward is more connected to the substance of the game (a book as a reward for reading books).

Apart from the data collected during the experiment, two other data collection methods were used to improve interpretation of the results. The first is the administrative software in the school library that was used to collect data on the history of pupils' book loans. The second method is a questionnaire concerning pupils' attitude to reading and availability of books in their environment. The results of the questionnaire were used to create a profile of the participants as well as pupils who did not participate.

The are several aims of the experiment. For the sake of clarity, they are presented in the following list:

1. To offer an intensive reading opportunity for pupils in the experimental classes.
2. To explore the potential of incentives and their role in a classroom.
3. To suggest alternative approaches or improvements based on the results of the experiment.
4. To find out whether the game can be utilised in the author's future work as a teacher.
5. To map the pupils' reading attitude using the results of the game and the questionnaire.

The aims serve as starting points for formulating the research questions and hypotheses in the following chapter. It should also be stated here that the experiment does not aim to directly improve literacy and reading (or language) skills of the participants. Designing such experiment would require more complex design involving pre- and post-testing, longer duration of the experiment, and larger sample of participants in order to produce valid results.

3 Methodology

The aim of this part is to describe the methodological aspects of the experiment. First, research questions and hypotheses are presented. Second, the process of collecting data from the experiment, the school library, and the questionnaire is explained. And lastly, general description of the school and the experimental groups is offered. The primary source for this part is *The Principles of Writing in Psychology* (Smyth, 2004) that provided the formal framework for the methodology.

3.1 Research questions

Formulating a research question (whether mentally or on a paper) is usually the first step in preparing a research. Often it is a question that a person has on their mind and the desire for finding an answer which motivates the person to learn more about the issue. The question should be clear enough to properly reflect the aim of the research and accurately describe the subject of inquiry. Therefore, having a good research question is a necessary condition for the success of a research – although not the only one.

For the purpose of this work, one main research question (Q) is formulated. Four minor questions are presented (q) to provide more specific answers according to the aims of the work. A

special attention before proceeding further must be given to the question q_4, as its wording might make its purpose unclear. The phrase "kind of reader" refers to the questionnaire, specifically to the questions concerning respondents' attitude towards reading. According to the possible answers to those questions, three different categories of readers were established (for more detailed explanation of the categories, see chapter 3.4.3.1). Those categories are a) pupils with a positive attitude towards reading; b) pupils with a neutral attitude to reading; and c) pupils with a negative attitude to reading.

Q: Can a voluntary reading game with rewards motivate pupils in grades 4 and 6 to read?

q_1: What effect will the reading game have on the number of loans from the school library?

q_2: What effect does a book as the reward have on the participation rate?

q_3. What effect does a free choice in selecting the reward have on the participation rate?

q_4: What kind of a reader will participate in the reading game?

The expected answers to those questions are presented in the form of hypotheses in the next chapter.

3.2 Hypotheses

This chapter presents the hypotheses that will be tested in the experiment. There is one main hypothesis (H) and three minor hypotheses (h). Each hypothesis is marked with its corresponding mark. Their order does not signify their importance but reflects the order of the research questions. Beneath each hypothesis is a short commentary providing additional information. Due to the nature of the experiment and sample size, the hypotheses function more as predictions about what is going to happen in this particular case.

H: The voluntary reading game will motivate at least 50% pupils in grades 4 and 6 to read.

It is difficult to predict the results on such a small scale where individual differences of participants may overthrow any general tendencies that would manifest in a large-scale study. Therefore, the dividing line between the success and failure of the experiment was set on 50%. Admittedly, this division line is rather arbitrary and reflects the author's expectations. In other words, the author will consider the game successful (able to motivate pupils to read) if the participation rate is higher than or equal to 50% of pupils in a group.

h_1: The number of loans from the school library during the game period will be higher than the baseline.

This hypothesis is based on the following logic. The school library is the most readily available source of books for everyone willing to participate. If the baseline reflects the normal state of book loans, then the introduction of a game that requires reading has a high potential to cause a disturbance in this baseline, even in a situation where a small number of pupils decide to participate. Therefore, the probability of the number of book loans being higher than the baseline is higher than the probability of the number of book loans being lower during the experiment.

h_2: The second round of the game with a free choice in selecting the reward will have a higher participation rate than the first round.

It is expected that the second round with a broader possible range of rewards will motivate more pupils to participate. The rationale for this prediction is simple. If the primary reason to participate in the game is the attractivity of the reward, then by allowing more diversity in the reward should consequently target a larger pool of pupils and motivate them to take part in the game.

h_3: The number of participants with a positive attitude towards reading will be higher that the number of participants with a neutral attitude towards reading.

h_4: The number of participants with a neutral attitude towards reading will be higher that the number of participants with a negative attitude towards reading.

Due to the voluntary nature of the game, it is expected that pupils with a positive attitude towards reading will require the least amount of external motivation and similarly, pupils with a negative attitude towards reading would require the most amount of external motivation to take part in an activity that does not corresponds with their attitude. Hypotheses h_3 and h_4 are based on this presumption.

3.3 Participants

For the purpose of this experiment, the behaviour of three groups was observed. Detailed description of the groups is offered in the following subchapters. Although it is not possible to mention any personal information that would lead to identification of the participant, personal

identification was used during some phases of the experiment (when keeping track of the participants and collecting data from the library database). If a need to mention an individual participant should arise, a random name will be assigned to that person.

3.3.1 Group A

The first group selected for this experiment was the 4th grade. There were 28 pupils in total (13 girls and 15 boys) with age ranging from 9 to 10 years old (i.e. the standard age for this grade). All pupils study English as a foreign language and the class splits into two for the language lessons. There are no pupils with special educational needs (SEN).

3.3.2 Group B

The second selected group was the 6th grade. There are 22 pupils in total (6 girls and 16 boys) with age ranging from 11 to 12 years old. All pupils study English as a foreign language, but unlike the first group, the class does not split for language lessons due to the low number of pupils. In addition, there are two pupils with SEN. One has individual lessons of English, while the second pupil works with a help of a personal assistant.

3.3.3 Control group

The control group selected for this experiment is the 5th grade, as it the closest one to both participating groups (age-wise). There are two classes in this grade, but for the purpose of this experiment, it will be considered as one (this fact will also be considered later when interpreting the results).

The control group will be used for testing the hypothesis h_2 (The number of loans from the school library during the game period will be higher than the baseline). As this group was not in touch with the researcher or the experiment in any way, it is expected that the data concerning the school library loans will be unaffected by it and therefore serve as an objective comparison for evaluation of the effect of the independent variables (tickets and rewards).

3.7 School description

The experiment took place at elementary school during a four-week period of the author's compulsory teaching practice. The classes selected for this experiment were the fourth and sixth grade, both having English as a second language. Unfortunately, it was possible to choose only from the classes of the guiding teacher. For the sake of anonymity, no information that could

potentially lead to identification of the participants or the school are included in this work, although the author has the information available.

The school is the only school in a small village. The school itself is attended by 234 pupils (in the academic year 2018/2019) and has 10 individual classes (from the first grade to the ninth grade). The school is equipped with a school library that has around 1000 books available (including multiple copies of the most popular books). Usually, pupils use the library during a free hour before the afternoon lessons (it was observed that although the pupils are spending time in the library, they mostly do not interact with the books. Instead, the chat or play board games. For more information on this subject, see chapter 6.2), or after the end of the school. The library is open only when a librarian is present (usually a trained teacher assistant) and has an administrative system that keeps track of all loans.

The classrooms where the experiment took place were not equipped with any kind of library. On the one hand, this allows an easier control of the variables and measuring the outcomes, on the other hand, the existence of in-class libraries very often results in an increase of the number of books that children read (e.g., Morrow, 1982; Hongmei 2018) with other positive effects on language development. But in-class libraries are not very common in the Czech schools (at least not in a systematic way) and the absence of any research in Czech language on the topic of in-school libraries offers a possibility for a future study.

3.4 Data collection

The data collection process for this work can be separated into two layers. The first layer includes the data collected directly during the experiment in the class. The second layer of data collection can be considered a support evidence for better understanding the results of the experiment. The second layer includes data collected from the school database of book loans (archival research) and responses of the participants from the questionnaire. The following chapters introduce all the methods in a greater detail.

3.4.1 Data collection from the experiment

The first, and most obvious, kind of data collected during the experiment is the total number of pupils participating in the game and the number of tickets they received. Apart from these two figures, information about the submitted books was collected. This information includes – title and the name of the author, language, and length of the book. The data was then organised into a

spreadsheet, so a further analysis could be done. All the information was collected during or immediately after a pupil submitted a book.

In addition to this data, a close attention was paid to the way pupils talk about the book. Although this observation does not serve a direct role in interpreting the results, a discussion and suggestions based on the observations can be found in the section 4.6.1.

3.4.2 Archival research

With permission of the head teacher, it was possible to enter the database of book loans in the school library. Fortunately, the school library operates on a system called "dm Software[10]" that archives all the loans and enables various kind of searching. The system was launched approximately one month before the experiment took place, therefore the data from it can be used for establishing the baseline (the number of loans in the weeks prior to the experiment). Furthermore, the software was used to keep track of the number of loans during the experiment and in the weeks after the end of experiment.

The data coming from the archive should be very accurate, but it is possible that the librarian had to use an alternative method of recording, for example during a system failure or power outage. On the other hand, even if there was such an incident, the difference in overall picture should be marginal.

The process itself consisted of searching individual pupils from a particular group, noting down all their book loans and then organising it into a spreadsheet. Although the data collected cover the period from one month before the experiment to as much as five months after the experiment, the main data set used for the purpose of this thesis cover total of 12 weeks – four weeks prior to the experiment, a four-week period of the experiment and four weeks after the end of the experiment.

3.4.3 Questionnaire

The purpose of the questionnaire is to evaluate the results of the experiment in more depth, primarily by identifying the attitude towards reading of the pupils in each group. Additionally, the questionnaire explores the accessibility of books in the pupils' environment. This chapter therefore introduces the questionnaire itself, its content, the ideas behind its design, and its evaluation method. A blank version of the questionnaire is available in the appendix of this work.

