Individual and Socioeconomic Variables as Predictors of Middle School Students’ Intrinsic Reading Motivations

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Received: February 19, 2021 • Revised: May 16, 2021 • Accepted: July 9, 2021

Abstract: Individuals’ engagement with reading and maintaining it depends on personal motivations. Having a multidimensional structure, reading motivation is affected by intrinsic and extrinsic factors. Studies on reading motivation can make a significant contribution to identifying students’ intrinsic motivation profiles closely, encouraging them to read, and increasing their reading engagement. The present study aimed to determine the individual and socioeconomic variables predicting middle school students’ intrinsic reading motivations. Employing the predictive correlational design, the study was carried out with 459 students attending six different public schools in the city of Sanliurfa. The participants were determined by stratified purposeful sampling method. The study data were collected by the Intrinsic Reading Motivation Scale and the Personal Information Form. According to the hierarchical regression analysis results, all the models constructed in the study were significant. All of the variables explained the intrinsic reading motivation with a 22% variance explanation percentage. As a result, it can be said that the change observed in intrinsic reading motivation variance mostly stemmed from reading engagement ($\Delta R^2=.12$), family ($\Delta R^2=.07$), demographic characteristics ($\Delta R^2=.03$), and school ($\Delta R^2=.01$), respectively. It can be stated that the predictors of the intrinsic reading motivation determined in this study should be taken into consideration by educators.

Keywords: Demographic characteristics, middle school students, reading engagement, reading intrinsic motivation, socioeconomic status.

To cite this article: Kurnaz, H., & Kurnaz, G. (2021). Individual and socioeconomic variables as predictors of middle school students’ intrinsic reading motivations. International Journal of Educational Methodology, 7(3), 401-410. https://doi.org/10.12973/ijem.7.3.401

Introduction

Reading skill has an important role in the development of individuals and societies. Introduced with learning to read and write in the first years of school life, this skill continues for life and contributes to the development of individuals (Ozenc, 2013). Until recently, the development levels of societies were determined according to their literacy rates. Nowadays, more than these rates, it seems that the data of the exams conducted at international standards for reading comprehension have gained importance.

Reading is a complex process rather than a simple act (Tompkins, 2006). The reading skill explained with the concepts of understanding, using, evaluating, relating to, reflecting on, and engaging with the texts (Organisation for Economic Co-operation and Development [OECD], 2019). One of these concepts, engaging with texts, represents the motivational qualities and behavioral characteristics of reading. Many experts in the field of reading comprehension consider the acquisition of reading components (sound awareness, fluent reading, vocabulary, prior knowledge, etc.) necessary for reading comprehension (Paris & Hamilton, 2009) and define reading as an activity requiring motivation (Akyol, 2006; Ozbay, 2009). Students who gain proficiency in reading not only have good comprehension, but also value reading and demonstrate engagement for various purposes (OECD, 2019). Individuals’ engagement with reading and maintaining it depends on their personal motivations. Having a multidimensional structure, reading motivation is affected by intrinsic and extrinsic factors. In the present study, students’ intrinsic reading motivation was explored.
Literature Review

Reading Intrinsic Motivation

Reading motivation refers to various behavioral and affective characteristics related to reading (OECD, 2019) and is defined as the individual’s personal goals, beliefs, and values regarding the reading process, outcome, and subjects (Guthrie & Wigfield, 2000). It influences the time people will spend on reading, their reading tendencies, their effort in the reading process, and the pleasure they will get from reading.

The literature addressed the Self-Determination Theory (SDT) with a theoretical framework by separating intrinsic and extrinsic motivation (Ryan & Deci, 2000). According to SDT, individuals' reasons for reading differ from each other. People who are extrinsically motivated to read continue their reading activities being dependent on external factors such as grades, praise, and awards (Ryan & Deci, 2000). Those who are intrinsically motivated to read continue reading because they perceive the act of reading itself as satisfying and enjoyable.

Intrinsic reading motivation (Schiefele et al., 2012), which has a multi-factor structure, is analyzed by many researchers in terms of curiosity, interest/pleasure and challenge (Guthrie et al., 1999). Curiosity is the desire to learn more about topics that are of personal interest (Wang & Guthrie, 2004). Used in the sense of enjoying reading certain types of material, interest/pleasure emphasizes that reading is considered an enjoyable activity. Challenge/involvement refers to volunteering and involvement in working with reading materials of varying difficulty levels (Baker & Wigfield, 1999; Yildiz, 2010; Zhang et al., 2020).

