

Bridging the Divide: A Comparative Assessment of Two English Distance Learning Programs in Rural Bangladesh

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Abstract. With the expansion of distance learning programs, the digital and educational divides are widening in developing nations. Therefore, it is critical to examine distance learning as a viable tool for promoting equitable English language education. Assessment of effective English distance learning programs designed for rural learners is a crucial and yet underexplored area in the English as a Foreign Language (EFL) context. There is a notable paucity of empirical research that examines the outcomes of the existing distance learning programs, particularly in terms of motivation and anxiety of rural learners. This study addressed this research gap by investigating two English distance learning programs and their effectiveness among rural learners, in relation to learners' motivation and anxiety. Additionally, by applying Krashen's (1982) affective filter hypothesis and Mayer's (2022) Cognitive Theory of Multimedia Learning (CTML) in the distance learning setting, this study addressed a theoretical gap in existing research. The study employed a quantitative research design (i.e., survey), collecting data from 448 secondary-level learners in rural areas. The data were analyzed using SPSS, and included one-sample *t*-tests, independent *t*-tests, multiple regression, and ANOVA. The results of the study indicated that the distance learning programs were perceived to be effective by the rural

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learners, and the affective filters (i.e., motivation and anxiety) explained 23.6% of the variance in program effectiveness, with higher motivation strongly predicting greater effectiveness, and higher anxiety predicting lower effectiveness. This study provided a crucial insight for EFL educators and English Language Teaching (ELT) policymakers in designing effective pedagogical interventions through distance learning initiatives to facilitate disadvantaged learners, thus bridging the digital divide not just in Bangladesh, but in similar Global South economies.

Keywords: Rural education; Distance learning program; Multimedia learning; EFL in Bangladesh; Effective pedagogical intervention

1. Introduction

With the continual advancement in the field of technology, distance education has become increasingly accessible to learners from diverse backgrounds (Means et al., 2014; Schweighart et al., 2024). Many educational institutes in developed countries, like the USA, UK, and China are offering different distance learning programs for students (Vorobel, 2022) as distance or online learning can provide both teachers and students with a more flexible and convenient learning environment, which allow them to customize their learning methods (Wei & Chou, 2020).

However, online learning is a relatively new concept in Bangladesh, and as a developing country, Bangladesh has to face many challenges (e.g., lack of appropriate devices, limited internet access, and disruption) to properly implement online education (Das, 2021); however, many studies have shown that well-planned, comprehensive strategies can make it more popular and they also significantly benefit students across the country (Khan et al., 2021; Sarkar et al., 2021). In Bangladesh, a former British colony, English enjoys a very special status as it is associated with social elitism, where students from urban areas who belong to the privileged class have easier access to it (Hamid & Erling, 2016). English is taught in Bangladesh as a foreign language, and it is introduced as a compulsory subject from Grade 1 (Hasan, 2022).

However, most students in rural areas are failing to attain the primary English language competencies due to some prevailing challenges in the education system (Hossain, 2016; Islam & Jannat, 2025). Since the introduction of communicative language teaching (CLT) in the late 1990s, significant efforts have been made to enhance the professional skills of English teachers to ensure an effective communicative English learning environment in the classrooms of rural areas, and several government and donor-funded projects have been carried out to ameliorate the professional development of the English teachers (Hamid & Erling, 2016; Karim et al., 2018).

Some of the noteworthy donor-funded distance learning programs in Bangladesh include the Open University distance learning programs, English in Action. Unfortunately, these distance learning programs have often met with

mixed success and ultimately ended up reaching only partial goals (Hamid & Erling, 2016; Karim et al., 2021; Parvin, 2017).

In recent years, distance learning programs, such as Ten Minutes School and Sangsad TV digital classroom have been introduced in Bangladesh. Ten Minutes School is a private-owned program, an initiative taken by entrepreneur Ayman Sadiq in 2015. It is an online learning platform that offers lessons through its official website, Facebook, and YouTube page (Riad, 2019), and the online program is still in operation. On the other hand, Sangsad TV digital classroom is a government-funded project that was operational during the COVID-19 pandemic, due to school closure amid lockdowns. It was mostly operated through TV-based lectures, and the lectures were also uploaded on their official Facebook and YouTube page for learners' convenience (Mahmud et al., 2021).

Although both these programs covered the syllabus of the National Curriculum, the lectures and videos of Ten Minutes School focused on secondary and higher secondary education, whereas Sangsad TV digital classroom's lectures and videos focused more on primary and secondary education (Mahmud et al., 2021; Riad, 2019). Additionally, Ten Minutes School offers courses on university admission and language skill development. Furthermore, Sangsad TV digital classroom functioned solely as a substitute for school classes during COVID-19 school closure (Noor & Shaoun, 2021; Uddin et al., 2025).

