



**RECONSTRUCTION OF ONLINE LEARNING
IMPLEMENTATION PLAN BASED ON FLIPPED LEARNING
MODEL MATERIAL HUMAN RESPIRATORY SYSTEM IN
CLASS XI**

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DOI: <http://dx.doi.org/10.26418/jpmipa.v13i2.47195>

Abstract

The Covid-19 pandemic makes learning a limited, namely through online and face-to-face learning, then circulars from the government regarding simplification of lesson plans into 1 sheet with 3 main components, making it a challenge for a teacher to reconstruct the lesson plans, by adapting the current situation. The purpose of this research is to developing RPP Reconstruction Based on the Reverse Learning Model of the Human Respiratory System The material determines the feasibility of the learning design based on the learning validation questionnaire design experts, learning activities and attractiveness of lesson plans based on student responses. This research uses ADDIE a development model that has five stages, namely: 1) Analyze 2) Design 3) Develop 4) Implement, and 5) Evaluation. The subjects of this study were 2 learning design validation experts and 10 students class XI IPA. The instrument used is a learning design validation questionnaire experts and student response questionnaires. Data analysis techniques are quantitative and qualitative. The results of the validation of learning design experts that the Inspirational lesson plan for this flipped learning model obtained an average value of 91.67% feasible, and the learning implementation of 95.53% was included in the very good category. Based on these results, this RPP reconstruction can be applied to the respiratory tract system material for class XI humans and is expected to be able to The inspirational RPP reconstruction can be applied to other materials.

Keywords: *RPP inspiration, flipped learning, human respiratory system*



Received : 11/06/2021

Revised : 02/07/2022

Accepted : 07/07/2022

INTRODUCTION

Covid-19 is an epidemic that has recently shocked the whole world, this virus has hit 215 countries in the world including Indonesia (Sadikin & Hamidah, 2020). Through the Ministry of Education and Culture, the government has determined the implementation of education in schools through online learning based on Circular Number 15 of 2020 concerning Guidelines for Implementing Learning from Home in an Emergency During the Spread of Corona Virus Disease (Covid-19). One alternative learning that can be done during the Covid-19 emergency is online learning. The results of interviews with biology teachers at MAN 10 Jombang stated that many obstacles were felt when online learning took place, including network constraints, internet quotas, student responses, and the difficulty of interacting with ineffective students.

Followed by a copy of the Joint Ministerial Decree regarding Guidelines for Implementing Learning for the 2020/2021 Academic Year during the Corona Virus Disease 2019 Pandemic which was set on November 20, 2020, one of which is that even semester learning can be carried out face-to-face provided that the education unit has obtained permission from the local government. to hold limited face-to-face meetings in accordance with the risk map for the spread of Covid-19. The existence of this decision makes the learning process in each region different. Some areas still apply online learning, while there are areas that apply face-to-face learning on a limited basis (Saputro, 2021). Jombang Regency is an area that has just implemented limited face-

to-face learning based on a circular letter from the Ministry of Religion of Jombang Regency which stipulates limited face-to-face learning to start in April 2020. Schools are also required to prepare health protocols, arrange study schedules, and study hours with a learning group division system (shift). The results of interviews with biology teachers at MAN 10 Jombang revealed that face-to-face learning in schools has not been effective due to reduced learning time in class.

A teacher must have the ability to design a learning process so that it runs optimally. One of the teacher's roles is to make a Learning Implementation Plan (RPP). The Learning Implementation Plan (RPP) is a reference for teachers in carrying out the process of learning activities to be more focused and run effectively and efficiently (Nurainun, 2019). RPP contains an outline of the things that teachers and students do during the learning process. Changes in the preparation of the RPP component from the 13 components contained in Permendikbud Number 22 of 2016 concerning Standards for the Primary and Secondary Education Process into 3 main components regulated in Circular Letter Number 14 of 2019 consisting of learning objectives, learning steps, and learning assessments. This is a challenge for a teacher in compiling RPP globally so that it is easily understood, translated, and practiced directly during teaching and learning activities (KBM), so it is necessary to reconstruct the RPP which generally consists of 13 components into a RPP consisting of 3 components. main. RPP reconstruction is the process of rearranging or redrawing

learning activities as they should (Juliani et al., 2017).

