

**REPORT
COLLABORATION RESEARCH RESULTS**

**DEVELOPMENT OF BLENDED LEARNING MEDIA USING FLIPBOOK
SMARTPHONE CHARACTER BASED**



Drafting team:

- | | |
|------------------------------------|--------------|
| 1. Dr. Sri Astuti, M.Pd. | (0302127002) |
| 2. Dra. Imas Ratna Ermawati, M.Pd. | (0314086804) |
| 3. Meyta Dwi Kurniasih, M.Pd. | (0317058602) |
| 4. Dr. Onny Fitriana, M.Pd. | (0307067202) |
| 5. Aisyah Fitriana | (1501115006) |
| 6. Afif Abdul Rozak | (1501115002) |

**FACULTY OF TEACHER TRAINING AND EDUCATION
MUHAMMADIYAH UNIVERSITY PROF DR HAMKA
AND
PETRONAS TECHNOLOGY UNIVERSITIES
2020 – 2021**

**REPORT
COLLABORATION RESEARCH RESULTS
DEVELOPMENT OF BLENDED LEARNING MEDIA USING FLIPBOOK
SMARTPHONE CHARACTER BASED**



**UNIVERSITI
TEKNOLOGI
PETRONAS**

Drafting team:

- | | |
|------------------------------------|--------------|
| 1. Dr. Sri Astuti, M.Pd. | (0302127002) |
| 2. Dra. Imas Ratna Ermawati, M.Pd. | (0314086804) |
| 3. Meyta Dwi Kurniasih, M.Pd. | (0317058602) |
| 4. Dr. Onny Fitriana, M.Pd. | (0307067202) |
| 5. Aisyah Fitriana | (1501115006) |
| 6. Afif Abdul Rozak | (1501115002) |

**FACULTY OF TEACHER TRAINING AND EDUCATION
MUHAMMADIYAH UNIVERSITY PROF DR HAMKA
AND
PETRONAS TECHNOLOGY UNIVERSITIES
2020 – 2021**



MEMORANDUM OF UNDERSTANDING

BETWEEN

UNIVERSITI TEKNOLOGI PETRONAS

AND

**THE COUNCIL OF HIGHER EDUCATION
RESEARCH AND DEVELOPMENT OF
MUHAMMADIYAH**

THIS MEMORANDUM OF UNDERSTANDING (hereinafter referred to as the "MoU") is made and entered into this 26 day of March 2018

BETWEEN **UNIVERSITI TEKNOLOGI PETRONAS**, which is owned and managed by Institute of Technology PETRONAS Sdn. Bhd. (Company Number 352875-U) and established under the Private Higher Educational Institutions Act of Malaysia with its location at 32610 Bandar Seri Iskandar, Perak, Malaysia in this matter represented by **Prof. Dr. Mohamed Ibrahim Abdul Mutalib** in his capacity as Covering Vice Chancellor of Universiti Teknologi PETRONAS and Chief Executive Officer of Institute of Technology PETRONAS Sdn. Bhd., and therefore lawfully acting for and on behalf of Universiti Teknologi PETRONAS and Institute of Technology PETRONAS Sdn. Bhd. (hereinafter referred to as "UTP").

AND **THE COUNCIL OF HIGHER EDUCATION RESEARCH AND DEVELOPMENT OF MUHAMMADIYAH**, which operates under the Central Board of Muhammadiyah (established under Gouvernement besluit number 81 dated 22 August 1914) with its registered address at Jalan KHA Dahlan 103 Yogyakarta 55262, Indonesia in this matter represented by **Prof. Lincolin Arsyad, M.Sc., Ph.D.** in his capacity as Chairman and therefore lawfully acting for and on behalf of The Council of Higher Education Research and Development of Muhammadiyah (hereinafter referred to as 'MUHAMMADIYAH').

Both UTP and MUHAMMADIYAH shall be collectively referred to hereinafter as the "Parties" and individually as the "Party".

WHEREAS the Parties are seeking to improve understanding between their respective academic institutions have agreed to enter into this MoU as a first step towards achieving these shared goals.

NOW THEREFORE, the Parties hereby agree as follows:

1. SCOPE OF THE COLLABORATION

- 1.1 The Parties shall, at their discretion hereto, collaborate in:
 - 1.1.1 Student Mobility Program
 - 1.1.2 Research Attachment Program
 - 1.1.3 Staff Development program
 - 1.1.4 Joint Research and Collaboration which shall include but not limited to sharing of facilities and information, and publication of research outcomes
 - 1.1.5 Visiting and Adjunct Lecturer and Professor Program
 - 1.1.6 Any other areas that the Parties deem mutually beneficial

In the event the Parties mutually agree to pursue a particular activity in the abovementioned areas, a separate written document shall be entered into to detail out the roles and obligations of the Parties.