Despite the implementation of these two programs, the pedagogical effectiveness of the mentioned programs for English learning remained largely unmeasured. Previous studies (Karim et al., 2019; Noor & Shaoun, 2021; Rahman et al., 2023; Riad, 2019) related to these two programs primarily focused on the contents and reached among the urban learners and lacked an empirical comparison between the two programs in the rural EFL context. Therefore, this study addressed this research gap through an empirical comparative investigation to determine whether one program provided better support to rural learners in managing their motivation, anxiety, and improving English language proficiency. Furthermore, existing literature lacked a critical assessment of the effectiveness of these two distance learning programs and the examination of how English learning was facilitated by these two programs, in relation to learners' motivation and anxiety in a low-resourced, rural setting.

This study addressed this substantial gap by examining the pedagogical value of these two programs for marginalized rural communities, assessing whether the programs were effective in motivating learners and lessening their anxiety. Thus, this study contributed to the current body of knowledge by offering new insights and empirical evidence on how distance learning initiatives facilitated rural learners to enhance their English language proficiency. Additionally, this study drew attention to the perspective of students and would like to provide a deeper understanding of the rural context of Bangladesh. The findings of this study were expected to assist the Ministry of Education and ELT policymakers in developing future education policies and projects to ensure effective English learning among the rural population.

1.1. Research Objectives

This study was guided by the following specific objectives.

RO1: To evaluate the perceived effectiveness of the two English distance learning programs, namely Ten Minutes School and Sangsad TV digital classroom, among rural secondary-level learners in Bangladesh

RO2: To compare the two programs in terms of learners' motivation and anxiety levels and the program's effectiveness

RO3: To examine the extent to which affective filters (motivation and anxiety) influence the perceived effectiveness of the two distance learning programs

RO4: To assess the reliability and validity of the measurement instruments used to evaluate learners' perceived motivation, anxiety level, and program effectiveness.

1.2. Research Questions

The following research questions have been formulated for the current study.

RQ1: To what extent are these two distance learning programs, Ten Minutes School and Sangsad TV digital classroom, effective in enhancing the English proficiency of rural learners?

RQ2: Which program is more effective in relation to learners' motivation and anxiety level?

RQ3: To what extent do affective filters (i.e., motivation and anxiety) affect these programs?

RQ4: How valid and reliable are the measurement instruments used to assess the effectiveness, motivation, and anxiety in the two distance learning programs?

1.3. Research Hypotheses

The following hypotheses have been developed for the study.

Hypothesis 1

H₀: The distance learning programs are not effective in enhancing the English proficiency of rural learners.

H₁: Either one or both of the distance learning programs are effective in enhancing the English proficiency of rural learners

Hypothesis 2

H₀: One program is not more effective than the other in relation to learners' motivation and anxiety.

H₁: One program is more effective than the other in relation to learners' motivation and anxiety.

2. Literature Review

2.1. Theoretical Framework

Theoretically, this study was grounded in an integrated framework of Krashen's (1982) Affective Filter Hypothesis and Mayer's (2022) Cognitive Theory of Multimedia Learning (CTML). Krashen's (1982) affective filter hypothesis focuses on affective factors (e.g., motivation, anxiety) that influence language acquisition. According to Lin (2008), the affective filter hypothesis suggests that language learning can be influenced by the emotional condition of the learner as the learner may be distracted by the emotional factors that hinder the process of absorbing comprehensible input and producing desirable outcomes. The

students who have high affective filters (low motivation, low self-confidence, high level of anxiety) will seek less input, which reduces intake; on the contrary, the students with low affective filters will be more open to input, and the input will leave a much deeper impact (Krashen, 1982).

In the context of online learning, the application of Krashen's (1982) affective filter hypothesis leads to a theoretical ambiguity. Existing literature suggests that online learning offers learners a convenient, flexible, and easily accessible learning platform that would lower the affective filters; simultaneously, isolation from peers and technological instability (e.g., availability of devices, interruption of internet) can lead to a heightened level of anxiety and lack of motivation (Harris & Martin, 2012; Kaiser & Chowdhury, 2020, Karimi & Ashkani, 2025). To resolve this ambiguity and provide a robust explanation, this study integrated Mayer's (2022) CTML with Krashen's affective filter hypothesis. As Mayer's (2022) CTML suggests that in multimedia learning, learners process information separately via visual and auditory channels, and the working memory has a limited capacity.

Therefore, effective multimedia instruction should be designed in a way that balances the cognitive load. A well-designed multimedia course, with appropriate and balanced cognitive load (e.g., coherent and segmented), makes the learning process smooth. On the other hand, a poorly designed multimedia course makes learners overwhelmed with the cognitive load, which leads to confusion and frustration. This study posited that CTML is intrinsically linked with affective filters, as improper cognitive load can raise the affective filters, and properly designed multimedia lessons can reduce the affective filters.