Readers with high intrinsic motivation can easily continue the act of reading for long periods of time. Individuals with low reading intrinsic motivation, on the other hand, cannot continue reading for a long time and generally tend to avoid reading (Wigfield & Guthrie, 1997). Guthrie and Coddington (2009) classified readers into four groups based on their intrinsic motivation and avoidant behavior, namely avid, aversive, apathetic and ambivalent. Studies on reading motivation can make a significant contribution to identifying students' intrinsic motivation profiles closely, encouraging them to read, and increasing their reading engagement (Kurnaz, 2019).

Studies conducted in the last quarter century revealed that intrinsic reading motivation affects reading success and the amount of reading. In these studies, reading achievement is generally measured with reading comprehension tests (Froiland & Oros, 2014) and the reader’s level of establishing a situation model (Kintsch, 1998) is determined from the information obtained from the text base of the reader. A significant relationship between reading comprehension determined in this way and intrinsic reading motivation (Andreassen & Bråten, 2010; Kurnaz, 2018; Law, 2009; Yildiz, 2010) was revealed. For example, Schaffner and Schiefele, (2013) found that a significant part of the variance of reading comprehension (β = .28) was predicted by reading intrinsic motivation. This effect makes it important.

Variables Affecting Intrinsic Reading Motivation Level

The level of intrinsic reading motivation is affected by many factors, especially by demographic variables. Previous studies on reading put forth that there is a significant decrease in students’ reading motivation depending on their grade level (Atas, 2015; Miyamoto et al., 2020; Unrau & Schlackman, 2006). For example, in their longitudinal study, Unrau and Schlackman (2006) revealed that there was a statistically significant decrease in middle school students’ intrinsic reading motivation scores that were taken one year apart. It is a known fact in education that general motivation decreases with the increase in grade level. A meta-analysis conducted on 107 longitudinal studies on school motivation showed that an increase in grade level has a significant effect (Glass’s ∆ = -.108) on motivation (Scherrer & Preckel, 2018). The decrease in students’ intrinsic reading motivation over time is usually explained by the intensification of school subjects and the decrease in recreational reading during their leisure times.

Another demographic variable that has an effect on intrinsic reading motivation is gender. Previous studies (Kurnaz & Yildiz, 2015; Schaffner et al., 2013; Yildiz, 2013) put forth that female students have a higher level of intrinsic reading motivation than male students. For example, in their study with 5th grade students, Schaffner et al. (2013) determined that gender has an important effect (β = 0.26) on reading intrinsic motivation. Just like affecting reading intrinsic motivation, gender also affects the reading amount (Wang & Guthrie, 2004) and the type of book read (McGeown et al., 2016). In their study with elementary school students, McGeown et al. (2016) determined that gender significantly predicts the time spent on reading fiction books, factual book and comics.

In addition to the aforementioned demographic variables, familial factors also affect students’ intrinsic motivation levels. The socioeconomic level of students’ family (Atas, 2015; Clark, 2011; Katranci, 2015; Yildiz, 2010) and the characteristics (school type, school region etc.) of the school they attend (De Naeghel et al., 2014; Schaffner et al., 2016) affect students’ motivational beliefs about reading performance. Clark (2011), in her study conducted with students aged 8-12 years in England, determined that children with low socioeconomic status read less, spend less time reading, and have fewer books at home. A study conducted on PISA (the Programme for International Student Assessment) data (Perry & McConney, 2010) revealed that the socioeconomic status of the school significantly predicts student achievement.
Past achievements and habits on reading affect individuals’ intrinsic motivations and reading status (Conradi et al., 2014). In many studies on reading motivation, reading engagement is determined by the reading amount and reading frequency and these variables are reported to have an effect on intrinsic reading motivation (Lau, 2009; Logan & Johnston, 2009; Soemer & Schiefele, 2018; Wang & Guthrie, 2004; Wang et al., 2020). In her study carried out with students aged 11-18 years, Lau (2009) determined that there were significant relationships between intrinsic reading motivation and the amount of reading of both secondary and high school students. There is a reciprocal causal relationship between reading intrinsic motivation, and the amount of reading (Wang, et al., 2020). In the literature, the cycle between reading success and reading amount is often called the Matthew effect (Stanovich, 1986). Accordingly, depending on their past achievements, students are able to perceive themselves as competent, and those who perceive themselves this way develop more positive feelings about reading, enjoy reading activities more, and develop a higher level of intrinsic reading motivation (Wang & Guthrie, 2004). In this context, it can be stated that intrinsic reading motivation has an effective role in reading achievement and reading amount.

