



Journal of Documentation

Choosing a book by its cover: analysis of a reader's choice

Arūnas Gudinaičius, Andrius Šuminas,

Article information:

To cite this document:

Arūnas Gudinaičius, Andrius Šuminas, (2017) "Choosing a book by its cover: analysis of a reader's choice", Journal of Documentation, <https://doi.org/10.1108/JD-09-2016-0111>

Permanent link to this document:

<https://doi.org/10.1108/JD-09-2016-0111>

Downloaded on: 20 November 2017, At: 06:43 (PT)

References: this document contains references to 26 other documents.

To copy this document: permissions@emeraldinsight.com

Access to this document was granted through an Emerald subscription provided by emerald-srm:495793 []

For Authors

If you would like to write for this, or any other Emerald publication, then please use our Emerald for Authors service information about how to choose which publication to write for and submission guidelines are available for all. Please visit www.emeraldinsight.com/authors for more information.

About Emerald www.emeraldinsight.com

Emerald is a global publisher linking research and practice to the benefit of society. The company manages a portfolio of more than 290 journals and over 2,350 books and book series volumes, as well as providing an extensive range of online products and additional customer resources and services.

Emerald is both COUNTER 4 and TRANSFER compliant. The organization is a partner of the Committee on Publication Ethics (COPE) and also works with Portico and the LOCKSS initiative for digital archive preservation.

*Related content and download information correct at time of download.

Choosing a book by its cover: analysis of a reader's choice

Choosing a
book by
its cover

Arūnas Gudiniavičius and Andrius Šuminas

*Digital Media Lab, Faculty of Communication,
Vilnius University, Vilnius, Lithuania*

Received 19 September 2016
Revised 13 February 2017
Accepted 25 February 2017

Abstract

Purpose – The massive growth in the number of book titles has made publishers think about how to attract a customer's attention to particular books. This is the reason why the book cover plays an important role as a tool of communication with the reader. The research question of this exploratory study is whether the preference given by readers to book cover colors is different across genders and age groups when they choose the book in an online bookstore by its cover. The paper aims to discuss these issues.

Design/methodology/approach – The experiment in a bookstore and a library was done. Each respondent was asked to choose one book from our sample of 18 books and a mobile eye tracking laboratory was set up in order to find out the respondents' basic gazing data. After conducting an experiment with bookstore and library visitors, the results showed that younger women tend to select a book by its cover (when the time for selection is not limited) statistically significantly faster than men of the same age group. The difference disappears with age.

Findings – The data of the experiment suggested that women from the age group 18-35 prefer books with cool color covers and the preference disappears with age; accordingly, men in the age group 56+ prefer books with warm color covers. The preference was not seen in younger age groups. The analysis of data on the number of choices for each cover and the time spent looking at each of them revealed a significant positive correlation between the women's preferences in selecting covers and the time women spend looking at them; however, there was no such correlation in the case of men's data.

Originality/value – The study has shown that the reader's book choice is at least partly influenced by the cover color. The preference given to cool and warm colors and the speed of decision making show certain differences across genders and age groups. The result contributes to knowing how to create book covers more adapted to reader's needs.

Keywords Publishing, Eye tracking, Book covers, Choosing a book by its cover, Colour preference, Readers

Paper type Research paper

Introduction

Over the past years, the publishing market has been facing a lot of challenges all over the world. Competition between publishers is growing, bookshops are shifting to online platforms, and the number of book titles is growing. In 2010, Google made an attempt to count all published books and estimated that there are more than 129 million different books in the world (Taycher, 2010). According to Bowker's (2014a) data, traditional publishers in the USA published 304,912 print titles in 2013, whereas the non-traditional publishing sector (mostly reprint houses specializing in public domain works, self-publishers and "micro-niche" publishers) published 1,108,183 titles. The above numbers could be compared to another large English language market, the UK. As stated in the report of the International Publishers Association (Flood, 2014), UK publishers released 184,000 new and revised titles in 2013 of which 60,000 were digital. We are facing a massive growth in the self-publishing sector. In 2013, the number of self-published titles in the USA increased to more than 458,564, up 437 percent over 2008 (Bowker, 2014b). It should be noted that Bowker's analysis is based on ISBN registrations in the USA and does not include the titles published, for example, through Kindle Direct Publishing or Nook Press, since books created there do not need an ISBN. Hence, the real number of self-published book titles is even bigger.

Nougat (2014) calculated the number of e-book titles in the Amazon Kindle store in August 2014. Based on the hours of observation, it was estimated that it takes five minutes



for a new book to appear. A year later, on August 25, 2015, we can see that Amazon's Kindle already had 3,918,712 e-book titles. This means that over a year, the bookstore was supplemented by more than 0.5 million new titles. On the average, one new e-book title appeared every minute.

The massive growth in the number of titles suggests that a lot of books will remain unknown because an insufficient number of people read them (Dixon *et al.*, 2015). This problem makes publishers think about how to attract a customer's attention to particular books. A significant role is played by a book cover as an important tool of communication with the reader. For example, Dixon *et al.* (2015) investigated whether book covers can signal sub-genre information to knowledgeable readers. The results of their research suggest that book covers constitute an implicit signaling system between publishers and experienced readers of a fictional genre and confirm that there is a critical interaction between book covers and genre knowledge. The cover of the book also plays an important role in the process of book selection and buying. There are a lot of situations where readers choose a book by its cover (at least partially). This fact makes it important for the publisher to know how to design a successful cover, so that a book with a more attractive cover which is tailored toward the preferences of a particular reader can be sold more successfully. There are a lot of questions on how the book cover communicates with the reader, the investigation of which is still pending.

Our research question was:

RQ1. Whether the preferences for book covers are different across genders and age groups of readers when they choose a book in an online bookstore by its cover?

Some elements of a book cover play an important role in the cover and reader communication process. We decided to limit the scope of our research to the analysis of their dominating color. Therefore, to provide the background for our research question, we first discuss the intuitive idea that the dominating color of a book cover communicates information to prospective readers. Dixon *et al.* (2015) conclude that studies of the book publishing industry mostly focus on either the mechanics of book cover production, or book covers appear to have little importance at all. This suggests that publishers have a largely intuitive sense of how readers evaluate book covers and why covers might be important. This conclusion matches the opinion of the book design team from the largest book publisher in Lithuania, which we had consulted before the experiment: "With a lot of practical experience in the field, we intuitively know how to create successful covers for our readers." However, the results of our exploratory study showed that not all instances of book cover communication are so obvious, even for experienced professionals.