[10] https://portal.dmsoftware.cz/

The questionnaire is composed of two parts, each on an individual side of a sheet of paper (A4 format). The first part consists of 13 statements regarding the attitude towards reading and information about the reading environment of the respondent. The respondents were asked to select an option according to the extent to which they identify with the statement. The respondents could choose from a five-point Likert scale, accompanied by an icon of a face representing each option (see Appendix 1). The second part consists of four yes/no questions regarding their attitude towards English books, one yes/no question regarding their participation in the game, and one optional open question about the particular respondent's idea on motivating people to read more. The only personal information that the respondents were asked to provide is their sex and age.

There is no single source of inspiration for those questions. Instead, the questions were designed to explore various areas involving reading and books. Those areas include home reading environment, school reading environment, social role of reading, availability of books, reading habits, function of reading, and relationship to reading. Furthermore, the questions were divided into two groups (questions regarding the attitude towards reading and questions regarding the reading environment) for the purpose of evaluation of the questionnaire.

The language of the questionnaire is Czech, as it ensures both maximal understanding of each question by the respondents and minimal time consumption. Before administering the questionnaire to the pupils, the formulation of the questions was discussed first with the supervisor of this work, then with the supervising teacher from the school, and lastly with one pupil from the experimental group B. Ambiguous and unclear questions were altered to prevent possible confusion during the administration of the questionnaire. The following chapters present the components of the questionnaire in more detail, together with the evaluation method and its purpose for this work.

3.4.3.1 Questions regarding the attitude towards reading

From the total number of 13 questions, seven of them address the attitude towards reading. Those seven questions could be further divided into two groups, where the first group (QA1) concerns the attitude manifested through some kind of behaviour, while the second group (QA2) explores their attitude through the opinions of the respondents on some issues related to reading. The items are following:

QA1

1) *I like reading.*
2) *I like to talk with my friends about the books I read.*
3) *I like to talk with my parents about the books I read.*
4) *I regularly visit some library.*

QA2

5) *I think that reading is important for better understanding of the world.*
6) *Reading is more interesting than watching movies.*
7) *Reading English books is beneficial to learning English.*

For the purpose of evaluation of this part, three categories were created based on the number of points a respondent could score. All the statements were formulated in a positive way, so that, for example, a response "strongly agree" could be always interpreted as a factor contributing towards positive attitude. Consequently, a pupil who answered all questions by selecting "strongly agree" would score seven points. The same principle applies to all the other categories. The categories and their score range is therefore following:

a) pupils with a positive attitude towards reading (7-17 points)
b) pupils with a neutral attitude towards reading (18-24 points)
c) pupils with a negative attitude towards reading (25-35 points)

3.4.3.2 Questions regarding the reading environment

The second group of questions concerns the reading environments of the respondents. There are several reasons for implementing this type of questions. The main reason is to explore to what extent the reading environment and the attitude towards reading affect each other (e.g., if pupils with a positive attitude reading live in a rich reading environment). The second reason is to find out to what extent the environment (family, friends) influences their decisions and how familiar are the pupils with books in the school library. The questions are following.

1) *My parents read books in their free time.*
2) *I can choose from a wide variety of books to read at home.*
3) *I often get a book as a present.*
4) *When I am selecting a book, I follow the recommendation of my parents.*
5) *When I am selecting a book, I follow the recommendation of my friends.*
6) *I know what books are in the school library.*
7) *I regularly visit some library.*

The question 7 appears in both sets of questions as it represents both an attitude and access to books. For the purpose of establishing whether, for example, pupils with a positive attitude towards reading tend to live in a print-rich environment, the same categories as in the previous chapter were created. Those categories are:

a) pupils living in a print rich environment (7-17 points)
b) pupils living in a print neutral environment (18-24 points)
c) pupils living in a print poor environment (25-35 points)

Results for both attitude towards reading and print environment are presented in chapter 5.5.1.1.

3.4.3.3 Questions concerning reading English books and the game

The second side of the questionnaire includes two parts. First part consists of four questions regarding English books reading, while the second part concerns the respondent's participation in the game. There is also an optional question about the respondent's suggestion for ways to motivate people to read more.

The purpose of the first part is to explore whether the respondents read books in English, and, eventually, the reasons for not doing so. For the sake of simplicity, it was decided to use yes/no questions. Consequently, evaluation of this part is a straightforward process, as there are only two options to choose from. The questions are following:

1) I read books in English.

If not, the respondents are asked to answer these following questions:

2) I do not read books in English because I do not know English that well.
3) I do not read books in English because I do not have access to them.
4) I do not read books in English because I do not like it.

There is only one yes/no question regarding the respondent's participation in the game, which is formulated as:

I participated in at least one round of the reading game.

The last, optional, question was constructed as a hypothetical situation to which they are asked to find a solution.

Imagine that your task is to motivate other people to read more. Do you have any idea how to do it?

Evaluation of this question primarily depends on the number of respondents who decide to answer. Nonetheless, a preferred way to evaluating this question would be by grouping the answers based on shared abstractions of the method (e.g., answers using an incentive). One possible issue that might emerge is that the respondents' answers will be affected by the experience with the game and answer by suggesting a similar method. Unfortunately, it is not possible to determine the extent of this contamination, therefore results of this part can be used only as a small insight into the respondent's thinking.

3.5 Classification

Firstly, the nature of this work is primarily a quantitative research. Smyth (2004) defines quantitative research as a research in which "the variables involved are quantified using numerical units" (215). This work meets this criterion, as most of the variables are presented using numerical units. Some of those are the number of tickets, number of books, number of loans, responses from the questionnaire, etc. The only qualitative part using words, phrases, or sentences (Smyth, 2014, p. 215), is one item from the questionnaire where the respondents were asked to write their suggestions.

Although the word used to refer to the research project is experiment, it would not be formally correct to use this term. Using groups that existed prior to an experiment, while their members were not randomly selected, classifies this project as a quasi-experiment. Ferjenčík (2000) describes the basic characteristic of a quasi-experiment as the fact that we cannot randomly assign people to individual experimental conditions (p. 107). In this setting, any control group should be referred to as a comparison group. The only difference between proper experimental setting and quasi-experimental setting is the lower internal validity of the latter (Ferjenčík, 2000, p. 107). Even though the outcome of the project can serve as a basis for designing a proper experiment, it should be kept in mind that the results apply exclusively to the experimental groups.

The project can also be considered a pilot study, as the results may lead to future improvements of the design in the author's own teaching career.

For the purpose of better characterising the participants, a post-experiment questionnaire was constructed. The focus of the questionnaire was the attitude towards reading and availability of books in the individual's environment. Most of the questionnaire consists of quantifiable data, with the only exception of one voluntary open-ended question regarding the respondent's ideas. Because the whole research is primarily concerned with quantifiable data (number of participants,

number of tickets, number of book loans, Likert scale questionnaire, etc.), it should also be considered a quantitative research.

To sum it up, the project is a quantitative research with a quasi-experimental design. A questionnaire is used as a support method for interpreting the results. The main disadvantage is that no inference can be drawn from the results, due to the non-random nature of the project.

3.6 Degree of the facilitator's intervention

Because this is the first ever trial of the game, it was decided that the researcher's participation in the process should remain as subtle as possible. The reason for trying to avoid everything that is not necessarily a part of the game is to measure the effectiveness of the incentive. Adding other unrelated elements (e.g., a special lesson in the library, bringing books to the class etc.), would create a noise in the results and consequently make it harder to distinguish between the effects of the reward and, for example, taking pupils to the library (i.e., the results would measure the effect of the reward and visiting the library combined). Nevertheless, some participation from the researcher is naturally required, as they are the facilitator and the arbiter of the game. On the other hand, if the game should be played only for the sake of playing, the need for caution is practically non-existent and the facilitator is welcomed to add as many elements as possible.

There are several occasions when the facilitator must engage with the pupils. Those are a) introduction of the game; b) asking the pupils whether they have books to submit; c) the process of book submission; d) the final raffle. There are also passive ways of communicating. In this instance, posters were hung to remind the pupils of the game. Aside from these instances, no active promotion of the game was executed. It should also be stated at this point that the author of this work did not mention any personal stake in this game in front of the pupils to avoid possible intentions of the pupils to please him or to be helpful without actually being interested in the game.

Another reason for limiting the facilitator's role in this case is that the results can be used in the future as a baseline to measure the effectiveness of any adjustments made to the game. For example, there can be a version of the game that would involve a special lesson dedicated to reading in the school library. Therefore, it is important for the facilitator to be aware and limit their interference that can influence the decisions of the pupils.

3.7 Description of the experiment in behaviourist terms

The primary focus of this experiment, i.e., the target behaviour, is reading. The goal is to reinforce this behaviour through the pleasure the pupils get from reading self-selected books, and the possibility to win a prize at the end of the game – both are cases of a positive reinforcement. The secondary aim is to evaluate which incentive will motivate more pupils to participate – a reading-related incentive (a book) or one freely selected by the winner.

The effectiveness of the game will be evaluated by two means. The first being the percentage of pupils from the whole group that participated, and the second being the number of loans from the school library. In this case, the game functions as an independent variable, while the number of loans functions as a dependent variable (Smyth, 2004, p. 147). The number of loans will be monitored for three weeks before the start of the game, during the game (four weeks), and five weeks after the game ends. Admittedly, observing only the school library is not a completely sufficient method of evaluation. On the other hand, the school library is the most readily available source of new books. In addition, the analysis of the usage of the school library can offer an interesting insight on the functionality of the library for teachers from that school.

Lastly, the usage of the words reward, incentive, and reinforcer must be clarified. When speaking about the physical prize that the participants can win, the appropriate term is a reward. The reward functions as an incentive prior to the actual raffle. In other words, the physical prize functions as an incentive for every participant, while being a reward only for the winner. In behaviourism, the term reinforcer is not necessarily associated with rewards or incentives. Anything can be a reinforcer if it increases the future frequency of the target behaviour. In this sense, a reward can become a reinforcer only after determining its relationship to the behaviour. Therefore, the desired function of the incentive/reward is reinforcement of reading, although this can be determined only after the experimental phase.

4 The reading game experiment

Before introducing the design of the game in more detail, it is necessary to provide a short overview of the general idea underlying the game. In theory, this game should provide an intensive reading opportunity on a voluntary principle with a possibility of receiving a reward through a random process (raffle), where the attractivity of the reward is increased by allowing the winners to choose the reward themselves. The desired outcome of the game is that the school library

attendance will increase, compared to the situation before the experiment. In other words, the game is a means of showing pupils that reading can be enjoyable.