Therefore, this study addressed the theoretical gap by an integrated framework that allowed for a more comprehensive investigation. This study analyzed the impact of affective filters (i.e., motivation and anxiety) on effective learning in distance learning programs. It also assessed whether the two distance learning programs (i.e., Ten Minutes School and Sangsad TV digital classroom) could produce a learning environment, through appropriate and balanced multimedia lessons, that lowered the affective filters. Thus, this study adds a new insight to the existing body of knowledge by integrating Krashen's (1982) affective filter hypothesis with Mayer's (2022) CTML in the distance learning rural context.

2.2. The State of EFL in Bangladesh

In Bangladesh, English is taught as an English as a foreign language (EFL) subject from Grade 1. However, enhancing English language proficiency among the general population, particularly in rural areas, has always been challenging for the teachers (Hossain, 2016). Moreover, the English proficiency level of urban and rural learners is significantly different as urban learners who are receiving English medium schooling are much more proficient than their rural counterparts (Hamid & Erling, 2016; Islam & Jannat, 2025). This situation has resulted from several prevailing challenges, such as limited budget allocation for education, improper teaching methods, lack of necessary resources, large classrooms, limited learner effort and practice (Hossain, 2016; Karim &

Mohamed, 2019). In addition, teachers in rural areas lack proper subject knowledge and training while well-trained and highly educated teachers prefer not to teach in rural areas (Islam & Jannat, 2025).

Despite outreach initiatives, rural educational institutions and students still struggle with English language proficiency, and the effective implementation of the English curriculum remains a distant goal (Hossain, 2016; Rahman et al., 2019). After receiving proper training, teachers in rural areas often struggle to teach English effectively because they are reluctant to implement new teaching techniques learned from training into classroom practices to engage and motivate learners properly and remove their inhibition during classroom activities (Karim et al., 2018, 2021; Karim & Mohamed, 2019). Therefore, distance learning programs have been introduced; as a result, well-trained teachers can conduct the classes for rural learners to ensure better learning outcomes.

2.3. Distance Learning Programs in Bangladesh

In Bangladesh, one of the most significant and large-scale programs is English in Action (EIA), a nine-year-long project (2008-2017), with a budget of 50 million pounds, that was initiated to reach around 100000 teachers throughout the country. The project focused on school-based programs that facilitated learners through mobile and TV-based learning to enhance their English language skills and aimed for the professional development of teachers. However, this multimillion-dollar-funded English learning program faced challenges in teacher training, including limited numbers of training sessions, fewer opportunities for teachers residing in rural areas, and ineffective training materials, limited focus on practical implementations (Anwaruddin, 2016; Rahman et al., 2019).

Furthermore, Bangladesh Open University (BOU) has initiated several distance learning programs through radio and TV since its inception in the early 90s (Ali et al., 1997). These initiatives targeted the rural learners and teachers, and particularly focused on a low-cost mode of delivery to facilitate the disadvantaged communities. However, these initiatives often failed to achieve the desired goals as the participants perceived the programs as boring, having poor quality, and less effective in enhancing their English language skills (Parvin, 2017).

2.3.1. Ten Minutes School

A noteworthy distance learning program that has gained much recognition is Ten Minutes School, the largest online education platform in Bangladesh, with more than 4000 videos, and the program facilitates 150,000 students every day with their studies (Karim et al., 2019). This online classroom platform was established by Ayman Sadiq in 2015 and has been imparting lessons related to academia, language learning, skill development, and professional development completely free of cost (Riad, 2019).

In addition to the free lectures and videos, the program also offers some low-cost courses that cover the syllabus of the National Curriculum, university admission courses to facilitate both urban and rural learners (Uddin et al., 2025). English

language learning is particularly highlighted in the lessons of Ten Minutes School as there are lessons related to topics, such as grammar, writing, and speaking. As the videos are designed to facilitate learners as a mode of complementary learning in alignment with their institutional learning, a large number of students who are benefiting from them have considered them as cost-effective compared to private tutoring (Riad, 2019).

As private tuition is often considered to be too expensive, even unaffordable for many rural learners, this online learning program can serve as a viable alternative for supplementary learning, by offering lectures from well-trained teachers directly to this disadvantaged population (Pichugin et al., 2022). However, the students in rural areas who need educational resources the most are often the least equipped for the access to the materials as people from all walks of life in Bangladesh do not have equal access to the internet or the necessary gadgets needed for online learning (Khan et al., 2021).

2.3.2. *Sangsad TV Digital Classroom*

Moreover, during COVID-19 pandemic, as lockdowns and school closures had been going on worldwide, many developing countries, like India, Pakistan, Sri Lanka, Zimbabwe, Ethiopia, Ghana, Kenya, and South Africa conducted radio and TV-based distance learning programs to reach students who had limited access to online-based learning (Belay, 2020; Noreen et al., 2023; Van Cappelle et al., 2021). In these developing countries, a complete implementation of countrywide online classes could not be possible due to limited access to necessary digital devices (Basilaia & Kvavadze, 2020); TVs or radios are more common in households. These programs were conducted by UNICEF and the Ministry of Education of those countries, and the programs covered both primary and secondary level classes related to agriculture, biology, mathematics, and English.

