Implementation of Nearpod on the Material of Healthy and Balanced Diet at Physical Education Classes of Junior High School

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Article Info	Abstract
	The COVID-19 pandemic requires teachers to use technology in learning. The selection of technology as a learning support must be interesting and interactive, therefore, the students do not get bored in understanding the lesson. The purpose of this study was to compile materials for a healthy, nutritious and balanced diet on Nearpod. This study also examines the effectiveness of using Nearpod and examines the relationship between knowledge and diet. The research approaches used are the method of development, experimentation and correlation. The instruments used are material validator questionnaires, media, physical education teachers and students, interviews, observations, knowledge tests and documentation. The population and sample in this study were 7th grade of Junior High School students in Baki, Sukoharjo Regency which is divided into a small-scale trial of 30 students, 15 students in the control class and 15 students in the experimental class. While, in a large-scale trial of 90 students, 45 students in the control class and 45 students in the experimental class. Quantitative data analysis using SPSS 16 which includes validity, homogeneity, reliability, effectiveness and correlation tests. The assessment results of the preparation in the material for a healthy, nutritious and balanced diet obtained material validation for 96% of the "Excellent" category, media validation 99% "Excellent" category, physical education teacher validation 93% "Excellent" category, small-scale trials 86% in the "Excellent" category, large-scale trials 84% in the "Excellent" category, validity test > 0.254 valid category, reliability test 0.885 > 0.05 highly reliable, normality test 0.135 > 0.05 normally distributed, homogeneity test 0.071 > 0.05 homogeneous distribution, there was an effect in the effectiveness test sig(2-tailed) 0.00 < 0.05. Spearman rank correlation test sig(2-tailed) 0.952 > 0.05 indicates that there was no relationship between students' knowledge and diet patterns.

INTRODUCTION

Diet is an arrangement of the type and amount of food consumed by a person or group of people at a certain time consisting of the frequency of eating, the type of food, and the portion of the meal (Tussakinah et al., 2018). Guidelines for balanced nutrition are part of the community's reference to nutrition, including adolescents. Therefore, this is an effort to increase knowledge in the hope of changing the behavior of unbalanced nutrition. This knowledge will raise awareness, and eventually will cause people to behave in accordance with the knowledge they have (Mayang Sari & Rafiony, 2020). The 2014 balanced nutrition guideline contains 4 principles to regulate a healthy lifestyle, not only from the aspect of food (diversity according to needs and safety), but also other health aspects, there are hygiene, physical activity or sports and ideal body weight (Simanjuntak & Siregar, 2020).

Nutrition knowledge is one of the indirect causes of malnutrition, increasing knowledge through nutrition education can prevent malnutrition and improve a person's behavior to consume food in accordance with their nutritional needs, Good knowledge is one of the factors that influence a person's attitude and behavior (Rahmy et al., 2020). Knowledge is influenced by several internal factors and external factors (Setyorini, 2018); Internal factors include age, education and gender, while external factors include information, environment, interests, socio-culture, experience, and work.

Physical education, sports and health is a learning process through movement activities that aim to improve physical fitness, develop movement skills and also to develop students' character (Hananingsih & Imran, 2020). Physical education is an integral part of all education and has the objectives aspects of physical fitness, movement skills, critical thinking skills, social skills, reasoning, stability, emotional, moral action, aspects of a healthy lifestyle that are planned systematically In order to achieve the goals of national education and an effort to make the Indonesian people healthy and strong,

therefore, it is given to all stages of schools (Fitron & Mu'arifin, 2020).

The scope of physical education, sports, and health according to (Setiawan et al., 2020) includes: 1) Games and sports, 2) Development activities 3) Gymnastics, 4) Rhythmic activity, 5) Water activity, 6) Education outside the classroom, 7) Health. Health is the material contained in physical education which includes: personal health, environmental health, infectious and non-communicable diseases, reproductive health, HIV and AIDS, drugs and others. That are the reasons why physical education teachers need to understand and master health theory to provide students with knowledge about several things about health (Karo-Karo & Wibowo, 2018).

Basic competence in material knowledge of a healthy, nutritious and balanced diet is to understand a healthy, nutritious and balanced diet and its effect on health. Learning fun during a pandemic is needed by not forgetting the main purpose of learning, as a learning media that can be used to trigger student interest, feelings and thoughts to produce a learning process (Cahyono et al., 2021). According to (Pratomo & Gumantan, 2021) the school uses the same learning media as other schools during the pandemic which includes Google Form, Google Classroom, Zoom and communication media such as whatsapp.

