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The Influence of Television Series Viewing Engagement and Duration on Academic Performance of Jimma Secondary School Students

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Abstract

This study aimed to investigate how television series viewing engagement and duration influence academic performance of students in Jimma Secondary School. Using a retrospective design, 227 students were chosen by systematic sampling technique from 523 students who had spent time watching TV series between September 2020 and February 2021. Participants completed demographic data questionnaire and series watching engagement scale (SWES). The students' first semester evaluation results were also included, which were consolidated and used to measure the students' educational performance. Descriptive and inferential statistical methods of analysis (mean, SD, t-test, correlation, ANOVA and regression) were used. The statistical outputs were evaluated and interpreted after the data was filled into SPSS version 20. Accordingly, educational output of light TV viewers was higher ($M=84.97$, $SD=19.03$) than that of heavy TV viewers ($M=56.30$, $SD=7.23$), $t(225) = -16.027$, $p=.000$. In addition, students who scored high on SWES performed worse in school ($M=56.27$, $SD=7.17$) than students who scored low on SWES ($M=88.24$, $SD=17.01$), $t(225) = -18.801$, $p=0.000$. As SWES score increased, educational performance decreased and vice versa. The correlation of television viewing duration and educational performance of students was significant. Recommendations for comprehensive study are forwarded.

Key Words: / Academic Performance / Effect / Heavy viewers / Jimma Secondary School / TV Series Viewing/

1. Introduction

1.1 Background of the Study

In the twenty-first century, mass media has shown rapid technological development. Television is an integral and inevitable part of all forms of mass media, serving mankind as source of information, entertainment and education. Today, one can watch television via the internet, by means of mobile phone, and with the help of little pocket TV set. Its use by young children in particular has sparked debates and concerns among many

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researchers, as a result of their seemingly limitless access to the various types of contents, which could have effect on their growth, behavior, health, and learning (Adeyemo, 2007; Noor-Ul-Amin, 2013; Ofosu-Brako, 2022).

More than ever before, Ethiopians are now exposed to satellite television stations. The stations have high quality program production that appeal the attention and time of their viewers, and most of them have either a variety of entertainment programs or are exclusively entertainment channels. Over the past decades, this widespread introduction of television channels like Kana TV, EBS TV, ETV Mezinagna that use local languages, and other entertainment televisions that originate from the middle east like Dubai One, MBC One, Two, Three and Four, MBC Action and MBC Max has sparked fears among schools and parents. These channels broadcast appealing programs like dramas, movies, sports and game shows (Gera, 2017), and they present the most appealing ones in the evenings when school children have to engage in their home take assignments or studies. Hence, school children and the youth could be engaged in excessive watching of televisions like Kana TV, and that will obstruct the children's schooling and impede their academic achievement.

While there is no comprehensive research that indicates an overall decrease in all types of children's academic achievement, parents and teachers are heard complaining about the poor performance of school children following the introduction of entertainment satellite televisions in Ethiopia. For example, a study on Kana television viewing and its relationship with academic achievement of teenagers in Addis Ababa's secondary school education showed a negative effect of television on students' performance. The effect of this television could even be more since Kana TV is Ethiopia's most popular private commercial television station for broadcasting translated dramas 24 hours a day, with a market share of 34% (Habiba, 2016).

Conducting a study on parental concern towards the effect of 'inappropriate television content' and the practice of parental television mediation, Tigist (2014) has found that drama is one of the most popular television programs in Addis Ababa, having 94% of television viewers, and Kana TV is the most popular television channel among teenagers. The researcher however was unable to locate any local empirical studies that focused on adolescents' exposure to Kana television and its relationship to academic achievement in particular.

Adolescence is regarded as the most crucial stage in human development since it is during this period that a person transitions from dependency to independence. Adolescents' physical, emotional, legal, spiritual, interest and social outlook are all affected by watching television during this period. As Gentile (2003) argued, spending multiple hours using the media and violent behavior of children are so related that continues studies should be conducted, and that parents and professionals need to be cautious.

The current study focused on investigating effect of television series viewing engagement and duration on academic performance of students at Jimma Secondary School, Jimma, Ethiopia, during the 2020/21 academic year. Jimma is located in the south-west part of the country at a distance of about 350kms from Addis Ababa, the capital city of Ethiopia. It was founded in the late 1830s. There are about 14 secondary private and government schools in Jimma town, and Jimma Secondary School, where this study was conducted, is one of these schools. It was founded in 1936 enrolling 20 to 30 grade nine students. Now the school has enrolled over 2,000 students in grades 9th to 12th. According to Jimma Secondary School report (2021), the school was among the well-recognized ones in the south-west part of the country. However, over the past decades, the students' academic performance has been decreasing, and that has become a concern of the school management, teachers and parents.