The main research question was divided into sub-questions. We were interested in how the reader's preferences are distributed between cold and warm colors dominating on the book cover. How do these preferences change with age and between genders? Do readers look longer at the covers they like? Since we were using eye tracking equipment in our research, additional research questions were added in order to get a better understanding about the process of communication between the cover and the reader. Thus, we turn to the investigation of reader behavior parameters by measuring which gender needs more time to complete the selection process and to choose a book by its cover (and how it changes with age), as well as the time the respondents spent looking at a particular cover (in order to find out the correlation between the time spent looking at the cover and the preference for a specific cover). Finally, this exploratory experiment suggests that there are important distinctions regarding color preference across genders and age groups as well as differences in the book selection speed.

Communication via book cover art and colors

As suggested by Dixon *et al.* (2015), "the common-sense assumption that book covers communicate something to prospective readers is widely held." Color and cover art are

important messages to readers. Kress and van Leeuwen (2006) suggest that the visual component of a text (image) is an independently organized and structured message connected with the verbal text, but not dependent on it. While trying to find the answer to the question on the reliability of the images and thus the messages presented by the images, Kress and van Leeuwen propose that colors (their modulation, differentiation, depth, illumination, brightness) can serve as markers which can be regarded as credible and which should be treated with caution.

The importance of the book cover can be seen in the D'Astous *et al.* (2006) study where they examine the impact of five variables on the readers' interest in a new book release: the reputation of the author and the publisher, the attractiveness of the book cover, the degree to which the cover represents the content of the book, and the type of the book. The results of the study showed that the first three variables (including the attractiveness of the book cover) had a statistically significant impact on the readers' interest and can be used to influence people's interest in a new book. In his study, Leemans and Stokmans (1991) identified the perceived attributes used in the elimination and comparison phase of the decision-making process regarding the purchase of the book. The results indicated that attributes such as "appearance of the book" and "cover" were quite important for the decision. These attributes were listed accordingly as number 19 and number 26 in the list of 50 attributes, for example, "title" was only listed as number 37 on the list. Saarinen and Vakkari (2013) also found that the author's name, the title, and external appearance were the most common triggers of interest toward fiction books in browsing and selecting books to borrow in public libraries. Some stereotypical images may communicate a similar message to different readers, while a more unconventional cover art can be interpreted differently. While analyzing some of book cover examples, Barthelmess (2014) showed that the style of art, composition, and color scheme used in a book cover communicates a copious amount of information about its subject. For example, warm colors and an idyllically painted landscape on the cover can suggest a romantic and comfortable reading experience, while a vivid yellow background bristles with energy. He concludes that in an age where so many books are purchased in online bookstores with thumbnail cover images the size of postage stamps, the cover's visual iconography can be invaluable. In the introduction of *Judging a Book by Its Cover*, Matthews and Moody (2007) explain the cover as a signifier of literary value and ascertain that book covers have become an essential part of the marketing of books and play an important role in promoting sales and shaping readers' preferences.

According to Stokes (1985), a product's package has a significant impact on perceived quality, and the impact is even stronger when buyers are not familiar with the brand. D'Astous *et al.* (2006) compare a book's cover to a product's package because it fulfills technical and marketing functions. In addition, the cover delivers direct (title, drawings, pictures) and indirect (colors, cover material) information about the book quality and content. Another study (Stokmans and Hendrickx, 1994) revealed that a book cover is important at the time of initially approaching a book, while measuring the attention paid to books presented on a display table in a bookstore. This means that book covers could be a powerful tool manipulated by publishers to promote books and communicate a lot of information for readers. Dixon and Bortolussi (2005) proved empirically what many assumed intuitively: readers can identify the fictional genre of the book simply from its cover. Covers can also communicate information about the sub-genre, storyline, characters, and even the price of the book. Based on that information, the reader may decide on whether or not to select the specific book. At this point, we also come to an intuitively known aspect: the interpretation of visual information is not universally understood in the same way. The color preference for particular objects depends on the situation and the underlying associations' people may have learned before. It is also culture specific and that is the limitation of our research: the results have to be cautiously applied to a different culture or country environment.

Grossman and Wisenblit (1999) conclude that it is important to understand that consumers have different color preferences for different product categories and these preferences are formulated via the associative learning process. The Holmes and Buchanan (1984) study revealed that color preference demonstrates gender differences, regional differences, and clear inconsistencies between the favorite color choices for various objects. This means that people's color preferences not only depend on the product, but their favorite color is independent of these preferences. Palmer and Schloss (2010) measured people's average affective responses to color-associated objects and showed that people like colors strongly associated with objects they like (e.g. blues with clean water) and dislike colors strongly associated with objects they dislike (e.g. browns with rotten food). Moreover, they provided the average color preferences that were preferred by over 48 participants in the experiment (Figure 1). It clearly shows high blue color preferences and low in dark yellow and orange colors. The discussion about book cover tendencies with the graphical design team of the largest Lithuanian publisher before the experiment showed that professional designers believe they intuitively know how to create successful covers. According to them, most customers prefer covers with warm colors.

Color preferences may also vary with age. Taylor *et al.* (2013) revealed that infants had a stronger preference for dark yellow and a weaker preference for light blue than adults did, and experimentally proved that adults look longer at colors that they like than at colors they dislike. We will test this finding about book covers later.

According to the Stenstrom *et al.* (2008) study, sex differences are found at numerous levels of human cognition and gender appears to be an important variable in models of e-communication. Camarata and Woodcock (2006) found that males scored significantly lower on estimates of processing speed and significantly higher scores on comprehension knowledge. While investigating gender difference in decision and movement time components of a visual choice reaction-time task, Landauer *et al.* (1980) found that women have a faster decision time than men, and that men have a faster movement time. The data of the surveys mentioned above clearly showed that women read more books than men, and younger people read more books compared to older ones. We can make a logical assumption that women purchase more books than men. Therefore, after the analysis of previous findings, we decided to investigate the idea that women can choose a book on the online

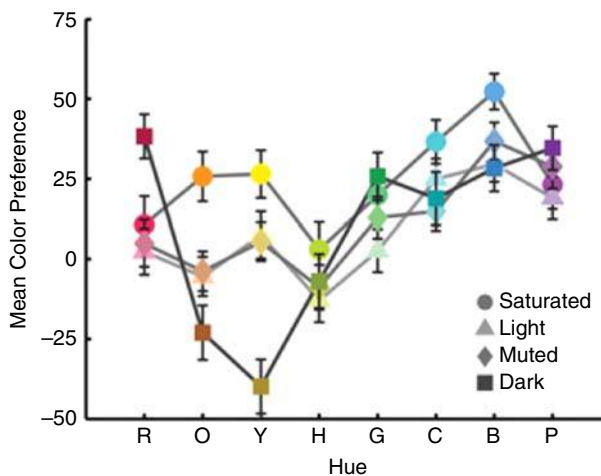


Figure 1.
Color preferences
averaged over
48 participants

Source: Palmer and Schloss (2010)

store faster than men when there is no time limit to complete the task. Based on the literature discussed above and the results of the preliminary discussion with the book design team, the following research hypotheses were put forward:

- H1. Women need less time to select a book they like by its cover than men.
- H2. Women intuitively choose more book covers with warm than cool colors.
- H3. Men intuitively choose more book covers with cool than warm colors.
- H4. Women and men look longer at book covers they like than covers they dislike.