- 1.2 Each Party shall use all means reasonably available to it subject to ordinary budgetary and financial constraints so as to ensure successful implementation of the Collaboration and the Parties shall use their best endeavour to collaborate in good faith to the best interest of all Parties.

2. CONFIDENTIALITY

- 2.1. The Parties agree that the Collaboration may involve the disclosure of certain confidential information of the Parties respectively. For the purpose of this MoU, the term "Confidential Information" refers to any and all information including but not limited to information pertaining to curriculum, courses, syllabus, teaching materials, research activities and technical information made available by a Party ("Disclosing Party") to the other Party ("Receiving Party") during the course of the Collaboration. All "Confidential Information" shall be marked or identified as "CONFIDENTIAL" in writing and in a conspicuous manner at the time it is disclosed to the Receiving Party.
- 2.2. The Receiving Party hereby covenants to keep in strict confidence all Confidential Information and undertakes not to divulge or disclose the Confidential Information to any third party without specific written permission of the Disclosing Party. The confidentiality obligations hereunder shall not apply to the Confidential Information which:-
 - a. is or has become obsolete or is already in the public domain without any breach of the provisions in Clause 2 herein;
 - b. is already in the possession of the Party prior to the execution of this MoU;
 - c. is independently developed or obtained by the Party;
 - d. is obtained by the Party from any third party without confidentiality obligations; or
 - e. a court of competent jurisdiction orders to disclose.
- 2.3. The provision of this Clause 2 shall survive the expiry or termination of this MoU for a period of three (3) years.

3. INTELLECTUAL PROPERTY

- 3.1. For the purpose of this MoU, Intellectual Property Rights shall include all data, specifications, materials, research activities and technical information solutions, drawings, know-how and technical information developed, obtained, created, written, prepared or discovered, whether patentable or not, arising from the Collaboration or otherwise brought into existence pursuant to this MoU.

Specifically:

- a. Background Intellectual Property Rights shall include any Intellectual Property Rights that are possessed by each Party prior to the commencement of this MoU and/or developed independently by the Parties. Any Background Intellectual Property Rights that are made available as between the Parties for the performance of the Collaboration shall remain the separate property of the Party making such Background Intellectual Property Rights available, and nothing in this MoU shall be construed to grant any implied license to the other Party to use such Background Intellectual Property Rights other than in performance of this Collaboration.
 - b. Foreground Intellectual Property Rights shall include any Intellectual Property Rights that arise, or are obtained or developed, created, written, prepared and discovered jointly by the Parties, arising or otherwise brought into existence pursuant to this Collaboration.
- 3.2. The ownership of all Foreground Intellectual Property Rights arising out of the Collaboration shall be expressly subject to a Joint Development Agreement to be mutually agreed by the Parties.

4. DURATION, TERMINATION AND WITHDRAWAL

4.1. Duration

- (i) This MoU shall come into effect upon signing by the Parties and remain in force for a period of five (5) years. The Parties may, by a three (3) month written notice to the other before expiry of the MoU, apply to extend this MoU on mutually agreed terms failing which this MoU shall lapse and shall be of no further effect and neither Party shall have any further claims against the other thereafter.
- (ii) Without prejudice to the provisions in (i) above, the Parties may in the course of implementation of the terms of this MoU, execute a formal Collaboration Agreement or any other such written agreements in respect of any developments and/or expansion to the scope of the collaboration arising from the MoU.

4.2 Termination and Withdrawal from the MoU

- (i) Either Party may terminate or withdraw from this MoU for any reason whatsoever by providing to the other Party a three (3) month written notice of its intention to terminate or withdraw from this MoU.
- (ii) Upon termination of this MoU, neither Party shall be liable to the other in respect of any claims, damages, costs or expenses of any nature except for those rights arising from Clause 2 herein before provided.

5. COST AND EXPENSES

5.1. Each Party shall bear its own costs and expenses incurred in preparing, executing and implementing the collaboration under this MoU.

5.2. Each Party shall bear its own solicitor's costs in the preparation and stamping of this MoU.

6. DISCLAIMER

Each Party shall be solely responsible for its own acts and omissions (and the acts and omissions of its directors, employees, consultants and other agents) and no Party shall have the authority nor shall it purport to act for, or legally bind, the other Party in a transaction with a third party except as authorised in writing by the Parties.

7. RELATIONSHIP OF THE PARTIES

Nothing contained in this MoU shall be construed as establishing or creating between the Parties a relationship of master-and-servant or of principal-and-agent. The relationship between the Parties shall be that between equal independent contractors.