1.2 Statement of the Problem

Children and teenagers may poorly perform at school as a result of watching television. There was some evidence that watching more TV was linked to less satisfying social relationships, less interpersonal interactions, poor reading skills, and poor school performance (Ambachew & Sofiya, 2019). Researchers like Amare (2014) and Comstock and Scharrer (2007) found correlation between a child's total hours spent watching television and his/her academic success. Anderson, Huston, Schmitt, Linebarger, and Wright (2001) indicated the “negative effects of television viewing, especially with respect to cognitive development, academic achievement, and active participation in society” (p.5). Ofosu-Brako (2022) also suggested that “more hours of television viewing has a negative impact on children’s academic performance and vice versa,” (p.275). Chonchaiya and Pruksananonda (2008) believe that television is to blame for slower language acquisition and lower academic achievement. In their study on the effect of TV viewing on study habits among high school going children in India, Raja and Reddy (2013) have found out that “children who habituated to TV viewing i.e., more than two hours are poor in their study habits” (p.514). Other studies also show television has negative effect on young people (Comstock and Scharrer, 2007; Ambachew & Sofiya, 2019; Ofosu-Brako, 2022).

On the other hand, many studies claim that the proper use of educational shows can serve as source of important information and help students improve their socialization and academic performance. For example, Hsin, Li and Tsai (2014) found that technology, one of which is television, “was related to young children’s development of multiculturalism” (p.95). Moreover, as a study by Kirkorian, Wartella, and Anderson (2008) revealed, “educational television programs, those designed around a curriculum with a specific goal to communicate academic or social skills, teach their intended lessons” (p.45). Schmidt and Vandewater (2008) also indicated that “high-quality educational television programs seem to have positive effects for children's learning, academic skills, and academic engagement” (p.77). As a result, the connection between television viewing and children's academic achievement appears to be a contentious issue that requires further investigation. It is not deniable that television teaches children a lot. As Kirkorian (2008, p.39) argued, to maximize the positive effects of educational media, parents need to provide positive guidance to their children by selecting well-designed, age-appropriate programs and viewing the programs with their children. This is because, if not controlled, too much television watching may have a negative effect on young minds in a variety of ways, including an effect on their academic success (Ofosu-Brako, 2022).

Hence, how could children balance the benefits of watching television with the risks of watching too much of it? The term "watching" is often used in discussions on how best to use television. Many students around the world watch television for long periods of time. Students lose time watching TV, according to researchers including Kakamad and Fatah (2018). They even have televisions in their rooms, allowing them to watch anything they want without their families' knowledge. They can watch comedies, glamorous films, cartoons, violent films, and educational programs or films, for example (Kakamad & Fatah, 2018). According to a study that was conducted in Guntur, Andhra Pradesh, India, the majority of students have the habit of watching television programs such as action films, horror programs, and cartoons for more than three hours per day (Nirusha, Daniel & Priya, 2015). The study concluded that the school going children behavior was affected by watching television (Nirusha *et al.*, 2015).

On the other hand, Gowon (2009) conducted research on effects of television and radio on speaking and writing skills of senior secondary school students in Jos Metropolis, Nigeria, and found that both television and radio have a positive effect on students' speaking skills. The results were interpreted in terms of what teachers should do to make better use of television in the classroom. Sharif and Sargent (2006) conducted a longitudinal research on the influence of visual media use on adolescents’ school performance to determine mechanisms for the effect of visual media use on adolescents’ school performance. According to their findings, screen viewing

time and media content had negative effects on changes in school results (*p*.1068). On the other hand, Milmine's (2015) research revealed an important connection between television watching and academic performance. The research focused on young adults' television watching, dating, and academics. Complete viewing and entertainment viewing, in particular, were found to be positively linked to missing class and procrastinating.

Binge watching is the phenomenon of watching television for long periods of time; it is watching several episodes of the same show in a row (Starosta & Izydorczyk, 2020). This is a common behavior among young adults, especially college students, and it represents a modern type of excessive television viewing (Dandamudi & Sathiyaseelan, 2018). According to this research, binge watching is driven by a variety of factors such as boredom, tension, isolation, social interaction, and habit-based addiction. Boredom may be temporarily relieved by watching television. Similarly, before the school year started, college students explicitly showed boredom during their free time as the primary explanation for binge watching in the summer (Dandamudi & Sathiyaseelan, 2018, *p*.43).

Binge watching, heavy TV consumption, and television addiction have all been related to detrimental consequences for college students' physical wellbeing, mental health, social interactions, and academic success. This common practice of binge-watching has recently raised questions about negative consequences. Thus, it is important to raise students' consciousness about the negative effects of binge television viewing by introducing prevention and training programs to help mitigate these effects (Dandamudi & Sathiyaseelan, 2018, *p*.48).