Since reading has a critical role in intrinsic motivation, reading achievement, reading amount, and reading frequency, it has been a subject of research by many people. On the one hand, the researchers examined the effects of intrinsic motivation on achievement and reading amount, on the other hand, they examined the variables affecting intrinsic motivation. Nevertheless, no study was found that addressed individual and socioeconomic variables affecting middle school students’ intrinsic reading motivation together and revealed the effect power of the variables.

**Methodology**

**Research Goal**

Determining the strongest predictors of intrinsic reading motivation can contribute to what should be focused on more in training given to improve the reading skills of individuals. Accordingly, the purpose of the present study is to determine the predictive power of individual and socioeconomic variables affecting middle school students’ reading intrinsic motivation.

Aiming to determine the variables predicting middle school students’ reading intrinsic motivation, the present study employed the predictive correlational design. In studies where predictive correlational design is used, the dependent variable is predicted based on the independent variable (Fraenkel et al, 2012). In such studies, when two or more predictive variables are used, the design is called multifactorial predictive correlation (Buyukozturk et al., 2012). In this study, middle school students’ individual (demographic characteristics and reading engagement) and socioeconomic characteristics (family characteristics and school) were determined as predictive variables, whereas their intrinsic reading motivation was determined as the predicted variable.

**Sample and Data Collection**

The participants were selected from students who were attending various middle schools in the city of Sanliurfa in the 2019-2020 academic year. The stratified purposeful sampling method, which allows comparing the characteristics of certain subgroups, was chosen for the determination of the study group (Buyukozturk et al., 2012). Six public schools located in neighborhoods of different socioeconomic levels (lower, upper and middle) were selected in accordance with this method. 459 students attending the schools included in the sample participated in the study. Information on the students in the study group is presented in Table 1.

<table>
<thead>
<tr>
<th>Table 1. Demographic Information of the Participants in the Study Group (N=459)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographic Features</strong></td>
</tr>
<tr>
<td><strong>Gender</strong></td>
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<tr>
<td>Female</td>
</tr>
<tr>
<td>Male</td>
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<tr>
<td><strong>School</strong></td>
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<tr>
<td>Lower</td>
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<tr>
<td>Middle</td>
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<tr>
<td>Upper</td>
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<tr>
<td><strong>Grade</strong></td>
</tr>
<tr>
<td>5th grade</td>
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<td>6th grade</td>
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<tr>
<td>7th grade</td>
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<tr>
<td>8th grade</td>
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<tr>
<td><strong>Mother’s education level</strong></td>
</tr>
<tr>
<td>Analphabet</td>
</tr>
<tr>
<td>Primary school</td>
</tr>
<tr>
<td>Middle school</td>
</tr>
<tr>
<td>High school</td>
</tr>
<tr>
<td>College and upper</td>
</tr>
</tbody>
</table>
Table 1. Continued

<table>
<thead>
<tr>
<th>Demographic Features</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Father's education level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analphabet</td>
<td>28</td>
<td>6.1</td>
</tr>
<tr>
<td>Primary school</td>
<td>129</td>
<td>28.1</td>
</tr>
<tr>
<td>Middle school</td>
<td>75</td>
<td>16.3</td>
</tr>
<tr>
<td>High school</td>
<td>120</td>
<td>26.1</td>
</tr>
<tr>
<td>College and upper</td>
<td>107</td>
<td>23.3</td>
</tr>
</tbody>
</table>

In the study, data on intrinsic reading motivation and personal information were collected. The "Intrinsic Reading Motivation Scale" (IRMS) (Kurnaz, 2019) was used to determine the students' reading intrinsic motivation, and the "Personal Information Collection Form" (PICF) was used to determine their participants' personal information.

The IRMS developed by Kurnaz (2019) is theoretically based on the Motivation Reading Questionnaire (Wang & Guthrie, 2004). The 18-item scale has three sub-dimensions: curiosity (7), interest (5), and perseverance (6). The response format of the scale was 4-point Likert type (strongly disagree to strongly agree). The calculated reliability coefficient of the scale was at an acceptable level (α = .85). The values calculated over the data of the this study showed that the scale was reliable at an acceptable level (α =. 86).