8. NON-BINDING OBLIGATIONS

8.1. The Parties do hereby agree, declare, covenant and undertake that this MoU outlines the understanding between the Parties with regard to the subject matter herein and may be subject to change or variation at the absolute discretion of the Parties herein, in the course of implementation of the collaboration, provided always that such discretion is exercised only upon mutual consent of the Parties.

8.2. The Parties do further hereby agree, declare, covenant and undertake that except where it is specifically provided herein, the MoU is not intended to create any legal obligations and shall not be legally binding on the Parties hereto.

9. MISCELLANEOUS

9.1. The official language to be used for execution and cooperation under this MoU shall be English.

9.2. Any amendment or modification to this MoU shall be made upon mutual consent of the Parties vide a written notice executed by the duly authorised representative(s) of each Party hereto.

- 9.3. A waiver of any of the rights or remedies available to any Party hereto shall not be valid and effective unless expressed in writing and executed by the duly authorised representative(s) of the Party. Such a waiver by any of the parties hereto shall not be construed as a waiver in respect of any other breach, antecedent or future.
- 9.4. This MoU may be extended to and may be used by all Muhammadiyah and Aisyiah Higher Education Institutions through separate written agreements to be negotiated and agreed upon by the respective Muhammadiyah or Aisyiah Higher Education Institution and UTP.
- 9.5. The following Muhammadiyah Higher Education Institutions are assigned to ensure successful implementation of the collaboration with UTP:
- (i) Universitas Muhammadiyah Purwokerto
 - (ii) Universitas Muhammadiyah Malang
 - (iii) Universitas Muhammadiyah Yogyakarta
 - (iv) Universitas Muhammadiyah Jakarta
 - (v) Universitas Muhammadiyah Prof Dr Hamka
 - (vi) Universitas Muhammadiyah Semarang
 - (vii) Universitas Muhammadiyah Surakarta
 - (viii) Universitas Muhammadiyah Makassar
 - (ix) Universitas Muhammadiyah Surabaya
 - (x) Universitas Ahmad Dahlan
- 9.6. Each Party shall be solely responsible for their respective tax implications (if any) arising out of the performance of the terms and conditions of this MoU.

10. NOTICES

Every notice, request or any other communication required or permitted to be given pursuant to this MoU shall be in writing, in English and shall be addressed to the appropriate office as is designated in writing hereinafter:

UNIVERSITI TEKNOLOGI PETRONAS

Strategic Alliance Office

Address : Universiti Teknologi Petronas,
32610 Bandar Seri Iskandar
Perak Darul Ridzuan, Malaysia

Phone/Fax : +60 5368 8181

E-mail : fawnizu@utp.edu.my

Attention to : Director, Strategic Alliance Office

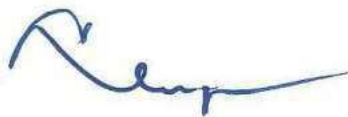
THE COUNCIL OF HIGHER EDUCATION RESEARCH AND DEVELOPMENT OF MUHAMMADIYAH

Address : Jalan KHA Dahlan 103
Yogyakarta 55262, Indonesia
Phone/Fax : +62 274 376336/+62 274 389485
E-mail : endang.umj@gmail.com, santhyhawanti.ump@gmail.com
Attention : Chairman, International Office Association of Muhammadiyah Higher Education Institutions

[End of Clauses]

IN WITNESS THEREOF, the Parties have caused this MoU to be executed by their duly authorized representatives.

For and on behalf of
THE COUNCIL OF HIGHER EDUCATION RESEARCH AND DEVELOPMENT OF MUHAMMADIYAH



.....
Prof. Lincolin Arsyad, M.Sc., Ph.D.
Chairman
Date: 28 March 2018

For and on behalf of
UNIVERSITI TEKNOLOGI PETRONAS



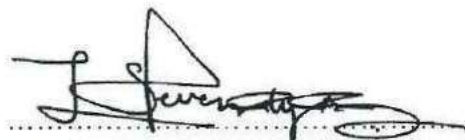
.....
Prof. Dr. Mohamed Ibrahim A Mutalib
Covering Vice Chancellor and CEO
Date: 28 March 2018

in the presence of



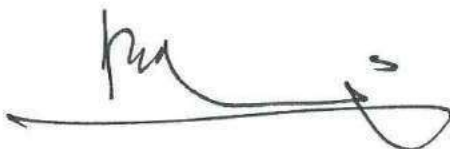
.....
Prof. Dr. Edy Suandi Hamid, M.Ec.
Vice Chairman

in the presence of



.....
Prof. Ir. Dr. Mohd. Shahir Liew
Deputy Vice Chancellor Research and Innovation