A research was conducted by Flayelle *et al.*, (2019) to determine binge-watching habits. They created questionnaires for "Motives for Watching TV Series" and "Binge-watching Engagement and Symptoms." which were distributed through an online survey (N=6556), along with additional indicators of affect, problematic internet use, and drug use. Factor analyses, both exploratory and confirmatory, as well as correlation analyses were made to test structural and external validity of the scales. This analysis provided theoretically-driven and psychometrically sound instruments on the negative outcomes of binge-watching habits (Flayelle *et al.*, 2019).

Only a few studies on the relationship between television watching and academic performance have been conducted in Ethiopia. Mulugeta (2018), for example, investigated the significant amount of time most secondary school students in Addis Ababa's Kolfe Keranio Sub-city are exposed to television and its association with their academic achievement. Although statistical findings of this study showed that there was no significant relationship between TV viewing and academic performance, the qualitative data revealed that there was association between them. There are several issues to raise as gaps of this study. First, this study analyzed only one channel, KANA; however, there are many other channels being viewed by the youth. Hence, findings could not be comprehensive. Secondly, there were inconsistencies of findings between the quantitative and qualitative data; which means, there is reliability problem. Third, the study setting, Addis Ababa is different from this one - Jimma.

Ambachew and Sofiya (2019) investigated the relationship between television viewing hours and academic achievement among selected secondary school students in Harer City. Descriptive data were used to examine the students' background details as well as their television viewing hours. The findings show that there is no statistically significant connection between television viewing hours and students' academic achievement. As the researchers concluded, it is possible to assume that television does not have a substantial effect on students' academic performance on its own.

The majority of the reviewed studies that link TV watching to academic performance were conducted in developing countries. There have been few studies that show watching television can be beneficial to (Hsin, *et al.*, 2014; Kirkorian, *et al.*, 2008; Schmidt & Vandewater, 2008) students while the other studies discovered various effects of television viewing on students' academic performance. However, the aforementioned studies did not look at any of the variables in the current study (television viewing duration, series watching

engagement, and educational achievement) at the same time; rather, they looked at each variable separately at different times and in different places. This is the other gap that the current researchers have found. Investigating the association of all these variables at a time and in turn could help us better understand the effect of series watching. Most importantly, to the knowledge of the researchers, there hasn't been any research conducted in Ethiopia on the effect of students' television series watching engagement (SWES) on their educational performance. The researchers have noted that a lot of Jimma Secondary School students have engaged in series watching of television drama, movies, and sports channels. This can be one of the factors which affect their academic achievements. While some students' parents and some residents of Jimma city were heard complaining that series watching engagement has affected their children's academic achievements, some others believe television watching has no effect on academic performance; rather, they perceive that it has a vital role in developing language skills of students and in providing them with additional knowledge. This also requires investigation. Accordingly, this study attempted to answer the following questions:

- What is the relationship between television viewing duration and academic performance?
- What is the relationship between television series viewing engagement and academic performance?
- What is the relationship between types of television series viewing programs and academic performance?
- What is the most influential factor which affects the academic performance of students?

2. Methods and Materials

2.1 Research Setting

The study was carried out in Jimma city which is at about 350km away from Addis Ababa, the capital city of Ethiopia. It was conducted in Jimma Preparatory School, the oldest and largest school in the town.

2.2 Research Design

A cross sectional survey study design was applied. Specifically a retrospective cross-sectional design type was used. The reason for using a retrospective design is that the study relied on studying the issues (television viewing and academic achievement) that occurred before the study period, in the past. Hence, the study was conducted from March 10, 2021 to May 1, 2021, but the data used for the study was based on series television engagement and academic performance of the students in the time period of September 13, 2020 to February 28, 2021.

2.3 Study Population

The study population was Jimma Secondary School grades 10th, 11th, and 12th students, all who watch television. The school has been teaching the highest number of students in the city; it enrolled over 2,000 students in grades 9th-12th during the 2020-21 academic years.

2.4 Sample Size, Sampling Procedure, and Sampling Techniques

According to a report of Jimma Secondary School (2021), in the academic year of 2020/21, the total number of Jimma Secondary School grades 10, 11, and 12 students was 1779. All these 1779 students were

asked to tell whether they were watching television or not by their homeroom teachers at each section of grades 10, 11 and 12. Then students who were viewing TV series during that semester were registered on a list. Out of this population, 523 had spent time in television series viewing since September 2020, first semester of the 2020/21 academic year. The study targeted 227 out of 523 students by using sample size formula of Slovin (1960). Students were selected by systematic sampling method according to the grade and section they were attending.

All students who were viewing TV series were listed again for verification according to their grades and sections beginning from grade 10 A to grade 10 L (12 sections), grade 11 A to grade 11 N (14 sections), and grade 12 A to grade 12 V (22 sections). These students, who had been on the list, were numbered from 1 to 523. Then, dividing total TV viewers' population N (523) to the sample size n (227) yielded 2.3 which was 2 to its nearest decimal value. This indicated that at every interval of two, samples had been taken from the list. The first sample was decided by random selection. Hence, the first student randomly selected by lot was number 2; the next samples were numbers 4, 6, 8, and 10, and so on up to 522.

