Why High-school Aged South Africans Read: Investigating Differences in Motivation and Reading Behaviour

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Abstract

Learners' motivation for reading is an important aspect that influences reading behaviour, with important implications for literacy levels. However, the relationship between motivation and reading behaviour has not been investigated in South Africa, despite this country's poor literacy levels. In this study, motivation for reading in 'book poor' high school-aged South Africans was investigated in relation to how much they read, in order to determine what aspect of motivation best predicts amount of reading. These aspects were: (a) intrinsic motivation, (b) extrinsic motivation, (c) social motivation, and (d) self-efficacy. Additionally, gender differences between these aspects of reading motivation and their associations with reading were investigated. This research was conducted with the involvement of an online reading programme called FunDza, which provides reading material to South Africans via a mobile phone application. FunDza users completed a mobile phone-administered questionnaire that investigated their motivations for reading. Data from 1014 participants were analysed by comparing questionnaire responses to the amount of reading that participants' did in a three month period, measured using online FunDza activity logs. Independent samples t-tests revealed that girls read more FunDza pages and exhibited higher motivation scores than boys. Multiple regression analyses revealed that significant predictors of reading amount were gender and self-efficacy. Separate results for each gender indicated that self-efficacy predicted reading amount in girls, and extrinsic motivation predicted reading amount in boys. A follow-up online discussion, involving forty FunDza users, revealed that intrinsic motivation and extrinsic outcomes, such as grades, also play an important role in encouraging FunDza users to read. These findings indicate the different ways in which to motivate high school-aged children from book poor environments to read.

Keywords: reading; motivation; literacy; school; South Africa

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As South Africa began its transition from an apartheid state to a democracy, education was highlighted as a crucial area in need of reform to help mend pervasive unemployment rates, facilitate social cohesion, and improve economic growth (Spaull, 2013). However, this reformation is not apparent in South Africa's current educational outcomes. In 2011, South Africa participated in the international Progress in International Reading Literacy Study (PIRLS) which examines the literacy levels of Grade 4 learners across the world. South African students who read in African languages, such as Sepedi, performed at a much lower level, on an easier literacy test, in comparison to international students (Howie, van Staden, Tshele, Dowse, & Zimmerman, 2012). However, Afrikaans and English students performed above the international level, demonstrating the legacy of South Africa's segregated past.

The National Education Evaluation Development Unit (NEEDU, 2013) investigated 215 Grade 2 classes across South Africa, and found 72% of the teacher-appointed best learners in each class to be reading below the average benchmark, and 22% to be on or below the poor benchmark. These findings were supported by the South African Annual National Assessments (SAANA) who reported a national average percentage of 43% for Grade 9 learners' Home Language and a First Additional Language average of 35% (Department of Basic Education [DoBE], 2013). This latter result is especially worrying as this language normally takes the form of English, which is in the process of becoming the predominant learning and teaching language in schools across South Africa (DoBE, 2013).

As a result, the SAANA report recommended that learners be encouraged to frequently read a variety of texts, as competence in reading is "inextricably linked" (p. 53) to scholastic attainment (DoBE, 2013). This is corroborated by recent findings that indicate the importance that reading for pleasure has on both personal and educational development (Clarc, 2011; Clarc & Rumbold, 2006). Thus, encouraging students to read and fostering a reading culture in which students engage in self-initiated reading as a leisure activity has been suggested to have important implications for literacy.

However, despite SAANA's suggestion and recent research, NEEDU (2013) found that the majority of school classrooms across South Africa contain very few reading books, which they attributed to a general indifference and disregard on behalf of teachers to encourage reading in school children. Many South African students attend schools with no libraries, leading to poorer reading achievement than those with well-resourced libraries

(Howie et al., 2012). Moreover, many South African households do not have the resources, such as books, necessary to promote higher reading achievement (Howie, et al., 2012). Students from these homes have been shown to score lower on reading achievement than those who come from homes rich in educational resources (Howie et al., 2012).

The FunDza Literacy Trust

The FunDza Literacy Trust was established in 2011 in order to address the problems discussed above. This organisation manages outreach programmes, such as the 'Growing Communities of Readers Programme', that aim to encourage reading as a pleasurable self-initiated activity, with the hope of increasing literacy skills (FunDza Annual Report, 2013). This is done by providing South Africans with easily accessible, engaging, and relatable reading material in an online format, either through FunDza's website or through users' mobile phones. In a survey of high school students at a Cape Town township school, 97% of participants reported using a mobile phone on the previous day, and 83% reported using a mobile phone on a typical day (Kreutzer, 2009). FunDza has used the popularity of the mobile phone to provide reading materials to students that would otherwise have very little access to books. FunDza users can access locally-written material in English, Afrikaans, Xhosa, Zulu, Sesotho, siSwati, and Sepedi through the mobile social application Mxit or FunDza's website. These stories are written by local authors, and are published by Cover2Cover books – the publishing house established by FunDza founder Dorothy Dyer.

The present research was conducted with the involvement of FunDza management in order to investigate the reading motivation of FunDza users currently engaging in self-initiated reading. Not only would this provide important information for the use of educational institutions, but for FunDza too. Discovering what motivates FunDza users to read would benefit the Growing Communities of Readers Programme by helping management to understand what underlies users' reasons for participating in the programme, thereby creating the potential to further improve on its effectiveness.

Reading Motivation

In order to investigate the extent of children's literacy skills, and why certain children outperform others in language and reading, many researchers working within the realm of education turned their focus to the motivation underlying reading behaviour (Wigfield & Guthrie, 1997a). Reading motivation, as it is referred to in the literature, has been conceptualized using a variety of constructs, which were adapted by Wigfield and Guthrie (1997b) into three sets of key constructs that were prominent in the motivation field. They are: (a) self-efficacy beliefs concerning one's ability to achieve; (b) the aspects that underlie

one's purpose for reading: value of achievement, intrinsic and extrinsic motivation, and goals for achievement; and (c) the social components of motivation. The authors then used these constructs to create a framework that explains reading behaviour using motivational concepts. Their framework consists of the motivational aspects: intrinsic and extrinsic motivation, social motivation, and self-efficacy. While the latter aspect may appear to be unrelated to "motivation" in the strict technical sense of the word, Wigfield and Guthrie (1997a) include it as an aspect of motivation due to the ways in which perspectives regarding one's own reading abilities may determine reading behaviour. For this reason, self-efficacy was included as an aspect of reading motivation in the present research.

These four motivational aspects form the focus in the current investigation as they have since been widely used in the literature concerning reading motivation (e.g. Lau, 2009; Logan, Medford, & Hughes, 2011; McGeown, Norgate, & Warhurst, 2012). They have also subsequently formed the basis for the development of a measurement tool that assesses reading motivation that has been, and currently is being, used widely in the literature. For these reasons, Wigfield and Guthrie's framework regarding reading motivation formed the foundation of the current research. What follows are key findings concerning the individual constructs that make up this model and their role in reading motivation.

Self-efficacy. Bandura (1997) defines the perceptions of self-efficacy as one's beliefs in one's capabilities to consolidate and initiate the particular courses of action required to produce a desired achievement. Self-efficacy influences what activities one wishes to engage in, the level of persistence one will exert, and the extent to which one will achieve. In the cases of reading and learning, self-efficacy and motivation are maintained through continuous self-evaluation of one's learning progress (Schunk, 2003).