Nearpod is a free website that allows teachers to create interactive power points, there is an upgraded version that teachers can pay for a small fee that includes a wider selection of slides and content to include in the presentation, but many features are available for free (Donahoe et al., 2019). Teaching materials are learning materials that contain learning messages that are usually presented through certain equipment, for example books, texts, modules, transparencies, cassettes, audio, video, computer learning, films, and other forms (Alperi, 2020).

Based on observations and interviews with several physical education teachers in the sub-district, the material for a healthy, nutritious and balanced diet is usually delivered with the task of reading the material by the teacher or from one student and the other students listening. but during the covid 19 pandemic learning was done by

sending materials and assignments through whatssap group and google classroom. Minimum completeness criteria (KKM) is the stage of assessment of learning outcomes (Sudiati, 2018). KKM is determined by the education unit that refers to the graduate competency standard (SKL). KKM is considered on the characteristics of students, characteristics of subjects, and conditions of learning units. The KKM is determined based on the results of the deliberation of several educational units that have almost the same characteristics (Pangastuti & Munfa`Ati, 2018). The results of the daily assessment (process) of knowledge of the material for a balanced nutritious healthy diet, obtained a lot of student scores below the KKM, This can be seen in the table below after a daily knowledge test on the material of a healthy, nutritious and balanced diet was carried out.

Table 1. The Scores of 7th Grade Students in Material of A Healthy and Balanced Diet

No	School Name	Total students	KKM	Scores Above KKM	Scores Below KKM
1	SMP Negeri 1Baki	175	75	60 Students	115 Students
2	SMP Negeri 2 Baki	62	75	7 Students	55Students
3	SMP Islam Al-Azhar 21	57	74	14 Students	43 Students
4	SMP As-Syfa Sukoharjo Boarding School	89	71	39 Students	50 Students
	Total	383 Students		120 Students	263 Students

Table 1 shows that students' scores above the KKM are less than those below the KKM. Learning using nearpod can invite children to think critically, nearpod is also effectively used in online learning with a percentage of 86.64% (Nurhamidah, 2021). Group discussions and Nearpod 3D demonstrate easy-to-understand carbohydrate digestion materials (He et al., 2021)

Previous studies that discussed the use of Nearpod as a learning medium include: 1) Using Nearpod Applications for Integrated Thematic Learning Teaching Materials Theme 8 Sub-theme 1 Learning 3 in 4th Grade of Elementary School (Minalti & Erita, 2021) 2) Optimizing Indonesian Language Learning Using Nearpod Application-Based Learning Media (Ami, 2021) and 3) Nearpod E-Media Development through Discovery Learning Model to Improve Students' Critical Thinking Ability in Elementary School (Susanto, 2021).

The purposes of this research are: 1) Arrange Material for Healthy, Nutritious and Balanced Diet Patterns on Nearpod as Teaching Materials in Junior High School Sports & Health Physical Education Lessons. 2) Knowing the effectiveness of using Nearpod on healthy, nutritious and balanced diet materials. 3) Knowing the relationship between knowledge and students' eating patterns.

METHOD

This study uses a development method that refers to the research of Borg and Gall which includes 10 stages of development, there are: 1) Potential and problems, 2) Data collection, 3) Product design, 4) Design validation, 5) Design revision, 6) Product trial, 7) Product revision, 8) Usage trial, 9) Product revision and 10) Mass production. This study also used experimental methods to test the effectiveness of Nearpod and correlation methods to see the relationship between knowledge and diet. The population and sample in this research are 7th grade students of Junior High School in Baki, Sukoharjo regency which was divided into a small-scale trial of 30 students, including 15 students in the control class and 15 students in the experimental class, while in the large-scale trial, there are 90 students were divided into 45 students in the control class and 45 students in the experimental class.. Data was collected by giving a questionnaire, interviews, observations, tests and documentation. Quantitative data were analyzed using SPSS 16

with tests of validity, reliability, normality, homogeneity, effectiveness and correlation.

The implementation of research in this study includes:

Potensial and Problem

The potential of this research is learning during the pandemic which is still carried out online, while the research problem is based on the results of literature, observations and interviews with school principals and physical education teachers at Junior High School in Baki, Sukoharjo regency is the lack of enthusiasm for students to take part in online learning, and the value of knowledge of the material for a healthy. Besides that, nutritious and balanced diet for 7th grade Junior High School students there still has not reached the Minimum Provisions Criteria.

Data Collection

Potentials and problems have been found factually and up to date, then various information is collected in order to design products to be developed which are expected to overcome these problems. Primary data collected based on interviews with school principals and physical education teachers that the platforms that are often used are WhatsApp and Google Classroom. While, Secondary data collected in the form of physical education books, worksheets, and lesson plans used during the COVID-19 pandemic.

