

# The Effectiveness of Curriculum 2013 Implementation on Distance Learning: *A Preliminary Research*

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## ABSTRACT

This research aimed to describe the effectiveness of curriculum 2013 implementation through the practice of and interaction in distance learning at schools amidst the COVID-19 pandemic. Further investigation was conducted to reveal the influence of teacher-student's learning interaction during a pandemic by applying the distance learning implementation. The research type used was quantitative research using simple regression data analysis technique. Data were collected by distributing an online questionnaire. Employing total sampling technique, the respondents involved in this study were 38 teachers of SMAS Hang Tuah Tarakan. Based on the results, the effectiveness of the 2013 curriculum implementation on distance learning was 72.9%, while the implementation of the 2013 curriculum on distance learning interaction was 61.5%. The effectiveness of the 2013 curriculum implementation activities through distance learning at SMAS Hang Tuah Tarakan was influenced by several factors, support of facilities and infrastructure at school, learning preparation using essential lesson plans, learning implementation using digital video-communication service (zoom and google meet), and learning implementation using digital platforms (WhatsApp, Telegram, Google Classroom, and YouTube). The significant factors for the success of distance learning interaction were intensive communication between teachers and their colleagues, communication between teachers and students through video conferencing, and communication between teachers, principal and school staffs.

**Keywords:** curriculum 2013, distance learning, effectiveness, interaction.

## 1. INTRODUCTION

The implementation of the 2013 curriculum is expected to bring the generation to be independent, productive, creative, innovative individuals with superior character. With the creativity of human beings, we can innovate productively to address future challenges that are increasingly complex [1]. Nevertheless, the success of the 2013 curriculum in producing productive, creative, and innovative individuals and in realizing the goals of national education to build character is largely determined by various factors. They are the principal's leadership, teacher creativity, student activities, socialization, facilities, learning resources, a conducive environment, and school community participation[2].

One of the keys in determining the success of the 2013 curriculum implementation is a teacher's

creativity[3]. The teacher is an important agent that significantly influences the success or failure of students' learning process. Furthermore, teachers are required to optimize all of their knowledge, thoughts, and creativity so they can produce innovative works, mainly in managing the class and the teaching-learning they lead. The 2013 curriculum can be considered as the curriculum which is readily implemented by all teachers, anytime and anywhere in all regions of the Republic of Indonesia, so if it is understood and appropriately addressed, it can lead Indonesia to its 'Golden Age' in 2045 [2][4].

Many research studies on the effectiveness of online teaching and learning viewed from digital platforms integration and learning achievement have been carried out. However, the studies which concern about the effectiveness of the curriculum used in a school with distance teaching still need further investigation. To

mention, studies on online teaching and learning have been conducted widely since the COVID-19 pandemic emerged. However, distance learning between teachers and students involving the curriculum used by the school itself has not been discussed in-depth. In addition, the focus of study of how online teaching in border areas amidst the pandemic requires more attention in order to provide quality learning.

Distance learning orientation is on learning resources and the use of technological instruments as teaching and learning media. The applied technology in online learning must be well-integrated. This should include planning, implementation, development, and evaluation of teaching and learning. Particularly, it subsequently requires the use of electronic devices and the internet to conduct teaching and learning successfully. Thus, conventional methods with less technology are not recommended due to the possibility of utilizing information and technology in supporting teaching and learning process in this pandemic era. Consequently, the use of smartphones, tablets, laptops, and computer devices become common in schools [4].

However, many people have a negative perception of distance education (learning), given its performance which raises pros and cons. Distance learning has also faced many historical challenges, such as impersonal and unsatisfactory interactions. Despite those critical challenges, new tools and techniques such as distance learning, web-based learning or courses, and learning management systems has contributed significantly to the distance learning arena and student satisfaction [5].

Then, the availability of communication materials and technologies improve very quickly. As a consequence, distance learning courses are on the rise. New methods of learning have also been developed. Online learning platforms have the potential to increase student interactivity and engagement, and therefore affect the students' levels of optimism as well as their pessimism during distance learning [5][6].

Referring to previous research studies, there have been positive and negative research results focusing on college students and students' behavior towards distance learning. For example, students had a faster response using social media and technology to understand the material given by their teachers even they were able to learn autonomously with the technology media that has been provided [7]. Next, considering the COVID-19 pandemic from the beginning of 2020 until now in 2021, all students and teachers have not been able to do face-to-face learning. As a consequence, many countries are still implementing distance learning. The hasty and unavoidable adoption of distance learning presents an unequal and potentially unsatisfactory educational experience and threatens to further discredit distance learning as a viable educational platform [8].