Methodology

As our research question focused on the perception of different colors on book covers, we first created a book cover sample database. All books were in the Lithuanian language (original or translations). Later, the database was divided into nine categories. Book covers from three categories were based on dominating primary colors (red, yellow, green) and book covers from another three categories were based on secondary (orange, green, violet (purple)) colors of the color wheel. We also added white, black, and multicolored book cover samples in making the last three categories. Due to the variety of colors used on book covers, the predominant color (the color which dominates on more than 50 percent of cover surface) was often used to attribute the cover to one or another category. The color wheel was used to assess the particular dominating color. All covers (except black and white) could be divided into two categories: predominantly warm (red-violet, red, red-orange, orange, yellow-orange, yellow) and cool (yellow-green, green, blue-green, blue, blue-violet, violet) colors. We also tried to maintain a diversity in cover illustration types by selecting covers with photorealistic images (real-life photographs: person, landscape, thing, etc.), paintings (drawn, sketched, or painted in a realistic manner), and cartoons (unrealistic manner).

What is more, we were concerned about the book titles and authors' names on the covers, which could lead to a prediction of the book's content. In order to minimize the chance of a respondent finding a book he/she had already read (with a title and author he/she is already familiar with), we eliminated books that could be described as bestsellers and books of well-known authors. However, there was not much more to be done: in most cases, it is impossible to mask a book title and author without masking at least half of the book cover. This constraint appeared as a result of the nature of the randomly selected covers and required leaving the book titles intact. This means that the stimuli of the book covers selected were viewed as the book title together with the author's name and cover art. Our research question only focused on the aspect of cover art: preferences for the dominating color.

Covers were randomly selected from each color and cover illustration category using a random number generator. Two covers from each color category (a total of 18 book covers) were selected by maintaining an equal proportion of cover illustration categories. Some additional rules on selection were applied: an equal distribution of women, men, children, and nature landscapes as part of the cover art. Afterwards, covers were distributed randomly into an online bookshop shelf composed of three rows and six columns (see Figure 2(a)).

The experiment took place in a bookstore and a library; therefore, the respondents consisted of a convenience sample of consumers who visited the bookstore (*Didysis Pegasus*, Ozo st. 25, Vilnius, Lithuania) and the library (*Vilnius County Adomas Mickevičius Public Library*, Trakų st. 10, Vilnius, Lithuania) at a particular time (June 2015). As we wanted to compare book cover color preferences across genders and age groups, we needed to have an equal number of participants in each group: 90 male respondents and 90 female respondents; 60 respondents in each age group (age 18-35, 36-55, and over 56). A total of 180 respondents participated in the experiment.

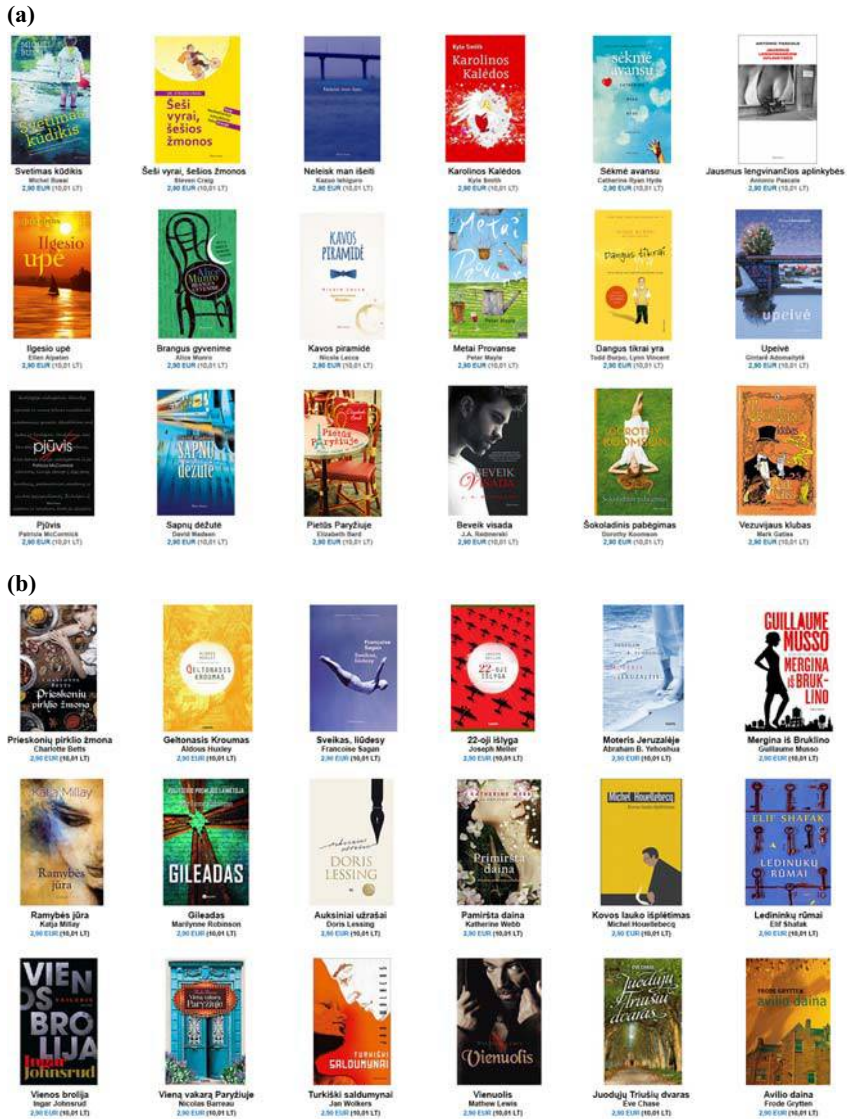


Figure 2.
Samples of book covers selected for the experiment

In the course of the experiment we asked each respondent to choose one book from our sample of 18 books. The time for selecting a book was not limited. The respondent's choice was limited to a thumbnail size book cover, title, author, and price (all prices were set equal to €2.90). The respondents were informed in advance that it was not possible to get more information by clicking on a specific cover. A fictional online bookstore bookshelf was presented on a large laptop (19") monitor.