Inclusion criteria: Male and female students were included. Students who were viewing television series from September 2020 to February 2021 were included. As exclusion criteria, those who had never viewed a television series program between September 2020 and February 2021 were not allowed to participate. Students in grades 9 were excluded from the study. This is because grade 9 pupils were not enrolled in that school until January 2021 since their grade 8 regional examination was delayed due to the outbreak of the Corona pandemic.

2.5 Instruments of Data Collection

The study used two instruments for data collection: questionnaire and Document review. The questionnaire had two parts. The first part covers the demographic characteristics, television watching duration, television watching style information such as the type of channel/ program they watch. The second part of the questionnaire comprises the series watching engagement scale adopted/modified and translated version of the 10 dimension with 38-item SWES. The scale was adopted and modified from Series Watching Engagement Scale (SWES) as per Tóth-király *et al.* (2017) and from Binge-Watching Engagement and Symptoms Questionnaire (BWESQ) as per Flayelle *et al.* (2019). The scale was originally developed in English but in the current study, the adopted scale was translated into Afan Oromo and Amharic languages. The tool is a simple and self-administered questionnaire. Respondents rated on a 7-point Likert scale about their series watching engagement. Data collectors who speak both Afan Oromo and Amharic collected the questionnaire.

The second instrument is document review. The consolidated marks of students were retrieved from Jimma Preparatory School's record room. The researchers categorized the students' marks according to the six classifications formulated based on the standard as: excellent (E-90-100%), very good (VG – 80-89%), good (G-60-79%), medium (M-50-59%), bad (B-40-49%), and very bad (VB<40%).

2.6 Procedure of Data Collection

Part one was completed individually before the SWES by all students in grades 10th, 11th, and 12th. This was done to find out which students watch TV and which students never watch in the previous semester. All pupils were given basic questionnaires, and data was obtained. The researchers then divided the pupils into two groups: those who had been watching television and those who had not.

Following the classification of the students, the likelihood of sample selection process was limited to students who had watched television. A list of these pupils has been compiled based on their grades and sections. The sample size was calculated using the sample size formula based on this information. After the

sample size was decided, respondents were chosen from a pre-prepared list of TV viewers using a systematic sampling technique. The Series Watching Engagement Scale (SWES), the second portion of the current study tool, was filled out by students who were chosen as samples on a different day. It was a self-reporting instrument that was translated into Amharic and Afan Oromo, the local languages. Furthermore, when data collectors were requested by respondents in Afan Oromo, they translated and made it brief in Afan Oromo during data collection. The researchers then collected the students' mark document or rosters of 2020/21 academic year's first semester consolidated mark; this was done to know and classify the students into very good (VG), good (G), medium (M), bad (B) and very bad (VB) based on their first semester average marks.

2.7 Determining Validity and Reliability

The face and content validities of the questionnaire was checked by experts working in the area in Jimma University and appeared valid. Verification was also made for the assumptions of parametric tests. The questionnaire was piloted on 13 randomly selected Jiren Secondary School students. As a result, the coefficients of reliability (Cronbach's Alpha) for the ten dimensional constructs escapism, enrichment, emotional enhancement, social, loss of control, engagement, dependency, desire, binge-watching and identification were $\alpha = .80$, $\alpha = .87$, $\alpha = .88$, $\alpha = .85$, $\alpha = .85$, $\alpha = .87$, $\alpha = .80$, $\alpha = .87$, $\alpha = .88$ and $\alpha = .87$ respectively; all values are found to be within an acceptable range ($\alpha \geq .80$).

2.8 Method of Data Analysis

These data entered into SPSS version 20 and the descriptive statistics, t-test, correlation, ANOVA, and regression analysis were delivered. The correlation of the mean values of SWES and educational achievements, as well as the correlation between mean values of TV watching duration and academic achievement was computed by Pearson product moment correlation. T-tests were used to compare mean differences on educational achievements between SWES scores categories and TV watching duration. One-way ANOVA and Post hoc analysis was applied for differences in grades 10, 11 and 12 students' educational performances.

Lastly, regression analysis was used to forecast the correlations, strength of the detected correlation, and the most influential factor on educational success among these variables for all factors and their corresponding educational successes. Based on the total mean scores of all variables and the significant mean differences that exist within these factors, all correlations and significant mean differences were computed.

2.9 Ethical Considerations

All the necessary ethical issues, including consent to willingly participate and confidentiality, were addressed in this study. As high school students mostly fall in adolescent/teen ages, a careful and smooth relationship/ contact was maintained to overcome age related behaviors. Before data collection, students were provided a piece of information about the purpose and content of the study, and they were requested to share the goals of the study with their parents for their consents for participation. Hence, only students who were willing to participate in the study were involved.

