



# Open Broadcaster Software Assisted Learning Media in Hybrid Learning

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## ABSTRAK

Hambatan yang acapkali ditemukan pengajar dalam pelaksanaan pembelajaran hybrid diantaranya terkait dengan koneksi internet serta akses siswa untuk mengikuti pembelajaran secara synchronous yang mengakibatkan pembelajaran tidak efektif. Pengembangan media pembelajaran berbantuan Open Broadcaster software (OBS) dapat menjadi satu solusi buat menyelesaikan permasalahan ini. Penelitian ini bertujuan untuk menganalisis praktikalitas serta efektivitas media pembelajaran berbantuan OBS dalam pembelajaran hybrid. Dalam hal ini metode yang diterapkan adalah Research & Development (R and D) dengan menerapkan langkah model ADDIE. Teknik pengumpulan data penelitian ini berupa teknik angket dan tes. Pengumpulan data penelitian ini dilakukan dengan kuesioner check list berbentuk skala likert. Teknik analisis data menggunakan analisis analisis statistik deskriptif kualitatif dan kuantitatif. Berdasarkan analisis uji praktikalitas diperoleh skor 90,0%, yang bermakna bahwa media yg dikembangkan terkategori praktis. Hasil pre-test dan post-test diperoleh nilai N gain 0.75. yang terkategori sedang. Disimpulkan media pembelajaran berbantuan OBS efektif dipergunakan pada pembelajaran. Media pembelajaran berbantuan OBS dapat membantu siswa dalam belajar.

## ABSTRACT

Obstacles often found by teachers in implementing hybrid learning include internet connection and student access to participate in synchronous learning, which results in ineffective learning. The development of learning media assisted by Open Broadcaster Software (OBS) can be a solution to solve this problem. This study aims to analyze the practicability and effectiveness of OBS-assisted learning media in hybrid learning. In this case, the method applied is Research & Development (R and D) by applying the ADDIE model steps. The technique of collecting data for this research is in the form of questionnaires and tests. The research data collection was carried out using a checklist questionnaire in the form of a Likert scale. Data analysis techniques used qualitative and quantitative descriptive statistical analysis. Based on the practicality test analysis, a score of 90.0% was obtained, which means that the media developed is in the practical category. The pre-test and post-test results obtained an N gain value of 0.75. moderate category. It was concluded that OBS-assisted learning media was effectively used in learning. OBS-assisted learning media can help students learn.

## 1. INTRODUCTION

Hybrid learning is an adaptation to the improvement of the virtual international, which offers innovative mastering standards. Innovative learning is characterized by the aid of openness or globalization, which means that in the twenty-first century, many essential changes might be of direction very specific from the order of life within the previous century (Shetu et al., 2021; Sumandiyar et al., 2021; Yunus & Mitrohardjono, 2020). Instructors and college students can be at different times and regions. Nevertheless, Gaining knowledge can take location with the help of numerous supporting gadgets and programs (Shetu et al., 2021; Sumandiyar et al., 2021). Getting to know remains an interest. It is intentionally planned by using educators with the reason and reason of providing studying experiences to college students so that scholars can research independently (Rahmawati, 2019; Siregar et al., 2017).

The pandemic length passed off in current years and had a first-rate impact on the sector of schooling and learning (Fajri et al., 2021; Lampong Klomkul, 2021; Xiong et al., 2020). Online learning is one of the mastering fashions used (Egan et al., 2021; Muhdi & Yuliejantingsih, 2020). Rules relating to online mastering suddenly bring about the unpreparedness of education policymakers to enforce online gaining knowledge. It raises numerous obstacles inside the implementation system (Grunt et al., 2020;

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Rasmitadila et al., 2020). Most instructors also have yet to be able to offer online fabric well, and students have issue expertise with the fabric furnished via the teacher. It ends in learning objectives that cannot be completed optimally (Asmuni, 2020; Hermanto et al., 2021).