Learners and young adults can become unwilling readers due to perceptions of low reading ability or inability to progress as well as their peers (Clarc & Rumbold, 2006). Gaining insights into reader efficacy is an important aspect of studying motivation, as those who perceive themselves as capable and efficient at reading are more likely to engage in reading than those who are not (Wigfield & Guthrie, 1997b). Significant differences have indeed been found between good readers' and poor readers' levels of reading efficacy, whereby good readers' high levels of reading efficacy were associated with increased reading skill (McGeown, Norgate et al., 2012).

Self-efficacy in reading has also been shown to influence reading motivation in children who are learning English as a second language (Lau, 2009; Protacio, 2012). Environments that foster self-efficacy, such as parental and teacher encouragement, are

recommended in order to encourage English learners to read (Howard, 2012). This is relevant for a South African context, in which the majority of learners do not speak English as a first language, and the national average mark for First Additional Language in Grade 9 is 33% (DoBE, 2013). Furthermore, many rural schools are beginning to implement English as the primary language of learning and teaching, despite their students' home languages being African languages (NEEDU, 2013).

Intrinsic and extrinsic motivation. It has been suggested that one's amount and range of reading are influenced by one's levels of intrinsic motivation (Lau, 2009; Wigfield & Guthrie, 1997b). Intrinsic motivation may include: one's desire to learn about a new and interesting topic, enjoyment from reading different forms of text and resources, gaining pleasure from reading something well-written and interesting, and whether one feels that reading is an important task (Wigfield & Guthrie, 1997b).

Intrinsic motivation has been linked to greater levels of reading literacy as it encourages an increase in frequency of reading (Becker, McElvany, & Kortenbruck, 2010; McGeown, Norgate et al., 2012). Those who are intrinsically motivated, that is, those who experience and perceive reading as an enjoyable activity, are inspired to do so more frequently, thus developing improved literacy skills. Interesting, compelling, and challenging materials have been found to influence intrinsic reading motivation (Cho, Xu, & Rhodes, 2010). Intrinsic motivation has also been suggested to be a significant contributor to the reading performance of those who struggle with reading, as those with poor skills but high intrinsic motivation are likely to persist when challenged with difficult information in order to satisfy an interest or improve their literacy skills (Logan et al., 2011; Protacio, 2012).

Extrinsic motivation may include: competing with and achieving more than peers, receiving a reward in acknowledgment of reading achievement, and reading in order to get good school grades (Wigfield & Guthrie, 1997b). Extrinsic motivation has been found to be significantly associated with reading among excellent readers (McGeown, Norgate et al., 2012). Once these readers have mastered the cognitive skills necessary for reading, outperforming peers or getting good grades may become the extrinsic factors that keep them motivated to read. Extrinsic motivators, such as appropriate tangible rewards, have also been suggested to increase reading motivation (Marinak & Gambrell, 2008; McGaha & Brent-Igo, 2012).

However, extrinsic motivation has also been found to be negatively correlated with reading skills, especially when taking into account prior reading performance (Becker et al., 2010). Early incompetence in reading leads to higher extrinsic motivation, for example, to

please one's parents. This kind of motivation may lead readers to only read when they are forced to, decreasing reading behaviour, and resulting in weaker reading skills. Similar findings report that extrinsic motivation is not a significant predictor of reading amount (Lau, 2009). This contrast in the literature makes extrinsic reading motivation a useful and interesting aspect of reading motivation to investigate.

Social motivation. Social reasons were proposed as the final aspect influencing reading motivation by Wigfield and Guthrie (1997b). This includes the sharing of experiences and values gained from reading with peers, friends, and family. One may be more motivated to read when there is a social network with which to discuss and share what one is reading, or has learnt from a text.

Participants in a student reading programme have expressed the ways in which the programme's sense of community kept them interested and motivated (McGaha & Brent-Igo, 2012). Furthermore, collective and shared learning has been found to be advantageous to those learning English, as peers help each other find meaning and understanding in difficult text (Cho et al., 2010). Other studies have found the importance of parents as reading role models, as well as integrating with English-speaking peers, as important motivating factors for those learning English (Howard, 2012; Protacio, 2012). Conversely, Hong Kong students have been found to have weak levels of social motivation, despite a collectivistic culture that would presumably inspire greater levels of social motivation when reading (Lau, 2009). Once again, these are pertinent findings for a South African context in which many students are learning English as a second language.

Gender differences. There is strong evidence that suggests gender differences in how much students read as well as what motivates them to do so. Differences in intrinsic motivation have been attributed to gender, with females consequently exhibiting more reading behaviour than males (McGeown, Goodwin, Henderson, & Wright, 2012). Females have also been found to show better reading comprehension, more frequency of reading, and a more positive attitude toward reading than males (Logan & Johnston, 2009). Furthermore, FunDza's user database consists of approximately 75% females (M. Hardie, personal communication, April 29, 2014), demonstrating the large discrepancy in gender-related reading behaviour, making this an important variable to consider in the investigation of reading behaviour.

Conclusion and Rationale for Research

The literature discussed above suggests a positive relationship between reading and motivation, with particular aspects of motivation outperforming others in predicting the amount that learners read; particularly intrinsic motivation (e.g. Becker et al., 2010; Logan et al., 2011; McGeown, Norgate et al., 2012) and self-efficacy (e.g. Lau, 2009; Protacio, 2012). Moreover, gender differences have been suggested, with girls demonstrating higher reading frequency and more favourable attitudes to reading than boys (Logan & Johnston, 2009; McGeown, Goodwin et al., 2012). This implies that there are particular motivational factors that influence how much learners read, and that there may be gender differences regarding these factors.

Despite these findings, there are currently no studies, to present knowledge, conducted in South Africa that specifically investigate what underlies the reading habits of South African youth, as have been conducted overseas. The only information comes from the PIRLS (2011) survey that provided brief information that lends considerable support to the topics under investigation in the present study. Specifically, learners achieved higher scores in comparison to their peers if they: were confident readers (self-efficacy); enjoyed reading (intrinsic motivation); and came from homes with parents who liked and encouraged reading (social motivation; Howie et al., 2012).

The gap in the South African literature concerning reading frequency in youth needs to be addressed considering the poor reading performance found across South African schools, and the lack of effort on behalf of school management to encourage a reading culture in schools (NEEDU, 2013). Increased literacy has been associated with enjoyment of reading and self-initiated reading outside of the classroom (Clarc, 2011). Therefore, motivating South Africans student to engage in self-initiated reading may be a useful and practical way to address poor literacy levels, without the difficulties of implementing country-wide policy and budgetary changes to curricula. Furthermore, such government-initiated changes would take years to implement, and decades to demonstrate any positive change. Addressing reading at the individual level is a direct method that would help to implement more rapid change in literacy levels. It is thus a beneficial endeavor to investigate what exactly motivates students to engage in self-initiated reading, both for the development of the individual as well as for the struggling education system in South Africa. This study thus provides important information as to what is motivating book poor South African youth to read voluntarily, in the hope of improving schools' and programmes' approaches to engage youth in reading and thus improve literacy skills.

Specific Aims and Research Questions

The primary purpose of this research was to investigate what aspects of motivation best predict the amount of self-initiated reading engaged in by book poor high-school aged South Africans. These aspects were drawn from the literature, and include: intrinsic motivation, extrinsic motivation, social motivation, and self-efficacy.