In Bangladesh, during the COVID-19 pandemic, all educational institutions were closed for almost the entire pandemic period, and the COVID-19 pandemic disrupted the education of nearly 40 million Bangladeshi students (Emon et al., 2020). Many schools in urban areas conducted online classes, but in rural areas, no online classes were conducted due to a lack of resources (Mahmud et al., 2021). To ensure the continuity of education, the government introduced similar Digital Classes through the state-run TV channel Sangsad TV, which started broadcasting recorded online classes for secondary school students (Mahmud et al., 2021).

Although this government-run distance learning program initially telecasted recorded classes only for secondary school students, later this program extended its reach to primary school students as well. The students could collect the class routines and assignments given in the recorded lectures from TV classes and the website of the National Curriculum and Textbook Board (NCTB) (Noor & Shaoun, 2021). Weekly five hours of classes were conducted for students of class 9 and class 10, which included English classes that followed the National Curriculum, and the class routines were available on the website of the Ministry

of Education (Mahmud et al., 2021), and if a student missed the class during the designated time, they could also get the recorded lectures available on their official Facebook page and YouTube channel.

In the first few months of the pandemic, the participation of students was very low, particularly in rural areas (with only 39% of students who regularly attended classes), due to the limitations of arrangements, educational detachment, depression, or anxiety that stemmed from the pandemic (BRAC, 2020). The abrupt transition to e-learning during the COVID-19 pandemic caused learners psychological and emotional distress (Yates et al., 2021), and this distress was also accompanied by the fear of the epidemic spreading and the complete absence of face-to-face learning (Rabayah & Amira, 2022). Consequently, upon the reopening of schools, many students may have perceived the classes of Sangsad TV digital classroom as more effective as they were complementary to the education they were receiving in their educational institutions.

Out of the reviewing existing literature, a clear gap was identified in terms of how these programs influenced learners' motivation and anxiety to facilitate learning. This gap justified the need for the present comparative study on these two distance learning programs, which evaluated their instructional modules and systematically compared how these two programs facilitated the learners to manage their affective filters and enhance English language proficiency.

3. Methodology

Aligned with the research questions, the researchers employed a quantitative research design (i.e., a survey) as the study aimed to measure learners' motivation, anxiety, and perceive effectiveness and comparatively examined the relationships of the affective variables across the two distance learning programs. For comparison between groups and predicting outcomes, a quantitative survey design is suitable as survey research provides valuable insights into multiple constructs (Creswell, 2014). Independent *t*-tests and multiple regression analysis have been performed to assess the overall effectiveness of the programs, to compare the two programs in terms of their motivation, anxiety, and effectiveness, and to examine the effect of affective filters on these programs.

3.1. Participants

A total of 448 participants were selected to participate in this study; among them, 250 were female (55.8%), and 198 were male (44.2%). The researchers opted for the sample size formula suggested by Krejcie and Morgan (1970). As the research focused on secondary-level rural learners, the participants were from Grades 9 and 10, who resided in rural areas, and attended the English classes of either Ten Minutes School or Sangsad TV digital classroom. The population size of the study was approximately one million (Statista, 2023). For the population size of 1 million, the sample size determining Table suggested by Krejcie and Morgan (1970) required at least 384 participants to choose. The final sample size of this study (448 participants) exceeded this requirement and

adhered to the guideline for a population study (at least 350 participants) suggested by Creswell and Creswell (2017). Furthermore, the participants were from five different high schools, from two rural districts (Narshingdi and Lohagara) of Bangladesh. Access to schools was obtained through availability and prior contact. However, the participants were selected via a random sampling technique, and they were chosen randomly from each class's attendance register, that allowed everyone to have an equal chance to be included. This approach added transparency and methodological rigor and minimized bias (Creswell & Creswell, 2017).

3.2. Instruments

The researchers collected the data, using a three-part questionnaire that comprised items designed to measure learners' motivation, anxiety, and the effectiveness of the programs. All these items were measured, using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The first part of the questionnaire was adapted from Gardner's (2004) Attitude/Motivation Test Battery (AMTB) to get a comprehensive view of several aspects of learners' motivation (Akdemir, 2019). A total of 12 items were adapted in this part, including items such as *"I really enjoy learning English"*.

The second part assessed the anxiety level of the participants of the two distance learning programs, that comprised items adapted from the Foreign Language Classroom Anxiety Scale (FLCAS) which was developed by Horwitz et al. (1986), and FLCAS has been widely used as a valid measure for foreign language learning anxiety (Botes et al., 2021). This section contained 11 items, including items, such as *"It frightens me when I do not understand what the teacher is saying in the English class of the distance learning program"*.