3. Result

3.1 Academic Performance of Respondents

As indicated in Table 1, 78 (34.4%), 74 (32.6%), and 75 (33.0%) were students of grades 10, 11, and 12, respectively. Fourteen (17.9%) of grade 10 students, 11 (14.9%) of grade 11 students, and 12 (16%) of

grade 12 students achieved very good educational performance. Nevertheless, this result indicates that only a few students had very good average while majority of them, more than 80% of each grade students, had either medium or bad educational performance.

Table 1

Frequency Distributions of the Respondents' Educational Performance

Students' Characteristic		Frequency			
		N	VG	M	B
Grades	Grade 10	78	14	60	4
	Grade 11	74	11	51	12
	Grade 12	75	12	57	6

Source (Survey, 2021; & JSS, 2021); Keyes: VG= very good; M=medium; B= bad

3.2 TVD, SWES, and TP Characteristics and Academic Performance of Respondents

The educational performance of students was classified in to six categories: Excellent (E), very good (VG), good (G), medium (M), bad (B), and very bad (VB). But their results fall only into three categories (VG, M and B), and there was not any student's result which falls in the G and VB categories. Such and other demographic data of the respondents are given in Table 2.

Table 2

Frequency Distribution of the Respondents' Educational Performance by TVD, SWES, and TP

Students' Characteristic		N	VG	M	B
TVD	Heavy	186	7	157	22
	Light	41	30	11	-
SWES	High Score	190	7	161	22
	Low Score	37	30	7	-
Series Program	Entertainment	199	17	160	22
	Educational	28	20	8	-

Source (Survey, 2021; & JSS, 2021)

In Table 2, regarding the time students spent in viewing television, it is indicated that 186 (81.9%) and 41 (18.1%) of the total were heavy and light viewers, respectively. It is calculated based on the cut point,

average duration of television viewing per a day (2 hours) and respondents were categorized as heavy viewer when they viewed for more than the average time, and as light viewer when they view TV for less than the average time. Out of 186 heavy viewers, only 7 (3.7%) were in a very good educational performance but from those light viewers 30 (73.1%) were in a very good educational performance.

The same was true for SWES score. Out of the 190 students who scored SWES high, only 7 (3.6%) of them had very good semester average, but of the 37 students of low SWES score, 30 (81%) had very good semester average. No one had bad semester average with light viewing and low SWES score. This implies that heavy time viewing and high SWES had negative implication on the educational performance of the students.

Table 2 also illustrates the type of series programs students watched. These programs were classified into two categories: entertainment (drama, movies, and sports) and educational (lessons). Out of the 199 students who viewed entertainment programs, only 17 (8.54%) scored very good results while out of the 28 students who viewed educational lessons, 20 (71.43%) scored very good results. This data also shows the relationship between the type of program they viewed and their educational achievements.

3.3 String Characteristics of Students

Students from Jimma Secondary School who watched a series of television shows used 9 channels. Among them the most viewed channels were Fana TV 50 (22%), Kana 46 (20.3%), DSTV 38 (16.7%), EBS 37 (16.3%), OBN 23 (10.1%), and EBC 12 (5.3%). The rest Ahadu, Kana, and EBC (those who view all), Kana and EBS (those who view both), Walta and Fana (those who view both), DSTV and Kana (those who view both), and Fox Movie totally comprised 7.9 %. These data showed that “Zetegnaw She” series program of Fana, translated foreign series movies of Kana, series sport channels like the English premier league of DSTV, series drama of EBS, and series educational lessons of OBN were the most dominant series programs being viewed by the students.

Respondents who had access to television at their own home were 170 (74.8%), who viewed TV in Café 38 (16.7%), in neighbor’s home 12 (5.3%), both in home and in café 2 (0.9%), and those who viewed TV using smart phones at their hands were 5 (2.2%). The device they mostly used was TV set 222 (98.8%), and the least used was smart phone 5 (2.2%). These results indicate that the greatest number of students viewed television at their home on TV set. Only a few students viewed TV in their neighbors’ home and using smart phones.

3.4 The Magnitude of Educational Performance by SWES Score, Type of Program, and TVD

TV viewing duration of people is usually labeled as light TV viewers and heavy TV viewers. Viewing television for 2 hours a day is an average duration as per Tóth-király *et al.* (2017). Based on these references, the current study categorized students who view television for more than 2 hours a day as heavy viewers and those who view television for less than the average, 2 hours a day, as light viewers. To know students’ performance, marks from students (roster report) were used. They were consolidated and taken up for the assessment of academic performance. This students’ academic performance was categorized as very good (80-100), good (65-79), medium (50-64), bad (40-49), and very bad (below 40) according to Li (2017). Based on the classifications and computed mean values of respondents, the table below shows independent samples t-test results for TV viewing duration, SWES score, types of programs viewed against academic performance of respondents. Table 3 shows these significance levels of mean differences.