Particularly, in view of the current contextual condition and previous research studies of distance learning, it can be considered that distance learning issues are very important to be discussed based on theoretical studies and research results that have been

carried out by scholars, especially in the context of distance learning in the educational environment amidst and post-pandemic. In addition, the terms distance education, distance learning, web-based instruction, virtual schools, e-learning, and online learning are all terms that are often used interchangeably to describe today's broad and changing non-traditional teaching. To sum up, the researchers define distance learning as learning that uses an interactive internet-based model and learning management system. Moreover, distance education as formal institution-based education where the learning system is separated by distance and time. An interactive communication system is interwoven through a learning management system to connect students, resources, content, and teachers (teachers) [9][10].

There are four main components of the definition of distance learning, namely (1) to distinguish between distance education and self-study, distance learning is institutionally-based; (2) the teacher and students are physically separated in the context of location, time, and knowledge to be taught; (3) some facilities of interactive remote telecommunication must be available to support students' access to learning sources and their interaction with the teachers; and (4) emphasize environmental concepts and learning sources that facilitate student learning experiences and encourage the learning process [11].

Furthermore, reviewing the previous research studies of distance learning effectiveness, qualitative research methods have taken its popularity and the participants came from elementary students. On the contrary, this present research focused on quantitative methods with data analysis techniques using simple linear regression tests to seek the effect of implementation of the 2013 curriculum on the implementation of distance learning and the interaction of distance learning. Moreover, the respondents were selected from high secondary school students, mainly those studies at SMA Hang Tuah Tarakan, one of the superior private schools accredited A in the North Borneo border area [4]. To provide a comprehensive data about the implementation and interaction in distance learning, the demographic information related to teachers' total number, gender, and degree were also displayed. Thus, the proposed research questions were as follows: a) How was the implementation of the 2013 curriculum at SMA Hang Tuah Tarakan through distance learning? b) Was the implementation of the 2013 curriculum effective towards the teacher-students interaction in distance learning?

## **2. METHOD**

Considering its object, the study was classified as a field study (field research). The researchers used quantitative research method using a Simple Regression analysis formula [12] [13] [14]. In this study, the respondents were 38 teachers at SMA Hang Tuah Tarakan. [15][16].

**2.1. Independent Variable (X)**

The independent variable was the 2013 Curriculum implementation in distance learning with the following indicators: the planning of learning process, the implementation of learning process, and the assessment of learning process.

**2.2. Dependent Variable (Y<sub>1</sub> and Y<sub>2</sub>)**

The dependent variable Y<sub>1</sub> consisted of the effectiveness of distance learning with the following indicators: the concept of distance learning, the principle of distance learning, and the strategy and method in distance learning, while the dependent variable Y<sub>2</sub> was the effectiveness of interaction in distance learning with the listed indicators as follows: the interaction in distance learning, the interaction using the information technology, and the interaction during a limited face-to-face (F2F) learning.

This study employed survey methods, documentation, and observation. Each of them had diverse use. Survey method was to obtain respondents' perception, documentation was to add the information or complete the data concerning the variables, whereas observation was applied to observe and record the studied issues systematically.

Regarding the data analysis, the researchers conducted an analysis to find out the influence of free variables (X) to the dependent variables (Y<sub>1</sub>) and (Y<sub>2</sub>). Besides, the simple regression equation with one predictor was utilized [15] [14]. Next, two research action hypothesis were proposed as described below.

**Hypothesis I:**

H<sub>0</sub>: The implementation of the 2013 Curriculum was ineffective through distance learning in SMA Hang Tuah Tarakan.

H<sub>a</sub>: The implementation of the 2013 Curriculum was effective through distance learning in SMA Hang Tuah Tarakan.

**Hypothesis II:**

H<sub>0</sub>: The implementation of the 2013 Curriculum was ineffective towards the interaction in distance learning in SMA Hang Tuah Tarakan.

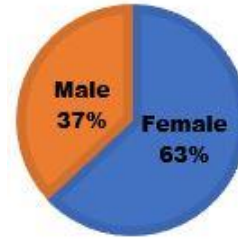
H<sub>a</sub>: The implementation of the 2013 Curriculum was effective towards the interaction in distance learning in SMA Hang Tuah Tarakan.