With regard to previous studies conducted on reading motivation, the following research questions were formulated and were investigated in the present study: which aspect of motivation best predicts reading amount? Are there gender differences in motivation for reading?

Method

Design and Setting

This research took the form of a cross-sectional study that used a quantitative and correlational design to examine: (a) four aspects of reading motivation and their relationship with amount of reading, and (b) gender differences in motivation and reading amount. Self-efficacy, intrinsic motivation, extrinsic motivation, social motivation, and gender served as predictor variables, and the number of FunDza story pages read over a three month period served as the outcome variable. This period was from 1 March 2014 until 31 May 2014. A follow-up qualitative design, in the form of a forum discussion, was also employed in order to further explore that which was found in the correlational analyses.

All data were collected online, through a brief mobile phone-administered questionnaire, as well as an online forum discussion on the FunDza application. The collection of data concerning how much users read was also collected online by FunDza administrators. Online activity logs, for the three month period, of those users who participated in the study were sourced by administrators, as well as these users' age and gender from their Fundza profiles. The use of an online setting was both time- and cost-effective and encouraged participation due to the decreased level of disruption that participation would have resulted in.

Participant Characteristics

This study's sample was recruited from FunDza's user database, consisting of South Africans currently engaging in self-initiated reading – making them an ideal sample from which to draw conclusions about how to motivate self-initiated reading. Therefore, convenience and purposive sampling methods were used. While the sample is not a random and thus nationally representative sample, it serves the purpose of providing information as to

the motivational mechanisms at play in those who are already involved in reading. These sampling methods were also both cost and time-effective. Questionnaires were completed by 3485 FunDza users and 118 users took part in the online forum.

Data were only analysed from South African participants between the ages of thirteen and eighteen, in order to make the results relevant to the study's population of interest, namely, high school-aged South Africans. The questionnaire sample thus decreased to 1180 participants aged between 13 and 18 years ($M = 16.67$, $SD = 1.24$), and the forum sample decreased to forty participants in this age bracket ($M = 16$, $SD = 1.66$). These participants can also be assumed to be 'book-poor' due to their participation in the FunDza programme, and can thus also be assumed to come from lower socio-economic backgrounds in comparison to those from more privileged homes.

These selection criteria were applied after the collection of data so as not to exclude any FunDza users from taking part in the incentive for participation (discussed below). FunDza users are male and female, although 75% of the database is female (M. Hardie, personal communication, April 29, 2014). Participants in the present study reflected this gender pattern, with a female sample size of 908 (76.9%) for questionnaire data, in comparison to a male sample of 272 (23.1%). This was also reflected in the forum responses, as only 18% of respondents were male and 82% were female.

Information on socioeconomic status and home language were not obtained, however participants are assumed to be competent English speakers as the FunDza website and application are run in English and the questionnaire was administered in English.

Measures

Questionnaire. The questionnaire used in this study was administered to participants via FunDza's Mxit application, meaning that it was completed with the use of mobile phones, and thus limited to the capacities of users' mobile phones. The Mxit application is predominantly used by those without smart phones, necessitating the use of one online page per question due to the hardware limitations of older phones. This method opened the study up to a large sample size as FunDza users typically use their mobile phones due to limited access to computers. The questionnaire thus had to be kept brief so that participants do not become fatigued or bored as they wait for each new question to load.

In order to aid comparisons with previous literature that used Wigfield and Guthrie's model on reading motivation, these authors' Motivations for Reading Questionnaire (MRQ) was selected as a measurement tool, due to its widespread use in the literature (e.g. Logan et al., 2011; McGeown, Goodwin et al., 2012; McGeown, Norgate et al., 2012; Mucherah &

Yoder, 2008; Unrau & Schlackman, 2006). However, in order to fit in with the mobile phone administration, the MRQ was dramatically shortened.

The original MRQ consists of 53 items to which a student rates his or her level of agreement from 1 = *very different from me* to 4 = *a lot like me*. Each category discussed earlier (self-efficacy, intrinsic-extrinsic motivation, and social motivation) is represented by questionnaire items that are further grouped into 11 constructs, discussed below. Scores are computed for each construct and divided by the number of items completed so that scores have a range of 1 to 4, aiding comparison between constructs (Wigfield & Guthrie, 1996). Wigfield and Guthrie identified these constructs as representative of reading motivation through interviews with learners and classroom observations (Wigfield & Guthrie, 1996). *Self-efficacy* is assessed by the constructs reading efficacy and reading challenge; *intrinsic motivation* is assessed by reading curiosity, reading involvement, importance of reading, and reading work avoidance; *extrinsic motivation* is assessed by competition in reading, recognition for reading, and reading for grades; and *social motivation* is assessed by social reasons for reading and compliance (Wigfield & Guthrie, 1997b).

Wigfield and Guthrie (1997b) investigated the internal-consistency reliabilities of the MRQ constructs, however, these scores were based on tests conducted using a primary school sample. Mucherah and Yoder (2008) tested the internal consistency reliabilities of all MRQ constructs using a middle school-aged population, making their results more applicable to the present study. These reliabilities were thus used in deciding which constructs to extract items from in the present study. Eight questions from the MRQ were thus extracted from the most reliable groups of constructs to make up the questionnaire, with two items representing each variable under investigation (see Appendix A). *Self-efficac*y was represented by questions from reading efficacy (.68) and challenge (.77); *intrinsic motivation* was represented by questions from curiosity (.72) and involvement (.7); *extrinsic motivation* was represented by questions from competition (.76) and grades (.68); and *social motivation* was represented by questions from social (.73). Due to a lack of information regarding item-by-item reliabilities, individual items were chosen according to their clarity. The questionnaire could not contain more than ten questions due to the limited capacity of older mobile phones and it was assumed that not all participants would be as competent in English as their American counterparts for whom the measure was developed. Therefore, the most clearly and simply formulated items were chosen from their groups. For example, in the reading efficacy group, "I am a good reader" was a clearer and more straight-forward representation of self-efficacy than "I learn more from reading than most students in my class". An additional two questions

were included in the questionnaire that were specific to the FunDza programme for use by the organisation's trustees: "I look forward to the next chapter of each FunDza story" and "FunDza's competitions encourage me to read more".

It is important to recognise the limitations of the very brief questionnaire early on. Representation of the variables under investigation by only two items each is not ideal, however there were no alternatives due to the time and cost limitations of the present study. Moreover, a longer questionnaire would not be possible to administer via mobile phone as many FunDza users do not use smart phones thus dramatically increasing the time it would take to complete the survey, likely resulting in fatigue and drop-out. Mobile phone administration thus led to some limitations, which will be fully discussed later on, however it also afforded the study strength and power in terms of the associated large sample size.

Forum. The online forum had no particular measurement device due its open and qualitative nature. The question page consisted of a brief introduction to the present research and a request to discuss what motivates FunDza users to read (see Appendix B). A few example questions were provided in order to provide a clearer understanding of what exactly was being asked, such as "do you feel like you are good at reading?". Participants who completed the questionnaire as well as those who participated in the forum were assured that if they voluntarily participate, their personal information and responses would be kept anonymous.

Procedure

This research was conducted in accordance with the University of Cape Town's ethical guidelines regarding studies conducted using human participants. Ethical approval was granted by the university's Department of Psychology Research Ethics Committee. Parental consent was not sought for participants as this study could cause no harm to participants, and took place under the umbrella of FunDza user research, which takes place fairly regularly with informed and voluntary participation by users. Participation occurred online, preventing any disruption of daily activities as the participants could choose when and where to participate. Access to participants' private information, such as full name, was kept private by FunDza and participants were made aware of this when signing off on assent.