The existence of an inspiring learning design is also one of the supports for successful learning, one of which is the flipped learning model. This is supported by (Lindawati et al., 2020) which states that the flipped learning model can optimize student interaction time with screen devices so that it is very relevant to online learning and is also supported by (Ubaidillah, 2019) which states that flipped learning is a learning model that can combine face-to-face learning and online learning by utilizing information technology so that it is very effective because students can access subject matter anywhere and anytime via the internet network. According to (Igirisa, 2017) flipped learning is a learning model that reverses learning procedures, where learning activities that are usually carried out in class, such as learning materials and concepts, are transferred to be done at home, while those usually carried out in class. done at home such as assignments and practice questions. Problems are implemented in the classroom, so it is called reverse classroom learning.

The respiratory system material in humans is an even semester biology learning material that requires appropriate learning strategies, moreover learning is done online or face-to-face learning is limited (transition period) where learning time is limited, very short, then the respiratory system material in humans is difficult material. delivered by the teacher during the lesson, the teacher only conveyed theory and used rote learning methods in class because they used a lot of scientific language

(Sipayung et al., 2020). (Meishanti & Putra, 2020) stated that the flipped learning model is a student-centered learning model. The flipped learning model can be combined with synchronous and asynchronous methods so that online learning and limited face-to-face learning (transition period) can run optimally. (Igirisa, 2017) Based on the background of the problem above, the researchers conducted a study "Reconstruction of Online Learning Implementation Plans Based on the Flipped Learning Model for Class XI Human Respiratory System Materials" to develop a learning implementation plan in terms of the results of the validation of learning design experts and the results of student responses.

METHODS

This research is a development research that has the aim of producing the development of a Learning Implementation Plan (RPP) based on the flipped learning model of the human respiratory system material in class XI, using the ADDIE model development (Analyze, Design, Develop, Implement, Evaluation). The ADDIE model is a commonly used model and has been widely applied in developing products to overcome problems in the world of education with development research designs (Widiarta et al., 2019). This development model was chosen because it contains systematic, simple, effective, and efficient steps and is easy to learn. In addition, this model was chosen because it provides an opportunity for researchers to collaborate with learning design experts so as to produce quality development products.

The model used in this study is the ADDIE development model (Larson & Lockee, 2019) which has five stages, namely: 1) Analyze, which is an activity to analyze problems related to lesson plans and online learning. 2) Designing, designing or reconstructing lesson plans using a flipped-based learning room. 3) Develop (Product Development), product design testing for RPP reconstruction, before it is implemented by being validated first by a learning design expert. 4) Implement (Implementation), RPP development products are implemented directly in a limited trial in class XI at MAN 10 Jombang and the responses of students to the attractiveness of the product are taken. 5) Evaluation, this stage is the stage of collecting and analyzing all the data obtained from the research results including validation by learning design experts and the results of student responses to conclude the feasibility of online semester lesson plans reconstruction products based on flipped study rooms. learning material on the respiratory system in class XI humans at MAN 10 Jombang.

The test subjects in this development research are as follows:

- a. Learning design experts, namely biology subject teachers who have taken undergraduate education in the Biology Education study program and have knowledge of learning design.
- b. The implementation of the trial was limited to 15 students in class XI IPA 1 at MAN 10 Jombang. Sampling using random sampling technique.

- c. The validator of the implementation of the RPP, namely the biology subject teacher who has taken the education of the Biology Education study program S1 who assesses the implementation of the RPP and supervises the learning process in the implementation.

Data analysis technique is a way of analyzing research data including relevant statistical tools used in research (Noor, 2016). The results of the data analysis were used as a basis to determine the feasibility of the online semester lesson plan based on the flipped learning model of the material for the human respiratory system class XI developed. This development research uses quantitative data analysis techniques, which are obtained from the calculation of the scores of the validation results and qualitative, namely the data that is analyzed descriptively based on the scores of the questionnaire results from the validation of the learning design and the questionnaire on the implementation of learning along with suggestions and comments.