**3. RESULT AND DISCUSSION**

The followings are the findings related to the research questions. The following section shows the show demographic information and discussion of the results.

**3.1. Gender**

Figure 1 shows the percentage of the respondents' gender. It was found that the female respondents (63%) were more than the male respondents (37%).



**Figure 1** Diagram of Teachers' gender

**3.2. Employment Status**

Regarding the employment status, there were 58% non-permanent teachers and 26% permanent teachers in the Hang Tuah Foundation. In addition, there were also 8% civil servant teachers as well as 8% school honorary teachers.

**3.3. Quality Instrument**

The result of validity test for the survey instrument showed that the whole items of curriculum 2013 implementation and distance learning were valid (0.000<0.05). In contrast, there were 3 invalid items of learning interaction in distance learning (>0.05). Henceforth, only 7 items were valid to be further tested for its reliability.

After the validity test, the reliability test was conducted in order to find out whether the instruments were consistent or not to be used in a different time or location and had a value of *Cronbach Alpha* ( $\alpha$ ) >0.6 [14]. From the test results, the variable of curriculum 2013 implementation was reliable (0.822>0.6), followed by the distance learning (0.837>0.6), and the interaction in distance learning (0.871>0.6). Therefore, the instrument was reliable to be distributed to the respondents for the further research steps.

**3.4. The Effectiveness of Curriculum 2013 Implementation through Distance Learning**

In order to address the research questions, both parametric and non-parametric analysis were carried out and the result was depicted in Table 1.

**Table 1.** Curriculum 2013 influence through distance learning

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.854 <sup>a</sup>	.729	.721	2.592

a. Predictors: (Constant), Effectiveness of Curriculum 2013

Table 1 shows the correlation/relationship with the value of R was 0.854, while the coefficient of determination (R<sup>2</sup>) by 0.729 which meant the effect of curriculum 2013 implementation through distance learning was 72.9%. Meanwhile, 27.1% was affected by other factors outside the curriculum.

**Table 2.** Simple linear regression

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	sig.
	B	Std. Error	Beta		
(Constant)	7.203	3.190		2.258	.030
Curriculum 2013	.830	.084	.854	9.839	.000

a. Dependent Variable: Distance Learning

The result of the simple regression coefficient calculations indicated the value of the constant coefficient was 7.203 and the free variable coefficient (X) was 0.830, so the regression equation was  $Y=7.203+0.830X$ .

From Table 2, it was revealed that the probability value was 0.000 ( $0.000 < 0.05$ ). It indicated the alternative hypothesis was accepted which meant “there was a positive and significant influence of the 2013 curriculum implementation variables on the implementation of distance learning”. Moreover, the learning principles in the 2013 curriculum such as student-centered learning, students’ skills, differentiable learning, and getting feedback from learners occurred through distance learning. Furthermore, the teachers in SMA Hang Tuah Tarakan used a number of strategies focusing on technology integration to accommodate the learning activities interactively, provided related learning themes/topics and asked the students to develop those themes/topics in group, after the materials were ready to present and discuss then the teacher-students’ discussion was carried out via video conferences. Particularly, the students would explain the material they had already arranged based on their self-study and multi resources they accessed. Afterwards, teachers gave feedback or delivered her reflections towards students’ performance.

In addition, the preparation of distance learning implementation had also been undertaken by the subject teachers, mainly preparing diagnostic, formative, and summative assessment. The activities of diagnostic assessment consisted of checking students’ competence in pre-learning process to determine their needs and mastery so it would contribute to the ways of teachers’ mapping for the betterment of teaching-learning process in the classroom thoroughly. In formative assessment, teachers focused on the teaching-learning process and students’ progress, specifically on their development of competence mastery. This would subsequently affect the teachers’ reflection on their teaching effectiveness personally, strategies for assisting students who had the learning difficulties, and the determination of students’ success or failure in each material being taught due to the set of indicators. Then, in summative assessment, teachers measured students’ learning achievement as a whole as they had been encouraged to accomplish or

achieve the intended competences. Certainly, in pandemic era, each assessment and the teaching-learning activities has already integrated the use of technology, so it enables students to be digitally-literate, more independent and think critically as part of a larger national agenda, namely producing golden generation in 2045[2] and creates user-friendly e-learning atmosphere as the action of optimizing the use of technology advancement for education through smartphones, tablet, laptop, and computer devices in schools[4].