The gaining knowledge of version that is additionally extensively used is hybrid learning. Barriers felt inside the implementation of hybrid learning are limited entry to direct (synchronous) getting to know due to network and tool constraints (Nartiningrum, 2020; Sutrisna et al., 2021). Signals that are much less stable reason students no longer to be fully capable of following the lesson. The gadgets' constraints are another hassle that must be addressed. The existence of media in getting to know can boom the effectiveness of studying due to the fact it can overcome the limitations of time, electricity, and senses and allows students to learn independently in step with their abilities and to get to know patterns (Primasari & Zulela, 2021; Rachmat & Krisnadi, 2020). This presentation shows the distance between the actual situations and the anticipated conditions. If this is not accompanied up, it will impact low motivation, call for and scholar learning results.

Streaming media is multimedia that can be obtained and supplied to the consumer while sent by the issuer. With media streaming, customers want to avoid downloading files to play them. Since the media is despatched in a non-stop circulation of information, it can be performed directly (Lamong Klomkul, 2021; Weynand & Piccin, 2021). Streaming is an era capable of compressing or reducing the dimensions of audio and video files so that they may be effortlessly transferred over the net (Apostolopoulos et al., 2003) (Lamong Klomkul, 2021). Streaming video makes use of a streaming server to transmit digital video through a facts community so that video playback may be executed immediately while not having to look ahead to the download process to complete first or store it first at the customer's computer (Kam et al., 2019; Lampong Klomkul, 2021).

The technique of moving audio and video documents can be carried out constantly. From a process standpoint, the streaming way is a generation for sending files from a server to a client through a packet-primarily based community. Streaming is a technique for making audio, video, and different multimedia to be had in real-time on exclusive varieties of networks. The information in the streaming report is divided into several small packets that can be sent continuously to the quit-consumer tool or mobile cellphone. One software program extensively used to report video or stay broadcasts is OBS (Open Broadcaster software). OBS is largely an application this is linked to an internet site. OBS itself has a variety of capabilities that are quite entire. Some of the capabilities supplied using the software program encompass using the H264 (x264) and AAC encoders. The resulting output file is in the form of MP4 or FLV. The GPU (Video Card) based screen seize characteristic is beneficial for enhancing game move overall performance. This app also features a webcam, capture Card, and so forth to guide Direct display capture. In addition, the OBS utility also has a function to aid excessive speed screen on home Windows 8.

The effects of the research confirmed that there was an increase in the presentation talents of postgraduate college students within the areas of verbal and non-verbal conversation, organization, and audience involvement after the use of video recordings (Hanafi et al., 2021; Maiyena & Haris, 2017). The outcomes of this study indicate that using video recordings efficaciously improves college students' presentation skills. Research associated with using recorders indicates a tremendous response to recorded studying using recordings. As a result, recording and streaming media can help offer answers to triumph over boundaries in hybrid learning. Consequently, expanding a learning method that can equip educators with the extra ideal implementation of hybrid learning becomes essential. This look changed into predicted to produce sensible and powerful OBS-based learning media and become sources for similarly hybrid learning improvement studies. This study aims to analyze the practicability and effectiveness of OBS-assisted learning media in hybrid learning.

## 2. METHOD

The author used development research (studies & development) that target finding, increasing, and verifying products (Putri, 2016). The study's version is the ADDIE development model, which consists of five stages: analysis, design, improvement, implementation, and assessment (Cahyadi, 2019). The design ranges of the studies development of the ADDIE model encompass the analysis level. At this level, the writer analyzed the evolved product primarily based on the occurring issues. At this degree, the writer started to lay out the evolved media design in the second level of design. The third level changed into the improvement stage. This level changed, so the author developed the product into a tangible form. Fourth turned into the product trial degree (Implementation). The writer fulfilled the product checking out stage at this level to determine whether the developed media can maximize user know-how. The closing step became the evaluation stage. At this stage, the writer attempted to see the weaknesses and strengths of the products which have been examined. The approach to gathering statistics for this research was in questionnaires and checks. The questionnaire approach was achieved during the beta take a look at the

stage for the practicality of OBS-assisted media in hybrid studying. The collection of studies facts turned into the use of a tick list questionnaire in the shape of a Likert scale to peer the evaluation and opinions of respondents on the practicality of the media being developed. The data analysis technique used in this research is descriptive qualitative and quantitative analysis.