Table 3*Independent Samples T- test for TVD, SWES and TP by EP*

Variable	Mean Difference	df	t	F	Sig.	95% CI
TVD	-28.66916	225	-16.027	121.752	.000	(-32.194, -25.144)
SWES	-31.96956	225	-18.801	53.690	.000	(-35.320, -28.618)
TP	-26.21303	225	-10.423	34.268	.000	(-31.168, -21.257)

In Table 3 Light TV viewers had higher educational performance ($M=84.97$, $SD=19.03$) than heavy viewers ($M=56.30$, $SD=7.23$), $t(225) = -16.027$, $p=.000$. Moreover, students who scored high on SWES had also a lesser educational performance ($M=56.27$, $SD=7.17$) than those who scored low on SWES ($M=88.24$, $SD=17.01$), $t(225) = -18.801$, $p=.000$. In addition, students who viewed series entertainment programs had lesser educational performance ($M=58.25$, $SD=11.18$) than those who viewed educational programs ($M=84.46$, $SD=19.39$), $t(225) = -10.423$, $p=.000$. All these imply that television viewing duration, the type of series program students viewed, and the SWES score of students had significant influence on their educational performance.

Table 4*Summary of ANOVA on Grade Levels and Educational Performance*

Variable	Groups	Sum of Squares	df	Mean Square	F	Sig.
Grade	Between Groups	145.249	2	72.624	.315	.730
	Within Groups	51653.447	224	230.54		
	Total	51798.696	226			

To detect whether students' educational performance differs because of grade level difference (Grade 10, Grade 11, and Grade 12), a One-way ANOVA test was made. The ANOVA test revealed that there was no a statistically significant difference in the educational performance between the three groups $F(2, 224) = .315$, $p=.73$.

3.5 The Correlation between Series Watching Engagement and Television Viewing Duration and Students' Educational Performance

Table 5

Series Watching Engagement Scale (SWES) Measurement by Nine Dimensions

Dimension	N	Percentage	Mean	SD
“Engagement”	186	81.6%	5.34	0.513
“Binge-Watching”	224	98.67%	4.67	1.03
“Desire”	190	83.7 %	5.16	0.657
Social dimension	197	86.7 %	5.6	1.08
“Dependency”	220	96.9%	4.7	1.02
“Loss of control”	150	66.07%	5.34	0.51
“Enrichment & Self-dev't”	28	12.3%	2.77	0.37
“Emotional enhancement”	212	93.3%	5.16	0.65
“Identification”	133	49.8%	5.02	0.63

Source (Survey, 2021; & JSS, 2021)

The Series Watching Engagement Scale (SWES) is measured by ten dimensions: coping/escapism, enrichment and self-development, emotional enhancement, social, loss of control, engagement, dependency, desire, binge-watching (over use), and identification. On the dimension of “Engagement”, 186 (81.6%) students rated very high with a mean 5.34 of the sum total of the items ($SD=0.513$). The same very high rate was measured on the “Binge-Watching” dimension. Out of 227 students, 224 (98.67%) rated this dimension above the average, high with a mean value of 4.67 ($SD=1.03$). They spend more time watching TV series than planned; they watch series even when they already should sleep and they always watch many episodes of series in a row to feel satisfied.

The dimension “desire” has got very high rank by students with a mean 5.16 ($SD=0.657$). It was rated high, above 3.5 score. Out of 227 students, 190 (83.7 %) of them rated a very much agreed score. Social dimension rated high and from 227 students, 197 (86.7 %) scored it an average value of 5.6, which is very high and fall in the “I agree very much” score category with a mean value of 4.52 ($SD=1.08$). Being in a bad mood, sad, depressed or annoyed when cannot watch any TV series, and I feel better when able to watch them again, being worried if electricity supply prevents from watching TV series, and interrupted while watching TV series were characteristics of a lot of students who responded the item “dependency” in a very much agreed manner with a mean value of 4.7 ($SD=1.02$). Two hundred twenty (96.9%) of them rated this dimension and believed that they were dependent on their favorite TV series episodes.

The dimension “loss of control” was also responded with a high rate and a mean value of 5.34 ($SD=0.51$) by 150 (66.07%) respondents indicating that they sometimes failed to accomplish their homework as they spend

more time watching TV series. Students who rated high, above 3.5 on this dimension believed that their school results are suffering from the amount of time they spend watching TV series.

Only a few students 28 (12.3%) rated very high with the least mean value of 2.77 ($SD=0.37$) on the dimension “Enrichment and Self-development”. They responded that they watched TV series to learn language and to increase their knowledge on a number of subjects.

On the two dimensions namely “Emotional enhancement” and “Identification”, 212 (93.3%) students rated high with 5.16 ($SD=0.65$). Hence, they watched TV series to feel strong (emotions like the excitement and happiness mood). Almost half 133 (49.8) of the students responded the dimension “coping/escapism” high with a high rate and a mean value of 5.02 ($SD=0.63$), and they responded that they watched TV series to pass time and to get relieve from stress or negative emotions.