The PICF was developed in order to determine the students' characteristics. The PICF included questions about students' demographic variables (gender, grade level), family information (parents' education level, whether parents read at home, family reading time, number of books at home), and reading engagement (liking the Turkish course, reading frequency, the number of books read previous year, asking recommendations of books to read). The questions were directed to the students in a multiple-choice format.

The study data were collected in January 2020 using the aforementioned data collection tools. The necessary permissions were obtained from the schools in the study group and two classrooms from each school were used randomly. The study purpose was explained to the students in these classrooms and they were asked to participate in the study voluntarily. The aforementioned measurement tools were administered by the second researcher with the help of the Turkish teachers in one period. Before the administration of the tools, a conversation was made with the students about how they should fill them.

Analyzing of Data

In the study, the hierarchical regression analysis was performed to determine the predictive power of the factors related to middle school students' reading intrinsic motivation. Categorical variables can be included in the analysis as "dummy" variables in regression studies (Xie & Powers, 2000, as cited in Anil, 2009). The discrete variables in the study were transformed into dummy variables and included in the analysis. The codings for these variables are listed below.

In the demographic variables factor, gender (1=female, 0=male) and grade level (1=5th grade, 0=other) were coded as a dummy. In the family factor, parent education level consisting of five categories (1=elementary school, 0=other), whether parents read at home consisting of two categories, (1=reading, 0=not reading), family reading time consisting of two categories (1=present, 0=not present), and the number of books at home consisting of six categories (1=more than 501 books, 0=other) were coded as a dummy. In the school factor, consisting of three categories, the socioeconomic regions where the schools were located were coded as “1” (upper socioeconomic region) and “0” (lower and middle socioeconomic regions). In reading engagement factor, liking the Turkish course consisting of four categories (1=quite a lot, 0=other), reading frequency consisting of five categories (1=every day, 0=other), the number of books read previous year consisting of five categories (1=21 and above books, 0=other), asking book recommendations to read consisting of two categories (1=yes, 0=no) were coded as a dummy.

In order to perform regression analysis, the data set must meet some assumptions. These are not to have missing data and outliers, meeting normality and linearity, and not to have multicollinearity (Tabachnick & Fidell, 2013). In this context, first, whether there were outliers related to the single and multiple variables in the data set was examined. For this purpose, variables' z-scores and Mahalanobis distance coefficients were calculated. After the removal of 19 forms whose z-score exceeded ± 3 and Mahalanobis coefficient exceeded 22,362, the analysis was carried out with a data set including 440 students.

Kurtosis and skewness values were calculated and skewness coefficients were in the ± 2 range (George & Mallery, 2016). While examining the assumption of multiple common linearity, the criteria of correlation between variables being less than .70, VIF values being less than 10, and condition index being less than 30 (Durmuş et al., 2011) were taken into consideration. These criteria showed that there was no multicollinearity problem in the data set. According to the scatter plot made, the absence of a relationship between covariance and error terms can be interpreted as assumptions being met.
After ensuring the appropriateness of the data set for analysis, demographic variables (gender and grade level) were included in the model in the first step of the hierarchical regression analysis. In the second step, variables related to the family factor, in the third step, the variable of the region where the school was located, and in the fourth step, variables related to reading engagement were included in the model. According to the literature, individuals’ past reading achievement and their reading engagement significantly predict their intrinsic reading motivation (Soemer & Schiefele, 2018; Wang et al., 2020). For this reason, school, demographic and familial variables were used as control variables.

Findings / Results

In this section, the results and tables in line with the problem statement of this research are included. In this context, descriptive statistics for students’ reading intrinsic motivation levels are given in Table 2.

Table 2. Descriptive Statistics regarding Intrinsic Reading Motivation (N=440)

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Min</th>
<th>Max.</th>
<th>( \bar{X} )</th>
<th>SD</th>
<th>Skew.</th>
<th>Kur.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading Intrinsic Motivation</td>
<td>440</td>
<td>1</td>
<td>4</td>
<td>3.08</td>
<td>0.41</td>
<td>.06</td>
<td>-.31</td>
</tr>
</tbody>
</table>

In the interpretation of the arithmetic mean scores in Table 2, the IRMS being four-point Likert type was taken into consideration. Accordingly, the intrinsic reading motivation of the students participating in the study was found to be at a high level (\( \bar{X} =3.08 \)). Students' intrinsic reading motivation mean scores were at the level of “I agree” on the four-point Likert scale.