The following sections specify the principles of the game and the reasons for designing it in this manner. Although the list of aspects of the game is attempting to be exhaustive, there might be some elements that went unintentionally unacknowledged during the creative process. What follows could be considered as instructions for replication of the game, although some adjustments were made specifically for the environment where the game was to be played.

4.1 Introducing the game to pupils

When introducing the game, the teacher should leave enough time to explain the rules (obtaining the tickets, the duration of the event, etc.), and to answer students' questions. It is necessary that the pupils are aware of the two main ideas of the game – voluntary participation and liberty in choosing the reading material. Depending on the level of the second language of the pupils, the teacher can decide what language to use when introducing the game. It is advisable to use the one that assures the best ratio between understanding and time spent explaining. If possible, it is advised to introduce the game on Monday or Friday, as it is easier to keep track of the duration for teacher as well as for the pupils. On the other hand, this is not always possible, so the decision is ultimately upon the teacher. The teacher should also ensure that all the pupils are aware of the game and its rules, especially in a case that some pupils are missing that day.

It is also possible to create a poster and display it in the classroom to passively remind the pupils of the possibility. For an example of such a poster, see Appendix 2.

4.2 Rewards

The role of the reward is to motivate pupils to participate. In this case, it was decided that the prize for the first round will be a book, while in the second round, pupils are going to have a free choice in selecting rewards (illegal substances were excluded for obvious reasons). The reason for other reward than a book is to determine the effect of a reward that is not related to reading. It makes much more sense to connect the reward to the nature of the activity. By doing so, it is possible to eliminate unwanted side effects, such as pupils cheating. If the game was to be played in the future, only reading related rewards would be preferable.

When it comes to covering the cost of the reward, there are several options. In this case, the prizes were paid for by the author. There are, however, other possibilities. In the experimental

school, the pupils participate in collecting paper every year. One portion of the earnings goes to reducing the cost of their field trip. Other portion of the money is allocated for different purposes. It would not be impossible to dedicate a small portion of those earnings to buying one book. Other option is to allocate money from the school budget.

4.3 Element of uncertainty

One of the main features of the game is a reward (functioning as an incentive) that should motivate the pupils to participate. There were two options regarding the rewards. The first option was to reward everyone according to specific rules presented in advance (as in Beavers, 2013), or to limit the amount of rewards by rewarding only some of the participants. Due to a limited budget available for this game, it was decided that there will be only one reward per round, given to a random participant selected in a raffle. As a consequence of this decision, it was possible to select a prize with a higher monetary value and rise the attractivity of the reward (although it is not a rule that higher monetary value guarantees higher attractivity of an item, it could be argued that, for example, a book is a more attractive reward than a bookmark).

Having a raffle to decide on the winner of the reward introduces an element of uncertainty into the game. That implies several issues. Firstly, such setup does not allow reinforcing the target behaviour (reading) in a traditional sense. Nonetheless, the delay between the behaviour and the reward would be so great that the strength of the reinforcement would be minimal, if not non-existent. Secondly, the participants are entering the game with the knowledge that they might not win, even if they put a great effort into collecting tickets. Thirdly, having a book as a reward (not even a guaranteed one) might not be an attractive reinforcer for pupils with neutral and negative attitude towards reading. For this purpose, it was decided that the winner of the second round will have freedom in selecting the reward.

At this point, it is possible to identify the sources of motivation to participate in the game. Since participation in the game is completely voluntary, it can be presumed that the motivation to participate comes either from reading or the reward itself. In other words, the game is primarily attractive for two groups of people – for those who find pleasure in reading and are willing to utilize this pleasurable activity to obtain another (physical) reward that is also attractive for them, or for those who find the reward itself so attractive that they are willing to allocate their time and energy into an activity that is not pleasant for them. This means that the second round of the game (where there is a greater freedom in selecting the reward) is potentially attractive to a larger group of

pupils. To sum it up, the game was designed to offer two kinds of reward – the pleasure from reading and the chance to win an attractive item.

4.4 Voluntary basis

Although a high participation rate could be achieved by making the game compulsory, forcing pupils to participate would be against the underlying ideas of the game. In addition, the effects of obligation would most likely distort the results of the game. Another reason for setting the game on a voluntary basis is to make a clear distinction between a school assignment (an obligation from an authority) and a self-selected activity.

The voluntary principle applies not only to participation, but also to the choice of the reading material. The possibility to choose is one of the key principles of the game, as it allows employing a wide range of texts, including those that are not typically included in the curriculum, such as graphic novels (manga) or comic books, that can be as beneficial as novels or other genres usually promoted in schools. The effects of comic books reading had been a subject of several studies. Krashen (2004) provides an overview of some of those studies and states that "there is a strong evidence from case studies that comics can serve as a conduit to book reading," (p. 110) and that "comic book readers do at least as much reading as non-comic readers […] and have more positive attitudes toward reading" (ibid.). During the introduction, one pupil specifically asked if they can bring comic books and at the end of the game, the pupil brought one (a manga book).

On the one hand, there is a great benevolence when it comes to the reading material. But on the other hand, it would be impractical to allow everything with a text, such as all sorts of leaflets and fliers. One pupil, presumably jokingly, asked a similar question during the introduction. It is probably better to calmly dismiss such ideas, although a confident teacher might suggest bringing around 100 unique leaflets in English in exchange for one ticket to compensate for the brevity of those leaflets.

4.5 Target group

The first distinction of the target group can be done on the basis of the attitude to reading. Even though it is very likely that the most enthusiastic participants will be the pupils that already like reading and do not require any external motivation, the desired target of this game are pupils who read very rarely or never. It can be assumed that this group could be further divided into two hypothetical sub-groups. The first sub-group would include pupils who do not like reading despite

having some experience with reading, while the second group would include pupils who do not read because of external reasons (e.g., none or limited accessibility, unfamiliarity with the school library, discouraging home environment, etc.). Both sub-groups can benefit from the game, but the latter is more likely to have their reading attitude changed during the act of reading a self-selected material, while learning about the possibilities of accessing books during the process.

The second specification of the target group is the age of pupils. Based on the behaviourist learning theory that any human behaviour could be viewed as a process of conditioning through reinforcement and punishment over time, it is desirable for the participants to be as young as possible. The older the person, the more time for conditioning of certain behaviour there was, and the more reconditioning would be necessary. From a social point of view, probably the best time for implementing this game is in grades 4 to 6. This period is referred to by Braun et al. (2014) as a period of primordial cohesion and its characteristic are first signs of cooperation, cohesion and belonging (p. 80). Those mechanisms can contribute to a higher participation rate due to mimicking. From a developmental point of view, probably the best stage would be the younger school age (from 6 to 10/11 years old) as defined in Čáp and Mareš (2001). They claim that reading magazines and books usually brings pleasure for pupils since the 3rd grade (p. 231). In this stage, reading requires processing the reading material and transformation into illustrative ideas, incites fantasy, and strengthens the connection between speech, thinking, and illustrative knowledge (Čáp & Mareš, 2001, p. 231).

On the other hand, with even younger children (e.g., pre-school, 1st – 2nd grade), there is a chance that their reading skills will not be fully developed yet. Thus, exposing them to a competition in which they are not likely to succeed could be frustrating.

To sum it up, the preferred target group are pupils in grades 4 to 6, while the pupils who are most likely to participate are pupils with a positive attitude towards reading. Although everyone can participate in the game, the group that can potentially benefit from this game the most are literate young learners with little reading experience.

4.6 Rules for giving tickets

There are two general rules when it comes to giving tickets for the submitted books. The first rule is to be consistent and the second rule is that English books get twice the amount of tickets

as the book would get if it was written in Czech. The second rule is self-explanatory, but the first rule needs to be clarified.

As there are almost no restrictions concerning the type and amount of the reading material, it is not necessary to invent specific rules for all possible kinds of text. Instead, the facilitator themselves must decide on the principles of the ticket allocation before the game starts and follow it throughout the whole period. The pupils must be told during the introduction that the amount of tickets will be decided during the submission process, therefore they should not have a specific number of expected tickets beforehand.

In this case, it was decided that any standard book with a page count between 50 and 200 pages (be it a novel, short stories, comic book, etc.) will be exchanged for one ticket. Naturally, if two books were to be submitted at the same time, the pupil would get two tickets and so on. Generally, the number of tickets should accurately represent the effort and time spent reading the book. The most important thing is to prepare the system before the game starts. If the facilitator is not consistent in the process, it might be perceived as unfair and consequently demotivating for the pupils. A good way to prepare for this is to pick about twenty random books from a library and attempt to assign each book a number of tickets for finishing it.

4.6.1 Rules for obtaining tickets

Although this game is trying to be as benevolent as possible, I mindless acceptance of books might encourage pupils to submit books they have not read. For the purpose of checking that the pupils are at least familiar with the book, the facilitator must ask a few questions about the book. If the pupil answers in an acceptable way, the facilitator should accept the book. Again, the general rule is to be as benevolent as possible, so the questions should be rather general than specific. Some of the questions that appeared to be most successful in making the pupils produce a speech in this case were the following.

1. Could you tell me what was the story about?
2. What character did you like the most and why?
3. Was there something that surprised you?
4. Do you like this kind of books?
5. Where did the story take place?

When submitting the books, the facilitator should also find a quiet place where they can sit with the pupil undisturbed. For example, in group A (4th grade), the pupils had to tendency to flock

around the one pupil that was submitting a book, resulting in a commotion and a lot of noise. In situations like this, it is necessary to ask the pupils to be quiet, or preferably, leave the area so that the facilitator and the pupil can talk without problems.

Another purpose of this conversation, apart from checking if the pupil read the book, is to create a positive environment where the pupil can experience that talking about books is not necessarily a dreaded event. For many pupils, the only time they can talk about books in school is when they must present an entry from their reading journals. This could be considered as one of the "hidden" tools of this game that might affect future reading.

4.7 Language of selected books

It was decided that books both in Czech and English will be accepted to enter the game. Allowing only English books would likely discourage many pupils from participating – and those willing to participate would have a harder time obtaining suitable English books. Another reason for this decision was that an adequate level of English would be necessary to even allow the pupils to read English books. This would further discourage those willing to participate.