Before and after the experiment, we asked some additional questions in order to get a better understanding of the character of the respondents, their reading frequency and their

reasons for selecting particular books. The questions before the experiment included demographic characteristics (gender, age, occupation), data about the number of books they read in the past six months, and their preferences for book acquisition options (traditional bookstores, supermarkets, online bookstores, libraries). The answering of questions on a laptop before the main experiment also made the respondents more comfortable with the system. After the experiment, we asked for an explanation why the respondent chose a particular book and which covers the respondent could still remember after the experiment.

In order to find out the respondents' basic gazing data (focus points, entry points and reading paths, time spent), we used a mobile eye tracking laboratory set up in the bookshop and later in the library. The respondents were placed in front of a laptop with eye tracking equipment mounted (Tobii X2-30 Eye Tracker) and eye tracking software (Tobii Studio 3.2) installed on it. A second monitor was connected and used for a live preview of the respondent's actions. An I-VT fixation filter with a velocity threshold of 20 ms was used. The minimum fixation duration was set to 60 ms, and adjacent fixations were merged if they did not exceed 75 ms and an angle of 0.5 degrees between fixations.

Some measures were taken in order to answer the research questions. The time to the first fixation counted in milliseconds was measured and was used as an indicator for the respondent's first fixation on a specific area of interest (in our case, a specific book cover – all book covers were defined as areas of interest). This metric, when compared to other areas of interest, showed which elements (book covers) of the page were drawing more user's attention in the context of the task they were asked to perform. The number of fixations of the participant on a specific book cover was measured as a fixation count and served as an indicator for the covers with the longest or shortest time spent looking at a specific cover. A mouse click count was used to measure the task completion duration: from the beginning of the experiment to the moment the user chose the cover and clicked on it.

To confirm the findings, we did an additional experiment later with a new group of respondents (30 women and 30 men) from just one age group (18-35). This additional group of respondents was asked to complete exactly the same task, but with two samples (see Figure 2(a)) of book covers: one sample was the same we used with the main group of respondents, and the second one (see Figure 2(b)) consisted of different book covers (selected according to the same rules applied to the first ones).

Findings

Description of the respondents

In order to get a better understanding of our respondents, we asked them a question about the number of books they have read in the past six months. After summarizing the answers to the question, we can describe the reading habits of our average respondent (Figures 3 and 4) and compare him/her to an average Lithuanian citizen.

Figure 3 shows that our female respondents answered that they had read more books in the last six months than men. Women more frequently chose the options "3-5" and "more than 10" books read in the last six months. More men selected the option "1-2" books, whereas the option "0 books" was selected by men only (14 respondents). According to the results of the last representative reading survey of 16-74 year-old residents of Lithuania conducted by RAID in 2005 (Skaitymo mastas, kryptingumas ir poreikiai, 2005), 59 percent of men and 70 percent of women stated that they had read at least one book in the past six months (the rest indicated that they had not read any book in the past six months). Our respondents were bookshop and library visitors (who most probably live in the city); hence, they were definitely heavier readers compared to the average Lithuanian reader: 84 percent of men and 100 percent of women from our experiment have read at least one book in the past six months.

We also took a look at how book reading habits change with age (Figure 4). Here, we also have a different average respondent compared to the average Lithuanian reader.

Figure 3.
Statistics on the books read (women vs men) in the last six months

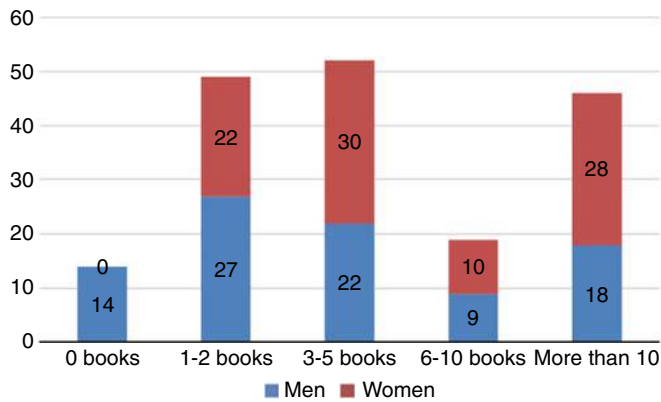
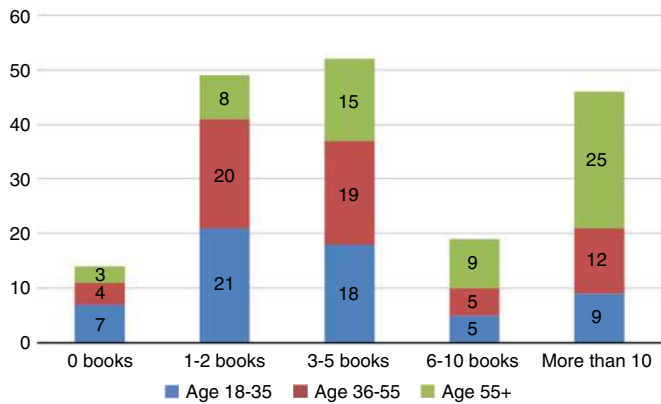


Figure 4.
Statistics on the books read in the last six months (by age group)



As illustrated by Figure 4, the respondents from the age group 55+ tend to choose the answer “6-10” and “more than 10” books read in the last six months more often. Besides, more respondents from the age groups of 18-35 and 36-55 chose the options “0 books,” “1-2 books,” and “3-5 books.” On the contrary, the results of the same representative reading survey in 2005 revealed that the highest number of readers is in the age group 16-19 (85 percent of them have read at least one book in the past six months). The percentage decreases with age: age group 20-29 – 75 percent, 30-39 – 70 percent, 40-49 – 69 percent, 50-59 – 55 percent, 60-69 – 48 percent, and 70-74 – 42 percent. The 2007 representative survey of Lithuanian citizens’ opinion on reading (Lietuvos vartotojų institutas, 2007) revealed similar results: women like reading more and read more often than men, and retired people read less than younger age groups. Also, there were statistically significant differences between the respondents from cities (who read much more) and from the countryside (who read much less). In 2012, Vilmorus did a survey of Lithuanian citizens over 18 years old. The results revealed that 52 percent of adults do not read books (printed or digital) at all and the most avid readers are women up to 29 years old with a higher than average income and living in the capital city Vilnius (Saukiene, 2012).