Table 6

Association between Respondents’ Educational Performance and SWES Scores

	SWES score	Educational P.
SWES score Pearson Correlation	1	-.801**
Sig. (2-tailed)		s .000
N	227	227

**Significant at 0.01 level.

To measure the correlation between SWES and educational performance of the students, we ran Pearson’s Product Moment (Table 6). The test revealed very strong negative correlation $r(227) = -.801, P < .01$. As SWES score increased, the educational performance decreased and vice versa. We also ran a similar analysis to measure the correlation between television viewing duration and educational performance of students². Accordingly, the test revealed a strong significant reversed relationship between the two variables $r(227) = -.703, P = .01$. As respondents’ TV viewing time decreased, reversely their educational performance increased.

² To save space we omitted the correlational table.

Table 7*Coefficients Indicating Comparisons of Magnitudes of the Independent Variables*

	Unstandardized Coefficients		Standardized Coe.	t	Sig.
	B	Std. Error	Beta		
(Constant)	94.464	4.976		18.986	.000
TVD	-.729	.897	-.062	-.813	.417
SWES	-9.147	1.181	-.631	-7.747	.000
TP	-10.597	2.013	.231	5.264	.000

Dependent variable: Educational Performance

To answer the third research question, “What is the most influential factor which affects the academic performance of students?” we conducted a standardised multiple regression analysis (Table 7). Accordingly, the combination of TVD, SEWS score, and type of program (TP) were significantly related to educational performance of students, ($F(3,223) = 158.704, p = .000$). The test indicates that approximately 68.7% (Adjusted $R^2 = 67.8\%$) of the variance of the educational performance of the students can be accounted for by the combinations of the scores of SWES, TVD and TP they viewed, while 32% of the effect is accounted for by another factors. Among these factors, the most influential factors is the type of program (TP) that students viewed ($\beta = -10.597$) when the remaining two are controlled.

4. Discussion

Among the major findings that the present study revealed is the influence of television viewing duration on academic performance of students. The findings indicate that the more time students spent viewing TV, the less they achieved at schooling. The correlation of television viewing duration and educational performance of students was significant and inversely correlated which indicates the existence of a strong negative correlation. As respondents' TV viewing time decreased, reversely their educational performance increased.

Light TV viewers had higher educational performance than those of heavy viewers. This implies that students who view TV for less than 2 hours a day score high educational performance while those who view TV for more than 2 hours a day achieve a lesser educational performance. Generally, when the duration of TV viewing is longer, it will have a negative influence on the students' educational performance.

This current study's finding is consistent with the study conducted by Sharif and Sargent (2006) on the association between TV exposure and school performance which indicates the negative relationship of poor school performance with television screen time. A study of academic achievements in terms of TV viewing practice by Roth (1979) showed existence of significant level of negative correlation or an inverse relationship between the numbers of television hours viewed and scores on educational achievement which the current study has confirmed after over four decades. Similarly, the findings of this study are supported by other researchers like Koirala *et al.* (2021). On the other hand, other researchers like Hoffreth (2010) found the opposite result.

He found that television can be a positive force in student's lives and that with the proper parental supervision television can improve student's academic achievements; the difference in his findings could be attributed to the presence of parental control.

Another study was conducted in Peru by Ofosu-Brako *et al.* (2022) on TV viewing and its association with academic performance of secondary school students. Findings of this study show that TV viewing was negatively correlated with students' educational performance. A regression analysis of the study shows that adolescents who watched television in excess of 2 hour were more likely to report poor academic performance than those who watched less than 2 hour a day. The students who watched television for a longer duration might have spent less time doing homework, studying and reading, which may have led to decreased academic performance. This is a similar finding with the current study.

The present study's findings regarding TVD and educational performance are also supported by Mohanambigai (2018). He tested his hypothesis that there is a relationship between television viewing habits and academic performance and found that the duration of television viewing has a significant relationship with academic performance ('p' value <.001), i.e. the more duration of TV viewing the poorer academic performance is. Those who watched TV more than three hours per day were more likely to perform poorer in academics than those who watched less than one hour per day (30% Vs 2%). Likewise, those who watched TV less than one hour were more likely in the brilliant category than those who watched long hours (11% Vs 1%).

Kakamad and Fatah (2018) studied the relationship between watching TV and academic achievement in 9th graders and an independent sample t-test was conducted to compare the statistical differences between the academic achievement of school going children who view more than 3 hours a day and those who view less than 3 hours. There was a significant difference in scores of three hours TV viewing and less than 3 hours TV viewing; those who viewed less than three hours were found to have been performing better than those watching more.

This study further reveals that students of Jimma Secondary School who viewed series television programs were using different types of media. Among them the most viewed were Fana TV 50 (22%), Kana 46 (20.3%), DSTV 38 (16.7%), EBS 37 (16.3%), OBN 23 (10.1%) and EBC 12 (5.3%). Another study by Jones (2017) illustrates findings of academic performance and media yielding that electronic media has a significant influence on academic performance of the respondents. It is also an electronic media (TV) that is showed in the current study as it has significant influence on academic performance of respondents.