FunDza began by sending out an invitation to complete the questionnaire to all of the users in its database via the Mxit application. This invitation thus reached approximately 50 000 people. Users logged onto the FunDza application on their mobile phones and saw that they had a message from the site in their inbox. The message invited users to complete the questionnaire, subsequently becoming entered into a competition where they could win

Mxit 'Moola' to the equivalent of R10 pre-paid airtime. The message contained a link that users could click on to be redirected to the questionnaire. Once users were redirected to the questionnaire, they were presented with a page that: briefly introduced the questionnaire, explained the incentive, contained informed assent, and had a box for participants to check to signify their agreement to participate (see Appendix A). Once users had read the invitation and signed off on informed assent, they clicked through to the next page, which contained the first question. Each question appeared on a new page due to the format of the mobile phone application.

Participants read and responded to ten questions by selecting the answer that most applied to them. This was proposed to take a maximum of fifteen minutes, and a brief analysis of the participants' online activity logs indicated that most participants completed the questionnaire in two minutes and two seconds. After completing the questionnaire, participants were thanked for their time and notified of their inclusion in the draw to win Mxit Moola. The questionnaire was available to complete from 10 June 2014 until 16 June 2014.

A similar process took place for the follow-up forum discussion. All FunDza users were notified of the forum, with an invitation to take part. The invitation contained a brief explanation of the current study and assent was assumed if users volunteered to participate (see Appendix B). They were assured that their responses would be kept anonymous. No incentive was offered to potential participants.

Data Analysis

Data were analysed using the statistical software programme SPSS (version 22.0) and significance was set at $\alpha = .05$ for all analyses, except those conducted on the entire sample. Significance was set at $\alpha \leq .001$ for these analyses as such a large sample may result in a low p-value due to the high number of participants rather than a true significant result (Lin, Lucas, & Shmueli, 2013). For all analyses, data were excluded on a list-wise basis, meaning that information from any participants associated with missing values was deleted. This may have occurred, for example, if a participant had left out a question in the questionnaire. This is the preferred method of data exclusion so as to eliminate the possibility that any variables with missing data were mistakenly included in the analysis (Field, 2007).

Before commencing any analyses, the data were cleaned in two ways: (1) data from participants outside of the ages 13-18 were deleted, as discussed above; and (2) data were deleted from participants who had read less than one FunDza page. This was done in order to reduce noise in the data from those who had only participated due to the incentive, yet still

retain data from participants who had read little. The sample was thus reduced by 166 participants to 1014 participants.

In all analyses, the predictor variables were: self-efficacy (S-E); intrinsic motivation (IM); extrinsic motivation (EM); social motivation (SM), and the outcome variable was the number of FunDza pages read by participants within the three month period ('Pages' hereafter). The outcome variable was investigated for normality, as this was a required assumption in all planned analyses. Pages was not normally distributed, with skewness of 4.18 ($SE = .071$) and kurtosis of 24.7 ($SE = .142$). For this reason, a natural logarithmic transformation was performed on Pages. As a result, skewness decreased to -.34 ($SE = .077$) and kurtosis decreased to -.563 ($SE= .153$). Both values are close to 0 which would indicate a normal distribution, but changed to negative values indicating an accumulation of high scores (Field, 2007). This was not surprising considering the characteristics of the sample – these participants were expected to already be motivated to read due to their pre-existing participation in the FunDza programme. Some have suggested that these statistics are not reliable indicators of normality (e.g. Wheeler, 2004) and so visual representations of Pages' improvements in normality after its transformation are presented in Appendix C.

In order to draw meaningful differences between the descriptive statistics of the male and female samples, one-tailed independent samples *t*-tests were conducted on boys' and girls' means for Pages, and means for all of the motivation scores. This was done in order to determine whether any gender differences in reading motivation and amount were significant. Levene's test for homogeneity of variance was not statistically significant for Pages ($p = .83$) however, it was significant for all of the motivation scores ($p < .001$). In these analyses, equal variances were not assumed and results were extracted after having undergone adjustments for the standard error of estimate and degrees of freedom, as is automatically performed by SPSS. Cohen's *d* was manually calculated for effect sizes. When assessing the normality of the motivation scores, these variables showed positive skewing, violating the assumption of normality. Again, this was not surprising due to the characteristics of the sample. No transformative corrections were applied to this variable as this test is said to be robust to violations of normality in cases of large samples, such as this one (Field, 2007).

Data were then examined according to the associations between how much the participants had read within the three month period and their motivational scores, using Pearson correlation coefficients. This was looked at within the entire sample ($n = 1014$) as well as according to gender, with separate analyses conducted on the male ($n = 218$) and female samples ($n = 796$). These correlations were investigated as a precursor to the multiple

regression analyses and to check for multicollinearity among the predictors. The correlations between the four motivational predictors were low (the highest being .37 between EM and S-E), however they were all significant, $p < .001$. Despite these significant relationships, the potential for multicollinearity was ruled out for two reasons: (1) the significant results are likely due to the large sample size which tends to inflate the likelihood of significant results (Lin et al., 2013) and (2) collinearity statistics suggested that all variables tolerate each other well. Tolerance values below 0.1 are cause for concern (Field, 2007); however, in this case the lowest tolerance statistic was .823 for self-efficacy and gender, indicating that all the variables do not share a problematic amount of variance.

Lastly, the relationship between the predictors and Pages was explored by conducting a backward stepwise multiple regression analysis. The outcome variable had already undergone a logarithmic transformation for the independent samples t-tests, and the variable was kept transformed for subsequent regression analyses. Due to the transformation of this variable, beta coefficients reported below have been exponentiated to aid accurate interpretation. The regression analysis was done in order to address the first research question: which aspect of reading motivation best predicts amount of reading? A backward stepwise method was chosen due to the inconsistencies in the literature – there was not enough evidence to securely construct a hierarchical model. Moreover, backward entry is preferable over a forward method, as forward entry may exclude predictors involved in suppressor effects, thus increasing the potential of making a Type II error (Field, 2007). The regression analysis was run on Pages and the four motivational predictors for the entire sample ($n = 1014$). Gender was also entered into the regression in order to assess whether gender plays any role in reading and motivation, thereby informing the second research question and subsequent analyses. This question asked: are there gender differences in motivation for reading? Backward stepwise regression models were thus created for boys and girls separately, in order to examine whether there are gender differences in the roles played by the motivational predictors in reading amount.

In all regression analyses, there were no obvious outliers or influential cases.

Results

Descriptive Statistics

The descriptive statistics for the motivational predictors and the outcome variable are presented in Table 1, including means and standard deviations for the entire sample. This was reduced to 1014 participants after cleaning the data as discussed above. Note that Pages is in its untransformed form for interpretive purposes. Table 2 contains these statistics for the motivational predictors of those participants who read zero FunDza pages and were subsequently removed from analyses. It is interesting to note, in light of the fact that participation was incentivised, that mean extrinsic motivation scores are higher than all other predictors in this sub-sample. Thus, those who had not read any Pages can be reasonably assumed to be extrinsically motivated to participate. The entire sample showed high scores for all motivational predictors. However, the average amount of Pages read by girls ($M =$ 804.37, $SD =$ 1345.17) was far higher than boys' ($M =$ 277.04, $SD =$ 540.85).