In general, the above surveys showed that women are more avid readers in Lithuania (which is also true for the respondents in our experiment), whereas older age groups tend to read less than younger age groups (which is not true in the case of our respondents). It is not

surprising that some of the reading habits of our avid readers are contrary to the average Lithuanian citizen. These differences can be explained by the fact that our respondents were bookshop and library visitors: they deliberately came to buy or to borrow books to read.

Time for selecting a book cover

One variable was selected to test *H1* – the mean book cover selection time. The time was calculated from the moment when all 18 book covers were presented to the respondent until the mouse click, which was the end of the selection process.

In order to verify *H1*, an independent sample *t*-test was performed on three different age group samples using the book cover selection time measure as the dependent variable and the gender (women and men) as the grouping variable. The calculated means and other statistics of female and male samples in three age groups are presented in Table I.

The results showed that the largest difference between the mean selection time for women and men was in the youngest age group; the difference was smaller in the middle group, whereas in the oldest age group, there was almost no difference between the mean cover selection time for women and men (Figure 5).

Then, comparing the cover selection time difference between the women and men in the additional group of respondents, we found that findings with main group of respondents are confirmed by the findings of the additional group of respondents: in the age group 18-35 there are similar differences between women and men in cover selection time (see Tables II and III). The difference between the total (women and men) mean differences when comparing the main and additional samples of book covers might be explained by the methodology of the experiment: after the task with main book cover samples, the respondents were already familiar with the task, so they managed to complete it faster.

In order to evaluate statistically significant differences between women and men, three independent sample *t*-tests were conducted – one for each age group (18-35, 36-55, and 56+).

Gender	<i>n</i>	Age 18-35		<i>n</i>	Age 36-55		<i>n</i>	Age 56+	
		Mean	SD		Mean	SD		Mean	SD
Women	30	22.87	11.81	30	36.00	20.19	30	43.35	21.47
Men	30	32.20	13.89	30	42.32	23.88	30	42.61	21.27
Total	60	27.53	13.62	60	39.16	22.15	60	42.98	21.19

Table I.
Cover selection time
(seconds) descriptives
across age groups
with the main sample
of book covers

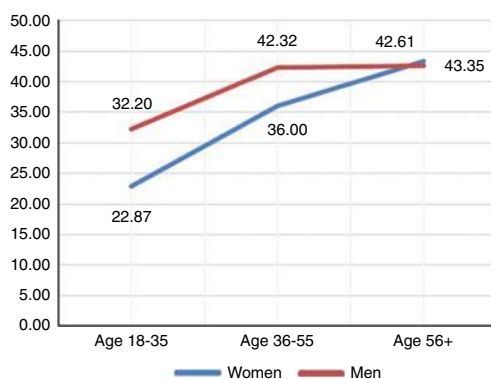


Figure 5.
Mean cover selection
time for women
and men (seconds)
across age groups

The results in the age group 18-35 suggest that there is a statistically significant difference in the book cover selection time scores for women ($M = 22.87$, $SD = 11.81$) and men ($M = 32.20$, $SD = 13.89$); $t(58) = -2.80$, $p = 0.007$.

The independent sample t -tests for the additional respondent group also confirmed that there is a statistically significant difference in the book cover selection time scores:

- with main cover samples for women ($M = 24.30$, $SD = 15.82$) and men ($M = 34.13$, $SD = 15.18$); $t(58) = -2.46$, $p = 0.017$; and
- with additional cover samples for women ($M = 22.27$, $SD = 11.51$) and men ($M = 29.60$, $SD = 10.91$); $t(58) = -2.53$, $p = 0.014$.

Specifically, our results with both groups of respondents showed that women aged 18-35 select a book statistically significantly faster than the men of the same age. This result gives empirical support to *H1* considering that the age group is 18-35.

In the age group 36-55, we can see a difference in the mean book cover selection time scores for women ($M = 36.00$, $SD = 20.19$) and men ($M = 42.32$, $SD = 23.88$), but the difference is not statistically significant: $t(58) = -1.11$, $p = 0.273$. *H1* was therefore not supported in the case of this age group.

The t -test on the age group 56+ shows that there is almost no difference in the book cover selection time scores for women ($M = 43.35$, $SD = 21.47$) and men ($M = 42.61$, $SD = 21.27$), and the difference is not statistically significant: $t(58) = 0.135$, $p = 0.893$. *H1* was not supported in this age group as well.

In order to verify if there are significant differences in the mean book selection time across age groups, a within-subject analysis of variance (one-way ANOVA) was performed using the book selection time measure as the dependent variable and the age group as the grouping factor. Two separate tests (for women and men) were performed.

The ANOVA test on the women's sample showed that at least two age groups were significantly different at the $p < 0.05$ level for the three conditions ($F(2, 87) = 9.61$, $p = 0.001$). *Post hoc* comparisons using the Tukey's HSD test indicated that the mean score for the age group 18-35 ($M = 22.87$, $SD = 11.81$) was significantly different compared to the age group 36-55 ($M = 36.00$, $SD = 20.19$) and the age group 56+ ($M = 43.35$, $SD = 21.47$). This means that women aged 18-35 choose books significantly faster than older age groups. However, the age group 36-55 did not significantly differ from the age group 56+. The same test on the men's sample revealed that none of age groups were significantly different at the $p < 0.05$ level for the three conditions ($F(2, 87) = 2.60$, $p = 0.080$).

Table II.

Cover selection time (seconds) descriptives across the additional age group 18-35 with the main sample of book covers

Gender	<i>n</i>	Age 18-35	
		Mean	SD
Women	30	24.30	15.82
Men	30	34.13	15.18
Total	60	29.22	16.15

Table III.

Cover selection time (seconds) descriptives across the additional age group 18-35 with the additional sample of book covers

Gender	<i>n</i>	Age 18-35	
		Mean	SD
Women	30	22.27	11.51
Men	30	29.60	10.91
Total	60	25.93	11.72

Preferences for book cover colors

After the analysis of the cover choices of 180 respondents (Table IV), the preferences for cool and warm colors can be evaluated, as well as 60 respondents from the additional 18-35 age group (Tables V and VI).