In 1984, J. Alderson's work *Reading: A Reading Problem or a Language Problem?* sparked a debate on the issue whether problems in foreign language reading stem from reading problems or language problems (Pichette et al., 2003). After years of scientific inquiry, a number of studies on this topic emerged, although none of them can provide a definite answer. For example, a study by Carell (1991) concludes that "results, reported in terms of second language reading as a function of first language reading ability, and second language proficiency, show both to be statistically significant factors". On the other hand, another study done by Bernhardt and Kamil (1995) comes to the conclusion that "results indicated that neither hypothesis is wholly reflective of the second language reading process" (1). To be more specific, the results were that, statistically, L2 proficiency accounts for 30% of the variance in L2 reading scores, while L1 reading ability accounts for up to 20%.[11]

The last argument in favour of allowing books both in L1 and L2 presented here was made by Wurr (2003), who concludes his qualitative study on the relationship of L1 reading and L2 reading by saying that "the guiding principle of language and reading instruction should be to focus

[11] Unfortunately, their research is not available through Shibboleth or OpenAthens systems. Therefore, this information was taken from the abstract to their study and partly from Pichette et al. (2003).

on comprehension, the meaning in the message, not the language in which it is conveyed" (p. 165). His conclusion is supported by the theory that the process of reading is a matter of extracting the meaning of a sentence, rather than translating the grammatical structures of L2 into L1 (which would be a counter-argument for his position) (Wurr, 2003).

In conclusion, as the purpose of this game is to offer a reading opportunity for the highest number of pupils, it would be counterproductive to exclude the most available reading material. Presumably, reading in English is a more challenging task than reading in Czech (for Czech speaking pupils) and Czech books can have a transitional role between not reading and reading English books. In other words, if we want children to read in English, we should make sure that they enjoy reading in Czech first.

5 Results

This chapter presents the results and findings of the experiment. Firstly, the general reception of the game by both groups, as observed by the author, is presented. The following parts then provide overview of the collected data from the game (participation rate and analysis of the submitted books), from the questionnaire, and the school library. The last part of this section then presents the graphical representation of the most important findings.

5.1 Overall reception of the game

In both groups, the first round of the game was introduced at the end of the English lesson. There was enough time to properly explain the rules and answer the pupils' questions. The most common type of question was about the reading material that is eligible for entry. Pupils in the 4th grade (group A) showed more enthusiasm and asked more questions than the group B.

The announcement of the second round was received with much less enthusiasm and almost no questions in both groups. There were one or two questions concerning the freedom of the prize selection but mostly in a funny way (such as "Can I win a bottle of rum?").

Overall, group A was more active during both rounds of the game, occasionally asking questions, observing the process of submitting the books by their peers and listening to their storytelling. There were also two instances when two pupils started talking about the submitted book and one of them lent the book to the other. Nothing similar happened in group B, where there were almost no questions during both rounds and the submission of a book went without much notice.

5.2 Participation rate

The total number of participants in both rounds are presented in Table 1. Overall, the first round of the game had a higher participation rate (21% in group A and 18% in group B) than the second round (14% in group A and 4.5% in group B). Therefore, more freedom in the final selection of the main prize (the only difference between the two rounds) did not result in more participation in this case, contrary to the initial prediction.

	Total pupils in the group	**1st round**	**2nd round**	**Unique participants**
Group A	28	6 (21%)	4 (14%)	8 (29%)
Group B	22	4 (18%)	1 (4.5%)	5 (23%)

Table 1: Total participation in the game.

The number of unique participants reveals that even though group A had a higher participation in absolute numbers than group B, the participation rate did not exceed 30% in neither case. Given the voluntary nature of the game, it is not surprising that the participation rate was rather small. On the other hand, these results can be used in the future when playing a modified version of the game (e.g. playing the game and having a reading-oriented lesson in the library) to see the effects of the modification.

Although these results seem to suggest that there is no substantial difference between the two groups, no conclusions can be made at this point and it is necessary to provide more data.

5.3 Analysis of the submitted books

This chapter presents the information about the books that were submitted by the participants. Data concerning the books (title, author, number of pages) was collected in the class and organised into a spreadsheet. The results are presented in Table 2.

	Group A	Group B
Number of tickets in round 1	13	4
Number of tickets in round 2	10	1
Total number of tickets	23	5
Total number of books	18	5
Books per participant	2.25	1
Average length of the books	129 pages	207 pages
Median length of the books	152 pages	186 pages
Number of books in English	2	0
Length of books in English	32 p.;32 p.	-

Table 2: Submissions by participants from both groups.

By analysing the information, it is possible to come to following conclusions:

a) The number of submitted books by group A and group B is disproportionate to the participation rate (group A submitted 18 books by 8 pupils, while group B submitted 5 books by 5 pupils).

b) Books submitted by group B had more pages on average.

c) English books were submitted only in the group A.

Before proceeding further, an important disclaimer must be made. Although the number of pages can provide some information about the book, it is by no means an objective way to evaluate the readability of a book. For example, one book submitted in group B had 204 pages, but because it was a manga (a graphic novel), the amount of text was lower than 54-page long book submitted

in group A. Proper evaluation of readability is usually done by sophisticated formulas, but this work does not aim to evaluate the reading material, therefore this, simplistic, approach was chosen.

One possible way of interpreting these results is that younger pupils (group A) were more enthusiastic participants than group B. This can be supported by the fact that pupils in group A submitted more than three times the number of books, each participant read twice the number of books on average and overall, more pupils participated.

5.4 School library attendance

The analysis of the number of loans from the school library served two purposes. The primary purpose was to determine the effect of the reading game. The secondary reason was to analyse the general usage of the library by pupils in order to establish its role in pupils' reading life. The findings support the hypothesis that the number of loans will increase during the game period. On the other hand, it was discovered that the number of loans outside the game period is very low (in addition, only a small number of pupils are responsible for the majority of the loans in each class). This information can be used as an argument for a greater incorporation of the library into teaching. The results for each group are presented individually in the following subchapters.

5.4.1 Group A

Figure 1 shows the number of book loans over the course of 12 weeks. The game period starts in the week four and ends in the week seven. The figure contains two lines – the total number of books that were checked out from the library during the whole period, and the number of books that were consequently submitted for participation.

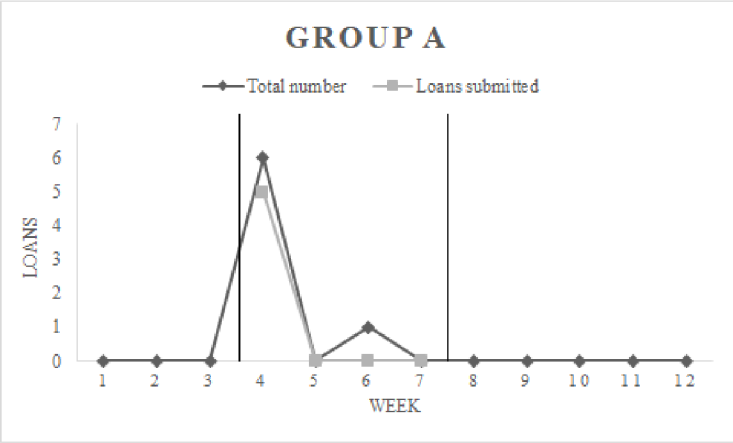

Figure 1: Number of loans in the group A.

The figure above shows that out of the seven books that were borrowed during the game period, five of them were submitted at some point. The rest of the books was never submitted, although it is impossible to determine the real reason. Nevertheless, even with those two books subtracted, it is possible to conclude that the game produced an above average number of loans. In other words, the game motivated pupils from this group to borrow books at a higher rate than the average.

Another observation that could be made from the 12-week period is that there were no loans throughout the remaining weeks. This issue was observed in the other two groups and the implications are discussed in the chapter 6.2.

5.4.2 Group B

As in the previous chapter, figure 2 shows the number of book loans over 12-week period. Again, there are two lines in the figure. One represents the total number of loans, while the other represents loans by participants and their submitted books.

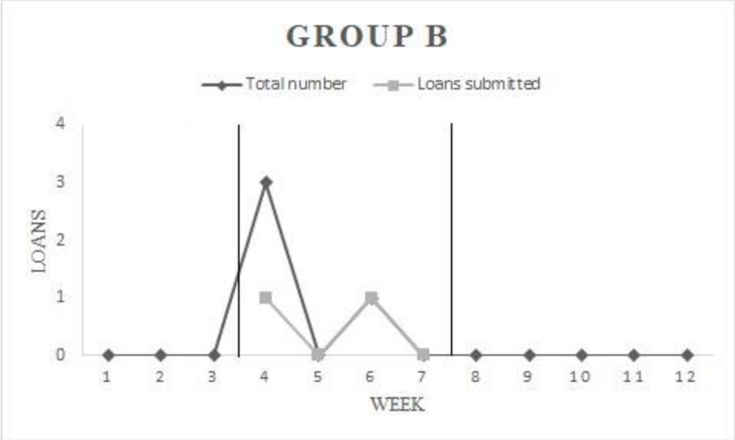

Figure 2: Number of loans in the group B.

Figure 2 shows that there were only four loans over the 12-week period and all of them were realised during the game period. From the four loans, two were submitted for participation. The results for group B are thus ambiguous. On the one hand, the number of loans during the game period could be considered as a clear change when compared to the baseline. On the other hand, it is not possible to determine the reason for not submitting the books or what motivated the pupils to borrow the books. Therefore, the results are better interpreted as inconclusive.

5.4.3 Control group

The data from the control group function as a complementary source for a more objective interpretation of the results from the experimental groups. As the control group was not in touch with the author of this work in any way, therefore it is expected that the data form the school library represent a natural state of the situation.

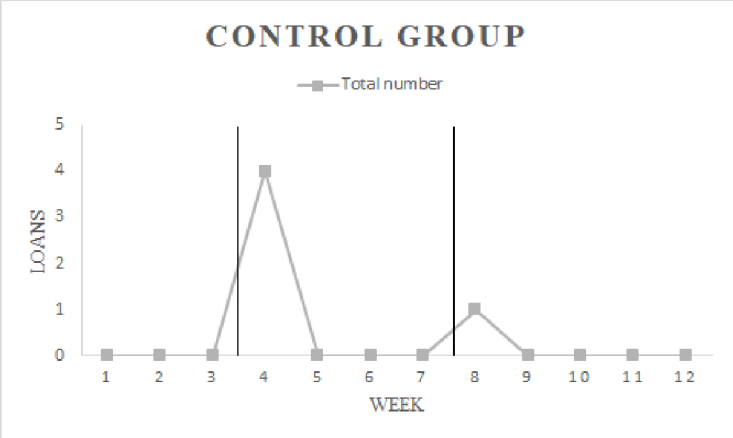

Figure 3: Number of loans in the control group

Unlike the previous figures, figure 3 contains only one line, which represents the total number of loans in a week. It may be surprising that the tendency of the figure resembles the previous two – especially because of the number of loans in the game period and almost no loans in other weeks. Additional information about the loans is therefore necessary.