The third part of the questionnaire was adapted from Kirkpatrick's (1998) four-level evaluation model to measure the effectiveness of the two distance learning programs, and the adapted questionnaire is a widely recognized and valuable framework for evaluating the effectiveness of any educational program (Farjad, 2012). A total of 10 items were adapted in this part. Some of the items include *"The classes have been engaging and enjoyable"* and *"I have learned some effective language learning strategies"*.

The questionnaire items were adapted from previously validated instruments. Some items were modified to align with the context of the Bangladeshi rural secondary school. Some items were reworded and simplified to match with the experience of the rural learners of the two distance learning programs. In addition, two experts, with deep understanding of the research topic, read through the questionnaire thoroughly to evaluate whether the questions effectively captured the topic under investigation, as recommended by Zamanzadeh et al. (2015). Then, a psychometrician, an expert on questionnaire construction, checked the survey for common errors, like double-barreled, confusing questions. Upon their suggestions and feedback, certain moderations were made to ensure clarity and comprehensibility.

Furthermore, the quality of the data collected by the questionnaire improves if the questionnaire is presented in the participant's native language (Dörnyei & Taguchi, 2009). Therefore, the questionnaire adopted for this research included questions in English and Bangla as the participants for this study are secondary school students of rural Bangladesh. To ensure the validity of the translation, the back translation technique was employed as it is a commonly used method to assess the quality of translation (Tyupa, 2011). In addition, the researchers personally administered the questionnaire in order to minimize confusion and reduce the possibility of missing data, and this technique is recommended for survey research to improve data accuracy (Creswell & Creswell, 2017).

Additionally, the instruments of the study align with the theoretical proposition of the study, grounded on Krashen's (1982) affective filter hypothesis and Mayer's (2022) CTML. By incorporating the measures of motivation, anxiety, and program effectiveness, the study examined how distinct features of the distance learning programs, particularly including appropriate multimedia content, influenced learners' affective filters and the overall effectiveness of the programs. Thus, the instruments to measure motivation, anxiety, and effectiveness served to empirically test the theoretical proposition of Krashen (1982) and Mayer (2022) in the rural distance learning context and reinforced the theoretical framework.

3.3. Reliability and Validity

The reliability of the questionnaire was ensured by conducting Cronbach's alpha tests, using IBM SPSS version 24. The alpha values of the items are presented in Table 1.

Table 1: Cronbach's alpha value of the variables

Variables	No. of items	Cronbach's alpha
Motivation	12	.72
Anxiety	11	.75
Effectiveness	10	.83

The Cronbach alpha values of the variables, namely motivation, anxiety, and effectiveness were more than .70. According to Hair et al. (2010), the Cronbach's alpha coefficients for all three instruments' measures in the current study were higher than the acceptable range of values (i.e., between 0.60 and 0.70) for internal consistency, as seen in Table 1. This suggests that the modified items were reliable for gathering information for the primary investigation.

Moreover, construct validity was prioritized in validity (Creswell, 2014). Construct validity of the current study was established by conducting factor analysis in SPSS version 24. The Kaiser-Meyer-Olkin (KMO) values are presented in Table 2

Table 2: KMO and Bartlett's Test Results for Motivation, Anxiety, and Effectiveness

Measure	KMO Value	Bartlett's Test χ^2	Df	Sig.
Motivation	.788	951.75	66	.000
Anxiety	.826	836.27	55	.000
Effectiveness	.895	1091.46	45	.000

As a KMO $\geq .70$ was considered acceptable (Kaiser, 1974), and Bartlett's Test of Sphericity was highly significant ($p < 0.001$) in all three measures; therefore, these results for motivation, anxiety, and effectiveness provided in Table 2 indicate sampling adequacy and support the construct validity of the instruments.

Furthermore, to address RQ4 that concerns the reliability and validity of the measurement instruments used in the present study, several statistical procedures were conducted (i.e., Cronbach's alpha, KMO, and Bartlett's Test). The results presented in Table 1 and Table 2 suggest that both Cronbach's alpha and KMO score are within the acceptable range (Hair et al., 2010; Kaiser, 1974) and Bartlett's Test of Sphericity is highly significant ($p < 0.001$) in all three measures. These results indicated good internal consistency, and the items were suitable for assessing the intended constructs. Thus, the results confirm the validity and reliability of the instruments, thereby addressing RQ4.

3.4. Ethical Considerations

To ensure the ethical integrity of the study, several measures were taken during the different stages of data collection and analysis. This study was conducted in accordance with the guidelines outlined in the Declaration of Helsinki. Before data collection, ethical approval was obtained from the Research Ethics Committee (REC), Universiti Teknologi Mara (UiTM), under approval number REC/09/2024 (PG/MR/478). Initially, the participants were fully informed about the objectives, contexts, aim, scope, and possible outcomes of the research, and signed consent forms were collected prior to data collection. During data collection, each item was explained to them in English and their mother tongue for the purpose of clarity.