Nevertheless, the learning quality cannot be measured solely from the students’ success or failure, but it has to involve the effectiveness of teaching-learning activities as well since teachers are also responsible for providing quality teaching, including through distance learning. Thus, the ability of subject teachers to engage students and enable them to access, interact, and contribute actively in online class meeting can easily show the teaching-learning effectiveness[17].

### 3.5. The Effectiveness of Curriculum 2013 towards the Interaction in Distance Learning

Regarding the statistical analysis, the effectiveness of curriculum 2013 implementation towards the interaction in distance learning is shown in Table 3.

**Table 3.** Curriculum 2013 implementation towards the interaction in distance learning

Model	R	R Square	Adjusted R Square	Std. Error of the Estimator
1	.784 <sup>a</sup>	.615	.605	2.274

b. Predictors: (Constant), Effectiveness of Curriculum 2013

Table 3 above shows the correlation/relationship value of R which was 0.784 and the coefficient of determination ( $R^2$ ) was 0.615, which meant the effect of the implementation of the 2013 curriculum on the interaction in distance learning was 61.5%.

**Table 4.** Simple linear regression

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	6.000	2.798		2.144	.039
Curriculum 2013	.562	.074	.784	7.590	.000

b. Dependent Variable: Distance Learning

The result of the simple regression coefficient calculation shows the value of the constant coefficient was 6,000 then the free variable coefficient (X) was 0.562. so the regression equation was  $Y=6,000+0,562X$ .

From the results in table 4, it is revealed that the signification testing result shows the probability value of 0.000 ( $0.000 < 0.05$ ). It indicated the alternative hypothesis was accepted which meant “there was a positive and significant influence of the 2013 curriculum implementation on the interaction in distance learning”. Briefly, the 2013 curriculum implementation put the students forward in the learning process, hence it is necessary that the two-way in-action occur between teachers and students in the implementation of distance learning. Teacher-students’ interaction through distance learning using the advanced information technology such as Zoom meeting, Google Meet, or other video conferences could support the occurrence of such interactions and increase the students’ learning engagement. The previous statement, certainly, was in line with the benefit of distance learning, mainly in this pandemic era that education can still be conducted although teacher and students were physically separated. However, it requires specialized design and learning techniques, and smooth communication through a variety of technological fields[18].

Furthermore, considering the implementation of distance learning towards the interaction in SMA Hang Tuah Tarakan, it was found that the advanced information technology such as Google Meet, Zoom, and other media or by conducting the limited face-to-face meetings with students were carried out to accommodate students’ learning based on school policy, the readiness of each subject teacher, and the consideration of health protocol.

In distance learning, the whole educational activities were in the form of presentation, interaction, and evaluation which were as frequently as possible by utilizing information and communication technology[19][20]. Certainly, it was in accordance with the situation in the field which was based on the field observation or direct review to the school. In short, it can be stated that the teachers in SMA Hang Tuah Tarakan have taken advantages of information technology and therefore, there was a significant influence between the 2013 curriculum towards the teachers-students’ interaction in distance learning.

## 5. CONCLUSION

Based on the research result, it can be concluded that the 2013 curriculum implementation through distance learning in SMA Hang Tuah Tarakan was effective with a percentage of 72.9%. Additionally, there were a number of supporting factors, namely (1) support of facilities and infrastructures acquired by teachers to undergo distance learning with their students successfully, (2) great classroom learning plan started from the lesson plan preparation, learning diverse resources, and learning material, (3) the use of Zoom and Google Meet as the media to connect teacher-students synchronously has provided students an opportunity to obtain further explanation and material

discussion session, and (4) the use of WhatsApp, Telegram and Google Classroom to support the students’ learning process, mainly enabling them focus on the materials being taught by sending the teaching videos, learning resources in the forms of web links, remedial, and enrichment.

The results also showed the positive effect of the 2013 curriculum implementation towards distance learning through the interaction between teachers-students, teachers and their colleagues, and teachers-principal or teacher-school staffs in SMA Hang Tuah Tarakan. The percentage of the 2013 curriculum implementation towards learning interaction was 61.5%. It was supported by students’ autonomous learning and their understanding on the explanation given by the teachers through video conferencing and one-way learning video. Furthermore, it was stated that video conference helped the students who previously did not understand the materials were more active to ask a question to their teachers [21]. Besides, the fellow teachers could exchange information about the effective teaching to each other during distance learning. In addition, it has been commonly found that the teachers, whose ages are relatively young, assisted the senior teachers in utilizing learning media for teaching-learning process.

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