Independent Samples *t*-test

Results of the one-tailed independent samples *t*-test found that the difference in Pages between boys and girls was statistically significant, $t(1012) =$ -9.23, $p <$ .001 showing a medium to large effect, $d =$ 0.7 (Cohen, 1992). On average, girls also showed higher total motivation scores ($M =$ 31.23, $SD =$ 3.99) than boys ($M =$ 29.01, $SD =$ 5.05) – a difference that was also statistically different, $t(295) =$ -6, $p <$ .001, with a medium effect size, $d =$ 0.53 (Cohen, 1992). Moreover, differences in the average scores for all motivational predictors between boys and girls were statistically different showing small to medium effects between 0.24 and 0.45 (Cohen, 1992). As the focus of the present study is the relationship between these variables and amount of reading, these results were not pertinent to the overall investigation. However, the results of these *t*-tests are presented in Table 1.

Table 1

Means for Entire Sample

Variable	Girls	Boys	*t*	Total Sample
S-E	6.88 (1.32)	6.4 (1.68)	-3.92*	6.78 (1.42)
EM	7.25 (1.26)	6.94 (1.44)	-2.91**	7.19 (1.31)
IM	7.07 (1.28)	6.42 (1.61)	-5.46*	6.93 (1.39)
SM	6.34 (1.72)	5.67 (1.96)	-4.61*	6.2 (1.79)
Total motivation	31.23 (3.99)	29.01 (5.05)	-6*	30.75 (4.34)
Pages	804.37 (1345.17)	277.04 (540.86)	-9.21*	691 (1236.82)

Note. Means are presented with standard deviations in brackets. $n =$ 1014. * $p <$ .001
** $p <$ .01.

Table 2

Descriptive Statistics for Participants Who Read 0 Pages

Variables	Minimum	Maximum	*M*	
Self-efficacy	2	8	6.75	(1.42)
Extrinsic motivation	2	8	7.04	(1.42)
Intrinsic motivation	2	8	6.78	(1.23)
Social motivation	2	8	6.19	(1.76)
Total motivation	18	36	30.34	(4.36)

Note. Means are presented with standard deviations in brackets. $n = 166$

Correlations

Consistent with the literature, participants ($n = 1014$) reading amount was significantly associated with S-E, IM, EM, but not with SM (see Table 3). Despite being significant, it is important to note the low correlations between Pages and these motivational dimensions. This indicates weak relationships between reading and these variables – to be more fully explored in the regression analyses below.

Data from the female sample ($n = 796$) showed significant associations between Pages and S-E ($r = .14$, $p < .001$), IM ($r = .06$, $p = .039$), and EM ($r = .08$, $p = .016$), but not SM. Data from the male sample ($n = 218$) also showed significant associations between Pages and S-E ($r = .16$, $p = .008$), EM ($r = .19$, $p = .002$), and IM ($r = .17$, $p = .007$), but not SM.

Table 3

Correlation Between Pages and Predictors for Entire Sample

	S-E	EM	IM	SM	Gender
S-E	-				
EM	.370*	-			
IM	.317*	.314*	-		
SM	.265*	.231*	.173*	-	
Gender	.140*	.098*	.192*	.154*	-
Pages	.180*	.125*	.136*	.027	.278*

Note. $n = 1014$. *$p \le .001$.

Multiple Regression Analyses

Results of the stepwise backward multiple regression analysis on the entire sample ($n = 1014$) indicated that a model containing all predictors was significant, $F(5, 1008) = 23.7$, $p < .001$. However, a model containing only gender, EM, SM, and S-E was more significant,

$F(4, 1009) = 29.23$, $p < .001$. This finding was partially confirmed by the individual assessment of each predictor (see Table 4 for the coefficients). Only gender and SE were found to be significant predictors of Pages, as EM and SM were found to not be statistically significant according to the more stringent significance level applied to analyses on the entire sample. The model containing EM, SM, S-E, and gender resulted in a low Adjusted R^2 of .10, meaning that the model only accounted for 10% of the variation in Pages. The exponentiated unstandardized beta coefficients for the significant variables indicated that one unit increase in a self-efficacy score is associated with an increase of 1.2 Pages. Additionally, being female is associated with an increase of 3.4 Pages.

In brief, these results suggested that gender was the most significant predictor of reading amount for the entire sample, to be explored more fully below. In terms of the motivational predictors, S-E was the only significant predictor of Pages.

Gender analyses. In the female sample ($n = 796$), a model containing SM and S-E was the most significant model presented, $F(2, 793) = 9.91$, $p < .001$. The Adjusted R^2 was low, indicating that this model only accounts for 2.2% of the variation in reading amount of the female sample. Individual assessment of the predictors indicated that S-E was the only significant predictor, $B = 1.25$, $t(795) = 4.4$, $p < .001$.

In the male sample ($n = 218$), the most significant model offered was one containing only EM and IM, $F(2, 215) = 5.49$, $p = .005$. Adjusted R^2 was low, indicating that only 4% of the variation in Pages was accounted for by EM and IM. However, when assessing the individual predictors, only EM was significant, $B = 1.21$, $t(217) = 2.19$, $p = .029$.

In brief, these findings indicate that S-E best predicts reading in females, and that only EM predicts reading in males. However, it is important to note that Adjusted R^2 values and Pearson correlation coefficients were low, indicating that these relationships are weak.

Table 4
Coefficients for Stepwise Multiple Regression Analysis

	Unstandardized Coefficients		Standardize Coefficients			95% Confidence Interval for B	
	B	$SE\ B$	β	t	Sig.	Lower Bound	Upper Bound
(Constant)	15.93	.37		7.43	.000	2.04	3.5
S-E	1.21	.04	.14	4.16	.000	0.1	0.27
EM	1.11	.04	.06	1.96	.050	0	0.19
SM	0.93	.03	-.07	-2.05	.040	-0.13	-0
Gender	3.36	.14	.26	8.66	.000	0.94	1.45

Note. Unstandardized B values have been exponentiated.

Forum Results

The lack of statistical support for IM was surprising, especially as it was commonly reflected in the follow-up online forum. Eleven out of the forty (28%) participants identified stories that they read as being an important motivational force behind their reading behaviour. Note that the responses quoted here have been corrected for spelling. Most FunDza users participate in forums via their mobile phones, thus using 'text speak', which may require additional effort to understand. For some examples of unedited responses, see Appendix D. Examples of participants' intrinsic enjoyment of reading include: "I love reading FunDza because most of the stories are happening in our lives" and "I read because the stories open my eyes to the world that I cannot reach". These participants connected their reading behaviour with the stories provided by FunDza – commenting on the pleasure they experience while reading stories that teach and entertain them, and are relatable to their current circumstances. Thus, motivation to read is influenced by enjoyable content, as one participant commented "I just cannot put a good story down. I love reading". This enjoyment forms part of intrinsic motivation for reading (Wigfield & Guthrie, 1997b), which was well supported by the literature and thus surprisingly unsupported by the regression analyses.

The ability of reading to help lose oneself in a world different from one's own, and the stimulation of one's imagination that accompanies such a transition were mentioned by ten participants (25%). Many said that they felt they were taken places and could meet new people. For example: "I love that reading lets your imagination run through so vividly"; "it takes you to places beyond what you can imagine"; and "reading for me means escaping from the real world and meeting new people and places". This form of inner enjoyment also reflects intrinsic motivation for reading.