Product Design

The data that has been collected is used to compile materials for a healthy, nutritious and balanced diet on Nearpod as teaching materials used by teachers of physical education, sports and junior high school health in learning. The material for a balanced diet on Nearpod contains presentations in the form of videos, interactive online walls, polls, and interesting and fun forms of quizzes and games.

Design Validation

Teaching materials in research are validated by material experts, media and physical education teachers.

Material expert validation

A validation expert in this research was Dr.Irwan Budiono,S.KKM, M.Kes as an active lecturer in Health Sciences, Universitas Negeri Semarang. The validation is carried out by material experts through two stages. The 1st stage is a material expert assessment of the preparation of materials for a healthy, nutritious and balanced diet on Nearpod and the Nearpod usage guidebook as well as suggestions for initial product improvements. The 2nd stage is an assessment from material experts on the preparation of materials for a healthy, nutritious and balanced diet on Nearpod and the revised Nearpod usage guidebook in the first stage.

Media expert validation

A media expert validation in this study was Dr. Muhammad Irfan,M.Kes, as an active lecturer in Physical Education, Health & Recreation, Universitas Negeri Medan. The validation is carried out by material experts through two stages. The 1st stage is the assessment of media experts on the preparation of a healthy, nutritious and balanced diet on the Nearpod platform and user guide as well as suggestions for initial product improvements. The 2nd stage is an assessment from media experts on the preparation of a healthy, nutritious and balanced diet on the Nearpod platform and user guide and has been revised in the first stage.

Assessment of Physical Education and Health teachers

Physical Education experts who became a validator in this study was Suyatno, S.Pd as a physical education teacher at SMP Negeri 2 Baki and also as a vice chairman of PJOK MGMP in Sukoharjo Regency. The assessment of healthy, nutritious and balanced diet materials on the Nearpod platform also asks for an assessment of the 7th grade physical education teacher at SMP Negeri 1 Baki, SMP Al Azhar 21 Solo Baru and SMP As-syfa Sukoharjo Boarding School. The results of the assessment of the physcal education teachers in the 3 schools can be seen in the table below.

Design Improvements

The evaluation of the validator is improved as the material expert in stage I provides an

evaluation that contains "explain the contents of your material in the user manual" then the researcher corrected it by "attaching the contents of the material in the Nearpod usage manual" The evaluation from media experts in the first stage of the evaluation given contained "explain the content of the material with your own video" then the researcher corrected it by "making a video containing the material".

Product Trials

Product trials were carried out to see how students assessed after using Nearpod. Small group trials were given to 15 seventh grade students of SMP Negeri 1 Baki. The trial was carried out at SMP Negeri 1 Baki, each student brought their own smartphone as a learning tool for healthy, nutritious and balanced eating patterns on the Nearpod platform.

Product Revision

Product trials on a small scale obtained an evaluation on material storage that was less than optimal, corrected by means of the prepared material being inserted first into youtube then entering the material by searching for it through youtube to minimize storage on Nearpod.

Trial Usage

Improvements to product revisions which after being completed will then be continued using the trials. The use trial was carried out on 90 junior high school students in Baki District. There were 30 students of SMP Negeri 1 Baki, 30 students of SMP Negeri 2 Baki and 30 students of SMP Al-Azhar 21 randomly selected (Random Sampling). The trial was carried out in each school, each student brought their own smartphone as a learning tool for healthy, nutritious and balanced diet patterns on the Nearpod platform.

Product Revision

The results of the trial in the larger group did not get an evaluation.

Ready-to-use Products

After all the improvements, nearpod- based teaching materials will be produced on materials for a healthy, nutritious and balanced diet that are ready to use.

RESULTS AND DISCUSSION

Teaching materials for a healthy, nutritious and balanced diet on Nearpod

The resulting product is in the form of teaching materials for a healthy, nutritious and balanced diet on Nearpod. Teaching materials contain material in the form of videos, word matching quizzes, interactive walls, matching pictures, filling in blanks and ending with a Time To Climb quiz. The preparation of the material is adjusted to the material and the allocation of learning time at the Baki Junior High School which is 2 x 40 Minutes. The following is the content of student learning activities using Nearpod on healthy, nutritious and balanced diet patterns:
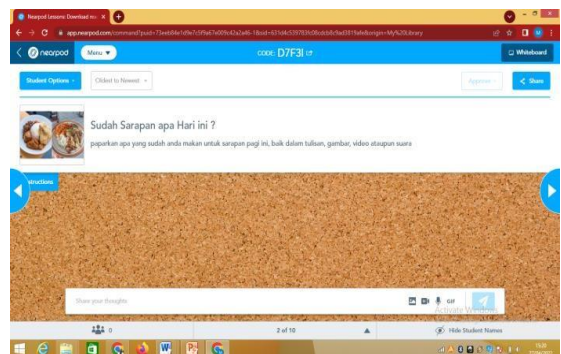

Figure 1. Interactive Wall for Breakfast

Picture 1. This is a display on Nearpod where students convey whether they have had breakfast today, by writing down what they have consumed in the morning. Submission of information about what is consumed can be conveyed through images, videos, writing or sound. Other friends can respond by leaving a comment or a heart.