Participation was completely voluntary with no monetary or academic incentives; additionally, random sampling helped prevent selection bias. The participants had the right to withdraw from the study at any point without any penalties. To ensure confidentiality, privacy, and data protection, each participant was assigned a code only known to the researchers, and all personal identifiers were removed as suggested by Sandnes (2021). All these measures demonstrate strict adherence to ethical standards throughout the research process, ensuring transparency and participant protection.

5. Results

To answer the first research question, i.e., “To what extent are these two distance learning programs (i.e., Ten Minutes School and Sangsad TV digital classroom) effective in enhancing the English proficiency of rural learners?”, a one sample *t*-test was performed, using SPSS, to determine whether the perceived effectiveness of the programs was significantly higher than the neutral midpoint of 3.0 on a 5-point scale. The value 3.0 represents the standardized criterion, which was calculated as the midpoint of the 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). The results are shown in Table 3.

Table 3: One-Sample *t*-Test for Perceived Program Effectiveness

Variable	N	M	SD	Test Value	T	Df	P
Effectiveness	448	3.81	0.62	3.0	27.57	447	.000

Note: Test value = 3.0 (neutral midpoint on a 5-point scale)

As shown in Table 3, learners perceived effectiveness of the programs was significantly higher than the test value of 3.0 ($M = 3.81$, $SD = 0.62$, $p < .001$). The test value of 3.0 was used as it represents the neutral midpoint on the 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). The score ($M = 3.81$) was significantly above the neutral midpoint 3.0. Therefore, the result indicates that the learners perceived the programs as significantly effective. In addition, the magnitude of this difference, as indicated by Cohen's *d* ($d = 1.3$), was very large (Cohen, 1988). The results suggest that the learners overwhelmingly perceived the programs as effective.

Furthermore, to test Hypothesis 1, H_1 predicted that either or both of the distance learning programs were effective in enhancing the English proficiency of the rural learners. The result shown in Table 3 indicated that learners' perceived effectiveness of the program was significantly higher (the average effectiveness score of 3.81 was significantly higher than the neutral point of 3.0), and this suggests that learners favorably responded to both the programs, and their expectations were met successfully by the programs (as indicated by a large effect size, $d = 1.3$). Therefore, the null hypothesis, that suggested that the distance learning programs were not effective in enhancing the English proficiency of rural learners, was rejected, and the alternative hypothesis (H_1) was accepted, and this supports the conclusion that both of the distance learning programs were effective in enhancing the English proficiency of rural learners.

To answer the second research question, i.e., “Which program is more effective in relation to learners' motivation and anxiety level?”, an independent *t*-test was performed, using SPSS, to compare learners' motivation and anxiety level, and perceived effectiveness between the two programs (i.e., Ten Minutes School and Sangsad TV digital classroom) because the independent samples *t*-test is known to be robust to violations of normality, particularly with large sample sizes (i.e., $N_1=298$, $N_2=148$) (Field, 2018). The results are shown in Table 4.

Table 4: Independent Samples t-Test for Comparing Programs on Key Variables

Variable	Program	N	M	SD	T	df	P	Cohen's d
Motivation Average	1	298	4.23	0.42	3.30	444	.001	0.33
	2	148	4.08	0.46				
Anxiety Average	1	298	3.21	0.66	-1.33	444	.185	0.13
	2	148	3.29	0.62				
Effectiveness Average	1	298	3.86	0.63	1.92	444	.055	0.19
	2	148	3.74	0.62				

As shown in Table 4, there was a significant difference between Program 1 (Ten Minutes School, $n = 298$) and Program 2 (Sangsad TV digital classroom, $n = 148$) in terms of motivation level, $t(444) = 3.30$, $p = .001$, and the participants reported higher motivation ($M = 4.23$, $SD = 0.42$) in program 1 than program 2 ($M = 4.08$, $SD = 0.46$). This difference represented a small to medium size effect ($d = 0.33$). This indicated that perceived motivation differed between these two programs although the magnitude was modest and statistically significant. No significant differences were found for anxiety ($p = .185$) or effectiveness ($p = .055$). This suggests that both programs were similarly effective in enhancing learners' English language proficiency and managing learners' anxiety.

Additionally, to test hypothesis 2, H_1 predicted that "One program is more effective than the other in relation to learners' motivation and anxiety". The result shown in Table 4 indicated that the programs differed significantly only in terms of motivation ($p = .001$), with no significant difference in relation to anxiety ($p = .185$) or effectiveness ($p = .055$). Therefore, Hypothesis 2 was only partially supported.

To address the third research question, i.e., "To what extent do affective filters (i.e., motivation and anxiety) affect these programs?", multiple regression and ANOVA were conducted. The results are shown in Tables 5 and 6.