Learning Design Expert Validation Questionnaire Analysis

This analysis was obtained from the validation results of learning design experts. The results of this validation are used to improve online semester lesson plans and to determine the feasibility level of online semester lesson plans based on the flipped learning model of respiratory system material in class XI humans. The rating scale guidelines use the categories determined according to the following table 1.

Table 1. Learning design expert validation questionnaire analysis

Category	Score
Very Good	4
Good	3
Less Good	2
Not Good	1

(Source: Widoyoko Modification, 2012)

The assessment scale is used as a reference for filling out the learning design validation questionnaire sheet given to the validator. The data obtained were then analyzed and measured using the following formula (Minah et al., 2018).

$$P = \frac{\sum X}{\sum Xi} \times 100\%$$

Explanation:

P : Percentage
 $\sum X$: The average number of learning design expert scores
 $\sum Xi$: Maximum score
 100 : Constant number

The results of the percentage assessment obtained from the calculation results are then determined by the category of eligibility criteria according to table 2.

Table 2. Eligibility criteria for learning design

Criteria	Percentage
Decent	76% - 100%
Decent Enough	56% - 75%
Less Decent (Revised)	40% - 55%
Not Decent (Revised)	0% - 39%

(Source: Modification of Minah et al., 2018)

After the presentation is in the form of percentages and the criteria are determined according to the category of eligibility criteria, then each indicator score or the average result of the total number of indicator scores is analyzed descriptively and concludes each indicator or the entire indicator while taking into account the suggestions and comments validator.

Analysis of Learning Implementation of Validation Questionnaire

The analysis of the implementation of learning is an analysis of data from the observations of biology teachers on activities during learning that apply the flipped learning

model of the respiratory system material in class XI humans according to the online semester lesson plans developed by researchers. The results of this validation are used to determine the level of implementation of online semester lesson plans based on the flipped learning model of the respiratory system material in class XI humans. The data obtained were then analyzed and measured using the following formula (Modification of Ain, 2013).

$$P = \frac{\sum X}{n} \times 100$$

Explanation:

P : Percentage

ΣX : Total score of learning implementation
 n : Maximum score
 100 : Constant number

The percentage of learning implementation obtained from the calculation results is then determined by the category of implementation criteria according to table 3.

Table 3. Learning implementation criteria

Implementation Criteria	Percentage
Very Good	81,26% - 100%
Good	62,6% - 81,25%
Less Good	43,8% - 62,5%
Not Good	25% - 43,7 %

(Source: Ain, 2013).

RESULTS AND DISCUSSION

This study developed a reconstruction of an inspirational lesson plan (RPP) based on a flipped learning learning model for class XI human respiratory system materials at MAN 10 Jombang, consisting of 3

lesson plans to determine the feasibility of RPP reconstruction and a questionnaire on the implementation of RPP in learning. The following are the results of the development of the Inspirational lesson plan for the flipped learning model in Figure 1.

RENCANA PELAKSANAAN PEMBELAJARAN (RPP)
 BERBASIS MODEL *FLIPPED LEARNING*
 MATERI SISTEM PERNAPASAN PADA MANUSIA KELAS XI

Mata Pelajaran : Biologi	Kelas/Semester : XI / II
Sekolah : MAN 10 Jombang	Alokasi Waktu : 2 x 30 Menit
	Pertemuan : 3

Kompetensi Dasar

<p>Kompetensi Dasar dari KI 3</p> <p>3.8 Menganalisis hubungan antara struktur jaringan penyusun organ pada sistem respirasi dalam kaitannya dengan bioproses dan gangguan fungsi yang dapat terjadi pada sistem respirasi manusia</p>	<p>Kompetensi Dasar Dari KI 4</p> <p>4.8 Menyajikan hasil analisis pengaruh pencemaran udara terhadap kelainan pada struktur dan fungsi organ pernapasan manusia berdasarkan studi literatur</p>
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Tujuan Pembelajaran