Second, the analysis and findings regarding the sub-problem of “Are the individual and socioeconomic variables a significant predictor of reading intrinsic motivation?” are presented in Table 3.

Table 3. Hierarchical Regression Analysis regarding Reading Internal Motivation (N=440)

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Intrinsic Reading Motivation (standardized beta)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Demographics</td>
<td>Step 1</td>
</tr>
<tr>
<td>Gender (female)</td>
<td>0.14**</td>
</tr>
<tr>
<td>Grade (5th grade)</td>
<td>0.12*</td>
</tr>
<tr>
<td>2. Parental socioeconomic status</td>
<td></td>
</tr>
<tr>
<td>Mother's education level (high)</td>
<td>-0.09</td>
</tr>
<tr>
<td>Father's education level (elementary)</td>
<td>-0.11*</td>
</tr>
<tr>
<td>Mother's reading habit (yes)</td>
<td>0.10*</td>
</tr>
<tr>
<td>Father's reading habit (yes)</td>
<td>-0.05</td>
</tr>
<tr>
<td>Family reading time (present)</td>
<td>0.16***</td>
</tr>
<tr>
<td>Number of books at home (More 500)</td>
<td>0.12**</td>
</tr>
<tr>
<td>3. School</td>
<td></td>
</tr>
<tr>
<td>Socioeconomic region of the school (upper)</td>
<td>0.12*</td>
</tr>
<tr>
<td>4. Reading engagement</td>
<td></td>
</tr>
<tr>
<td>Liking the Turkish course (always)</td>
<td></td>
</tr>
<tr>
<td>Reading frequency (every day)</td>
<td></td>
</tr>
<tr>
<td>Number of books read (21 and above)</td>
<td></td>
</tr>
<tr>
<td>Asking book recommendations (yes)</td>
<td></td>
</tr>
<tr>
<td>( F )</td>
<td>8.43***</td>
</tr>
<tr>
<td>( F_{change} )</td>
<td>8.43***</td>
</tr>
<tr>
<td>Adjusted ( R^2 )</td>
<td>0.03</td>
</tr>
<tr>
<td>( \Delta R^2 )</td>
<td>0.03</td>
</tr>
</tbody>
</table>

\( *p < .05; **p < .01; ***p < .001 \)

According to the regression analysis results in Table 3, all the models constructed in the study were significant (F=8.43; F=6.61; F=6.69; F=10.66). All the variables explained the intrinsic reading motivation with a 22% variance explanation percentage. The table showed that the model created with gender and grade level included in the first step explained 3% of the variance, and both gender (\( \beta=0.14, t=3.11, p=.002 \)) and grade level (\( \beta=0.12, t=2.56, p=.011 \)) contributed significantly to the model. In the second step, 9% of the variance regarding the intrinsic reading motivation was explained by adding the variables related to the family factor to the model (F=6.1, p <.001). In this way, the family factor increased the adjusted \( R^2 \) value from 3% to 9%. When the gender and grade level were controlled, the variables related to the family factor explained about 7% of the variance in the model. Among the variables related to the family factor, the variables that provided the most significant contribution to the model were family reading time (\( \beta=0.16, \))
The table also showed that the model created with the variable of the socioeconomic region of the school entered in the third step explained 10% of the variance and the school variable contributed significantly to the model ($\beta=0.12$, $t=2.58$, $p=0.010$). The variable of the socioeconomic region of the school alone explained 1% of the variance.

22% of the variance related to intrinsic reading motivation was explained by adding the variables regarding reading engagement to the regression model in the fourth model ($F=10.66$, $p<0.001$). The factor of reading engagement alone contributed 12% to the model. Among the variables related to the engagement factor, the variables that provided the most significant contribution to the model were liking native language lesson ($\beta=0.20$, $t=4.77$, $p=0.000$), reading frequency ($\beta=0.19$, $t=4.33$, $p=0.000$), the number of books read previous year ($\beta=0.16$, $t=3.56$, $p=0.000$), and asking for book recommendations ($\beta=0.08$, $t=2.02$, $p=0.043$).