All the loans in the week 4 were caused by a single pupil who has a rich history of loans – presumably, it is a very active reader. Clearly, the motivation of the pupil was not participation in the game, and they would borrow the books regardless. What is more surprising, is the finding that in all three groups, the number of loans over the 12-week period is so low.

Thanks to the additional information gathered from analysing the library loans of the control group, it is possible to infer that the game caused a disturbance in the baseline and therefore partly contributed to the increased use of the school library. Clear comparison of all three groups is offered in the following chapter.

5.4.4 Comparison

In order to compare the results of all three groups, a table including the number of pupils that used the school library and number of loans during and outside the game period was created.

	Group A	Group B	Control group
Number of pupils in the group	28	22	32
Total number of loans over 12-week period	7	4	5
Total number of loans outside the game period	0 (0%)	0 (0%)	1 (20%)
Total number of loans during the game period	7 (100%)	4 (100%)	4 (80%)
Number of books submitted to the game	5	2	-
Total number of pupils who borrowed a book over 12-week period	5 (18% of the group)	4 (18% of the group)	2 (6% of the group)
Number of pupils who borrowed a book outside the game period	0	0	1
Number of pupils who borrowed a book during the game period	5	4	1

Table 3: Library comparison of all groups.

Table 3 presents the findings from all groups, separated into relevant categories for this thesis. The aim of the table is to primarily compare the number of pupils who borrowed a book during the whole 12-week period, and outside and during the game period. Based on the gathered data, the following observations can be made:

1. In both experimental groups, the percentage of pupils who borrowed a book during the 12-week period is three times higher than the percentage of pupil from the control group who borrowed a book.
2. In both experimental groups, 100 per cent of the loans were realized during the game period.
3. Only one pupil from all three groups borrowed a book outside the game period (control group).

It can be concluded that in both experimental groups, the game generated more activity in the school library than during the normal situation. Nevertheless, the number of pupils who normally use the school library is so low, that even one participant would produce a change in comparison to the baseline. In addition, it can be concluded that the game consistently increased the number of pupils who use the school library in comparison with the control group. Therefore, the hypothesis h_1 was tested to be true, as the number of loans during the game period was higher than during the baseline (proper evaluation of hypotheses can be found in chapter 6.2).

5.5 Questionnaire

This chapter presents the results of the questionnaire. First, the results for respondents from each group are presented separately. In the group analysis, results for both the whole group and game participants are presented, compared, and interpreted. After analysing each group individually, the results from both groups are combined. In case that it is necessary to highlight a specific questionnaire or to cite from one, all questionnaires were given a letter representing the group and a number (e.g., A1, A2, etc.). The number of each questionnaire depend solely on the order in which they were processed. Under no circumstances can this type of identification lead to the particular pupil.

The following chapters present summative results of the two main categories as introduced in chapter 4 (attitude towards reading and print environment) in the form of graphs. The mean results of all individual questions are then presented in the form of a table in chapter 5.5.5. The reason for approaching this issue in this manner is clarity – it is not necessary to present the responses to each question in the form of a graph.

5.5.1 Evaluation of the questionnaire for group A

From the 28 pupils that belong to the group A, only 23 were present during the administration of the questionnaire. All pupils who participated in the game were present at that time. The total number of questionnaires distributed is 23 and all of them returned. Therefore, the return rate of the questionnaire in the group A is 100 per cent. When presenting the questionnaire, the facilitator introduced the components of the questionnaire and explained how to answer. The respondents were given enough time to read the questionnaire and ask questions in case they do not understand something. It was also stated that they can ask anytime during the process of completing the questionnaire. No issues emerged during the process and no pupil showed signs of confusion. The following chapters present detailed results of the questionnaire for this group.

5.5.1.1 Attitude towards reading

This chapter presents the results of the questionnaire concerning the attitude towards reading according to the methodology described in chapter 4. In addition to the summative evaluation of all the questions that belong to the category, responses to the question “I like reading” are presented. The reason for doing so is that in some perspective, an attitude towards a particular activity might be perceived as equal to the degree of enjoyment from that activity. Nevertheless,

the main focus of this part is the more complex approach to attitude, based on responses to those seven questions related to it.

Figure 4 presents the responses to the question "I like reading." for the whole group A. The results show that no respondent strongly disagrees with this statement and only three respondents disagreed. That means that most of the respondents have either positive or neutral relationship to reading as an activity. Figure 5 then focuses only on the pupils that participated in the game.

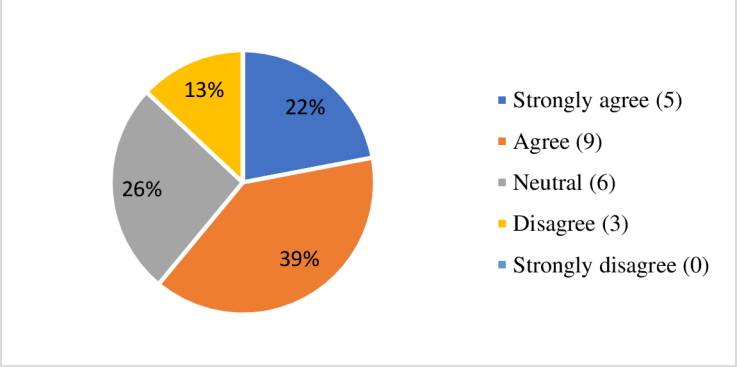

Figure 4: Results of the whole group A for the question "I like reading".

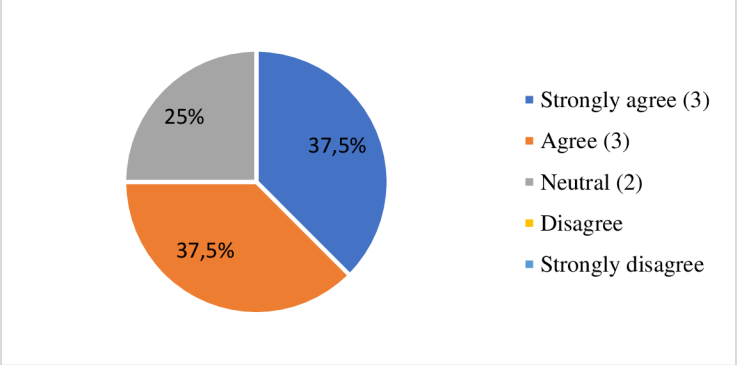

Figure 5: Results of the participants from group A for the question "I like reading".

Based on the results presented in figures 4 and 5, it is possible to say that respondents from group A generally like reading. This fact is reflected in the composition of the game participants, as no pupil who disagreed with the statement participated. Tables 6 and 7 then present the overall attitude towards reading for the whole group and the participants, respectively.

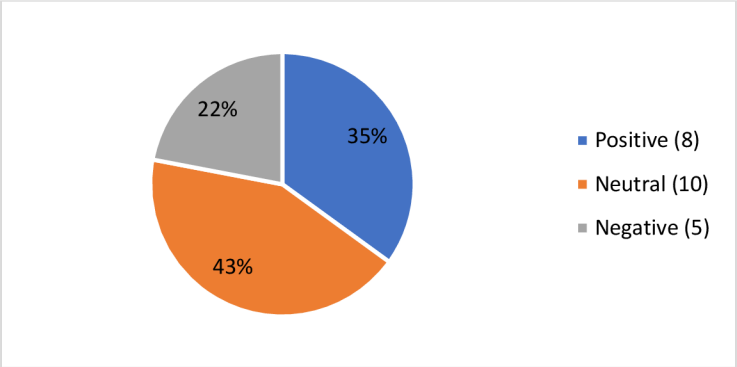

Figure 6: Attitude towards reading in the whole group A.

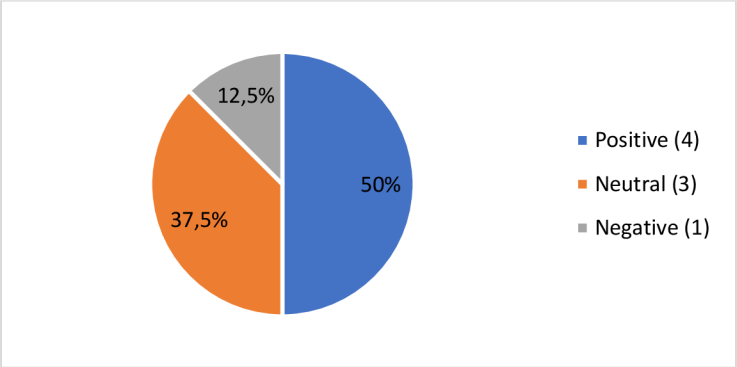

Figure 7: Attitude towards reading of participants from group A.

When comparing figures 6 and 7, it is possible to say that the game was most successful with pupils with a positive attitude towards reading. The results are in accordance with the initial prediction that the number of participants with positive attitude towards reading will be higher than the number of participants. In addition, the number of pupils with a negative attitude towards reading is lower than of those with neutral, which also reflects the initial prediction. It can be concluded that in group A, the game primarily motivated pupils with positive and neutral attitude towards reading.

5.5.1.2 Reading environment

Figures 8 presents the structure of respondents from group A in relation to their reading environment. Figure 9 presents the same information about participants from group A.

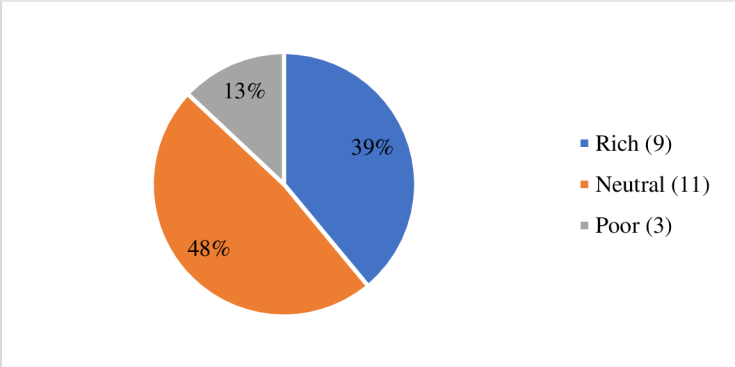

Figure 8: Reading environment of pupils from group A.