- a. Peserta didik mampu menemukan bahaya rokok bagi kesehatan sistem pernapasan pada manusia yang bersumber dari studi literatur dengan baik.
- b. Peserta didik mampu menganalisis pengaruh pencemaran udara terhadap sistem pernapasan pada manusia yang bersumber dari studi literatur dengan benar.
- c. Peserta didik mampu menganalisis gangguan pada sistem pernapasan manusia yang bersumber dari studi literatur dengan baik.
- d. Peserta didik mampu menyajikan pengaruh negatif merokok dan pencemaran udara terhadap kelainan pada struktur dan fungsi organ pernapasan manusia dalam bentuk video presentasi yang bersumber dari studi literatur yang ditemukan dengan bahasa komunikatif.

Kegiatan Pembelajaran

<p>1 Pra Belajar Terjadwal Ruang Belajar 3 (Self-directed Asynchronous Learning)</p>	<ul style="list-style-type: none"> Guru memberi salam dan menyapa peserta didik melalui media <i>WhatsApp Group</i>. Guru menugaskan peserta didik untuk melihat video pembelajaran <i>youtube</i> yang dibagikan melalui <i>WhatsApp Group</i> terkait materi sistem pernapasan pada manusia yaitu: <ol style="list-style-type: none"> 1. Bahaya merokok bagi kesehatan sistem pernapasan pada manusia. <i>Link youtube: https://youtu.be/91KcN0pDf8</i> 2. Pengaruh pencemaran udara terhadap sistem pernapasan pada manusia. <i>Link youtube: https://www.youtube.com/watch?v=2TdlU5aQd3E</i> 3. Gangguan pada sistem pernapasan pada manusia. <i>Link youtube: https://www.youtube.com/watch?v=xFWsxxU8TB0</i>
<p>2 Belajar Terjadwal Ruang belajar 1 (Live Synchronous Learning)</p>	<p>Pendahuluan (8 Menit)</p> <ul style="list-style-type: none"> Guru memberi salam, menyapa peserta didik, dan mengajak berdoa serta mengecek kehadiran peserta didik. Guru memberikan persepsi mengenai materi yang dibahas berupa Kuis-1 (<i>Pretest</i>). Guru menyampaikan tujuan pembelajaran yang akan dicapai. <p>Inti (42 Menit)</p> <ul style="list-style-type: none"> Guru membentuk beberapa kelompok untuk melakukan diskusi bersama. Guru memberikan tugas berupa pertanyaan-pertanyaan di LKS untuk didiskusikan bersama dalam rangka menelaah pemahaman peserta didik setelah melihat video pembelajaran dan memberikan kesempatan kepada peserta didik menemukan berbagai studi literatur melalui gawai untuk menjawab pertanyaan di LKS. Guru memberi kesempatan kepada peserta didik untuk mengajukan pertanyaan mengenai materi yang belum dipahami. Guru memberikan penghargaan berupa pujian kepada peserta didik yang bisa menjawab pertanyaan dengan benar ataupun yang aktif bertanya. <p>Refleksi dan Konfirmasi (10 Menit)</p> <ul style="list-style-type: none"> Guru bersama peserta didik menyimpulkan materi yang sudah diajarkan. Guru memberikan penghargaan berupa pujian kepada peserta didik yang sudah berhasil menyimpulkan materi yang sudah diajarkan. Guru menginformasikan Kuis-2 (<i>Posttest</i>) dan tugas berupa membuat video presentasi mengenai bahaya merokok dan polusi udara terhadap kelainan pada struktur dan fungsi organ pernapasan

Figure 1. Development of Inspirational lesson plans for flipped learning models

The development of the RPP reconstruction was validated by two learning design experts to determine the feasibility of the initial product design so that it could be improved better before moving on to the next stage. Researchers will find out whether or not the RPP reconstruction is feasible by looking at the assessments and suggestions and inputs given by the learning design expert validators.