As a result, it can be said that the change observed in intrinsic reading motivation variance mostly stemmed from reading engagement ($\Delta R^2=12$; $p<0.001$), family ($\Delta R^2=.07$; $p<0.001$), demographic characteristics ($\Delta R^2=.03$; $p<0.001$), and school ($\Delta R^2=.01$; $p<0.001$), respectively. According to these findings, differences in reading habits, family, demographic variables, and the region where the school was located contributed significantly to the change in students' reading intrinsic motivation.

**Discussion**

Differences arising from students’ behavioral engagement with reading, socioeconomic levels of their families, demographic characteristics, and the schools they attended caused changes in their reading intrinsic motivation. The striking findings obtained in the study are discussed below.

First, the study findings determined that gender and grade level predicted intrinsic reading motivation significantly (3%). Similar to this finding, many studies in the field of reading motivation put forth that girls compared to boys (Baker & Wigfield, 1999; Kurnaz & Yildiz, 2015; Schaffner et al., 2013; Wigfield & Guthrie, 1997) and younger children compared to older children (Atas, 2015; Baker & Wigfield, 1999; Miyamoto et al., 2020) have higher motivation. For example, in their longitudinal study, Miyamoto et al. (2020) followed students from 5th grade to 10th grade and revealed that the students’ intrinsic reading motivation constantly decreased as the grade level increased, and the motivation levels of girls were higher than boys at all grade levels. One of the possible explanations for the decrease in motivation as the grade level increases is that the awareness of older children compared to younger children increases and they start to experience various failures in their education (Castillo, 2020). Another possible explanation is that with the intensification in their school life, students do not have time to read for pleasure, and they read more about school assignments. Similar to the predictive effect of gender on intrinsic reading motivation in this study, McGeown et al. (2016) determined that gender was a significant predictor of reading fiction books (in favor of girls), factual books (in favor of boys), and comics (in favor of boys). Intrinsic reading motivation mostly refers to reading for pleasure. In this context, differences in gender may be the result of children beginning to internalize social stereotypes.

Second, in this study, familial variables had a significant effect on reading intrinsic motivation, in line with previous studies. The number of books at home, family reading time, father’s education level, and mother’s reading habits, which are all indicators of the socioeconomic level of the family, were effective on students’ reading motivation. The literature revealed that the socioeconomic status of the family is a significant predictor of reading motivation (Clark, 2011; De Naeghel et al., 2014; Katranci, 2015; Yildiz, 2010), reading achievement (Bahadir, 2012; Froiland et al., 2013; Gelbal, 2008; OECD, 2010) and academic achievement (Sirin, 2005). De Naeghel et al. (2014) determined that socioeconomically advantageous students scored significantly higher in reading motivation and reading comprehension than their disadvantaged peers. According to the results of a study conducted on the PISA 2009 data, the socioeconomic characteristics of Turkish students and the cultural assets they have at home significantly explain their reading comprehension achievement (Bahadir, 2012). In his meta-analysis study, Sirin (2005) put forth that socioeconomic status has a low effect on academic achievement. The effect of socioeconomic variables on both motivation and academic achievement can be explained by the role of familial factors in reading habits. Since reading is a cultural activity, the cultural atmosphere in the family environment can be effective in reading habits. An increase in socioeconomic opportunities can facilitate families to access cultural resources necessary for their children’s reading development. Since lack of resources and opportunities prevents students from having experiences related to reading, motivation may be negatively affected (Baker & Wigfield, 1999). It is believed that behaviors such as family members buying books for home, taking time to read, and participating in cultural activities related to reading are effective in creating a reading culture for students.

Third, the present study revealed that the variable of the region where the school was located (1%) had an effect on intrinsic reading motivation when demographic and familial variables were taken under control. Reading motivation is affected by environmental factors that children are in. Atas (2015) determined that the socioeconomic region where the school is located has an effect on reading motivation. Other studies on the school variable revealed that the school has an important role in the differentiation of students’ attitudes and motivations towards reading (Kozminsly &
Kozminska, 2001; Rogiers et al., 2020; Schaffner et al., 2016). De Naeghel et al. (2014) determined that school type (technical, vocational high school, etc.) predicts students’ reading motivation. It can be said that, in schools located in upper socioeconomic regions, as well as in schools that are more successful academically, students will do more activities related to reading and this will positively reflect on students’ reading motivation.