Increased knowledge, vocabulary, and English reading skills were prominently mentioned by participants. Nineteen participants (48%) spoke about the ways in which reading helps them learn and improve their English skills. For example: "reading … improves my vocabulary of the way I write, speak, and talk words"; "reading…helps my English vocabulary; and "reading improves my vocabulary and grammar, and it improves my pronunciation of words…I learn new words…use idioms correctly and enriches my mind with knowledge". These are all examples of intrinsic motivation – as the importance of reading is emphasized. Interestingly, this importance seemed to be related to extrinsic factors too, as many participants linked these improvements to better school work and long-term outcomes. Recognition was also cited, for example: "since I started school I had been the best

reader of all". Statistical results indicated that extrinsic motivation predicts reading in boys, and 57% of male respondents mentioned these improvements in English skills as important, demonstrating intrinsic motivation that is related to an extrinsic result – improving schoolwork and positive future outcomes.

These findings indicate support for intrinsic motivation, such as the pleasure felt by reading an entertaining story. Additionally, perceiving reading as important seemed to be related to extrinsic motivation, such as improving reading skills and subsequently achieving good grades and being recognised for one's reading proficiency at school.

Discussion

Motivation for reading is becoming increasingly emphasised for its importance in areas of learning and literacy (Gambrell, 2011). Yet, to present knowledge, no research has been conducted within a South African population, despite its potential far-reaching implications for education. Consequently, the purpose underlying this study was to address book poor high school-aged South Africans' motivation for reading, in association with the amount of self-initiated reading they engage in. Motivation for reading was investigated according to the framework set forth by Wigfield and Guthrie (1997b) – that is, broken down into four main components: intrinsic, extrinsic, social, and self-efficacy. Specifically, this study aimed to discover which of these components best predicts participants' amount of reading. Gender was also investigated due to differences found in boys' and girls' attitudes to and engagement in reading in the literature.

Descriptive data revealed various differences in the participants' amount of reading. Firstly, those who had not read any FunDza pages scored the highest in extrinsic motivation in relation to the other motivational variables. This was an interesting finding considering that an incentive was offered for participation in this study. Speculatively, this finding suggests that those who are not frequent readers may be motivated to engage with reading materials by extrinsic motivators. After all, by participating, these participants entered themselves into a competition that may result in them winning Mxit moola that can be used to purchase online stories provided by third-party publishers on the FunDza website.

Differences in reading amount were demonstrated between female and male participants, with girls reading over three times as many pages as boys, on average. This difference was significant, and showed a substantive effect. This result is in support of previous research that has suggested that girls show greater reading frequency than males (Logan & Johnston, 2009). Moreover, significant gender differences existed between all

motivational predictors, showing small to medium effect sizes – foreshadowing the separate regression analyses conducted on each gendered sample that was to follow.

A stepwise multiple regression analysis was conducted on the whole sample. This analysis revealed the motivational aspect self-efficacy to be the only significant predictor of reading amount for all participants. Additionally, gender was found to play an important role in the exploratory analysis as it was the most significant predictor of reading, showing the largest effect size *(B* = 3.36). Consequently, the separate multiple regression analyses performed on the male and female samples indicated that self-efficacy predicted reading in girls, and extrinsic motivation predicted reading in males. Intrinsic motivation was not significant in any analyses, contrary to wide support in the literature (e.g. Logan et al., 2011; Protacio, 2012). However, this variable was strongly supported in participants' responses to the follow-up online forum, in which FunDza users discussed why they read. Participants emphasized the story content provided by FunDza in particular, relating their enjoyment and appreciation for the stories, as well as the ability to be transported to "different places" via text. This conflicting support may be due to the very small number of items used to represent intrinsic motivation. These items may not have captured participants' intrinsic enjoyment of reading whereas open discussion may be more able to do so. Moreover, it is worth nothing here that the low Adjusted R^2 values associated with the models reported above are also reasonably assumed to be derived from this problem. Each motivational variable was only represented by two questions, thus it is unsurprising that these variables showed poor explanation of the outcome. Had the full MRQ been used, the amount of FundZa pages read by participants would likely have been better explained by the motivational variables, as seen in the statistical significance of the results and wide support in the literature. The lack of statistical significance of intrinsic motivation as a predictor is testament to this, as it was widely supported in the forum responses but not in statistical analyses.

Statistical support for self-efficacy was not surprising, as this construct is widely cited as a major influence over reading in the literature. Efficacy in reading encompasses the belief that one is or can be successful at reading, and the satisfaction gained from successfully accomplishing a reading-related task (Wigfield & Guthrie, 1997b). Past research has indicated that reading efficacy is associated with reading skill, with this association apparent in more skilled readers (McGeown et al., 2012b). Additionally, it has been reported to influence reading motivation in students learning English as a second language (Lau, 2009; Protacio, 2012). Statistical support for extrinsic motivation was a little more surprising than support for self-efficacy, as this component had the least support in the literature. In fact,

extrinsic motivation has been shown to not predict reading amount (Lau, 2009). It is important, and interesting, to note that these two significant predictors performed differently when looked at separately between genders. Self-efficacy significantly predicted reading in girls, and extrinsic motivation in boys.

Here, it is interesting to note the female bias in the whole sample, with 77% of participants being female – reflecting the FunDza database which is female-dominated (M. Hardie, personal communication, April 29, 2014). It has been suggested that the importance of self-efficacy beliefs in females is stronger in academic areas that are male-dominated, such as science and mathematics (Zeldin & Pajares, 2000). However, as seen in the female sample size and FunDza's database, the area of reading can be argued to be female-dominated, rather than male-dominated as in mathematics and science.

The data analysed here do not provide an explanation for the gender differences found in motivation for reading or why females dominate the FunDza database. However, a study conducted by Pajares and Valiente (2001) on writing efficacy may aid speculation in this case. These authors found that by examining participants' data through gender orientation beliefs, motivation beliefs were influenced according to whether one's beliefs encompassed more feminine or masculine stereotypes. Males with a more masculine orientation showed greater strengths in a performance-approach to writing, such as performing to impress a teacher – formulated as extrinsic motivation in this context. This suggestion is reflected by the significance of extrinsic motivation in predicting reading in the present study's male sample. Moreover, Pajares and Valiente (2001) found that girls and boys with more stereotypically feminine beliefs showed increased writing self-efficacy, self-efficacy for self-regulated learning, and self-concept in writing. These findings have been found elsewhere too, where identification with a feminine gender identity correlated more highly than a masculine identity with all factors concerning reading motivation, especially reading efficacy (McGeown, Goodwin et al., 2012). Again, this is reflected in the findings of the present study, where self-efficacy was the only significant predictor of reading in the female sample. Thus, these studies suggest that feminine-orientated beliefs are associated with higher self-efficacy, and male-orientated beliefs are associated with higher extrinsic or performance-orientated motivation. While these suggestions are beyond the scope of the current study's findings, especially as differences in boys' and girls' self-efficacy scores showed a small effect, they provide interesting insight into possible reasons for these differences.

Efficacy beliefs and attitudes toward school in boys have indeed been found to show closer relations to school and reading than girls, leading authors to suggest that achievement

in boys may be particularly important in developing positive attitudes toward schoolwork and reading (Logan & Johnston, 2009).