Figure 6 based on Table IV shows that women of younger age (18-35) prefer cool color covers (16 or 73 percent of the choices for cool and 6 or 27 percent of the choices for warm colors). The same preferences remain and in the additional women respondents group of the same age (14 or 64 percent of the choices for cool and 6 or 36 percent of the choices for

Choosing a book by its cover

Age group/Color	Warm	Cool	White	Black	Total
Women aged 18-35	6	16	3	5	30
Women aged 36-55	15	12	2	1	30
Women aged 56+	14	13	1	2	30
Men aged 18-35	11	12	3	4	30
Men aged 36-55	14	13	0	3	30
Men aged 56+	18	8	1	3	30
Total	78	74	10	18	180

Table IV. Preferences of women and men (main respondents group) for the main book cover samples with dominating black, white, cool and warm colors

Age group 18-35/Color	Warm	Cool	White	Black	Total
Women aged 18-35	8	14	5	3	30
Men aged 18-35	11	13	2	4	30
Total	19	27	7	7	60

Note: Additional respondents (women and men) group 18-35

Table V. Preferences of women and men for the main book cover samples with dominating black, white, cool and warm colors

Age group 18-35/Color	Warm	Cool	White	Black	Total
Women aged 18-35	9	15	3	3	30
Men aged 18-35	10	9	4	7	30
Total	19	24	7	10	60

Note: Additional respondents (women and men) group 18-35

Table VI. Preferences of women and men for the additional book cover samples with dominating black, white, cool and warm colors

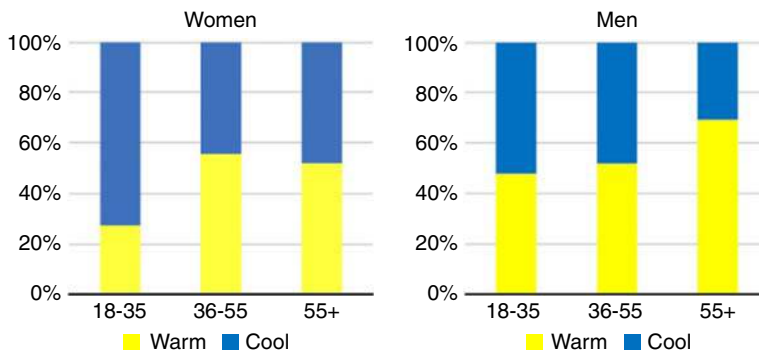


Figure 6. The change of preferences of women and men for book covers with dominating cool and warm colors based on age (stacked to 100 percent)

warm colors with main book cover samples; 15 or 62 percent of the choices for cool and 9 or 38 percent of the choices for warm colors with the additional book cover samples). The difference in the preferences of women from the older age groups for cool and warm colors comes to a minimum: at the age 36-55, we have 12 or 44 percent of the choices for cool and 15 or 56 percent of the choices for warm colors, whereas at the age 56+, we have 13 or 48 percent of the choices for cool, and 14 or 52 percent of the choices for warm colors.

In the case of men, the preferences are different. Men from younger age groups (18-35) showed a minimum difference in the preferences for cool and warm covers: at the age 18-35 we have 12 or 52 percent of the choices for cool and 11 or 48 percent of the choices for warm colors, whereas at the age 36-55, we have 13 or 48 percent of the choices for cool and 14 or 52 percent of the choices for warm colors. However, in the age group 56+, we can see a bigger difference between preferences: 8 or 31 percent for cool color covers and 18 or 69 percent for warm color covers. No clear expressed preference was found and in the additional 18-36 men respondents group (13 or 54 percent of the choices for cool and 11 or 46 percent of the choices for warm colors with the main book cover samples; 9 or 47 percent of the choices for cool and 10 or 53 percent of the choices for warm colors with the additional book cover samples).

What is more, we have run the χ^2 independence test to test whether color preference (cool vs warm) and gender are associated in any way. The tests (for each age group) showed that there is no strong association between color preference and gender (for age group 18-35: $\chi^2(1) = 2.02, p = 0.155$; for age group 36-55: $\chi^2(1) = 0.30, p = 0.586$; for age group 56+: $\chi^2(1) = 1.67, p = 0.196$). This means that $H2$ was not supported as well. Similar results were also obtained by the test on the possible associations between color preference (cool vs warm) and age group. The tests for women and men showed that there is no strong association between color preference and age group (for women: $\chi^2(2) = 4.47, p = 0.107$; for men: $\chi^2(2) = 3.12, p = 0.210$). $H3$ was not supported.

No research hypothesis was formulated with respect to specific preferences for book cover colors. Nevertheless, Figure 7 shows certain differences in the preferences of women and men. Both of them agreed and strongly expressed a preference for the color orange, but both genders disliked yellow, green, black, and white colors. When trying to analyze what other elements apart from the color could affect the choice of respondents, we found no other explanation apart from the color. All the covers of the most popular color (orange) had no more interesting and attractive title or author (none of respondents mentioned a very special title or author) to compare with the least popular color (yellow, green) covers.

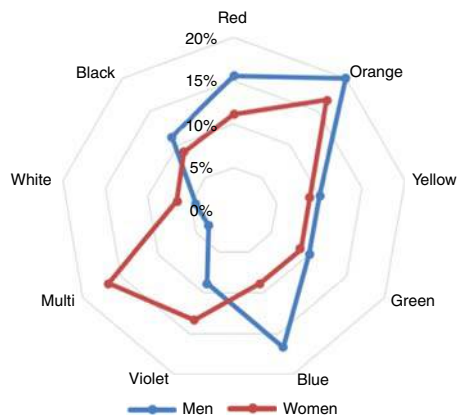


Figure 7.
Preferences of women
and men for specific
book cover colors

To confirm these findings, more future experiments are needed, for example, to look at different editions (with different colored covers) of the same book and to find out which is more popular.

We can see that more men than women prefer blue and red book covers. More women than men selected multicolor and violet color covers. The color blue showed the opposite result – more men selected covers with a dominating blue color.

In addition, we can compare the cover colors preferred by both genders (Figure 8) with the Palmer and Schloss (2010) color preferences measured by not associating colors with specific objects (Figure 1). Only a very conditional comparison can be made because Palmer and Schloss divided all the colors into saturated, light, muted, and dark. We can see quite similar preferences for cool colors: the most favorite of them is blue; it is followed by green and violet. In respect to warm colors, the picture is not so clear, due to big differences in the dark warm color preference in the Palmer and Schloss data. Nevertheless, taking into account that the warm colors on our covers were more saturated than light, muted or dark, we can see that orange is also more popular than red, while yellow is not so popular compared to saturated yellow in Figure 1.

In order to find support for *H4* and to find out if women and men take more time to look at the book covers that they like (and choose) than the covers that they dislike, we have run the Pearson correlation test on two variables for women and men separately: the number of choices for each cover and the duration of time spent looking at each cover. The time spent looking at each cover was counted by summing up the total fixation duration assigned to a specific cover (area of interest). The women's data showed a rather large and statistically significant positive correlation between the covers (and likes) chosen by women and the looking time ($r = 0.491, n = 18, p < 0.038$). Therefore, in the case of women, we have support for *H4*. With men, the situation is different. We found a small and statistically insignificant correlation between the two variables ($r = 0.202, n = 18, p < 0.420$). Hence, *H4* was not supported in the case of men.