Table 5: Prediction Value of Independent Variables

R	R ²	Adjusted R ²	Std. Error of the Estimate	ANOVA				
				df	Mean Square	F	P	
.486	.236	.232	.547	2	Regression	41.179	68.692	.000*
					Residual	133.382		

a. Dependent Variable: Effectiveness. b. Predictors: (Constant), Motivation, Anxiety

Table 5 suggests that the model produced statistically significant results ($F = 68.692$, $p < .001$), and this indicates that the affective filters collectively provide a meaningful explanation of the variance of the online program's effectiveness. The p -value ($p < .001$) suggests that the model was highly statistically significant. The R^2 value (.236) indicated that the model explains 23.6% of the variance in effectiveness. This suggests that more motivated learners perceived the program as more effective, and learners' higher anxiety reduced the perceived effectiveness of the program.

Table 6: Coefficients of the Predictor Variables

Predictor	Standardized Coefficients <i>B</i>	<i>T</i>	<i>Sig.</i>
Motivation	.444	10.420	.000
Anxiety	-.118	-2.765	.006

Moreover, Table 6 shows that motivation had the largest Beta value compared to anxiety. The larger Beta value indicated that motivation ($\beta = .44$; $t = 10.420$, $p = .000$) had a larger impact on explaining the dependent variable, i.e., online learning programs.

To sum up, the results indicated that the learners perceived both programs as significantly effective ($M = 3.81$, $SD = 0.62$, $p < .001$), with Ten Minutes School ($M = 4.23$, $SD = 0.42$) was slightly more effective in motivating learners than Sangsad TV digital classroom ($M = 4.08$, $SD = 0.46$). Furthermore, the study suggested that affective filters significantly predict effectiveness ($R^2 = .236$), and motivation had a larger impact on explaining the online learning, and anxiety had a lesser impact on explaining the dependent variable, i.e., online learning programs ($\beta = .118$, $t = 2.765$, $p = .006$).

6. Discussion

The objectives of the research were to assess the effectiveness of the programs, to identify if one program was more effective than the other in terms of motivation and anxiety, and whether affective filters (i.e., motivation and anxiety) had an effect on these programs. The results revealed that rural learners perceived the distance learning programs as effective in enhancing their English proficiency. The average effectiveness score of 3.81 was significantly higher than the neutral point of 3.0. This suggests that learners responded favorably to the programs. This indicates that the programs were positively received by the rural learners. This result aligns with the findings of Riad (2019) and Noor and Shaoun (2021), which suggested that students who continued these distance learning programs found them effective, despite their location of residence (i.e., urban and rural).

Although the results of this study were based on self-reported perceptions of the learners rather than any direct proficiency assessment or measures, the findings still highlighted the value of distance learning initiatives in rural contexts where access to effective or better-quality face-to-face learning programs is somewhat limited, and these findings are aligned with the findings of Rahman et al. (2023). Furthermore, in terms of fostering learners' motivation, Ten Minutes School performed slightly better than Sangsad TV digital classroom, and this suggests that learners were more motivated in the former rather than the latter program.

However, in terms of anxiety and perceived effectiveness, the programs did not differ significantly. This indicates that the motivation of the learners may vary due to the program design or possibly due to situational factors. For example, the classes of Sangsad TV included long recorded lectures, that allowed very limited scope for learners to ask for clarification. This teacher-centered teaching

technique, and limited scope for interaction with the teacher, can demotivate learners (Rahman et al., 2023). On the other hand, the videos of Ten Minutes School were often short, segmented, with a dedicated comment section where students could ask for clarification. An appropriate multimedia content, equipped with segmented and balanced cognitive load, can make learners feel comfortable (Mayer, 2022; Ruttanakorn & Rojanarata, 2025), and the classes of Ten Minutes School made learners feel comfortable and more motivated.

Moreover, Sangsad TV classes were operational during the COVID-19 school closure. School classes were completely suspended, and students had to switch to online or distance learning. Given the circumstances, students felt psychological pressure and felt demotivated and anxious (Mahmud et al., 2021). Despite the situation, both anxiety and perceived effectiveness remained relatively consistent. This echoes the findings of Rahman et al. (2023) which suggested that anxiety in online or distance learning presumably increased because of factors, such as the unavailability of devices, interrupted connectivity, rather than the teaching technique or delivery method.

Moreover, the results also indicated that affective filters (i.e., motivation and anxiety) had a significant effect on the program as they explained 23.6% of the variance in effectiveness. A higher level of motivation showed a stronger positive effect on the perceived effectiveness of the program, and higher anxiety showed a weaker negative effect on the perceived effectiveness of the program. This finding aligns with Krashen's (1982) affective filter hypothesis. It is also consistent with Gardner's (1985) findings that motivation is a strong psychosocial factor to influence learners' language learning process. It resonates with the recent findings of Bai and Wang (2020) and Huang (2023) that motivation can enhance engagement and learning outcomes whereas an elevated level of anxiety can hinder them.

In addition, the remaining unexplained variance suggests that other factors, such as the family's Socioeconomic Status (SES), parental support, peers' support, digital literacy, and logistic support, may also influence perceived effectiveness of the programs, and this indicates directions for further research. These findings underscore the importance of designing distance learning programs with well-structured multimedia content that can enhance motivation and lessen anxiety. Additionally, this study's novelty lies in its unique empirical comparison between Sangsad TV digital classroom and Ten Minutes School, with two distinct models of multimedia instruction, in a rural Bangladeshi EFL context.