The feasibility of the lesson plan is carried out by 2 biology subject experts who have completed undergraduate education in the Biology Education study program and have knowledge of learning design. The learning design expert test questionnaire contains 6 indicators along with their suggestions and comments. The following are the results of the learning design validation data in table 3.

Table 4. The results of the validation of the learning design

No	Criteria	Rating Scale				Percentage %	RPP eligibility criteria
		V1	V2	X	Xi		
1.	The compatibility of RPP Inspiration Merdeka Belajar with the Pusat Kurikulum Pembelajaran.	4	4	4	4	100	Decent
2.	The accuracy of learning objectives with Basic Competencies (KD), namely: 3.8 Analyzing the relationship between the tissue structure of the organs in the respiratory system in relation to bioprocesses and functional disturbances that can occur in the human respiratory system. 4.9 Presenting the results of the analysis of the effect of air pollution on abnormalities in the structure and function of the human respiratory organs in the study of literature.	4	3	3,5	4	87,5	Decent
3.	The main components are: a. Learning objectives b. Learning activities c. Assessment	4	4	4	4	100	Decent
4.	Learning objectives are formulated in easy-to-understand sentences	4	3	3,5	4	87,5	Decent
5.	Activities contain active student activities during learning.	4	4	4	4	100	Decent

No	Criteria	Rating Scale				Percentage %	RPP eligibility criteria
		V1	V2	X	Xi		
6.	The assessment contains an overview of bills to measure the achievement of learning objectives.	3	3	3	4	75	Decent Enough
Total				22	24		
Average						91,67	Decent

Explanation:

V1 : Score learning design expert 1

V2 : Score learning design expert 2

X : Average score of learning design experts

Xi : Maximum score

Based on the results of the validation of the learning design in table 4. shows that the indicators of conformity of the design of the Inspirasi Merdeka

Learning RPP with the Learning Center Curriculum obtained from the validation results of validator 1 and validator 2 are 100% with appropriate criteria. This is supported by the Inspirational Learning Implementation Plan compiled by the Curriculum Team and Learning Center of the Research and Development Agency of the Ministry of Education and Culture in 2019, page 43 which was modified by researchers by adjusting the supporting devices for the learning process at MAN 10 Jombang school and also supported on page 35 which states that learning activities contain activities according to the syntax of the learning model to achieve predetermined competencies by adjusting class and student conditions. current conditions in the midst of the Covid-19 outbreak which requires students to carry out limited face-to-face learning with an allocation of 2 times a week in biology subjects, one

meeting has an allocation of 2 x 30 minutes, while the normal time is 2 x 45 minutes in one meeting with quite a lot of material and achievement competencies, so it is very suitable to use the flipped learning model by utilizing information technology. In addition, the application of synchronous and asynchronous methods by utilizing 4 study rooms adapted from the blended learning model so that learning can run effectively and efficiently even though face-to-face learning is limited (transition period).

On the indicators of the accuracy of learning objectives with Basic Competence (KD) that is: 3.8 Analyzing the relationship between the tissue structure of the organs in the respiratory system in relation to bioprocesses and functional disturbances that can occur in the human respiratory system; 4.9 Presenting the results of the analysis of the effect of air pollution on abnormalities in the structure and function of the human respiratory organs in the study of literature. also obtained a validation result of 87,5 %

with proper criteria. This is supported by Inspirational Learning Implementation Plan compiled by The Curriculum and Learning Center Team of the Research and Development Agency of the Ministry of Education and Culture in 2019, which states that learning objectives are derived from basic competencies and are broken down into competencies that will be achieved by students and supported by Attachment to the Regulation of the Minister of Education and Culture Number 22 of 2016 concerning Standards for the Process of Primary and Secondary Education which explains that the formulated learning objectives must be based on Basic Competence (KD) by using operational verbs that can be observed and measured including knowledge, attitudes and skills. In addition, it is also supported by Buku Saku Tanya Jawab Rencana Pelaksanaan Pembelajaran (RPP) compiled by Ministry of Education and Culture Directorate General of Early Childhood Education, Basic Education, and Secondary Education Directorate of Primary Schools in 2020 in page 8-9 which states that learning objectives are the formulation of abilities that must be achieved by students including attitudes, knowledge, and skills and the components of learning objectives based on behaviorism include audience (A) namely who follows the learning process, behavior (B) namely student behavior that can be observed during the learning process, the formulation of behavior in the form of active verbs, conditional (C) is a requirement that must be met so that the expected behavior can be shown by students, and degree (D) is the level of success