Figure 2. Material in the form of video

Picture 2. Is a form of material delivery where students watch and understand learning videos about healthy, nutritious and balanced eating patterns that contain material: Relationship between food and Health, Healthy Food and Malnutrition.
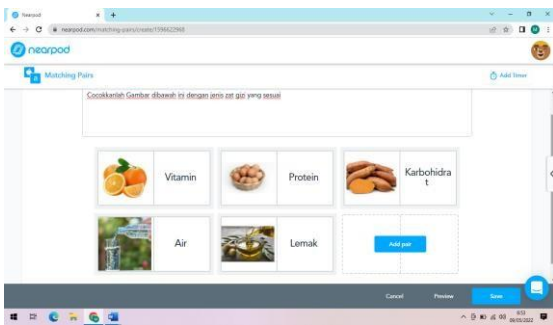

Figure 3. Match Picture Quiz

Picture 3. It is a form of quiz on Nearpod in which students answer a quiz by matching pictures with 5 questions related to nutrition.

Figure 4. Quiz Fill in the Blank Words

Picture 4. It is a form of quiz on Nearpod where students fill in the blank words according to the appropriate choice of words. The question

consists of 3 questions about the relationship between food and health.

Figure 5. Material in the form of video 2

Picture 5 is a form of delivering material in the form of videos where students observe videos containing balanced nutrition guidelines.

Figure 6. Word Match Quiz

Picture 6 is a form of quiz on Nearpod where students match words consisting of 3 questions related to nutrition.
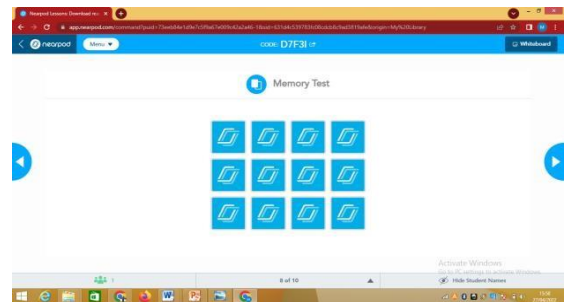

Figure 7. Test Memory Quiz

Picture 7 is a form of quiz on Nearpod in which students answer a memory quiz on the wrong nutrition test as many as 6 questions.
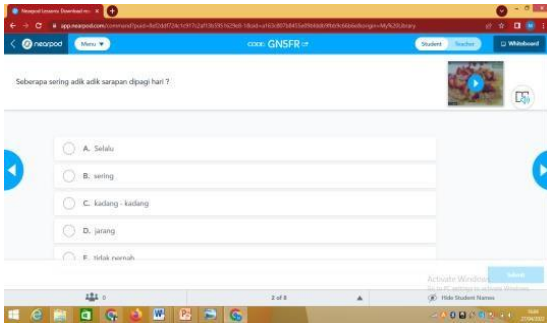
Figure 8. Polling

Picture 8 is a form of quiz on Nearpod where students fill in the pool by answering how often they do breakfast with choices (Always, Often, Sometimes, Rarely, Never).
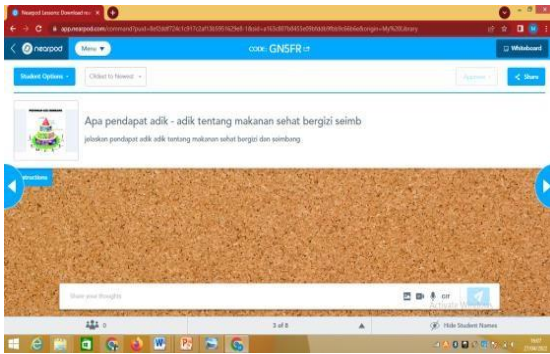

Figure 9. Interactive Wall 2

Picture 9 is an interactive wall on Nearpod where students explain and express what they understand about a healthy, nutritious and balanced diet on a nearpod digital wall using student explanation videos.

Figure 10. Material Video 3

Picture 10 is a form of delivering material in the form of videos where students watch videos about nutrition efforts carried out in Indonesia.