Fourth, the present study also revealed that the most influential variable on intrinsic reading motivation was reading engagement. Among the variables related to reading engagement, the level of liking the native language course had the most effect on reading intrinsic motivation. It is believed that teachers’ behaviors are effective in students’ liking the native language course and that this is reflected in their motivation. In the literature, teacher behaviors that support student autonomy during reading activities reflect positively on students’ reading pleasure and interests (De Naeghel et al., 2012; Lau, 2009). Lau (2009) reported that secondary and high school students’ perceptions of their reading education in their own classroom significantly predict intrinsic reading motivation ($\beta=.49$ and $\beta=.33$). According to the self-determination theory, teacher behaviors that encourage students’ independence, provide positive feedback, and encourage them to solve problems have a positive effect on intrinsic motivation (Ryan & Deci, 2000). In this context, it can be thought that native language teachers have an important role in the development of intrinsic reading motivation, and some of the practices these teachers contribute significantly to the development of motivation.

Finally, the present study determined that the reading amount, reading frequency, and asking for book recommendations, which are indicators of students’ reading engagement, had a significant predictive effect on reading intrinsic motivation. This finding has parallels with studies that showed that past reading achievement has an effect on intrinsic reading motivation (Logan & Johnston, 2009; Soemer & Schiefele, 2018; Wang & Guthrie, 2004), and intrinsic reading motivation increases the reading amount (Guthrie et al., 1999; Lau, 2009; Soemer & Schiefele, 2018; Wang et al., 2020). In their longitudinal study conducted with elementary school students, Soemer and Schiefele put forth that intrinsic reading motivation they measured in the first year predicted the reading amount in the next year, and this amount predicted intrinsic reading motivation measured in the third year. According to the Matthew effect theory in the literature (Stanovich, 1986) supporting these findings, the difference between good and poor readers’ reading competence increases over time due to the mutual relationship between reading skill and reading amount. Accordingly, good readers tend to read more because they have higher motivation, and as they read, both their motivation and their reading comprehension achievement improve more, whereas, for poor readers, this is the opposite (Pfost et al., 2012; Yildiz, 2013). Based on the findings of theoretical and practical studies supporting our research, it can be said that high intrinsic motivation is affected by past reading achievement and that increased motivation has an important role in reading that will be done in the future.

Conclusion

The present study defined the individual and socioeconomic variables affecting reading intrinsic motivation. The results obtained in this study showed that individual and socioeconomic variables were effective on students’ reading intrinsic motivation, which are consistent with the literature. The results of the hierarchical regression models created in the study revealed that 22% of the change in students’ intrinsic reading motivation stemmed from the differences between the family socioeconomic status, demographic characteristics, and schools. The change in intrinsic reading motivation variance mostly stemmed from reading engagement ($\Delta R^2=.12$; $p<.001$), family ($\Delta R^2=.07$; $p<.001$), demographic variables ($\Delta R^2=.03$; $p<.001$), and school characteristics ($\Delta R^2=.01$; $p<.001$), respectively.

Recommendations

Although there are some limitations in this study, various recommendations may be presented depending on the results obtained. It can be said that the predictors of intrinsic reading motivation determined in this study (reading engagement, family, demographic characteristics, and school) should be taken into consideration by educators. The decrease in intrinsic reading motivation can negatively affect the development of reading habits. Low motivation can lead to less reading and less cognitive improvement. In order to break this vicious circle, practices can be done to increase students’ intrinsic motivation for reading. According to the result of a meta-analysis examining the effectiveness of experimental interventions to increase reading motivation, such practices have a significant effect on motivation (g=.30) and comprehension level (g=.20) (McBreen & Savage, 2020). Support can be obtained from such practices to improve intrinsic reading motivation. Since students’ positive attitudes towards Turkish lesson increase their internal reading motivation and reading engagement, teachers’ behaviors that make students enjoy Turkish lessons can be investigated.

Limitations

There are some limitations affecting the generalizability of the results revealed in this study. The first of these is that the IRMS is a scale developed in the style of self-report. There are criticisms in the literature that self-report style scales cause reference bias and social desirability bias. When students try to give similar answers by referencing their classmates or give positive answers to please others, there may be bias in the responses (West et al., 2016). The second limitation of the study is related to the students in the sample group. The city chosen as a sample is generally known as
a region with a low socioeconomic level in Turkey. In this context, future studies can be conducted with students from different regions and with different types of measurement tools.

**Authorship Contribution Statement**

H. Kurnaz: Conceptualization, design, analysis, writing, editing/reviewing, supervision. G. Kurnaz: Data acquisition, editing/reviewing, supervision.

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