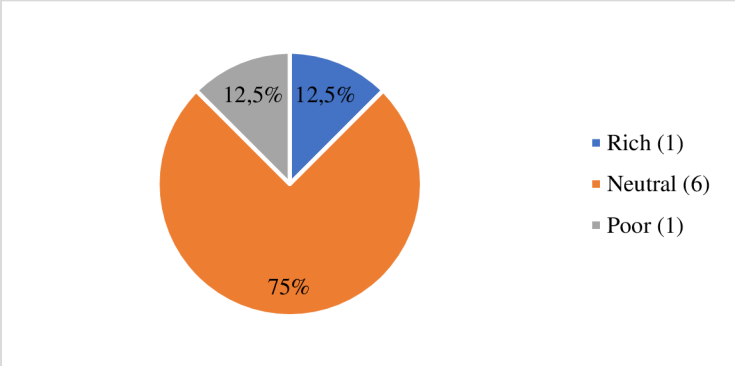

Figure 9: Reading environment of participants from group A.

It was discovered that the majority of respondents from group A live in a rich reading environment. On the other hand, the reading environment of participants is predominantly neutral. Unfortunately, it is not possible to identify the relationship between the reading environment, reading attitude, and participation due to a low sample size.

5.5.2 Evaluation of the questionnaire for group B

From the 22 pupils that are part of the group B, 19 were present during the administration of the questionnaire. All pupils who participated in the game were present during the administration session. The total number of questionnaires distributed is 19 and all of them returned, which makes the return rate 100 per cent. The same procedure as in the group A when introducing the questionnaire was used and similarly, no issues emerged during the whole process. The following chapters present the results of the questionnaire for this group.

5.5.2.1 Attitude towards reading

Figures 10 and 11 present the responses to the question “I like reading” in the whole group B and participants from group B. In comparison to group A, the whole group is more diverse, but the composition of participants is similar to participants from group A.

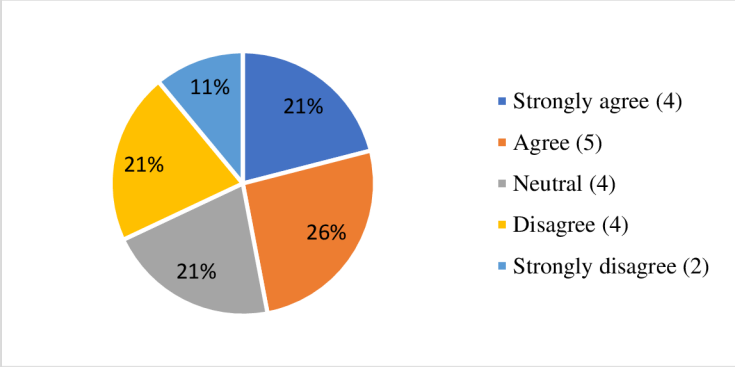

Figure 10: Responses to the question "I like reading" in group B.

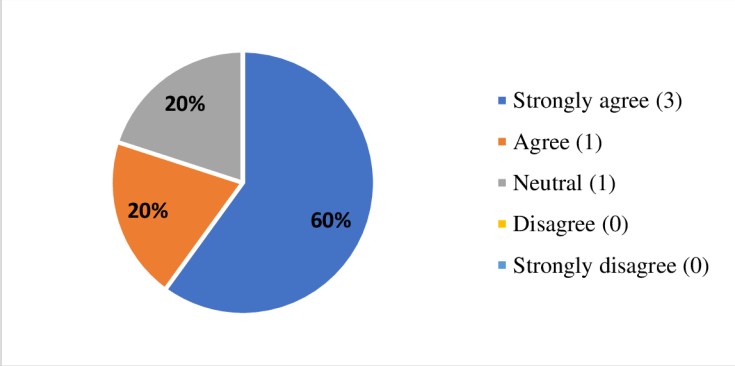

Figure 11: Responses of participants from group B.

Figures 12 and 13 show that there are more pupils with a negative attitude towards reading than pupils with a positive attitude towards reading. However, the attitude of participants is predominantly positive despite this fact. Therefore, it can be concluded that in group B, the game motivated to participate predominantly pupils who like reading.

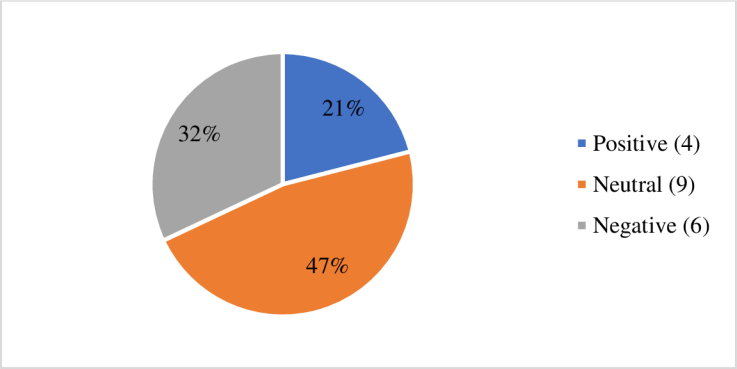

Figure 12: Attitude towards reading in group B.

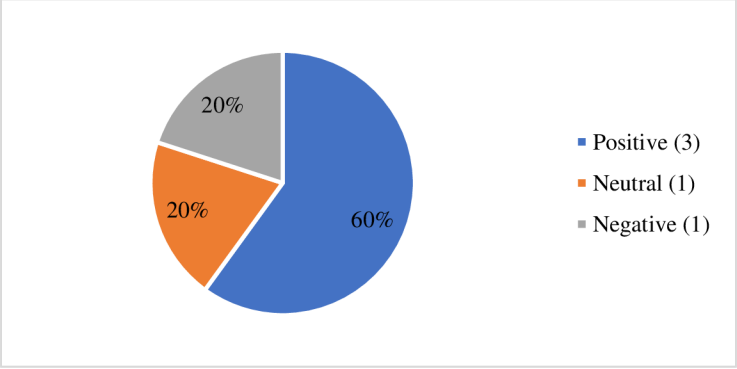

Figure 13: Attitude towards reading among participants from group B.

It can be concluded that in group B, the attitude towards reading is more negative than in group B, while the attitude of participants was predominantly positive. As in group A, the game motivated mostly people with a positive attitude towards reading.

5.5.2.2 Reading environment

Figures 14 and 15 present the structure of respondents from group B in relation to their reading environment.

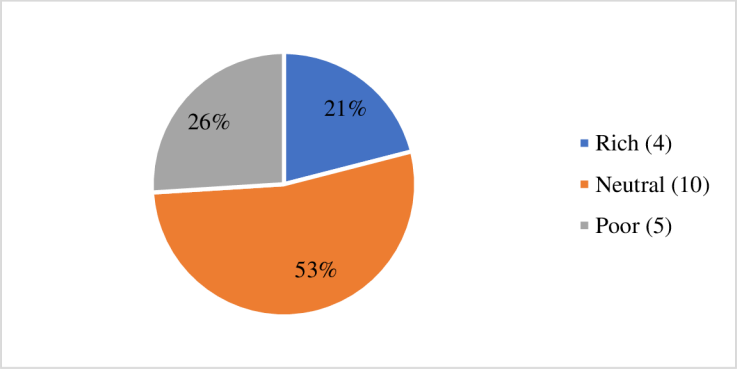

Figure 14: Reading environment of pupils from group B.

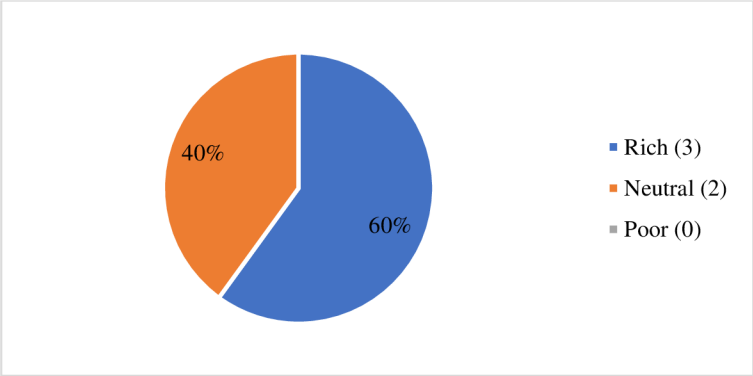

Figure 15: Reading environment of participants from group B.

Although the majority of respondents from the whole group B live in a neutral reading environment, most of the participants live in a rich reading environment. Contrary to group A, where most of the participants live in a print neutral environment.

5.5.3 Reading books in English

	Group A		Group B	
	Yes	**No**	**Yes**	**No**
I read books in English.	2	21	4	15
I do not because I do not know English that well.	18	3	7	8
I do not because I do not have access to them.	6	15	5	10
I do not because I do not like it.	9	12	11	4
Participants				
I read books in English.	1	7	1	4
I do not because I do not know English that well.	7	0	1	3
I do not because I do not have access to them.	2	5	1	3
I do not because I do not like it.	2	5	3	1

Table 4: Reading English books

Data from table 4 show that almost nobody from the respondents reads books in English. With the younger pupils, the most common reported reason is that they think that they do not know English well enough. This problem could be solved together with the second most reported reason, which was access to English books. In this case, the teacher could bring English books that would match the English skills of those pupils. However, the availability of English books is not very high on villages, therefore this might not be possible every time. The same applies to group B.

The first two reasons might be hard to deal with, but it might near to impossible to change the opinion of the respondents who reported that they do not know English well, do not have access to English books, and also do not like it. In these cases, we might try to carefully explore their relationship to Czech books and start changing their attitude from there.

5.5.4 Suggestions for motivating people to read

The respondents had a choice whether they want to suggest some way of motivating people to read more. From the total number of 42 respondents, 13 decided to share their idea. This chapter presents translations of those responses. The respondents are marked first by either a letter A or B according to the group, and a number based on the order in which the questionnaire was processed.

A5: I would put more football in the books.
A6: If I buy one book, I would get another one for free.
A9: Offer them something for it. They will start reading and eventually learn to like it.
A12: Tell them that you improve your vocabulary and knowledge by reading.
A14: Reading is good because you have better vocabulary thanks to it.
A15: I would not force anyone. Only books about football.
A23: Tell them: For every book you read I will give you 800 Kč.
A24: Tell them that if they read a book they can pick anything up to 200 Kč.