Motives for book cover selection

After the experiment was over, we asked the participants to explain why they selected the specific book cover. We provided five fixed (attractive title, friend recommendation, known author, nice cover, seen in advertisement) answers to choose from and the “other” option if the respondent had another reason behind the choice. The results showed (Figure 9) that the most popular answer was “attractive title” – 54 percent of all the respondents selected this option. “Nice cover” was the second most popular motive for book selection (25 percent of all the respondents). A low percentage of answers “known author” (8 percent), “seen in advertisement” (4 percent), and “friend recommendation” (1 percent) serves as evidence of our success in eliminating these factors from the selection motives and concentrating on the cover factor. However, the “attractive title” was not eliminated and must be taken into account when the results of the experiment are discussed.

About 15 respondents (8 percent) answered that they selected a particular book for another reason. Eight of them assigned the book cover they chose to a specific genre and

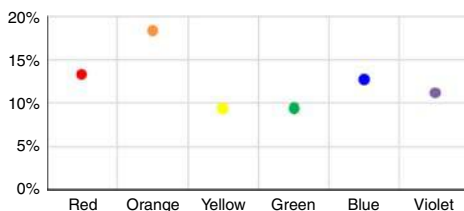


Figure 8. Preferences of both genders for specific color wheel colors on a book cover

said that the particular genre was preferred by them at that time. Three respondents said that they saw a movie based on the particular book, they liked the movie and they would like to read the book. Two people chose a book they had already read and two other people chose a book they had not read yet.

Also, the data (Figure 10) reveal certain other tendencies: the respondents from the age group 18-35 were more prone to choose a book by a nice cover; the respondents from the age group 36-55 preferred the books by an attractive title, and for the age group 56+ a known author was a more important motive (we can intuitively suggest that 56+ age group respondents are supposed to be familiar with more authors than younger age groups).

Conclusions

Though the relationship between reading habits (number of books) and genders or age groups was not among our research questions, the analysis revealed some interesting facts about our respondent’s behavior. The people who visit a bookshop or a library have quite different habits regarding the number of books they have read in the past six months. Our data showed that readers in the age group 56+ read more books than other (younger) age groups, which is opposite to the behavior of a statistical resident of Lithuania (on the average, people of the age group 18-35 read more books than other age groups). When comparing the number of books read between women and men, the results showed that our female respondents read more books. The result of gender difference meets all the previous surveys on reading habits in Lithuania, but our average respondent (women and men who come to bookshops and libraries) read more than the average citizen of Lithuania.

When looking for support for our *H1* (women need less time than men to select a book they like by its cover), the results of the difference in the mean selection time between women and men in both the main and additional respondents groups revealed the support for *H1* in the age group 18-35 for women and men, but *H1* was not supported in the case of other age groups. Also, we found support for *H1* when comparing the mean book selection time for women across age groups; there was no significant difference across age groups in the case of men. Taken together, the experiment proved that women aged 18-35 select a

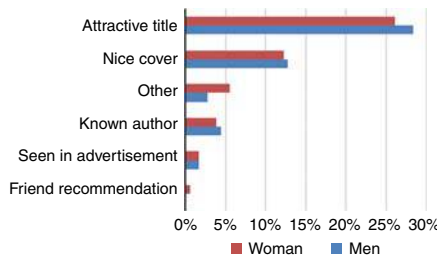


Figure 9.
Motives for the selection of book covers by gender

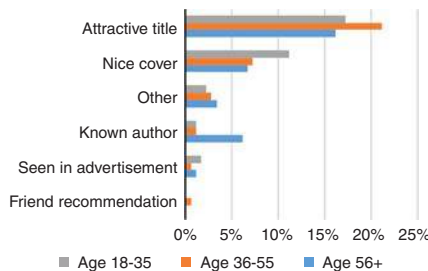


Figure 10.
Motives for the selection of book covers by age group

book by its cover (when the selection time is not limited) significantly faster than men of the same age group. With the (36-55) age group, the difference remains, but it is not statistically significant and disappears altogether in the age group 56+.

After analyzing the preferences for cool and warm colors among women and men of different age groups, *H2* and *H3* were not supported. We found no strong evidence that color preference (cool vs warm) and gender or age are associated. Despite the data analysis which showed that women from the age group 18-35 intuitively choose more book covers with cool covers and this preference disappears with age (in age groups 36-55 and 56+), after running the χ^2 independence test, we found no statistical reliable association between warm/cool colors and the women's age. The same could be said about men. Although men aged 56+ choose more book covers with warm colors and this preference is not seen in age groups 18-35 and 36-55, we did not find a statistically reliable association. From the experiment data, we can observe some specific preferences for book cover colors. However, Figure 5 reveals certain differences in the preferences of women and men. Both women and men expressed a strong orange color preference and both genders disliked yellow, green, black, and white color book covers. Also, we can discern that more men prefer blue and red book covers, and more women selected multicolor and violet color covers. At this point, we can make an assumption that the book cover color preferences are at some point quite similar to the Palmer and Schloss preferences measured by not associating colors to specific objects. However, the assumption needs a further investigation.

After analyzing the data on the number of choices for each cover and the time spent looking at each cover, we found a significant positive correlation between the covers liked by women and the looking time, but there was no such correlation when we tested the men's data. Finally, only the women's data supported Taylor *et al.*'s (2013) findings, which indicate that adults look longer at colors that they like than at colors that they dislike, which suggests that this rule could be specific object dependent.

As regards to book selection motives, we succeeded in eliminating the "known author," "seen in advertisement," and "friend recommendation" factors from the selection motives, making "nice cover" the second most important factor among the selection motives. However, "attractive title" was not eliminated and was the most important factor among the selection motives. It was taken into account when discussing the results.

Taking into account the large number of new book title releases each year, it is crucial for publishers to understand how readers decide which book to choose. This exploratory study has shown that the reader's book choice can at least partially be influenced by a cover color. The preference for cool and warm colors and the speed of decision to some degrees differ across genders and age groups. More research is needed to verify these findings and to provide additional knowledge about book covers as a tool of communication with the reader.

References

- Barthelme, T. (2014), "What makes a good book cover?", *The Horn Book*, available at: www.hbook.com/2014/03/choosing-books/horn-book-magazine/makesgood-book-cover/ (accessed January 12, 2017).
- Bowker (2014a), "Traditional print book production dipped slightly in 2013", Bowker, available at: www.bowker.com/news/2014/Traditional-Print-Book-Production-Dipped-Slightly-in-2013.html (accessed January 12, 2017).
- Bowker (2014b), "Self-publishing continues to grow in U.S., Says Bowker", Bowker, available at: www.bowker.com/news/2014/Self-Publishing-Continues-to-Grow-in-US-Says-Bowker.html (accessed January 12, 2017).
- Camarata, S. and Woodcock, R. (2006), "Sex differences in processing speed: developmental effects in males and females", *Intelligence*, Vol. 34 No. 3, pp. 231-252, doi: 10.1016/j.intell.2005.12.001.