We know that self-efficacy is related to reading achievement and skill (McGeown, Norgate et al., 2012; Schunk, 2003) and that stronger senses of self-efficacy lead to better academic outcomes in boys and girls (Saunders, Davis, Williams, & Williams, 2004). We can thus assume that those who read less exhibit poorer reading skills than those who read more often and thus have lower competency beliefs. In this light, perhaps it is not entirely surprising that self-efficacy was not a significant predictor of reading in boys, considering boys were found to read less than a third of the amount of FunDza pages read by girls. There could be many explanations for why boys read less than girls, potentially leading to lower self-efficacy, one of which may be gendered belief systems as suggested by Pajares and Valiente (2001) and McGeown, Goodwin et al. (2012). For example, feminine beliefs may encourage reading in girls, leading to increased reading ability and reading efficacy beliefs. Masculine beliefs that are more orientated toward performance and extrinsic motivation may result in reading less, for example to please one's parents, leading to low reading ability (Becker et al., 2010) and thus low reading efficacy. It is also safe to assume that low efficacy beliefs are likely to discourage reading behaviour, resulting in the proliferation of low reading ability.

Extrinsic motivation for reading, such as to impress a teacher, please parents, or get good grades, has shown no correlation with reading amount (Lau, 2009). This is contrary to the present findings, where extrinsic motivation significantly predicted reading amount in boys. With reference to the work done by Pajares and Valiente (2001), this result may be due to identification with a masculine gender identity, in the same way that feminine traits have been associated with reading efficacy (Mcgeown, Goodwin et al., 2012). If the motivation to read is associated with femininity as suggested by McGeown, Goodwin et al. (2012), then it would make sense for those who identify with a masculine gender identity to be motivated by external forces, such as parents or grades, in order to appear masculine. Indeed, forum results did reflect male orientation to extrinsic outcomes. Out of the seven male participants who contributed to the online discussion, four said they read to improve schoolwork through increased vocabulary and English skills.

The fact that social motivation was not a significant predictor of reading in the multiple regression analysese was surprising, as the literature points to a relationship (Cho et al., 2010; Howard, 2012; McGaha & Brent Igo, 2012; Protacio,2012). This result was even more surprising considering FunDza's incorporation of social elements into their

programmes, such as platforms for online discussion. Future investigation into this variable is thus recommended, especially due to its links with fostering motivation to read in a second language (Howard, 2012; Protacio, 2012).

Strengths and Limitations

The main strengths of this study encompass the large sample size and measurement of reading amount– both of which are uncommon in investigations regarding reading motivation. These study features added power to the conclusions and an objective assessment of reading behaviour via online FunDza activity logs, eliminating the necessity to rely on self-reports of reading. There were also no practical alternatives to this form of administration, due to time and cost limitations of the present study. The strengths afforded by this method were, however, accompanied by various study limitations that should be improved upon in future studies such as this one.

Typically such investigations conduct a confirmatory factor analysis (CFA) in order to test the associations between test items or scores and the factors under study, such as the four motivational dimensions in the present study (Brown, 2006). These associations help to determine the number of factors that explain the variation and co-variation within a set of test items (Brown, 2006). An exploratory factor analysis (EFA) may also be preferable to perform, in order to determine that which is being measured is truly representative of the latent factors under study (Brown, 2006). Neither of these analyses were undertaken in the present study for a number of reasons: (1) a FunDza-administered questionnaire cannot contain more than ten questions, as they are administered to mobile phones that typically load one question per page. More than ten questions would lead to an extremely long duration for the participants, and likely elicit response disinterest, boredom and drop-out. Thus, it was impossible to send the full MRQ to participants in order to perform an EFA or CFA. The very brief version of the MRQ used in this study may have contributed to the weak results, thus, administration of the full MRQ is recommended. (2) The present study was subject to strict time constraints so that a pilot questionnaire could not be administered for factor analysis purposes before conducting the main study. Furthermore, FunDza sends out their own questionnaires throughout the year, and prefers not to have any of them administered too closely together, creating a small window of opportunity to administer the present questionnaire. Thus, a preliminary EFA or CFA was impossible in the context of the present study, but is highly recommended for further investigations such as these.

The brief version of the MRQ used in this study is not ideal. Only eight out of the original 53 items were used because of the mobile phone format, and due to a lack of item-

by-item reliability information, the items were chosen without objective discriminatory criteria, as discussed in the method section. This is likely to have led to the weak relationships found and low Adjusted R^2 values. Full use of the MRQ is recommended for a more complete investigation of reading motivation.

Another limitation is that participants' socioeconomic information and home language were not obtained, possibly influencing access to and experiences of FunDza, as well as general experiences with reading (e.g. access to books at home). This information was not obtained as it seemed practically impossible to provide enough space on the mobile phone questionnaire to attend to these details. Moreover, the sample consisted of young participants who are likely to be unfamiliar with the formulation of socioeconomic status. Future investigations are encouraged to systematically attend to these variables if possible to do so.

This sample was recruited from a database of FunDza users who are predominantly already engaging in self-initiated reading and can thus be argued to be already motivated to read. This was reflected in the generally high motivation scores. Future investigations would benefit from making use of an experimental sample who are already motivated to read, such as FunDza users, and a control sample who do not engage in any reading behaviours.

Lastly, it is important to keep in mind the limitations of the results obtained in the statistical analyses. Adjusted R^2 values were low, indicating that the motivational variables explained little of the variation in the amount of FunDza pages read by participants. This is intuitively appealing, as there are, of course, many other variables at play in reading behaviour, such as access to content. However, correlation coefficients were also low, suggesting weak relationships. As already discussed, this is likely due to the measurement of the variables under investigation. Finally, the results expressed in this study are all correlational and should not be interpreted causally.

Conclusion and Implications

Despite the limitations discussed above, this study suggests important information on reading behaviour in book poor school-aged South Africans – an effort that has not, to present knowledge, been undertaken until now. Results of this study have demonstrated that gender differences exist in both reading amount and motivation to read, concluding that girls read more on average than boys, and were more motivated to do so. Moreover, girls' reading was predicted by self-efficacy and males' was predicted by extrinsic motivation. This has important implications for educational settings, as increasing self-efficacy in school girls may be related to an increase in reading frequency, and thus ability (McGeown, Norgate et al., 2012; Schunk, 2003). For boys, extrinsic motivators such as improved grades and FunDza

reading competitions were found to be related to reading amount. While this result suggests the importance of extrinsic factors in motivating boys to read, I would also encourage an emphasis on self-efficacy in boys in order to foster long-term reading improvement and increase reading amount to the level of girls'.

The different effects of self-efficacy and extrinsic motivation on reading in boys and girls may be due to gendered stereotypes regarding reading (Mcgeown, Goodwin et al., 2012; Pajares & Valiente, 2001). For the development of long-term reading habits and improvement in abilities, it is important to break down these stereotypes and foster an environment where reading is promoted and recognised as important by the self. However, extrinsic factors may provide improvements on a short-term basis, for boys especially, such as the competitions run by FunDza to encourage participation in their reading programme.

There are a variety of ways in which self-efficacy can be incorporated into the learning environment. Self-efficacy predominantly surrounds perceived success in reading by oneself, however this may be increased by external agents such as teachers (Schunk, 2003). Teachers and reading programme administrators may employ social models into the learning process, and provide continuous feedback on improvements in reading (e.g. "your reading has improved so beautifully"; Schunk, 2003).

