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Information Technology-Based Learning to Increase Secondary School Students' Learning Interest

Raudya Setya Wismoko Putri [1], Saliman [2]

[1] Universitas Negeri Yogyakarta, Indonesia; Raudyasetya.2020@student.uny.ac.id
[2] Universitas Negeri Yogyakarta, Indonesia; Salimanjaper@uny.ac.id

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ABSTRACT

The purpose of this study was to determine the efforts of blended learning in increasing interest in learning Social Sciences in a secondary school. This study uses the Kemmis & McTaggart action research model. The research was carried out throughout two cycles. Each cycle includes four levels, namely planning, implementation of activities, supervision, and contemplation consisting of 3 meetings per cycle. The data collection techniques used were observation forms, field notes, documents, questionnaires, and tests. A descriptive analysis of qualitative data was used to analyze the data. The results of the study prove that the use of blended learning in this school can increase interest in learning social studies using the blended *learning* phase between traditional courses and virtual/virtual courses. In-class learning and teacher-supervised mixed learning, and virtual classroom learning require students to study independently without teacher supervision. Using this type of learning will increase students' interest in learning from Cycle I to Cycle II. The average value of the first cycle is 63.5%, and the average value of the second cycle is 81%. Various aspects also experienced development. From cycle I to cycle II the average aspect of student attention experienced an escalation of 20%. From Cycle I to Cycle II, thirst increased by an average of 17%. Activity increased by an average of 19%. Cycle I and Cycle II curiosity increased by 21%. Enjoyment period I to period II increased by 17%. Confidence increased 16% from Cycle I to Cycle II.

Corresponding Author:
Raudya Setya Wismoko Putri
Yogyakarta State University, Indonesi; Raudyasetya.2020@student.uny.ac.id

1. INTRODUCTION

Education is a system of human self-expansion. Education is to avoid various forms of oppression and ignorance of backwardness, as well as to try to restore human function (Sudarsono, et al., 2016). From this interpretation, it can be seen that education was born as a goal-oriented method and

functional unit. Education is very important for survival in today's era and is an important capital in fending off competition. Schools create educational institutions and are one of the defining aspects of achieving Indonesian education goals. Wang (2017) argues that classroom learning must be able to guide students to acquire basic and core abilities. Good learning is planned learning, methods, and supporting media. Based on the initial observations of researchers a secondary school in September 2018 and October 2018, it is seen that students' interest in learning is meagre. This can be seen from the average daily test results.

The problems above show that schools must improve the quality of education, and schools must be able to enter the various components of the education quality system subsystem. In this regard, Guilherme (2019) mentions the first and main subsystem to improve the quality of education is the teacher factor. The main tasks of education are teaching, guidance, guidance, training, evaluation, and evaluation for students in formal education, basic education, and secondary education. In summary, it can be concluded that the quality of education is influenced by the teacher. Therefore, teachers must be competent, creative, and innovative to increase the quality of education. Teachers in the universal era need to master today's technological changes.

The utilization of information technology in education is very important to help realize learning activities. According to Mohajan (2018), the scope of social studies learning topics is mostly theoretical, so it takes a long time for students to understand the material. Visual media can help students understand the difficulty of the material. Naibaho (2019) mentions that student-centred learning models can provide opportunities for students to play an active role in learning. One of the facilities that can support student-centeredness in learning is blended learning.

Blended learning is a combination of face-to-face and virtual/virtual or online teaching using information and communication technology. Husama (2013) believes that the advantage of the blended learning model is to increase the accessibility of learning and affects the convenience of students in obtaining rich topics and content. Such learning helps students in the learning process. The application of the blended learning model will change not only the learning process that can be listened to by the teacher but also students can use e-learning-based facilities (networks, Yahoo, blogs, etc.), which can be accessed at any time. , anywhere. With the application of the blended learning model Anywhere, it is hoped that students will be more interested in participating in learning activities inside and outside the classroom. Based on clarifying the existing problems, this research aims to increase the interest of class VII secondary school students in studying social studies through the blended learning model. According to Singh (2011), the blended learning model is a combination of various learning models that aim to maximize learning systems and services, both distance, traditional, media, and even computer-based.

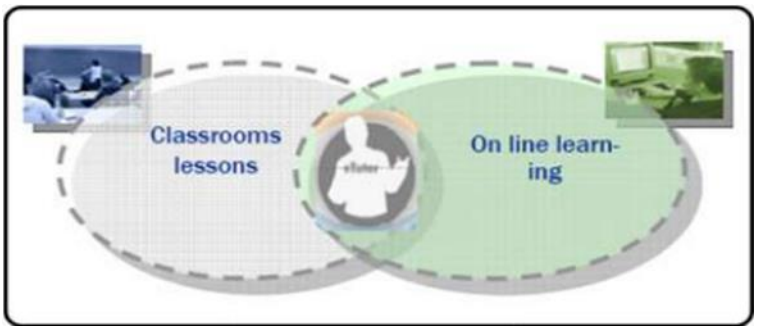

Figure 1. Learning Process Using Mixed Learning Model

Based on the picture above, it can be seen that *blended learning is* built by combining face-to-face learning with online learning.

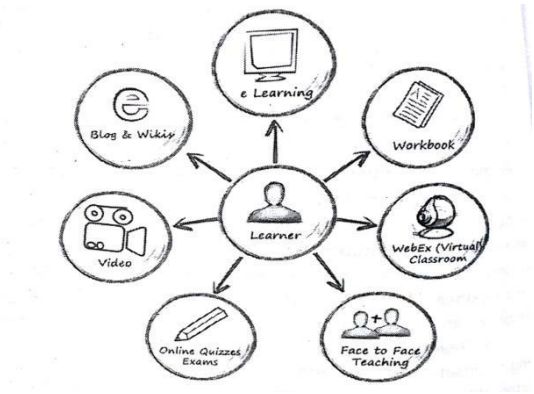

Figure 2. Optimization of Face-to-face with Blended Learning
(Husamah, 2014: 20)

According to Graham (2006), about the notion of blended *learning*, it can be concluded that the blended *learning* model is the integration of multimedia technology, CD Rom, video streaming, virtual lessons, voice messages, email and conference calls, and online text animations. Blended learning is the most suitable solution for the learning process, not only for learning needs but also for student learning styles.

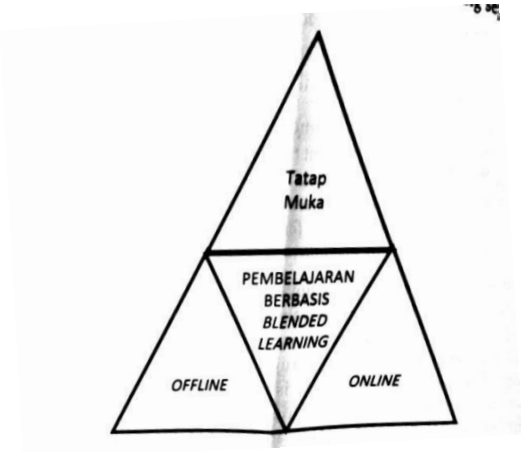

Figure 3. Components of Blended Learning-Based Learning
(Dwiyogo & Heynoek, 2017)

The following are the main categories included in the hybrid learning model. Many teachers use the term comprehensive learning to describe the use of information and communication technology in face-to-face activities through the use of networks that rely on networks that do not change activity patterns or networks that complement networks. Learning that cuts off face-to-face activities but does not eliminate them allows students to learn online. Teachers sometimes have difficulty distinguishing terms that are very similar to blended learning. The difference between blended learning and e-learning is the percentage of online media used in the study. Blended learning combines the use of information and communication technology (ICT) with traditional face-to-face learning models, and 30%-79% of online media combines the best areas of online learning models with face-to-face learning. Facing regular learning. Mixed learning can compensate for the shortcomings of online and regular face-to-face learning.

According to Husamah (2014) and Watson (2008), it can be concluded that blended learning is not only face-to-face learning but also online learning. Blended learning can increase students' knowledge more broadly because blended learning does not only use resources such as textbooks or student worksheets (LKS), but also other resources that can be accessed via the internet. Blended learning students can learn anywhere, not necessarily in the classroom, but in a place that is connected to the

internet. In addition, students can repeat what they have learned in a school outside of school. The researcher concludes the characteristics of blended learning based on the statement of Garnham and Shibley et al. in Husamah (2014) that the purpose of blended learning is to create modern learning, not only traditionally and conventionally. In the classroom because at this time, all have sophisticated communication tools that have also made it easier for humans in all things, including in the world of education. The purpose of learning blended learning by making learners have the desire to increase learning problems, and when the ongoing activities in the classroom, learners do not get bored because of the use of blended learning is students learn online by using electronic media and the internet in learning and is expected in the learning blended In this learning, and students will be rich in knowledge.

2. METHODS

This research is based on classroom activity commonly known as CAR (Classroom Action Research. Kemmis & McTaggart (2005) mentioned that CAR is a collective self-reflection research conducted by participants to advance the power of thought in education and social practice as well as their cognition about practice and society. Real understanding. Their cultivation situation had ended. This study refers to the circulation model of classroom activity research developed by Kemmis & Taggart and adopts a classroom action research (CAR) design. This research includes planning, activity, observation, and contemplation. These four factors are considered a cycle. In this case, a cycle is a series of activities that include planning, activity, observation, and contemplation (Kusumah & Dwitagama, 2010). When conducting assessments, researchers work closely with teachers in related disciplines. The action research plan of this seminar has several cycle stages, if the first cycle is considered successful, then the research is enough to be carried out before the first cycle, but if the first cycle carried out by the researcher is not successful, then the study is continued again in the next cycle.

3. FINDINGS AND DISCUSSION

This research is a type of classroom action research. Classroom Action Research (CAR) can be explained as a way or action of teachers or researchers to overcome learning problems through action research. This classroom action research was conducted at a state junior high school in Pakem and was carried out in two cycles. This study aims to determine the increased interest in social research and learning outcomes through information technology-based blended learning. The results of the analysis of the previous period, the first period, and the second period showed the application of blended learning could increase students' interest and learning outcomes in studying rare materials and various human needs. This is supported by the average percentage of interest and student achievement data which has increased in each cycle so that it meets the success criteria set in Cycle II.

Based on observations, students' interest in social studies subjects increased in each cycle. The increasing interest of students in social studies subjects was due to the scarcity of materials and various human needs in Cycle I and Cycle II. According to the pre-circulation, the average is 63%, the first cycle is 62%, and the results of the third cycle are 81%. From period I to period II, there was an increase of 19%. The results of observations of students' interest in learning are included in the category of high interest, which exceeds the predetermined standard by 75%. See the table below for more details:

Table 1. Analysis of the Results of Observation of Student Interests in Pre-cycle, Cycle I, and Cycle II

Variable	Aspect	No items	cycle			Success criteria
			Recycling	I	II	
Student Interest	Attention	1	61	60	81	75%
		5				
		19				
		17				
	Want	11	66	58	75	
		13				
	Activity	6	64	62	81	
		7				
		8				
		12				
	Want to know	15	63	60	81	
		16				
	Happiness	2	64	67	84	
		10				
		14				
		18				
	Confidence	3	64	63	79	
		4				
		9				
		20				
	Average â€œaverage		63	62	81	

Source: Results of Observation of Student Interest in Pre-cycle, Cycle I, and Cycle II

Results of Observation of Student Interest in Pre-cycle, Cycle I and Cycle II. For more details, consider the diagram below:

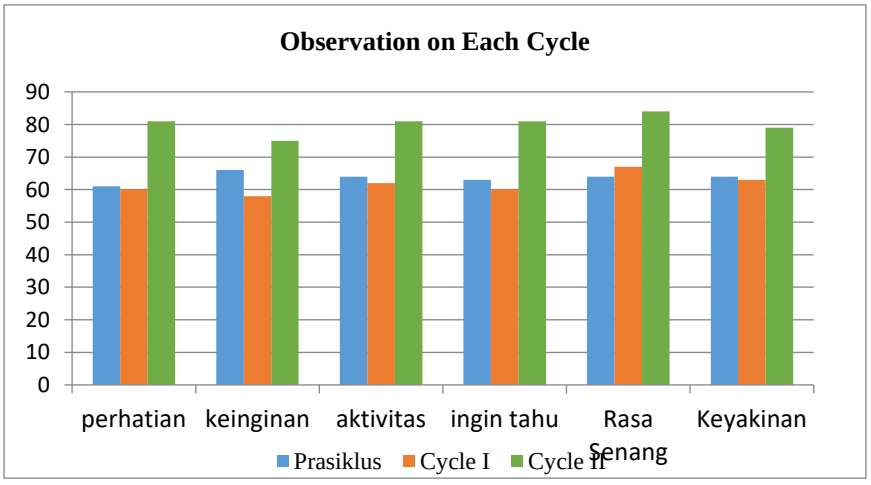

Figure 4. Analysis of Student Interest Observation Diagram
Source: Results of Observation of Student Interest in Pre-cycle, Cycle I and Cycle II

The results of observations of students' interest, in the first cycle, the average aspect of student attention was still at number 60 because there were several obstacles; namely, there were still students who were busy doodling on books, chatting, and disturbing their seatmates. Some students are often in and out of class. This happens because the teacher does not condition the class and reprimands when there are students who talk to themselves, are busy scribbling books, disturbing their seatmates, and the teacher invites students who come in and out of class to throw garbage or go to school so that students' attention has not been fully focused on learning (Peter & Dalbert, 2010). In Slameto's book (2003) number 1, students who have a good sense of attention in learning constantly tend to pay attention and remember something that is learned continuously. The next step for teachers and researchers is to find solutions to increase student attention by informing students that there will be sanctions for students who are busy themselves and do not pay attention to learning, and make the learning atmosphere more interesting by providing examples, attention-grabbing images, and videos. Students when explaining the material, so in cycle II the average student's attention increased to 80.

In the first cycle, the average aspect of students' desire to participate in learning activities was still at number 58 because in the first cycle, there were students who did not understand the stages of learning activities, especially when learning in virtual/virtual classes. Many students did not understand the use of *online* networks *(Edmodo)*, so there were still students who were not active in group discussion activities, making noise and chatting. This happened because, at first, before the group discussion, activities in the virtual class took place. The teacher did not explain the procedure or stages of its use (Kiseleva & Pogosian, 2021). Students are still not used to doing learning activities using the *online* network *(Edmodo)*. Therefore, students are still confused about their learning activities. So there are students who are not active in group discussion activities, are noisy themselves, and chat. As written in Slameto's book (2003) number 2, students who have the desire to take part in learning are students who have a sense of pleasure in these learning activities because happy students will always have the desire to participate in learning activities.

The solution obtained by teachers and researchers from these problems is that in cycle II, before learning activities take place, the teacher explains in advance how to use the *online* network *(Edmodo)*, and explains the activities that students will do when participating in learning activities in virtual/virtual classes. There are no more students who are confused about participating in learning activities in virtual/virtual classes after there is an explanation, so the average desire of students in cycle II increases to 75.

In the aspect of the activity, the average obtained in the first cycle is 62 because, in the first cycle, students who take part in learning activities such as doing group assignments and group discussions, not all group members participate. Because there is no control from the teacher when students work on group assignments. In Slameto's book (2003) number 2, it is explained that students who enjoy participating in learning activities have a love of learning, so in the second cycle, the solution is after the teacher explains in detail the stages of learning activities during group work activities and discussions. The teacher group frees students to look for references by using package books and opening *online* networks using the cell phones they carry. So that students do not get bored and become happy. In addition, the teacher did not forget to control the students by going around each group to find out which students did not understand or did not participate in the ongoing group work activities and discussions. So in the second cycle, the average activity aspect increased to 81.

In the Curiosity Aspect in cycle I, the average obtained was 60 because there were students who did not pay attention to learning, such as being noisy themselves or chatting with friends. So, there are students who have low curiosity, as explained in Slameto's book (2003) number 4, students who are curious about learning activities like what they do. Therefore, to increase students' curiosity about learning, students must like learning. Teachers and researchers have to learn solutions using

online networks (Edmodo), which are carried out using mobile phones. Initially, students were happy in the first cycle, but because there were students who did not understand how to use it, students did not pay attention to learning. After the teacher explained in detail about the use of *online* networks *(Edmodo),* students became excited and preferred to learn through virtual/virtual classes using *online* networks *(Edmodo)*. In addition, when carrying out group discussion activities in doing LKS assignments, in the first cycle, use Astro, while in the second cycle, use a Laptop. In this activity, students become more enthusiastic because they use new things that are more interesting in doing their group assignments. So, in cycle II the average Curious aspect increased to 81.

The fun aspect in the first cycle was 67 on average. In the first cycle, many students said that learning was boring and not fun. Because before learning begins, the teacher forgets to tell the learning procedure, it is not clear and has not been explained about the stages of using the online network (Edmodo). Cause during learning activities, some students feel learning is very boring because only students who understand can use the online network (Edmodo). Slameto's book (2003) number 3 explains that students who have a sense of pleasure in learning will gain pride and satisfaction in something they are interested in. The solution taken by researchers and teachers in cycle II was that apart from explaining beforehand the stages of using the online network (Edmodo*)*, students were free to comment on each other and were free to look for references, and could find answers by opening a library on the online network (Edmodo*)*. Therefore, students become active in commenting, which have the effect that students are easier to master the teaching material and are not only motivated by one source. Because the sources used are many, the answers also vary so that they can add insight to students. The average pleasure of participating in learning activities in cycle II increased to 84.

The last aspect is the confidence aspect; in this aspect, the average obtained in the first cycle is 63 because, in the first cycle, many students doubted the results of their group discussions because most students still use textbook references only in the first cycle. Looking for references. On the *online* network *(Edmodo)* or the internet. So that the students' discussion in the first cycle is monotonous, the answers have not varied. Slameto's book (2003) explains that students who have confidence in something they do can be seen as students who manifest their beliefs through participation in activities and activities during learning. Teachers and researchers took solutions for the second cycle. The teacher urges students that before group discussion activities take place, students can use *online* networks *(Edmodo)* or the internet to find discussion materials so that discussion activities are wider in scope, not only using textbooks, and the teacher gives students how to use *online* networks. This causes learning activities to be very active, and students become enthusiastic and confident in answering. In cycle II, this aspect of belief increased on average to 79.

Still supported by the results of the questionnaire given to students in the pre-cycle, cycle I, and cycle II showed an increase. The results of student responses from pre-cycle are 62%, cycle I 65%, and cycle II 79%. From pre-cycle to cycle I, there is an increase of 3%, and from cycle, I to cycle II is 19%. When viewed from the criteria set at 75%, including the high-interest category, it has been exceeded or even exceeded. The *results* are shown in the following table:

Table 2. Analysis of Student Response Questionnaire Results Pre-Cycle, Cycle I, and Cycle II

Variable	Aspect	No items	cycle			Success criteria
			Recycling	I	II	
Student Interest	Attention	1, 5, 19, 17, 30	61	65	82	75%
	Want	11, 13, 29	63	63	78	
	Activity	6, 7, 8, 12, 28	64	66	81	
	Want to know	15, 16, 27, 22, 21, 23, 24	65	65	75	
	Happiness	2, 10, 14, 18, 24, 25	62	67	77	
	Confidence	3, 4, 9, 20	62	63	79	
Average			62	65	70	

Source: Results of Pre-Cycle Student Response Questionnaire, Cycle I and Cycle II

For a clearer picture of the results of student response questionnaires, consider the following diagram:

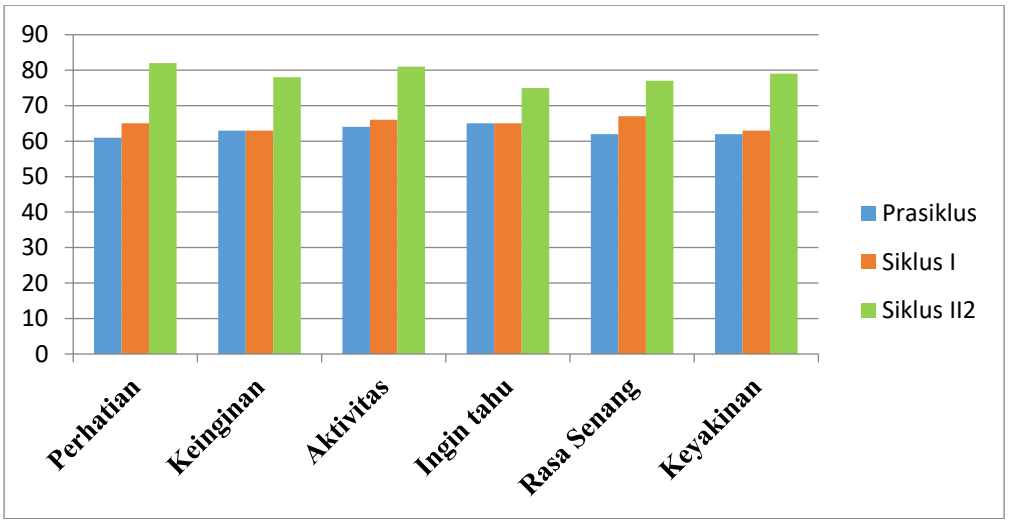

Figure 5. Analysis of the results of the Questionnaire Results of the Pre-Cycle Student Interest Response,Cycle I and Cycle II
Source: Results of Pre-Cycle Student Response Questionnaire, Cycle I and Cycle II

The results of observations made during the learning process and the results of student interest responses from the questionnaire given, after being averaged, results obtained from the pre-cycle increase of 62.5% with the category of moderate interest to 63.5% in the category of moderate interest. cycle I with the category of moderate interest, and cycle II of 81% with the category of high interest. These results indicate an increase from cycle I to cycle III by 19%. Based on the final results obtained, 81% is in accordance with the research success indicators set at 75%. This success is in accordance with the opinion conveyed by Pratama & Wangid (2019), who says that the learning material that children are interested in / want will be able to be studied by children as well as possible. On the other hand, material that is not in accordance with the child's interests cannot be studied properly, because there is no attraction for them. He became reluctant to study. For more details, see the following table:

Table 3. Analysis of the Mean Observation Results and Responses of Students' Interest in Learning In Precycle, Cycle I, and Cycle II

Recycling	Information	Cycle I	Information	Cycle II	Information
62.5%	Haven't Succeeded with the medium interest category	63.5%	Haven't Succeeded with the medium interest category	81%	Success with high-interest category

Source: Analysis of the Average Results of Observations and Responses of Students' Interests in Pre-cycle, Cycle I, and Cycle II

In the pre-cycle, the average percentage of completeness was 19.4%. The first cycle experienced an increase of 19% with the category less than the percentage of learning completeness in the pretest not yet available (0%) to 19% in the post-test, and in the second cycle, the average percentage learning average at pretest 55% and at posttest 87% so that there is an increase of 32%. These results are in

accordance with the expected completeness criteria and even exceed; this shows that social studies learning with blended learning can improve learning outcomes. The success of learning outcomes as stated by Hariyanto et al. (2021), is that the optimal learning outcomes reflect the success of the learning process at school or the success of students in mastering research concepts or materials obtained based on observations or observations, giving questionnaires and tests. At the time of the study, there were several main research findings, including:

- Learning blended learning can increase student interest and learning outcomes in social studies lessons on the scarcity of material and human needs.
- Teaching and learning *blended learning* for student-centred learning is no longer teacher-centric, and the teacher is a facilitator and motivator.
- With *blended learning*, students are no longer only objects of learning but subjects of learning.
- The application of *blended learning* in social studies subjects is very appropriate to be applied with a scientific learning approach, one of the approaches in the 2013 curriculum.

4. CONCLUSION

The interest in learning social studies for grade VII in the research field using blended learning has increased. Teachers teach by combining classroom learning with conventional and virtual/virtual learning. Traditional and virtual/virtual learning are interrelated because the procedure of the crooked learning model is that students learn in conventional classes and then learn outside the classroom. In conventional classes, the teacher teaches as a usual class, while in virtual classes, students tend to be independent. They learn in virtual classes and discuss without teacher supervision; in virtual classes, students learn by using cell phones or other electronic devices that can be connected to the internet. The application of blended learning makes students' interest in learning increase, it can be seen from the results of students' scores during research cycle I and cycle II. The average value increased in the first cycle to 63.5% and by the second cycle by 81%. The rise in interest of learning social studies experienced an increase in addition to the average score, which increased in cycle I 63.5 cycle II 81%, also an increase in every aspect. The average aspect of student attention from cycle I to cycle II experienced an increase of 20%. Aspects of desire in the first cycle to the second cycle increased by 17%. The activity aspect from cycle I to cycle II increased by 19%. The Curious Aspect increased by 21%. The pleasure aspect from cycle I to cycle II increased by 17%. The last aspect is the aspect of trust which has increased by 16%. Next, researchers are invited to conduct similar studies at different levels of education.

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