### 3. RESULT AND DISCUSSION

#### Result

Practicality information analysis was completed primarily based on the results of the instructor's questionnaire on OBS-assisted learning media. This reaction questionnaire is used to decide consumer responses to the evolving media. The questionnaire consisted of 60 declaration objects, including the trainer's reaction regarding how appropriate and smooth the book media is for use. This questionnaire was given by a teacher who taught Economics at SMPIT Harapan Mulia Palembang. The outcomes of the instructor's reaction questionnaire to the hybrid getting-to-know approach development book based on the Open Broadcaster software program application showed in [Table 1](#).

**Table 1.** The Questionnaire Results of Teacher Responses to OBS Book Media

No	Component	Score		
		Score	The maximum score per indicator	Percentage
1	Practical Content	38	40	95%
2	The practicality of cover design	290	320	91%
3	The practicality of the content	200	220	91%
4	The practicality of the material	128	140	91%
5	Attractiveness	81	100	81%
6	The practicality of teaching materials	93	100	93%
7	Presentation equipment	57	75	75%
8	Material Accuracy	88	100	88%
9	Material eligibility	108	120	90 %
<b>Average</b>				<b>90.2 %</b>

The maximum score turned into  $4 \times 60 \times 5 = 1200$ . Four teachers crammed out the questionnaire at the small institution degree, 60 is the wide variety of questions/signs, and five is the best rating for every item. Based on the table above,  $1083:1200 = \text{zero.902}$  was received as the average trainer's response effects or a percent of ninety% turned into acquired within the Very realistic class, and it can be concluded that using OBS-based hybrid studying method improvement books became included within the sensible criteria. At this level, the author located numerous feedback related to the product tested for practicality using the trainer. Some of the teacher's remarks were used as material for development for the following stage of prototype improvement. As for the outcomes of the comments from the respondents, the writer then used them as fabric for development inside the next product revision. Respondents' Suggestions showed in [Table 2](#).

**Table 2.** Respondents' Suggestions

No	Name	Comment and Suggestions
1	AC	<ul style="list-style-type: none"> <li>- The book was easy to understand, but some pictures were unclear.</li> <li>- There were many typos, and it was hoped that this could be fixed first.</li> <li>- The book was quite good and detailed. However, the explanation of the pictures was still lacking.</li> <li>- A solution step can be added if an OBS error occurs.</li> </ul>
2	KL	<ul style="list-style-type: none"> <li>- The existing book was very good. However, some steps were still difficult to understand, and many repeated pictures.</li> <li>- There was still no real example of learning. So, it is hoped that relevant learning examples can be included.</li> </ul>

The writer conducted trials to discover the effectiveness of using the developed OBS-assisted mastering media. The trial was implemented by giving pre-checks and post-assessments to SMPIT Harapan Mulia Palembang teachers. The tryout was accomplished by giving ten check questions concerning OBS to see the teacher's know-how and information. The subsequent are the effects of the SMPIT Harapan Mulia Palembang field test. Field Test Results showed in [Table 3](#).

**Table 3. Field Test Results**

Teacher name	Pre-test	post-test	N- Gain	Category
AC	50	80	0.60	Moderate
KL	40	70	0.50	Moderate
FK	40	90	0.83	High
NB	20	100	1.00	High
AS	40	80	0.67	Moderate
ADS	50	90	0.80	High
RAP	30	90	0.86	High
DDF	50	80	0.60	Moderate
AZ	50	80	0.60	Moderate
TY	40	90	0.83	High
<b>Total</b>	<b>410</b>	<b>850</b>	<b>0.75</b>	<b>High</b>
<b>Average</b>	<b>41</b>	<b>85</b>		
<b>Minimum</b>	<b>20</b>	<b>70</b>		
<b>Maximum</b>	<b>50</b>	<b>100</b>		