The present research highlights the effectiveness of the distance learning programs in the rural EFL setting, in terms of the affective filters (i.e., motivation and anxiety). Thus, it theoretically extends Krashen's (1982) affective filter hypothesis by integrating it with Mayer's (2022) CTML, and this integration offers an empirical and theoretically informed understanding of TV and app-based distance learning in low-resource settings.

7. Pedagogical Implications

The findings of the study indicated the potential of distance learning programs to enhance the language proficiency of rural learners. Therefore, educators and policymakers should design and implement effective and more engaging distance learning programs (e.g., interactive classes, end-of-video quizzes) that can foster a supportive learning environment to motivate and empower rural learners to reach their potential. These insights provide important implications for future multimedia-based distance learning interventions.

Furthermore, ELT policymakers in Bangladesh, as well as in other developing countries with similar contexts, should not only focus on the pedagogical implementation but also on the psychological aspects of learners at the time of designing effective distance learning interventions. Development of interventional projects with improved instructional design (e.g., segmented lessons, feedback options for learners) and also ensuring of reliable access to content and devices for learners and lowering of the affective filters can be crucial factors for the success of future initiatives.

In addition, the present study adds a new perspective to the literature on multimedia-based distance learning initiatives for marginalized communities. Thus, this study connects cognitive and affective factors, and it provides empirical, theory-driven recommendations for policymakers to design future distance learning projects.

8. Limitations

Despite its contribution, this study has several limitations. First of all, the study relied on self-reported data to measure the effectiveness of the programs instead of relying on any proficiency test. Although it offers valuable insights into learners' experiences, it fails to provide any tangible, measurable improvements in English language skills among rural learners. As a result, it may lead to overestimation or underestimation of the actual language proficiency gained with the help of the programs.

Secondly, the findings are based on two specific distance learning programs in a rural context; therefore, the results may not be fully generalized to other distance learning programs in different contexts. Thirdly, the absence of a control group in this study makes it difficult to isolate the effects of the distance learning programs from other external influences (e.g., family support, private tutoring). These unmeasured factors, such as family's SES constraints, supportive family members or peers, could plausibly affect the level of motivation, anxiety, and perceived effectiveness.

9. Recommendations for Further Research

Further research should focus on longitudinal studies or qualitative studies to gain richer insights into the programs. The qualitative inquiry into the challenges faced by the learners, and the potential drawbacks of the program will allow further scope to improve existing distance learning programs or design new distance learning programs to produce better learning outcomes,

particularly for marginalized communities. Additionally, further research can focus on specific language skills (e.g., grammar, vocabulary) and explore the effectiveness of these two distance learning programs for enhancing English language proficiency.

Moreover, further research can also focus on learners' engagement patterns with the contents, such as frequency of use, interaction with multimedia contents, and participation. This would provide an objective understanding of developing programs that foster better learner engagement. Investigating teachers' (e.g., instructors, lecturers, content creators) perspectives and connecting with learners' engagement patterns would offer valuable insight into designing effective pedagogical interventions. In addition, factors to establish equity, such as access to resources, sustainable infrastructural support, digital literacy, and financial constraints in rural, marginalized households, should also be explored to design a more equitable, democratized distance learning initiative.

Therefore, this study recommends the implementation of effective distance learning programs for rural learners, and the programs will focus on their English language proficiency goals, design appropriate multimedia content, and ensure a conducive environment to lower affective filters. Further research should explore the impact of the distance learning programs by employing longitudinal studies or qualitative inquiry.

10. Conclusion

This study provides three conclusive findings. Firstly, both distance learning programs were perceived as effective by rural learners. Secondly, a comparative analysis highlighted that Ten Minutes School performed significantly better in terms of motivating learners. Thirdly, the regression analysis confirmed that learners' affective filters could significantly predict the effectiveness of the programs, and the regression analysis explained 23.6% of the variance. Moreover, this study presents a novel theoretical contribution by extending Krashen's (1982) affective filter hypothesis in the rural, distance learning context, and integrating affective filters with Mayer's (2022) CTML. By connecting affective factors with cognitive load, this study emphasizes the importance of well-designed multimedia lessons for the low-resourced marginalized communities.

Therefore, this study underscores the necessity of developing well-designed distance learning programs that would manage affective factors with appropriate multimedia content (e.g., coherent, segmented) and facilitate disadvantaged rural learners to enhance their English language proficiency. These conclusions offer practical and theoretical implications for policymakers and pedagogical interventions in Bangladesh and similar Global South contexts, identifying potential limitations and suggesting directions for future research.

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Declaration of Generative AI Use

During the preparation of the work, ChatGPT and Grammarly were used to enhance clarity and check for grammatical and spelling errors. After using these tools, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

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