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Appendix A

Questionnaire and Informed Consent

The University of Cape Town and FunDza are conducting a study to look at peoples' reading habits. You can help by answering some questions that will provide this information, and help to improve the way FunDza works.

Answering these questions is completely voluntary and you may exit the survey at any time. Your answers will be kept confidential and all your private information will be kept secret by FunDza.

If you do complete the survey, you will be entered into a draw to win 1000 Mxit Moola.

Good luck and thank you!

☐ I have read and understand the above, and agree to participate in this study.

1. I know I am a good reader

    Very different from me | A little different from me | A little like me | A lot like me

2. I like hard, challenging books

    Very different from me | A little different from me | A little like me | A lot like me

3. I enjoy a long, involved story or fiction book

    Very different from me | A little different from me | A little like me | A lot like me

4. I have favourite subjects that I like to read about

    Very different from me | A little different from me | A little like me | A lot like me

5. I like being the best at reading

    Very different from me | A little different from me | A little like me | A lot like me

6. I read to improve my grades

    Very different from me | A little different from me | A little like me | A lot like me

7. I talk to my friends about what I am reading

    Very different from me | A little different from me | A little like me | A lot like me

8. My friends and I like to trade things to read

    Very different from me | A little different from me | A little like me | A lot like me

9. FunDza's competitions encourage me to read more

    Very different from me | A little different from me | A little like me | A lot like me

10. I look forward to the next chapter of each FunDza story

    Very different from me | A little different from me | A little like me | A lot like me

Appendix B

Invitation to Online FunDza Forum

FunDza is working with the University of Cape Town to find out more about why people enjoy reading FunDza stories and what makes readers come back for more. Help us out by adding your voice to the discussion and helping us understand how we can motivate more people to read. We'd love to know, for instance...

Have you always loved reading? What do you love about reading? What kind of books or stories do you enjoy reading? Did your parents read to you when you were little? Do you like reading because it helps you with your school work? Do reading competitions encourage you to read more? Do you feel like you are good at reading? Do you enjoy discussing books and stories with friends?

Let us know why you love reading and what would make you read even more! To participate, just answer some of these questions in the comment field and let us know how old you are.

Please note that your participation is completely voluntary, your identity will be kept secret, and your answers will be kept anonymous.

Appendix C

Natural Logarithmic Transformation of the Outcome Variable
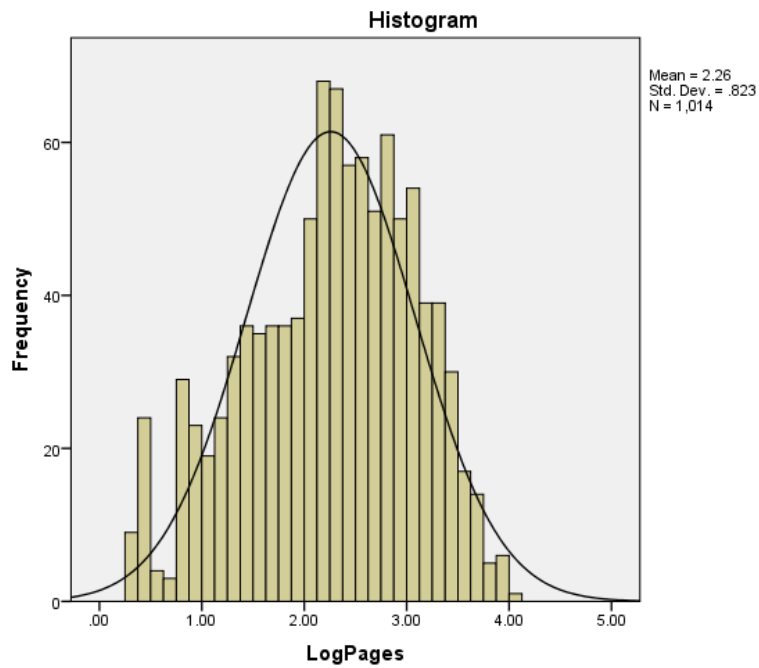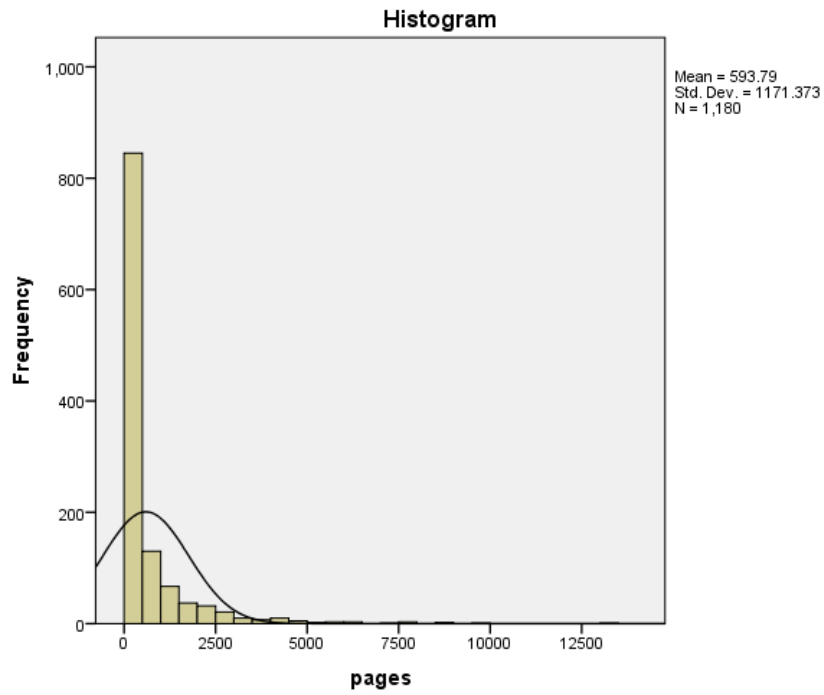
Appendix D

Examples of Unedited Forum Responses

luv readin cz it add knwledge ,n reading is my hobby ,fundza gvs mi courage 2 read ,ur stories are fascinating it toks abt thngs dat happen in our lyf,readin hlps my mind 2 grow n brightr ,i love readng am 18yrz old

I love reading fudza because most of stories thy are heppening in our lyfes nd teaches us how lyfe is it. I love to read funza stories cause some of them thy ar interestin a lot keep the good job of doin fundza most of the tyme dat i dnt enjoy readin my school books

Im 14 year-old n i luv reading,my mother lyk 2 read jst lyk i do,she tought me 2 read at an early stage whn i was young...since i started school i hd been the bst reader of all...reading is my future n i cn see that my future lay's upoun it!

PLAGIARISM DECLARATION

1. I know that plagiarism is wrong. Plagiarism is to use another's work and to pretend that it is one's own.

2. I have used the American Psychological Association (APA) as the convention for citation and referencing. Each significant contribution to, and quotation in, this essay/ report/ project from the work, or works, of other people has been attributed, and has been cited and referenced.

3. This essay/ report/ project is my own work.

4. I have not allowed, and will not allow, anyone to copy my work with the intention of passing it off as his or her own work.

5. I acknowledge that copying someone else's assignment or essay, or part of it, is wrong, and declare that this is my own work

SIGNATURE:

DATE: 30 October 2014

STUDENT NUMBER: