JPPIPA 11(4) (2025)

Jurnal Penelitian Pendidikan IPA

http://jppipa.unram.ac.id/index.php/jppipa/index

Improving Student Learning Concentration in Chemistry Using the 'Everyone Is a Teacher Here' Strategy Assisted by Genially Media

Elferida Sormin[1*], Nova Irawati Simatupang[1], Sumiyati[1], Dera Savera[1]

[1] Chemistry Education Department, Faculty of Teacher Training and Education, Universitas Kristen Indonesia, Indonesia

Received: February 3, 2025
Revised: March 27, 2025
Accepted: April 25, 2025
Published: April 30, 2025

Corresponding Author:
Elferida Sormin
elferida.sormin@uki.ac.id

DOI: 10.29303/jppipa.v11i4.10782

Abstract: Student concentration in learning chemistry tends to be low due to the abstract nature of the material and the dominance of teacher-centered approaches. Innovative, student-centered strategies and interactive media are needed to enhance engagement and focus. This study aims to investigate the improvement of student learning concentration through the "Everyone Is a Teacher Here" (EIATH) strategy assisted by Genially media. A quasi-experimental design with one-group pretest-posttest was used, involving 36 students from class XI MIPA II at a Jakarta senior high school, selected through purposive sampling. Student concentration was measured using a validated non-test instrument based on a Likert scale. Data were analyzed using normality and homogeneity tests, followed by a paired sample t-test. The results showed that the data were normally distributed ($p = 0.200$) and homogeneous ($p = 0.204$). The paired t-test indicated a significant improvement in student concentration ($t = 73.3 > t$ table $= 1.68957$). However, the N-Gain score was 0.2, indicating a low level of improvement. Discussion: Although the EIATH strategy, assisted by Genially media, significantly enhanced student concentration, the low N-Gain score suggests that its implementation needs to be further optimized. The combination of active learning and interactive media holds potential but may require extended application and supportive classroom conditions to achieve higher impact. The "Everyone Is a Teacher Here" strategy, supported by Genially media, has a positive effect on improving student learning concentration in chemistry, but refinement in implementation is necessary to achieve more substantial outcomes.

Keywords: Everyone Is a teacher here; Genially; Learning Concentration; Learning Strategies.

Introduction

The coronavirus has had a wide impact in various fields. Various activities are restricted to break the coronavirus's transmission chain. In education, the government has implemented an online learning policy (Zuhri et al., 2021.), which significantly impacts the Indonesian education system, both for students and teachers. These barriers, such as lack of facilities, external distractions, lack of institutional budgetary support to purchase advanced technology, lack of training, and limiting the use of media by teachers in online learning, often tire students and students who pay attention or pay attention in online learning. Attention processes are limited (Joshi et al., n.d.) In online learning, there are indications that students have a lower average concentration of learning (Komang & Bali, 2021).

Based on observations during face-to-face learning in MIPA X class at a school in Jakarta, it was found that there were symptoms of inattention among students, with more than 50% of students showing inattention to learning. For example, students have a low attitude toward accepting and responding to questions asked by

How to Cite:
Sormin, E., Simatupang, N. I., Sumiyati, S., & Savera, D. (2025). Improving Student Learning Concentration in Chemistry Using the 'Everyone Is a Teacher Here' Strategy Assisted by Genially Media. *Jurnal Penelitian Pendidikan IPA*, *11*(4), 478–483. https://doi.org/10.29303/jppipa.v11i4.10782

the teacher regarding learning materials, and students need to follow the teacher's instructions to make clear body movements during the learning process. This can happen because there are triggers that make it difficult for students to focus on learning (Fitri et al., 2019), the universal trigger of student difficulties in learning is a readiness to learn and a qualified learning area. Therefore, suitable learning methods are needed, as well as active learning, so that they can divide students' focus when learning declines. A learning strategy is a concept or plan that educators systematically arrange with students to achieve effective and efficient learning goals. A good learning strategy requires strengthening the interaction between students and teachers to create a relationship between the two so that the learning process goes well. The use of appropriate learning strategies will be beneficial to support the concentration in student learning; among others, one strategy that can be tried is the everyone is a teacher here learning strategy (all are teachers here). This strategy requires all students in the education process to be responsible for the opportunities he receives as a teacher. Because students want to play the role of a teacher, they must be able to prepare themselves by focusing on focusing their minds and thoughts on the educational process so that when they find problems with the teacher or their friends, these students can not only respond briefly to the module. The question, but students can also explain the module in question well.

The use of everyone is a teacher here is widely applied when education is offline, and a lot of research uses it for theoretical modules in measuring students' descriptions of education, learning outcomes, and student class participation (Gazali et al., 2019) such as what was tried by other researcher who applied the everyone is a teacher here to measure students' interpretation of mathematical concepts, not only there is also the application of the everyone is a teacher here educational strategy to student learning outcomes, some researcher which applies everyone is a teacher here educational strategy make students more active in ongoing education. Because some of these studies have obtained positive results for dealing with these cases, it is hoped that this strategy will also be able to overcome cases of student learning concentration which are also related to the previous case, which was resolved by implementing the everyone is a teacher here education strategy (Sormin, 2023a; Sormin, 2023b).

Throughout the learning process, students must be able to focus/concentrate until the lesson ends, both in a regular education system (offline) and online. One of the determinants of student learning success is the concentration of students in learning, teaching procedures, and educational features. Therefore, students are required to be able to explore education with a focus on building their knowledge in every educational activity that is attempted (Sati & Sunarti, 2021). Concentration is an attempt to focus the function of the soul on an object that is being considered and a concentration of attention, thoughts, and actions on an object that is being studied and ignores everything that is not related to the object being studied (Novianti & Garzia, 2020). Concentration is an attempt to draw attention to the object you need by ignoring other unwanted stimuli. So, in this case, the concentration of learning is significant for students in each educational process; if students focus/concentrate throughout the educational process, then the students themselves will have the opportunity to gain knowledge from what is learned (Fridaram et al., 2020). Therefore, concentrating on lessons is very meaningful for students to achieve success in learning (Putri et al., 2022)

Instructions for measuring student learning concentration are as follows; (1) there is acceptance or attention to teaching materials being studied, (2) students want to respond to teaching materials that are being informed, (3) student body movements explore the teacher's instructions, (4) can practice the knowledge gained, (5) can review the knowledge gained, (6) can express ideas or opinions, (7) alertness to knowledge that can quickly arise when needed, (8) focuses on teaching materials studied, (9) throughout the learning process students do not feel bored. Given the various modules in chemistry lessons, some modules are computational, theoretical, or a combination of both. Of course, in the educational process, students must be able to focus on the subject being studied. Therefore, one of the efforts of educators to increase the concentration of students' learning is to produce educational facilities and innovations by implementing various educational strategies (Rozi & Yahya, 2023).

Using the " everyone is a teacher here" learning strategy is usually tried by drawing using paper or cards. Due to the development of increasingly advanced technology and the online education process that often uses engaging educational media, it is possible to modify the implementation of this educational strategy digitally with the help of Genially media. The application of media is recognized by most educators to strongly support the implementation of the learning process both outside and inside the classroom. Learning media is a way to send and receive messages from students and even from educators themselves (Sulthoniyah et al., 2021). The message is translated by an educator in communication that is delivered orally, in writing, or visually. Meanwhile, media is a tool used in the learning process (Diani et al., 2018). The central role of learning media is to visualize things that are difficult to see so they can be seen clearly, leading to increased understanding and awareness (Tafonao, 2018). The

reason for using learning media is also very important to us, namely to increase student interest in learning, which psychologically learning media is very helpful for the psychological development of students in terms of learning because it can help facilitate students in learning (Nurfadhillah et al., 2021). So by looking at the cases that previous researchers have studied and looking at the situation at the school that is planned to be the position of the research place, for that, we try research entitled "Analysis of Increasing Student Learning Concentration in Chemistry Subjects Through Educational Strategies Everyone Is a Teacher Here Assisted by Media Genially Education."

Method

Research Design

The study used a descriptive quantitative approach with a one-group pre- and post-non-test research design. The independent variable is the learning strategy; everyone is a teacher here, and the dependent variable is student learning concentration.

Sample and Population

The population in the research is all class XI MIPA I, II, and III students in one of the senior high schools in Jakarta, with a total of 107 students. The illustration method used was purposive sampling, which had previously been observed in all three classes, so it was known that students showed indications of a lack of concentration in learning. After that, when they wanted to carry out research, the researchers used class XI MIPA II as an illustration with a total of 36 students because the researchers used to familiarize themselves with the teaching and learning activity program (KBM) at the school.

Research Instrument

The study used a closed questionnaire with a Likert scale to determine the increase in student learning concentration after implementing the everyone is a teacher here learning strategy, which was assisted by the Genially platform as a learning medium for hydrocarbon material. The answer choices had been validated in advance.

General Procedure

1) Preparation Session

In this session, researchers carry out literature research to gather relevant daily information to support the research process. Next, the researcher carried out observations by observing the educational process in the class that became the population of the researcher's object; after that, it formulated problems and made research proposals which were then submitted for revision by the supervisor. Next is the selection of illustrations and modules that will be informed when applying the research. After that, educational features and research instruments are prepared and will be validated by expert validators and revised by supervisors.

2) Treatment Session

In this implementation step, researchers carry out activities, among others, as: (1) Giving pre-non-test Likert scale questionnaires before carrying out learning; (2) Carry out teaching Using the " everyone is a teacher here" learning strategy with the help of Genially media; (3) Giving a post-nontest Likert scale questionnaire after education.

3) Data Processing Session

In this session, researchers collected and tried information processing using Microsoft Excel, then analyzed the information from the research results. Processing the prerequisite analysis test information first, then try the information analysis test using the T-test and n-gain.

Data analysis

Data analysis was tested using the One-Sample T-Test. The results obtained from filling out the questionnaire in the form of a Likert scale questionnaire that was obtained at the time before and after the treatment was calculated using SPSS type 26 encouragement.

1. t-test

The test was tried through a one-sample T-test with a significant level of 0.05 in a 95% interval condition with the help of SPSS type 26. There was also information that was tested, which was pre-non-test and post-non-test information with one one-sample t-test analysis. Therefore, the results of hypothesis testing are obtained, and it can be concluded that:

Ha: If Sig. (2-tailed) < 0.05 means that there is an increase in student learning concentration.

Ho: If Sig. (2-tailed) > 0.05, it means that there is no increase in student learning concentration.

2. N- gain. test

The N-gain test is a test used to look at the comparison between pre-non-test scores and non-test post-scores. This N-Gain test aims to identify how much an increase in student learning concentration is. The N-Gain test can use the Heke equation 1999 in his journal Wahab, A., Junaedi, J., & Azhar, Meter. (2021) with the following formula and criteria:

$$\text{N-Gain}=\frac{post\ non\ test\ score - pre\ non\ test\ score}{maximum\ score - pre\ non\ test\ score} \quad (1)$$

Table 1. N-gain. Test Criteria

Average	Criteria
g > 0.7	Tall
0.3 ≤ g ≤ 0.7	Currently
0 < g < 0.3	Low
g ≤ 0	Fail

Result and Discussion

As shown in the table below, the data describing students' concentration on the non-pre-test instrument has N statistics of 36, a non-pre-test range of 42.00, and the non-post-test range of 46.00. the highest nontest score was 114 points, and the lowest was 72 points, the average score was 96.77, the highest score after the nontest was 130, the lowest score was 84, and the average score was 105.4444. The standard error for the first non-test is 1.73, and the standard error for the last non-test is 1.43. as shown in the table of Descriptive Analysis using SPSS version 2.

Table 2. Results of statistical descriptions for Pre Non-Test and Post Non Test data

	N Statistics	Range Statistics	Minimum Statistics	Maximum Statistics	Mean Statistics	Std. Error	Std. Deviation Statistics	Variance Statistics	Kurtosis Statistics	Std. Error
Prenontest	36	42.	72.00	114.0	96.77	1.73	10.38	107.7	-.263	.768
Postnontest	36	46.	84.00	130.0	105.4	1.43	8.62	74.31	1,642	.768

After the normality test with SPSS version 26 was performed, the data significance value with N 36 was 0.200. This means that the sig value is more significant than (>) greater than 0.05, the interpretation of H1 is accepted (data is normally distributed), and H0 is rejected with the presentation of data as in Table 3.

Table 3. Data Normality Test Results

One-Sample Kolmogorov-Smirnov Test		VAR00001
N		36
Normal Parameters [a,b]	Mean	96.7778
	Std. Deviation	10.38161
Most Extreme Differences	Absolute	.080
	Positive	.051
	negative	-.080
Test Statistics		.080
asymp. Sig. (2-tailed)		.200 [c,d]

a. Test distribution is Normal.

The homogeneity test is carried out using the Levene test with the processed data as presented in Table 4.

Table 4. Homogeneity Analysis Test Results

Test of Homogeneity of Variances		Levene Statistics	df1	df2	Sig.
VAR001	Based on Mean	1.675	1	34	0.204
	Based on Median	1.624	1	34	0.211
	Based on the Median and with adjusted df	1.624	1	33.9 22	0.211
	Based on trimmed mean	1.669	1	34	0.205

As seen from Table 4 above, the homogeneity test results are based on the mean sig. 0.204 > 0.05, then if Sig accepts H1, rejects H0. > 0.05. This indicates that the data set being tested has a homogeneous variance.