B2: I would ban all electronic devices, give them a book and told them to read for 30 minutes.
B5: Everybody would pick a book according to their hobbies and interests.
B7: Hand out books for free and lock them in a basement.
B10: Competition for prizes.
B18: Bring a book and tell them about it. Tell them that you like it and spread the message to other people. Or a competition for prizes.

As it was forecasted, some of the responses are probably influenced by the game. At this point, it is impossible to determine what would the respondents suggest before the experiment. Some answers, however, show that the pupils are aware of the benefits of reading (A12, A14). Other answers show that the pupils are also aware that the books should match the interests of the reader (A5, A15, B5).

5.5.5 Complete evaluation of the questionnaire and summary

This chapter presents evaluation of each item from the questionnaire. For the purpose of clarity, mean scores for each question were calculated and organised into a table. It was decided to present the results for each group separately to demonstrate differences that would not emerge otherwise. In addition, scores of attitudes towards reading and reading environment for both experimental groups and participants are added to provide the whole picture. The scale has 5 points, where 1 is the most positive and 5 is the most negative.

Question	Group A (mean)	Group A (participants)	Group B (mean)	Group B (participants)
I like reading.	2,30	1,88	2,74	1,60
I like to talk with my friends about the books I read.	3,26	2,75	3,74	3,20
I like to talk with my parents about the books I read.	3,39	3,25	3,26	2,80
I regularly visit some library.	3,70	3,13	3,84	3,00
I think that reading is important for better understanding of the world.	2,17	1,88	2,21	1,20
Reading is more interesting than watching movies.	3,35	3,50	3,53	3,20
Reading English books is beneficial to learning English.	1,43	1,63	2	2,40
My parents read books in their free time.	2,17	2,38	2,42	1,80
I can choose from a wide variety of books to read at home	1,57	1,75	1,89	1,40
I often get a book as a present.	2,04	2,25	2,37	1,60
When I am selecting a book, I follow the recommendation of my parents.	3,39	3,63	3,95	3,40
When I am selecting a book, I follow the recommendation of my friends.	3,17	3,50	3,95	4,00
I know what books are in the school library.	3,09	3,25	3	2,20
Overall evaluation				
Attitude towards reading	19,61	18	21,32	17,40
Reading environment	19,13	19,88	21,42	17,40

Table 5: Complete evaluation of the questionnaire.

As was said before, the sample size does not enable making generalisations or implications, However, some points regarding the results of the questionnaire should be briefly highlighted.

1. One positive finding is that in both experimental groups, the mean score for the item "I like reading" was below 3 (neutral), while among participants, the mean score was even lower (i.e., more positive).

2. In group A and participants from group A, the mean difference between the overall attitude was not that pronounced as in group B and participants from group B. In addition, participants from group B had more positive attitude than all the other groups.

3. Unfortunately, the items concerning social aspects of reading had generally the most negative scores. That applies for both experimental groups and participants.

4. Items concerning the library use were generally leaning towards more negative results. This, however, is in accordance with the data collected from the school library.

5. In all groups, the mean scores for items concerning availability of books at home, parents as reading models, and receiving books as presents are leaning towards the positive end of the spectrum.

The disadvantage of presenting data for the whole group is that the individual scores disappear. This is unfortunate because the it is not possible to determine the relationship between the attitude and environment (e.g., if respondents with a positive attitude live in a print rich environment, etc.). To overcome this issue, an anonymous chart of individual scores can be find as Appendix 4. This issue also raises a possibility for further study.

5.6 Winners of the game

As there were four rounds of the game, there were also four winners (no participant won twice). This part probably does not require a long commentary. The only surprising event was that the winners from the second round with a free choice in selection of the reward chose books. In addition, the winners did not use the whole credit (350 CZK). Instead, they probably selected the book they are most interested in. Table 6 presents the name of the selected book and its price.

Group	Selected prize	Price (CZK)
Group A / round 1	Strom naděje (K. Applegate)	199
Group A / round 2	Magická zvířata – psí kouzla (H. Webb) LEGO Friends magazine	278
Group B / round 1	Moje velká tlustá zombí ryba (M. O'Hara)	159
Group B / round 2	LEGO Star Wars	159
Total		795 CZK

Table 6: Winners and their choices.

6 Discussion

The aim of this chapter is to evaluate the whole experiment and highlight some specific areas that deserve attention. Although it was said in other places in this thesis, it must be stated again – the sample size of this experiment prevents making any generalisations or implications. The results and comments therefore apply solely to this particular version of this experiment in this particular setting.

6.1 Evaluation of hypotheses

This chapter attempts to evaluate hypotheses as formulated in chapter 4. For the sake of clarity, all hypotheses are presented again but this time with answers that are based on the results of the experiment and the questionnaire.

H: The voluntary reading game will motivate at least 50% pupils in grades 4 and 6 to read.

The game motivated 29% of pupils from group A and 23% of pupils from group B to participate in one or both rounds of the game. Therefore, in neither case did the game motivate at least 50% of pupils to participate.

h_1: The number of loans from the school library during the game period will be higher than the baseline.

In both cases, the number of loans from the school library was higher than the baseline (both pre-experiment and post-experiment baseline). Therefore, this prediction was correct.

h_2: The second round of the game with a free choice in selecting the reward will have a higher participation rate than the first round.

In both cases, the participation rate in the second round of the game was lower than the participation rate in the first round. The assumption that a free choice in selecting the rewards will motivate more pupils to participate was therefore wrong in this case.

h_3: The number of participants with a positive attitude towards reading will be higher than the number of participants with a neutral attitude towards reading.

In both cases, the number of participants with a positive attitude towards reading was higher than the number of participants with a neutral attitude towards reading. Specifically, in group A, the number of participants with a positive attitude was four, while the number of participants with a neutral attitude was three. In group B, the number of participants with a positive attitude was three, while the number of participants with a neutral attitude was one.

h_4: The number of participants with a neutral attitude towards reading will be higher than the number of participants with a negative attitude towards reading.

In group A, the number of participants with a neutral attitude was higher than the number of participants with a negative attitude (3 to 1). In group B, however, the number of participants with those attitudes was the same (1).

In conclusion, the initial predictions about the number of participants in regard to their attitude towards reading were mostly correct. On the other hand, the initial predictions about the overall participation were not fulfilled, as the participation rate was below 30% in both experimental groups. Although it is not possible to determine the exact reason for such low participation rate, one of the possible and very likely reasons for that was the voluntary nature of the experiment.

6.2 Implications for future

The results from this first trial of the game showed that most of the participants had already had a positive attitude towards reading. If the game and its results are to be replicated in the future, while the voluntary principle should be kept, it is not possible to expect that more pupils with a

neutral or negative attitude towards reading will participate. Therefore, this chapter presents some future adjustments that could be made in next versions of the game in the same setting.

The first suggestion is based on the finding that the number of loans from the school library over the 12-week period was extremely low. In addition, this trend was not specific only for that period. In other months, the number of loans was not very different from the observed period. However, those findings were not presented here, as they do not concern the topic of this thesis. On the other hand, there is a potential to change this trend. During the few sessions in the school library with the librarian, many pupils came to the library to spend their free hour there (before the start of their afternoon lesson). However, those pupils did not read or interacted with books. Some of them played board games, but the majority just sat on the bean bag chairs and chatted. This phenomenon is also addressed by Krashen (2004) saying that providing access is not always enough. One study he mentions found that some "children did little more than 'hang out' at the library. They did not read but passed the entire time in socializing with other children and playing on the computer (p. 63). Some suggestions involving the school library are following:

1. As the library is well equipped with desks and chairs to accommodate the whole class, the teacher could organize regular lessons in the library, for example once a month. During those lessons, the pupils could work with the books in the library and participate in activities tailored specifically for this occasion. Unfortunately, there are not many English books, so at this point, it is more suitable for Czech lessons. On the other hand, teachers from the school reported that they occasionally have lessons there, however, the nature, aims, and activities of those lessons were not analysed, and therefore it is not possible to make any conclusions.

2. The library is situated in the back of the school, away from the 'main' corridors, thus away from the attention of pupils. This could be slightly compensated for by, for example, setting up a noticeboard on the main corridor with interactive features. Some of those features could be a book of the month selected by pupils, teacher's recommendations, pupils' reviews, etc. This could better connect the library with everyday school life and naturally promote the usage of the library.

By implementing those measures and collecting data on the use of the library, it would be possible to determine their impact on it. Another suggestion concerns the introduction of the game,

that could be turned into a kind of CLIL lesson (English/Czech and Maths). Before introducing the game, the teacher could design a lesson based on probability, as the reading game involves probability (the more tickets you get, the higher chance of winning you have). It would be possible to introduce the concept of probability adjusted for the age of pupils. Some activities connected to probability could be for example flipping a coin (ten, fifty, or even hundred times), pulling marbles out of a bag, etc. This would offer a possibility to teach new vocabulary, play entertaining games and teach maths at the same time. At the end of such lesson, the teacher would introduce the game and the pupils (or hopefully some of them), would be aware that even one or two tickets might give them a higher chance to win.

The next suggestion is based on the findings that the respondents generally do not talk about the books they read with their friends of families (the mean score of the questions involving some social aspect was generally between 3 and 4, thus negative). This could be countered by implementing more one-on-one activities involving talking about books or anything the pupils read. The teacher would act as a model and present some book they like (in a structured and though-out manner) which would serve as a reference for the pupils.

The last suggestion concerns other methods of implementing reading into teaching. In recent years, a method with many names – Sustained Silent Reading (SSR); Free Voluntary Reading (FVR); Drop Everything And Read Time (DEAR Time); Sustained Quiet Un-Interrupted Reading (SQUIRT); Uninterrupted Sustained Silent Reading (USSR), etc. – but similar principles, are gaining popularity among teachers for their sometimes better and sometimes same results as methods based on direct instructions. One of the most comprehensive advocates for this method is probably Krashen's book *The Power of Reading* (2004) where he offers an analysis of all possible perspectives and researches concerning SSR. The main assumptions that SSR is based on were summarised by M. Pennington (2011):

1) Reading is a skill which improves with practice.
2) Students should be allowed to select their own books to read.
3) SSR should not include instructional accountability.
4) SSR is best accomplished within the classroom with the teacher as a silent reading model.