in achieving behavior which can be in the form of speed, accuracy, quantity or quality, in the development of this lesson plan, the formulated learning objectives have described the formulation of objectives based on the Basic Competence (KD) 3.8 and 4.8, and using operational verbs, and broken down into competencies that will be achieved by students. In addition, the formulation of learning objectives has described the abilities that must be achieved by students including attitudes, knowledge, and skills and the learning objectives have met the components of the formulation of learning objectives including: audience (A), behavior (B), conditional (C), and degree (D).

The main component indicators contain learning objectives, learning activities, and assessments, and the validation results are obtained by 100% with appropriate criteria, this is supported by Circular Letter Number 14 of 2019 concerning Simplification of Learning Implementation Plans, Inspiring Learning Implementation Plans compiled by the Curriculum Team and Learning Center of the Research and Development Agency of the Ministry of Education and Culture in 2019 on page 35 and Pocket Book of Questions and Answers for Learning Implementation Plans (RPP) compiled by Ministry of Education and Culture Director General of Early, Primary, and Secondary Education in 2020 on page 4 and 8 which states that there are 3 core components, namely learning objectives, learning steps, learning assessment while the other components are supporting.

In the indicators of learning objectives formulated in easy-to-understand sentences, the validation

results obtained are 87.5% with proper criteria. This is supported by Rencana Pelaksanaan Pembelajaran Inspirasi compiled by Inspirational Learning Implementation Plan compiled by the Curriculum and Learning Center Team of the Research and Development Agency of the Ministry of Education and Culture in 2019, in the introductory section, a learning objective must be formulated in easy-to-understand sentences. In addition, it is also supported by (Jaya, 2019) states that learning objectives must be formulated in clear and easy-to-understand sentences because learning objectives must be expressed in writing and informed to students so that students and educators have the same understanding of what is stated in the learning objectives.

Furthermore, on the activity indicators containing active student activities during learning, the validation results are obtained by 100% with feasible criteria. This is supported by Pocket Book of Questions and Answers on Learning Implementation Plans (RPP) compiled by the Ministry of Education and Culture Directorate General of Early Childhood Education, Basic Education, and Secondary Education, Directorate of Elementary Schools in 2020 on page 3 which states that the writing of lesson plans contains orientation to students by considering the interests, readiness, and learning needs of students when learning and is also supported by Attachment to Permendikbud Number 22 of 2016 concerning Basic Education Process Standards which explains that one of the principles of preparing lesson plans is student-centered to encourage the spirit of learning, interest, motivation,

initiative, creativity, inspiration, independence, and innovation.

In the assessment that contains an overview of measuring the achievement of learning objectives, the validation results are obtained by 75% with fairly decent criteria. This is supported by Minister of Education and Culture Regulation Number 23 of 2016 concerning Education Assessment Standards, Pocket Book of Questions and Answers on Learning Implementation Plans (RPP) compiled by Kemendikbud Director General of Early, Basic, and Secondary Education Director General of 2020, as well as Inspirational Learning Implementation Plan compiled by the Curriculum and Learning Center Team of the Research and Development Agency of the Ministry of Education and Culture in 2019, which states that learning is the process of collecting and processing information to measure the achievement of student learning outcomes based on KD and learning objectives that have been formulated. In the development of this online lesson plan, the aspects include an overview to measure the achievement of learning objectives, these things are listed in the online lesson plan developed by researchers with the collection of tasks during face-to-face learning, quiz-2, and making video presentations billed by educator at a time determined by the teacher.