Picture 11. Word Match Quiz 2

Picture 11 is a form of quiz on Nearpod where students match words with the theme of nutrition improvement efforts carried out in Indonesia as many as 3 questions.
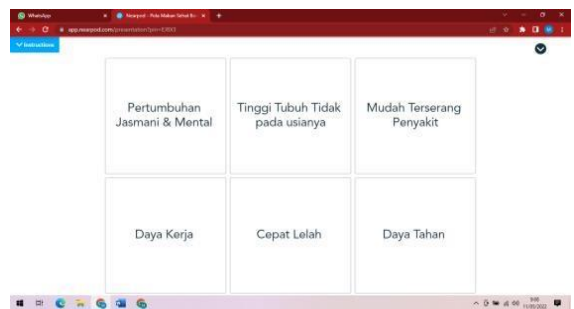
Figure 12. Word Match Quiz 3

Picture 12 is a form of quiz on Nearpod where students match words with the theme of the influence of food on daily life.

Figure 13. Time to Climb

Picture 13. It is a form of quiz on Nearpod in which students answer questions about a healthy, nutritious and balanced diet consisting of 10 questions using the time to climb question model, where the student with the highest score will be at the top. The quiz is in the form of a time to climb game. First, students choose the character they want in the form of animals such as pandas, turtles, monkeys, etc.

Expert validation results

The teaching materials in this study were validated by material experts, media and physical education teachers.

Material Expert Validation

Material expert assessment includes content/material and language assessment, along with the results of the material expert assessment.

Table 2. Material Expert Assessment Results

No	Indicator	Stage I				Stage II			
		Σ	x̄	%	Desc	Σ	x̄	%	Desc
1	Material	53	4.1	82	Excellent	61	4.7	94	Excellent
2	Language	42	4.7	93	Excellent	45	5	100	Excellent

The material expert's assessment based on table 2 can be seen in stage I of the content/material indicators which obtained a score of 53 with an average of 4.1 and a percentage of 82% in the "Excellent" category. Meanwhile, the language indicator scored 42 with an average of 4.7 and a percentage of 93% in the "Excellent" category.

In Phase II, the content/material indicators scored 61 with an average of 4.7 and a percentage of 94% in the "Excellent" category, 45 with an average of 5 and a percentage of 100% with the category "Excellent".

Table 3. Suggestions for improvement from material and repairment experts

Expert Rating	Suggestion	Repairment
Stage I	Describe YourContent In The User's Guide	Attach the contents of the guideline bookon how to use the Nearpod
Stage II	Advanced	

Media Expert Validation

The media expert's assessment includes the presentation and graphic assessment, the following are the results of the media expert's assessment:

Table 4. Media expert assessment results

No	Indicator	Phase I				Phase II			
		Σ	x̄	%	Desc	Σ	x̄	%	Desc
1	Presentation	42	4.2	84	Excellent	49	4.9	98	Excellent
2	Graphic	46	4.2	84	Excellent	55	5	100	Excellent

The material expert assessment based on table 4 can be seen in Phase I the presentation indicator obtained a score of 42 with an average of 4.2 and a percentage of 84% in the "Excellent" category, while the graphic indicators get a score of 46 with an average of 4.2 and a percentage of 84% in the "Excellent" category.

Phase II of the presentation indicator obtained a score of 49 with an average of 4.9 and a percentage of 98% in the "Excellent" category, while the Language indicator scored 55 with an average of 5 and a percentage of 100% in the "Excellent" category.

Table 5. Suggestions for improvement from material and repairment experts

Expert Rating	Suggestion	Repairment
Phase I	Present the content of the material using your own video	Make a video containing material
Phase II	Advanced	

Teacher assessment of physical education, sports and health

Physical education teacher assessment includes preliminary, content, closing, and evaluation assessments, here are the results of physical educatiin teacher assessments:

Table 6. Physical education teacher assessment results

No	Indicator	Σ	x̄	%	Description
1	Introduction	19	4.8	95	Excellent
2	Content	49	4.9	98	Excellent
3	Closing	27	4.5	90	Excellent
4	Evaluation	12	4	80	Good

The assessment carried out by physical education experts based on table 6 can be seen in the preliminary indicators obtaining a score of 19 with an average of 4.8 and a percentage of 95% in the "Excellent" category, on the content indicator obtained a score of 49 with an average of 4.9 and a percentage of 98% in the "Excellent" category. The closing indicator scored 27 with an average of 4.5 and a percentage of 90% in the "Excellent" category, and the evaluation indicator scored 12 with an average of 4 and a percentage of 80% in the "Good" category.

The assessment of healthy, nutritious and balanced diet materials on the Nearpod platform also asks for an assessment from the physical education teacher for 7th grade at SMP Negeri 1 Baki, SMP Al Azhar 21 Solo Baru, and SMP As-syfa Sukoharjo Boarding School. The results of the assessment of physical education teachers in the 3 schools can be seen in the table below.