Hypothesis testing was carried out on students' non-post-test score data using the SPSS version 26 program. Hypothesis testing was carried out with a One one-sample t-test. The assumptions used in this one-sample test are as follows:

Sig. value <0.05

1 . If t count > t table, Ha is accepted, and H0 is rejected

2 . If t count < t table, reject Ha and accept H0

The following are the results of the One one-sample t-test hypothesis test obtained and presented in Table 5.

Table 5. Results of T-Test (One-Sample T-Test)

	T	df	Sig. (2-tailed)	Mean Difference	Test Value = 0 95% Confidence Interval of the Difference Lower	Upper
Post nontest	73.3	35	.000	105.444	102.5277	108.3612

The data above shows that the sig value is 0.000 <0.05, the t-count value is 73.3, the df value is 35, and the t-table value is 1.68. In this case, the value of t-count is more significant than (>) t-table so that by using a learning strategy where everyone is a teacher, students' learning concentration increases and thus is accepted. The non-post-test and non-pre-test scores were obtained

from tabulation results using Microsoft Excel, and the data obtained are shown in Table 6.

Table 6. Overall N-gain Test Results

Pre non test	Post non test	Maximum Score
3484	3796	4860

Then it can be calculated:

$$\text{N-Gain} = \frac{post\ non\ test\ score - pre\ non\ test\ score}{maximum\ score - pre\ non\ test\ score}$$

$$\text{N-Gain} = \frac{3796-3484}{4860-3484}$$

$$\text{N-Gain} = \frac{312}{1376}$$

N-Gain = 0.2

From the data from the calculation of the overall N-Gain score above, there was an increase of 0.2 with criteria 0 <. g < 0.3 (low).

The results of the study showed that the implementation of the "Everyone is a Teacher Here" learning strategy was able to improve students' learning concentration. This is indicated by the significant results of the T-test (One-Sample T-Test) (t count = 73.3> t table = 1.68957), indicating that there was a significant difference between the concentration scores before and after treatment. However, the N-Gain value of 0.2 indicates that the increase is still in the low category. This finding is in line with research by Sari (2021) which found that the "Everyone is a Teacher Here" strategy was able to increase students' activeness and attention in learning, although the increase in academic achievement was not too high. In her study, the increase in learning outcomes was also relatively low, but student involvement in discussions increased significantly, which is an early indication of the formation of better concentration and attention.

In addition, research by Nurfadhillah (2021) shows that participatory-based learning, such as peer teaching, can improve students' focus and understanding of concepts because students are actively involved in explaining the material to friends. This supports the assumption that the activity of explaining to others activates metacognitive processes that contribute to increased concentration. However, in contrast to the results of the study by Fitri et al, (2019), who applied the same strategy at the junior high school level and reported an increase in N-Gain of up to 0.45 (moderate category), this study showed lower results. This is most likely due to differences in student characteristics, teacher readiness in managing the strategy, and limited implementation time. High school students, especially in grade XI MIPA, face high academic pressure that can interfere with their concentration in learning, even though active strategies are applied. From a theoretical aspect, the "Everyone is a Teacher Here" strategy is relevant to Vygotsky's theory of sociocultural learning, where the learning process occurs optimally in the context of social interaction and the zone of proximal development. With students acting as teachers, they contribute to peer learning while strengthening their own understanding.

Although the increase in concentration was proven to occur, the low N-Gain indicates that this strategy has not been fully optimized. Factors such as the short duration of implementation, limited variation of learning media, and students' readiness to appear actively are things that need to be evaluated further. Thus, it is important for teachers to not only implement the "Everyone is a Teacher Here" strategy but also combine it with other approaches such as the use of interactive digital media, regular formative assessments, and student communication skills training to create a more conducive learning environment and support continuous concentration improvement.

Conclusion

The conclusion of the results of this study is 1) that there is an increase in student learning concentration by using the everyone is a teacher here learning strategy with the results of the t-test (73.392) with df 35 > from the t table (1.689); 2) an increase in student learning concentration in chemistry subjects through the application of the everyone is a teacher here learning strategy, is in the low category with an N-Gain of 0.2

Acknowledgments
My thanks go to Universitas Kristen Indonesia, which has provided full support both materially and morally to me in conducting this research. In particular, the Chemistry Education Study Program, which is my homebase study program, is also the place for me to conduct this research

Author Contributions
Conceptualization, E.S. and N.I.S.; methodology, E.S.; software, D.S.; validation, S., E.S and N.I.S.; formal analysis, N.I.S.; investigation, D.S.; resources, E.S.; data curation, E.S.; writing—original draft preparation, E.S and D.S.; writing—review and editing, E.S.; All authors have read and agreed to the published version of the manuscript

Funding
This research did not receive external funding.

Conflicts of Interest
The authors declare no conflict of interest.

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