In his Internet article, Pennington offers a critical overview of this approach. Some of his points against SSR are that there is not enough class time for SSR; free choice reading in SSR does not maximize reading development; SSR is not teaching; and that reading research does not support

SSR (Pennington, 2011). This article is interesting, as Krashen's response can be found in the comment section of this article with many points addressing those issues.

Those are only some suggestions that are based on the results of the experiment and observations from the school. By implementing some of those suggestions, it is possible that more pupils would be willing to participate in the game and consequently, make it more interesting for all participants. The question is, however, whether the game would be necessary at this point. In any case, the game could be used at the end of a school year as a natural climax of the whole year of activities for pupils who like reading and allow those pupils to participate in some competition.

Conclusion

As stated in the introduction, the thesis had two purposes – professional and personal. The professional purpose was to explore the tools that a teacher has when trying to promote reading in their classroom. From this point of view, the reading game did not prove to be an ideal tool for promoting or reinforcing reading habits in this setting. Firstly, most of the participants probably already had a positive attitude towards reading prior to the game (even though the questionnaire was post-experiment, it is not very probable that their attitude was changed in those four weeks). Secondly, the total number of pupils who participated was around 30% of each group, which is far from a success. On the other hand, this was not a classroom activity where all pupils are expected to participate. Similarly, other voluntary activities that are based on interests will also attract only the people who enjoy that activity (i.e., one would not expect a 100% participation rate in a voluntary swimming contest). From this perspective, this outcome is not surprising, as reading is, among other things, a hobby or an interest. Forcing people to have the same hobbies is most likely not the right way to approach this. This leads to the last, positive, point concerning the game – nobody was neither forced to participate nor to choose a specific book. In combination with the conversation about the book when submitting it, these aspects of the game might have been pleasant for the participants and at least partly reinforce their interest in reading.

Unexpectedly, the game and the questionnaire proved to be useful diagnostic tools for this particular setting. Thanks to the analysis of the number of loans from the school library, it was discovered that not many pupils use it. The questionnaire served as a probe into the respondents' attitudes and revealed some aspects that are positive (e.g., most of the respondents live in either positive or neutral reading environment), and some that are negative (most of the pupils do not like

to talk about books with their friends and parents – even the respondents with a positive attitude towards reading). Based on those findings, some suggestions for the future were made in the chapter 6.

From the personal point of view, this thesis greatly contributed to my knowledge about research methods and data analysis that I can use in my future work. I was also reminded to be careful and not to focus too much on one school of thought and have great expectations from it. The greatest advantage of the behaviourist approach seems to be in the focus on objectivity, reliability of the collected data and building functional strategies when trying to achieve a goal. However, in the school setting, not everything is available for observation, especially when it comes to reading which takes place in a personal space and is a highly subjective activity. For this reason, there are still some variables that would need to be identified before devising more efficient approaches.

In conclusion, this work had been an important lesson for both my future work and personal life. Many of the ideas that were necessary for writing this thesis are transferable to other areas and I hope that I will have an opportunity to make the best out of it.

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Appendices

Appendix 1 – The questionnaire (next page)

Appendix 2 – A poster used for promoting the game

Appendix 3 – List of the submitted books

Appendix 4 – Individual results of attitude towards reading and reading environment

Jsem chlapec / dívka a je mi _____ let.

Ohodnoť, prosím, následující věty podle toho, jak moc s nimi souhlasíš.

	Silně souhlasím	Spíše souhlasím	Nemůžu se rozhodnout	Spíše nesouhlasím	Silně nesouhlasím
Rád/a čtu.	1	2	3	4	5
Rád/a se bavím o přečtených knihách s rodiči.	1	2	3	4	5
Rád/a se bavím o přečtených knihách s kamarády.	1	2	3	4	5
Knihu často dostávám jako dárek.	1	2	3	4	5
Při výběru knih se řídím doporučením od rodičů.	1	2	3	4	5
Při výběru knih se řídím doporučením od kamarádů.	1	2	3	4	5
Vím, jaké knihy jsou ve školní knihovně.	1	2	3	4	5
Myslím si, že čtení knih je důležité pro lepší pochopení světa.	1	2	3	4	5
Čtení anglických knih pomáhá při učení angličtiny.	1	2	3	4	5
Čtení knih je zajímavější než sledování filmů.	1	2	3	4	5
Moji rodiče čtou knihy ve volném čase.	1	2	3	4	5
Máme doma hodně knih, ze kterých si můžu vybrat.	1	2	3	4	5
Pravidelně navštěvuji nějakou knihovnu.	1	2	3	4	5

Čtu knihy v angličtině.

ANO NE

Pokud NE, tak odpověz, prosím, na tyto tři otázky:

1) Knihy v angličtině nečtu, protože neumím tak dobře anglicky.

ANO NE

2) Knihy v angličtině nečtu, protože k nim nemám přístup.

ANO NE

3) Knihy v angličtině nečtu, protože mě to nebaví.

ANO NE

Zúčastnil/a jsem se alespoň jednoho kola čtenářské soutěže (získal/a jsem alespoň jeden lístek)

ANO NE

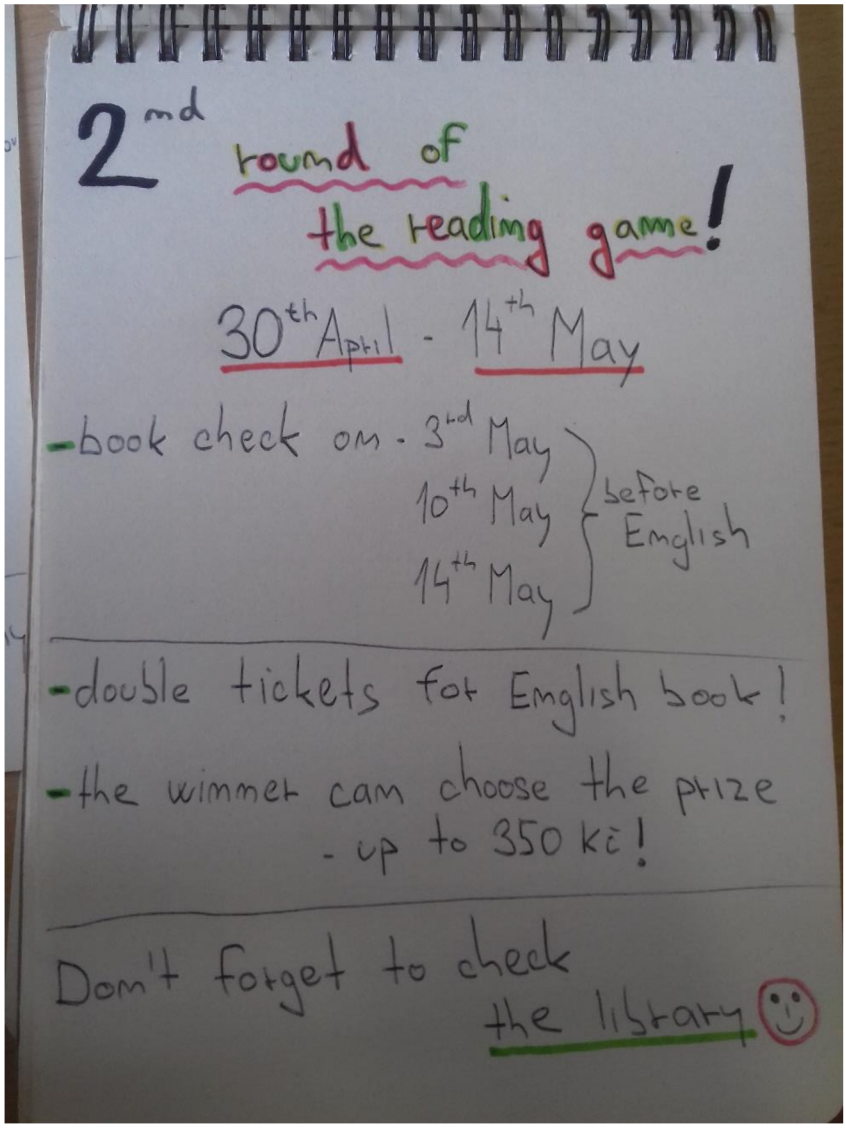
Představ si, že máš za úkol přimět ostatní lidi k tomu, aby více četli. Máš nějaký nápad, jak by to šlo udělat?

_____

_____

_____

Appendix 2 – A poster used for promoting the game



Appendix 3 – The list of submitted books

Book	Author	Number of pages
Poslední šance pro Janu	Margot Berger	159
Zbraně 2. světové války	Michael Haskew	224
Mezi námi vílami	Hynek Klimek	64
Surprise for a princess		32
Lionel Messi	Michael Part	152
Mysli! Holce přece nemůžeš říkat vole!	Jean-Louis Fournier	162
Srdce smečky	Bobbie Pyron	286
Klub tygrů	Thomas C. Brezina	160
Bratrstvo bílého klíče	František Langer	162
Útěk Kryšpína N.	Ivona Březinová	96
Dvojčata na stopě	Josef Hendrych	96
Náš dvůr má tajemství	Michaela Fišarová	152
The thirsty moose	David Orme	32
Pověsti tajemných míst	Vendula Dvořáčková	166
Malá medvědí knížka	Zbyněk Černík	88
Rytíři a hrady		64
Kráska a zvíře		96
Tokijský Ghúl	Sui Išida	204
Deník mimonky 9	Rachel Rusell	334
Porsche	Alois Pavlůsek	152
Včela Sluněnka	Jakob Streit	160
Pohádky horských květin	Jakob Streit	186
Deník malého poseroutky	Jeff Kiney	186

Appendix 4– Individual results of attitude towards reading and reading environment

Categories

Positive (rich) – 7-17 (yellow)
Neutral – 18-24 (grey)
Negative (poor) – 25-35 (red)

Group A		Group B	
Attitude	**Environment**	**Attitude**	**Environment**
9	**10**	**14**	**14**
13	**18**	**15**	**19**
13	13	15	19
15	16	**16**	**22**
16	15	**18**	**17**
17	**20**	19	23
17	**23**	19	18
17	17	19	22
18	**19**	19	15
18	15	20	18
18	17	22	29
19	27	23	26
20	21	**24**	**15**
22	**21**	24	20
22	16	25	24
22	27	26	24
23	**20**	27	25
23	9	30	31
25	**28**	30	26
25	23		
25	19		
26	23		
28	23		