Primarily based on the desk of take a look at recapitulation consequences, the pre-take a look at acquired a median of 41 with the best rating of 50 and the lowest score of 20. At the same time, the submit-test consequences received a median price of eighty-five, with the highest rating of 100 and the bottom rating of 70. From an evaluation of the average pupil scores, there has been an increase of forty-four for extra information. The proportion of instructors' pre-check outcomes has a median pre-check score of forty-one even as the average put up-check result is 85 with a gain price of forty-four. It was primarily based on those records and the n-benefit calculation. This information shows that the ensuing n-benefit fee is in the moderate category. This shows that the effectiveness of growing books on the improvement of hybrid gaining knowledge of methods primarily based on obs (open broadcaster software program) has a capability effect on growing teacher expertise about obs.

**Discussion**

The practicality check results determined that a percentage of 90% became received in the Very realistic class. It concluded that OBS-primarily based hybrid mastering technique improvement books became blanketed inside the practice standards. The media have been advanced following systematic processes using the ADDIE development model. The feasibility of mastering media is because it has an association, manner sequence, and components to other supporting records. (Munawar & Suryadi, 2019; Nurhayati et al., 2022; Yukselir & Komur, 2017). The practicality looks at effects located a percentage of ninety% become acquired within the Very practical category. It concluded that OBS-based hybrid studying technique improvement books become care. It became because the media had been developed following systematic procedures using the ADDIE development version. Learning media is feasible because it has an association, method series, and components to different supporting information (Abdulrahman Almurashi, 2016; Forbes et al., 2016; Pamungkas et al., 2018).

Learning substances also became an element that helps fulfill learning targets more successfully. Educational substances evolved which incorporate studying materials, commands for gaining knowledge of sports, tutorials, and a way to compare merchandise are designed scientifically and attractively to achieve the expected abilities and are used independently (Putra et al., 2017; Ramadhan et al., 2020; Safitri et al., 2021). The lifestyles of coaching materials can also encourage instructors to know capabilities and recognize the quantity to which capabilities are finished (Putra et al., 2017). To find out the effectiveness of the usage of the advanced OBS-assisted mastering media, the writer carried out trials. In its implementation, the consequences of the pains gave the pre-test consequences obtained by an average of 41 with the best cost of 50 and the bottom fee of 20. While the submit-test consequences were obtained using a median fee of eighty-five with the highest cost of a hundred and the bottom value of 70 visible from the evaluation of the common pupil ratings, there was an increase of forty-four.

The data evaluation results showed that the proportion of instructors' pre-take-a-look-at effects had a mean pre-take-a-look-at rating of 41 even as the average submit-take-a-look-at result became 85 with a benefit value of 44. Based on these records and the N-gain Calculation. Primarily based on that information, it can be seen that the ensuing N advantage value becomes within the moderate class. This indicates that the effectiveness of growing books on improving hybrid learning techniques based totally on OBS (Open Broadcaster Software) affects increasing teacher expertise about OBS. In gaining knowledge of the method, studying effects referred to adjustments in behavior from the outcomes of studying experiences. Modifications that occur can consist of three domain names, specifically cognitive, affective, and psychomotor. Studying effects is an alternative to behavior that occurs after collaborating in the teaching and gaining knowledge of the system in step with achieving or failing a person's instructional dreams (Putra et al., 2017). Within this study, the boom in trainer expertise approximately OBS can be due to several influencing elements. It is increasing instructor information as the achievement of getting to know outcomes that come from within the person that is mastering (internal elements) and a few from outside himself (outside elements).

#### 4. CONCLUSION

Referring to the results of the research and discussion on improving OBS-assisted learning media in the Economics subject at SMPIT Harapan Mulia Palembang, it can be concluded that the results of the practicality test of OBS-assisted learning media have a practicality degree of ninety which is considered very realistic. The results of examining the effectiveness of OBS-assisted learning media have been successful. Based entirely on the findings, it can be concluded that the product is reasonable and practical to use.

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