- D'Astous, A., Colbert, F. and Mbarek, I. (2006), "Factors influencing readers interest in new book releases: an experimental study", *Poetics*, Vol. 34 No. 2, pp. 134-147, doi:10.1016/j.poetic.2005.12.001.
- Dixon, P. and Bortolussi, M. (2005), "Approach and selection of popular narrative genre", *Empirical Studies of the Arts*, Vol. 23 No. 1, pp. 3-17, doi: 10.2190/JA6U-5APV-NERE-PYGC.
- Dixon, P., Bortolussi, M. and Mullins, B. (2015), "Judging a book by its cover", *Scientific Study of Literature*, Vol. 5 No. 1, pp. 23-48, doi: 10.1075/ssol.5.1.02dix.
- Flood, A. (2014), "UK publishers released 184,000 new and revised titles", *The Guardian*, available at: www.theguardian.com/books/2014/oct/22/uk-publishes-more-books-per-capita-million-report (accessed January 12, 2017).
- Grossman, R.P. and Wisenblit, J.Z. (1999), "What we know about consumers' color choices", *Journal of Marketing Practice: Applied Marketing Science*, Vol. 5 No. 3, pp. 78-88.
- Holmes, C.B. and Buchanan, J.A. (1984), "Color preference as a function of the object described", *Bulletin of the Psychonomic Society*, Vol. 22 No. 5, pp. 423-425.
- Kress, G. and van Leeuwen, T. (2006), *Reading Images: The Grammar of Visual Design*, 2nd ed., Routledge, London.
- Landauer, A.A., Armstrong, S. and Digwood, J. (1980), "Sex difference in choice reaction time", *British Journal of Psychology*, Vol. 71 No. 4, pp. 551-555, doi: 10.1111/j.2044-8295.1980.tb01766.x.
- Leemans, H. and Stokmans, M. (1991), "Attributes used in choosing books", *Poetics*, Vol. 20 No. 5, pp. 487-505, doi: 10.1016/0304-422X(91)90022-H.
- Lietuvos vartotojų institutas (2007), "Visuomenės nuomonės tyrimas 'Suaugusiųjų skaitymo įpročiai'", Lietuvos vartotojų institutas, available at: www.vartotojai.lt/get.php?f.484 (accessed January 11, 2017).
- Matthews, N. and Moody, N. (2007), *Judging a Book by Its Cover*, Ashgate, Aldershot.
- Nougat, C. (2014), "To self-publish and perish: buried under 3.4 million E-books", Claude Forthomme – Nougat's Blog, available at: <https://claudenougat.wordpress.com/2014/08/19/to-self-publish-and-perish-buried-under-3-4-million-e-books> (accessed January 12, 2017).
- Palmer, S.E. and Schloss, K.B. (2010), "An ecological valence theory of human color preference", *Proceedings of the National Academy of Sciences*, Vol. 107 No. 19, pp. 8877-8882, doi: 10.1073/pnas.0906172107.
- Saarinen, K. and Vakkari, P. (2013), "A sign of a good book: readers' methods of accessing fiction in the public library", *Journal of Documentation*, Vol. 69 No. 5, pp. 736-754, available at: <http://dx.doi.org/10.1108/JD-04-2012-0041>
- Saukienė, I. (2012), "52 proc. suaugusiųjų ir 35 proc. vaikų visiškai neskaito knygų", Delfi.lt, available at: www.delfi.lt/news/daily/lithuania/52-proc-suaugusiuju-ir-35-proc-vaiku-visiskai-neskaito-knygu.d?id=58687965 (accessed January 15, 2017).
- Skaitymo mastas, kryptingumas ir poreikiai (2005), "Sociologinio tyrimo ataskaita", available at: www3.lrs.lt/pls/inter/w5_show?p_r=440&p_d=40090&p_k=1 (accessed January 11, 2017).
- Stenstrom, E., Stenstrom, P., Saad, G. and Cheikhrouhou, S. (2008), "Online hunting and gathering: an evolutionary perspective on sex differences in website preferences and navigation", *IEEE Transactions on Professional Communication*, Vol. 51 No. 2, pp. 155-168, doi: 10.1109/TPC.2008.2000341.
- Stokes, R.C. (1985), "The effect of price, package design, and brand familiarity on perceived quality", in Jacoby, J. and Olson, J. (Eds), *Perceived Quality*, Lexington Books, Lexington, MA, pp. 233-246.
- Stokmans, M.J.W. and Hendrickx, M. (1994), "The attention paid to new book releases on a display table", *Poetics*, Vol. 22 No. 3, pp. 185-197, doi: 10.1016/0304-422X(94)90004-3.
- Taycher, L. (2010), "Books of the world, stand up and be counted!", Google Books Search, available at: <https://googleblog.blogspot.lt/2010/08/you-can-count-number-of-books-in-world.html> (accessed January 15, 2017).
- Taylor, C., Schloss, K., Palmer, S.E. and Franklin, A. (2013), "Color preferences in infants and adults are different", *Psychonomic Bulletin & Review*, Vol. 20 No. 5, pp. 916-922, doi: 10.3758/s13423-013-0411-6.

Further reading

Fowler, A. (1982), *Kinds of Literature: An Introduction to Theory of Genres and Modes*, Harvard University, Cambridge, MA.

About the authors

Arūnas Gudiniavičius is currently an Associate Professor and a Researcher at the Digital Media Lab, Faculty of Communication, Vilnius University. Since 1999 he has been working in one of Lithuania's leading digital publishing houses. In 2012 he completed his PhD in Information and Communication Sciences. He is the Managing Director of Vilnius University Press and also working as a Consultant to e-book publishers in Lithuania. His research interests are digital books, digital publishing, and human-computer interaction. In the past years, he participated in initiating and implementing some of the national scientific projects based on eye tracking research methodology. Arūnas Gudiniavičius is the corresponding author and can be contacted at: arunas.gudinavicius@gmail.com

Andrius Šuminas is an Associate Professor and the Head of Digital Media Lab at the Faculty of Communication, Vilnius University. He received a PhD Degree in Information and Communication Sciences. His main areas of research are media transformation, interactive networking, business communication in social media, and political communication.

For instructions on how to order reprints of this article, please visit our website:

www.emeraldgroupublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com