Table 7. Physical Education Teacher AssessmentResults

No	Indicator	SMP Negeri 1 Baki				SMP Al-Azhar 21				SMP As-Syfa			
		Σ	x̄	%	Desc	Σ	x̄	%	Desc	Σ	x̄	%	Desc
1	Introduction	19	4.8	95	Excellent	20	5	100	Excellent	20	5	100	Excellent
2	Content	49	4.9	98	Excellent	50	5	100	Excellent	50	5	100	Excellent
3	Closing	27	4.5	90	Excellent	30	5	100	Excellent	30	5	100	Excellent
4	Evaluation	12	4	80	Good	15	5	100	Excellent	15	5	100	Excellent

The assessment carried out by physical education teachers at SMP Negeri 1 based on table 7 can be seen in the preliminary indicators obtaining a score of 19 with an average of 4.8 and a percentage of 95% in the "Excellent" category. In the content indicator, it gets a score of 49 with an average of 4.9 and a percentage of 98% in the "Excellent" category, while the closing indicator scores 27 with an average of 4.5 and a percentageof 90% in the "Excellent" category, and on the evaluation indicator, it gets a score of 12 with an average of 4 and a percentage of 80% in "Good" category.

The assessment carried out by physical education teachers at Al-Azhar Junior High School based on table 6 can be seen in the preliminary/introduction indicators obtaining a score of 20 with an average of 5 and a percentageof 100% in the "Excellent" category, on the content indicator a score of 50 with an average of 5 and a percentage of 100% with "Excellent" category, the closing indicator scored 30 with an average of 5 and a percentage of 100% in the "Excellent" category, and the evaluation indicator scored 15 with an average of 5 and a percentage of 100% in the "Excellent" category.

The assessment carried out by physical education teachers at Al-Azhar Junior High School based on table 6 can be seen in the preliminary indicators obtaining a score of 20 with an average of 5 and a percentage of 100% in the "Excellent" category, on the content indicator a score of 50 with an average of 5 and a percentage of 100% with "Excellent" category, the closing indicator scored 30 with an average of 5 and a percentage of 100% in the "Excellent" category, and the evaluation indicator scored 15 with an average of 5, and a percentage of 100% in the "Excellent" category.

Validity and Realibility Tests

Validation assessment questionnaire with a score of r count > r table, therefore that the

questionnaire is declared valid.

Table 8. Research Instrument Validity

Statement Items	r counts	Interpretation	r table	Decision	Description
1	0.636	Fair	0.254	Valid	Used
2	0.752	Fair	0.254	Valid	Used
3	0.657	Fair	0.254	Valid	Used
4	0.740	Fair	0.254	Valid	Used
5	0.658	Fair	0.254	Valid	Used
6	0.534	Poor	0.254	Valid	Used
7	0.611	Fair	0.254	Valid	Used
8	0.731	Fair	0.254	Valid	Used
9	0.698	Fair	0.254	Valid	Used
10	0.638	Fair	0.254	Valid	Used
11	0.702	Fair	0.254	Valid	Used
12	0.504	Poor	0.254	Valid	Used
13	0.615	Fair	0.254	Valid	Used

Based on table 8 data, out of the 13 statement items in the questionnaire, it is declared valid and can be used. The instrument in the form of a questionnaire that has been tested for validity is again tested for reliability to see the reliability of the instrument. The instrument is claimed to be reliable if it has a Cronbach alpha result > 0.6, the results of the reliability of the statement after the scale reliability analysis test using SPSS 16 obtained the results of 0.885, therefore that the

research instrument is said to be reliable because it is greater than 0.6 with high reliability.

Small Group Trial Results

Small group trial was given to 15 grade VII students of SMP Negeri 1 Baki. The trial was carried out at SMP Negeri 1 Baki, the results obtained through a questionnaire on the small group trial can be seen in the table below:

Table 9. Student Assessment Results on the Use of Nearpod in Small Trials

Respondence	Score Total	Average	Ideal Amount	Percentage	Category
15	843	64.8	975	86	Excellent

The assessment carried out by class VII students of SMP Negeri 1 Baki based on table 9 can be seen from the teachers of SMP Negeri 1 Baki obtaining an average of 64.8 with a percentage of 86% in the "Excellent" category.

Large group trial results

The use trial was conducted on 90 junior high school students in Baki District, there were 30 students of SMP Negeri 1 Baki, 30 students of SMP Negeri 2 Baki, and 30 students of SMP Al-Azhar 21. The results obtained through questionnaires in large group trials can be seen in the table below:

Table 10. Student Assessment Score Against the Use of Nearpod

Respond ence	Score Total	Average	Ideal Amount	Persentage	Category
45	2465	54.8	2925	84	Excellent

The assessment made by large group students on Nearpod based on the table can be seen getting an average of 55.8 with a percentage of 84% in the "Excellent"

Advantages and Disadvantages of Nearpod

The material for a healthy, nutritious and balanced diet on Nearpod has several advantages such as :

Users can access Nearpod using smartphones, tablets, laptops or computers. Users can access learning through Nearpod by simply entering the learning code provided by the teacher without having to create an account first. Nearpod provides an interesting and interactive form of delivering material and assignments. Learning using Nearpod can be used both online and face-to-face in the classroom. Teachers can supervise learning by looking at the activities carried out by students without having to visit or check students one by one. Nearpod does not need many datas.