The present study also indicates that students who view educational program had more significant educational performance than those who view entertainment program. This finding is supported by Mohanambigai's (2018) research finding on TV viewing habits and its relationship with academic performance. In this study, it is investigated that there is a significant association between the type of program viewed and academic performance ('p' value <.001). Those who watched science (education) related channels were brilliant performers.

The current study further reveals that scoring low on SWES has an association with having very good educational achievement and vice versa. It indicates that students who score low on SWES had a greater educational performance than those who score high on SWES. This result shows that intense series watching engagement of students has a negative effect on their educational achievements.

Moreover, Pearson's Product Moment results show that SWES scores (TV series or repeated viewing) and educational performance of the students were correlated negatively and strongly. As SWES score increases the educational performance decrease and vice versa. This finding is consistent with the findings of Ofosu-Brako's (2022) study.

The present study revealed that light TV viewers have higher educational performance than heavy viewers. This analysis of variance shows as there was statistically significant difference in the academic

achievements of students for entertainment program viewers of students at Jimma Secondary School. This result is not consistent with Mulugeta's (2018) findings in Addis Ababa, Kolfe Keranio Secondary School students. Among his findings, the analysis of variance showed that there was no statistically significant difference in their academic achievements for three Kana television viewer groups (light viewers, medium viewers & heavy viewers) of the high school students; however, his own result from the qualitative analysis showed that heavy Kana TV exposure lowered academic achievements of high school students, which is in agreement with this study's findings. Similarly, the findings of this study are supported by other researchers like Roth (1979) and Koirala, *et al.* (2021). On the other hand, other researchers like Hoffreth (2010) found the opposite result. He found that television can be a positive force in students' lives and that with the proper parental supervision television can improve students' academic achievements.

5. Conclusions and Recommendations

5.1 Conclusion

The first aim of this study was to find the relationship of television series viewing engagement and duration with academic performance. The results of this study show that there is a strong negative relationship between TV series viewing and academic performance. The findings of this study revealed that students who watch series entertainment program have lesser educational performance than those who watch educational program. Similarly, students who highly engage in viewing TV series programs perform in their education less than those who engage in low viewing TV series programs. This implies that watching series entertainment program has negative effect on the academic performance of high school students. Reversely students who view series educational programs are beneficiary in achieving high mark in their school performance.

The second aim of this study was to investigate the influence of TVD on educational performance. The results indicate that students who spend fewer hours watching television score higher grades in schools. Moreover, the results of this study show that watching television can have an effect on academic achievement in that the more time students spend watching television every day, the more likely they are to get lower grades in school.

To study the types of programs and television channels which students watch are the target of this study. Accordingly, results of the study reveal that students who view series entertainment programs have lesser educational performance than those who view educational programs. This implies that viewing educational programs has vital role to score high marks in school performance. From 227 students who participated in this study, only 23 (10%) watch educational programs which are transmitted by Ethiopian Ministry of Education through OBN television.

Finally, the current study identifies the significant association between television series viewing engagement, television viewing duration, and academic performance. The more students watch series TV program and spend much time watching TV, the more their school performance is lowered and vice versa. This may help to create awareness among parents and teachers. This study has strengthened findings of the former studies pertaining to SWE and its effect on academic achievement of school children mainly by using SWES and analyzing the data collected using the scale quantitatively.

5.2 Recommendations

Based on the outcome of the study and the conclusions made above, the following recommendations are forwarded:

1. The current study show the negative influence of ignoring educational TV programs by giving more viewing time for entertainment programs. Parents shall be encouraged to regulate television viewing habits of their children. Parental supervision or “co-viewing” strategies should be adopted by parents. Parents should prepare a plan to view TV and study lessons for their students to keep a balance between their leisure time and study time as their age is simply influenced by life pressures they are experiencing.
2. The present study findings indicate that heavy TV viewing duration had influence on the students’ educational performance. Secondary schools in Ethiopia need to have adequate counseling and guidance services and counseling professionals. It is recommended that schools should have counselor who organize career guidance programs for the students to encourage them to be more focused on their studies and also to reduce their TV viewing time.
3. According to this study, television series viewing engagement was confirmed to have been affecting students’ educational performance. Therefore, teachers, directors, and educational institutions need to be aware of the effect of television series watching engagement and duration in excess of 2 hours a day and prepare appropriate counseling and guidance services. Among others, they could keep their students busy in their lessons giving home take assignments and following up them closely.

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Authors’ contribution

Author¹: Prepared the proposal, collected and analyzed data, prepared the draft manuscript

Author²: Advised author¹; critically commented and edited the manuscript

Author³: Advised author¹; polished and enriched the manuscript

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