Overall, product online lesson plans based flipped learning obtained an average score of 91,67% with decent criteria. This is also supported by (Juniantari & Suryawan, 2017) which states that one of the learning tools is lesson plans, before being used in a limited trial the device must meet appropriate or valid criteria. In

developing this online lesson plan, it has met the appropriate criteria by adjusting the current Covid 19 learning situation, namely using the flipped learning model and referring to the government's decision to simplify lesson plans.

So that in a learning process the success of the learning process is dependent on the way the teacher manages learning, this is also in accordance with the statement from (Mawardi, 2019) that the success of learning is largely determined by the role of the teacher in preparing learning plans. (Yatmini, 2016) states that the preparation of the Learning Implementation Plan (RPP) is an absolute requirement for the implementation of a conducive learning process and promises to increase student learning outcomes. So

that every teacher in the education unit is obliged to develop learning tools, including comprehensive and systematic RPP so that learning takes place interactively, inspiring, fun, challenging, motivating students to participate actively, and providing sufficient space for initiative, creativity, and independence. according to the talents, interests, and physical and psychological development of students (Rahayu, 2016). Learning planning is a projection or estimate of activities that will be carried out by the teacher when the teacher teaches students (Oviana, 2013). RPP is a plan that describes the procedures and organization of learning to achieve a basic competency set out in the content standards and described in the syllabus (Kunandar, 2011).

Table 5. Results of RPP implementation validation

No	Learning	Learning materials	Value	Percentage (%)	Implementation Criteria
1.	Learning 1	<ul style="list-style-type: none"> • Structure and Function of Respiratory Organs in Humans • The mechanism of respiration in humans 	14	93,33	Very Good
2.	Learning 2	<ul style="list-style-type: none"> • Factors Influencing Breathing Speed Control on Humans • Lung Volume and Capacity • Oxygen and Carbon Dioxide Exchange Mechanism 	15	100	Very Good
3.	Learning 3	<ul style="list-style-type: none"> • Dangers of Cigarettes for Human Respiratory Health • Effect of Air Pollution on the Respiratory System • Respiratory System Disorders In Humans 	14	93,33	Very Good
Average				95,53	Very Good

Based on table 5 shows the results of the implementation of learning in this study got a high score from the observer. In the learning of the 1st meeting on the sub-material of the structure and function of the respiratory organs and respiratory mechanisms in humans, it got a score of 14 with a percentage of 93.33% which was included in the very good category. At the 2nd meeting learning on the sub-material of the influence of controlling respiratory rate in humans, lung volume and capacity, as well as the mechanism of oxygen and carbon dioxide exchange also got a score of 15 with a percentage of 100% which was included in the very good category. While at the 3rd meeting also obtained a score of 14 with a percentage of 93.33% which was included in the very good category in the sub-material of the dangers of smoking to health, the effect of air pollution on the respiratory system, and respiratory system disorders in humans. Obtaining scores at Learning 1, 2, and 3 obtained a percentage of 95.53% included in the very good category. Several factors that can create a pleasant online learning experience are being able to build a learning community, creating and maintaining a positive learning environment, being able to provide appropriate feedback, and being able to use various technologies to deliver the right content (Gasya, 2021).

CONCLUSION AND SUGGESTION

Based on the results of the development process and trial analysis in research, the reconstruction of the online semester Learning Implementation Plan (RPP) based on flipped learning material for the XI

class human respiratory system at MAN 10 Jombang can be applied to the learning process on the material concept human respiratory system for class XI SMA/MA. It can be seen based on the validation results of learning design experts that this online semester lesson plan obtained an average value of 91,67% with Obtaining scores at Learning 1, 2, and 3 obtained a percentage of 95.53% included in the very good category.

There are suggestions based on the results of research and discussion as well as conclusions about the development of an online semester learning implementation plan (RPP) based on flipped learning on the respiratory system material in class XI humans at MAN 10 Jombang. There are suggestions as follows the reconstruction of the online semester lesson plan based on the flipped learning model on the respiratory system material in class XI humans can be modified according to the conditions and characteristics of students, and utilizes current information technology, and can be applied to other materials.

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