In addition to some of the advantages above, Nearpod also has several disadvantages such as:

An unstable network causes students to leave the given display so they have to enter from the beginning, but the learning recording is still stored and when re- entered it can be directly displayed on the last view learned. The efficiency of the teacher's storage space for compiling material in the form of video will be smaller if it is inserted into you tube first compared to directly inserting the video into the Nearpod platform.

The Effectiveness of Using Nearpod

The analysis of the product effectiveness test data is intended, therefore that the result product is effectively used in the physical education learning process on the material for a healthy, nutritious and balanced diet, and the final assessment of learning. This effectiveness test was carried out by comparing the results of knowledge from the Experiment class (class that used Nearpod) with the Control class (class that did not use Nearpod). Prior to the effectiveness test, the normality test and homogeneity test were first carried out.

Normality Test

The normality test was carried out to determine whether the data obtained were normally distributed, the data was said to be normal if the results of significance > 0.05. The results of the normality test using the Kolmogorov-Smirnov test with SPSS 16 is 0.135, which is the result of significance greater than 0.05, therefore that the data is normally distributed.

Homogenity Test

Homogenity test is carried out to determine whether the data obtained are homogeneously distributed, the data is said to be normal if the results of significance> 0.05. The results of the homogeneity test using the One-Way Anova test with SPSS 16 are 0.071, which is the result of significance greater than 0.05 so that the data is homogeneously distributed.

Nearpod Effectiveness Test

The Nearpod effectiveness test was conducted to see the difference in the results of students' knowledge of a healthy, nutritious and balanced diet between students who use Nearpod and students who do not use Nearpod. If the value of sig(2-tailed) < 0.05 then there is a significant difference between the results of student knowledge in classes that use and do not use Nearpod, but if the value of sig(2-tailed) > 0.05 then there is no significant difference between the results of student knowledge in classes that use and do not use Nearpod.

Table 11. The Effectiveness Test Results

Students						Sig	Desc.
Using Nearpod			Not Using Nearpod				
N	Σ	x̄	N	Σ	x̄		
60	4491	74.85	60	4092	68.2	0.000	There is a Significant Difference
5	Effect of food nutrition	870 14.5	74 4	12.4		0.003	There is a significant difference

Based on table 11, it is known that the results of students' knowledge using Nearpod obtained a total score of 4491 with an average of 74.85 while the knowledge of students who did not use Nearpod obtained a total score of 4092 with an average of 68.2. Then, the effectiveness test was carried out by using the Independent Sample T-test using SPSS 16 to obtain a result of 0.00, namely the value of sig(2-tailed) <0.05, therefore it can be concluded that there is a significant difference between the knowledge of students who use Nearpod and Not Use Nearpod. Where students who use Nearpod are better than students who do not use Nearpod, when viewed from each knowledge indicator, the results are presented in the following table:

Table 12. Effectiveness Results seen from each Knowledge Indicator

No	Knowledge Indicator	Using Nearpod		Not Using Nearpod		Sig	Description
		Total	Average	Total	Average		
1	Relatio nship betwee n food and health	933	15.55	912	15.2	0.441	There is a significant difference
2	Knowl edge of healthy food	909	15.15	783	13.05	0.000	There is a significant difference
3	Knowl edge about malnut rition	99	15.65	912	15.2	0.401	There is a significant difference
4	Efforts to improv e nutritio n that have been carried out in Indonesia	840	14	741	12.35	0.012	There is a significant difference

Based on table 12, it is known that in indicator 1 of knowledge about the relationship between food and health, students who use Nearpod get a total score of 933 with an average of 15.55, while students who do not use Nearpod get a total score of 912 with an average of 15.2. When viewed from the results of the effectiveness test, a significance of 0.441 was obtained, therefore that it was concluded that there was no significant difference between students who used Nearpod and those who did not use Nearpod on knowledge indicator 1. Furthermore, in indicator 2 of knowledge about healthy food knowledge, students who use Nearpod get a total score of 909 with an average of 15.15, while students who did not use Nearpod obtained a total score of 783 with an average of 13.05 and when viewed from the results of the effectiveness test, a significance of 0.000 was obtained. Therefore, it can be concluded that there is a significant difference between students who use Nearpod and those who do not use Nearpod on the knowledge indicator 2. Furthermore, on the indicator of knowledge 3 about knowledge of malnutrition, students who use Nearpod got a total score of 939 with an average of 15.65. While, students who did not use Nearpod obtained a total score of 912 with an average of 15.2 and when viewed from the results of the effectiveness test, a significance of 0.401 was obtained. By means it was concluded that there was a significance between students who use Nearpod and who do not use Nearpod on the knowledge 3. Furthermore, on indicator 4 of knowledge about nutrition improvement efforts that have been carried out in Indonesia, students using Nearpod obtained a total score of 840 with an average of 14. In addition, students who did not use Nearpod obtained a total score of 741 with an average of 12.35 and when viewed from the results of the effectiveness test, a significance of 0.012 was obtained. It can be concluded that there is a significant difference between students who use Nearpod and those who do not use Nearpod on knowledge indicator 4. Furthermore, on the indicator of knowledge 5 about the influence of food nutrition, students who use Nearpod get a total score of 870 with an average of 14.5 while students who do not use Nearpod get a total score

of 744 with an average of 12.4., and when viewed from the results of the effectiveness test obtained a significance of 0.003, it can be concluded that there is no significant difference between students who use Nearpod and those who do not use Nearpod on the knowledge indicator 5.

This study found that there was a significant difference between the knowledge of students who used Nearpod and did not use Nearpod. The results of this study are in line with research conducted by (Buttrey, 2021) with the title "Inclusion, Engagement, and Nearpod: Providing a Digital Alternative to Traditional Instruction" where the results showed that Nearpod holds promise as a tool to assist teachers in keeping students actively engaged either face-to-face or through an online format. The connection in this study is the use of Nearpod as a medium in learning in line with the opinion of (Zain & Pratiwi, 2021) which explains that learning media provide benefits to facilitate and enhance the quality of the teaching and learning process, besides that, learning media provide experiences that encourage student learning motivation as well as clarify and facilitate abstract concepts and enhance student learning absorption in accordance with students' thinking levels. This statement in accordance with (Atsira et al., 2022) explained that Nearpod is a medium that can be used in new normal learning, because Nearpod can be used as an online or face-to-face learning medium in the classroom, therefore, that teachers and students can interact directly or indirectly. (Anisah & Mahliatussikah, 2021) explained that Nearpod is an educational webtool that helps teachers make interactive learning in the classroom. The advantages of nearpod include its availability in web form and can be installed on devices, making activities through nearpod also quite simple and easy, the class activity feature is also interactive with features such as matching, memory testing, climbing, polling, etc.

Relationship between Knowledge and Diet

The relationship between students knowledge and eating patterns was analyzed to see if there was a relationship between students who had higher knowledge than students who had low

knowledge of students' diet patterns. The relationship between knowledge and students' eating patterns is said to have a relationship if the value of sig(2-tailed) < 0.05 but if sig(2-tailed) >0.05 then there is no relationship.

The results of the Spearman rank correlation test conducted using SPSS 16 obtained a sig (2- tailed) value of 0.952, which is greater than 0.05, therefore, it can be concluded that there is no relationship between knowledge and students' eating patterns.

This study found that there was no relationship between knowledge and students' eating patterns. The results of this study are in line with research conducted by (Octaviani Sagala & Noerfitri, 2021) with the title "The Relationship between Eating Patterns and Knowledge of Balanced Nutrition with More Nutrition on the Students of STIKES Mitra Keluarga", where the results showed that there was no significant relationship between diet and knowledge of balanced nutrition with the incidence of overnutrition in STIKES Mitra Keluarga Bekasi students. The connection in this study is knowledge as a factor that affects diet. This is in line with that (Jauziyah et al., 2021) explaining that the factors that influence diet include gender, knowledge of nutrition, culture (eating habits of the area of origin, dietary restrictions), economy, and origin of food sources. As stated (Intantiyana et al., 2018) explains that nutritional knowledge is a person's ability to recall the nutritional content of food and the function of these nutrients in the body.

A person who has good knowledge of balanced nutrition guidelines may not necessarily be able to apply a daily diet in accordance with the known knowledge. This is in line with (Mayang Sari & Rafiony, 2020) explained that good nutrition knowledge does not mean that someone will apply it in everyday life.

CONCLUSION

Teaching materials for a healthy balanced nutritious diet at Nearpod are based on the validation of material experts, media, physical education teachers and students in the "Excellent"

category. Seen from the level of effectiveness of its use, there was a significant difference between students who used Nearpod and students who did not use Nearpod, where the knowledge results of students who used Nearpod are better than students who did not use Nearpod. Besides that, there was no relationship if we seen from the relationship between student knowledge and diet patterns.

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