For and on behalf of
UNIVERSITAS MUHAMMADIYAH PURWOKERTO



.....
Dr. H. Syamsuhadi Irsyad, M.H.
Rector

For and on behalf of
UNIVERSITAS MUHAMMADIYAH MALANG



.....
Drs. H. Fauzan, M.Pd.
Rector

For and on behalf of
**UNIVERSITAS MUHAMMADIYAH
YOGYAKARTA**



.....
Dr. Ir. Gunawan Budiyo, M.Pd.
Rector

For and on behalf of
**UNIVERSITAS MUHAMMADIYAH
PROF DR HAMKA**



.....
Prof. Dr. Suyatno, M.Pd.
Rector

For and on behalf of
**UNIVERSITAS MUHAMMADIYAH
SURAKARTA**



.....
Dr. Sofyan Anif, M.Si.
Rector

For and on behalf of
**UNIVERSITAS MUHAMMADIYAH
SURABAYA**



.....
Dr. dr. Sukadiono, M.M.
Rector

For and on behalf of
**UNIVERSITAS MUHAMMADIYAH
JAKARTA**



.....
Prof. Dr. Syaiful Bakhri, M.H.
Rector

For and on behalf of
**UNIVERSITAS MUHAMMADIYAH
SEMARANG**




.....
Prof. Dr. Masrukhi, M.Pd.
Rector

For and on behalf of
**UNIVERSITAS MUHAMMADIYAH
MAKASSAR**



.....
Dr. H. Abd. Rahman Rahim, M.M.
Rector

For and on behalf of
UNIVERSITAS AHMAD DAHLAN



.....
Dr. Kasiyarno, M.Hum.
Rector

ENDORSEMENT PAGE
RESEARCH COLABORATION OF UHAMKA-UTP

Title of Research : Development Of Blended Learning Media Using Flipbook Smarthphone Character Based

Chairman

a. Full Name : Dr. Sri Astuti, M.Pd.
b. NIDN : 0302127002
c. Jabatan Fungsional : Lektor
d. Fakultas/Department : FKIP / Economic Education
e. No.HP/E-mail : 0812 820 9793 / sri_astuti@uhamka.ac.id

Member 1

a. Full Name : Dra. Imas Ratna Erawati, M.Pd.
b. NIDN : 0314086804
c. University : Universitas Muhammadiyah Prof Dr HAMKA

Chairman 2

a. Full Name : Meyta Dwi Kurniasih, M.Pd
b. NIDN : 0317058602
c. University : Universitas Muhammadiyah Prof Dr HAMKA

Chairman 3

a. Full Name : Dr. Onny Fitriana , M.Pd
b. NIDN : 0307067202
c. University : Universitas Muhammadiyah Prof Dr HAMKA

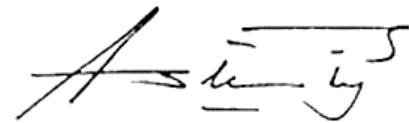
Time of Research : 1 Year

Research Costs : Rp. 75.790.000

a. Lemlitbang UHAMKA : Rp. 35.000.000
b. *In Kind* (UTP) : Rp. 40.790.000

Jakarta, 02 Maret 2021

Chief Researcher,



Dr. Hj. Sri Astuti, M.Pd.
NIDN 030212700

Knowing,
FKIP Dean



Dr. Desvian Bandarsyah, M.Pd.
NIDN 031712690

Approve,
Chair of the Research & Development Institute

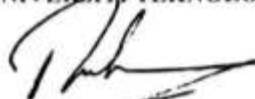


Prof. Dr. Susyandari, M.Pd
NIDN. 0020116601

**Evidence of Research Activities in Malaysia
with Universiti Teknologi Petronas**

No.	Keterangan	Jumlah	Konversi Nominal
1.	UTP Village Room	6 x 14 x RM70.00 = RM5.880	Rp 19.574.873
2.	Flight ticket (round trip)	6 x 2 x RM173,61 = RM2.083,32	Rp 6.936.101
3.	Rent a bus	2 x RM1.096,3 = RM	Rp 7.229.933
4.	Facilities and infrastructure for training activities	RM1.366,62	Rp 4.550.000
5.	Meals	RM750,62	Rp 2.499.093
	Total		Rp 40.790.000

For and on behalf of
UNIVERSITI TEKNOLOGI PETRONAS



Prof. Dr. Mohamed Ibrahim A Mutalib
Covering Vice Chancellor and CEO

Documentation In Kind Universiti Teknologi Petronas





UNIVERSITAS MUHAMMADIYAH PROF. DR. HAMKA
LEMBAGA PENELITIAN DAN PENGEMBANGAN

Jln. Tanah Merdeka, Pasar Rebo, Jakarta Timur
Telp. 021-8416624, 87781809; Fax. 87781809

**SURAT PERJANJIAN KONTRAK KERJA PENELITIAN
LEMBAGA PENELITIAN DAN PENGEMBANGAN
UNIVERSITAS MUHAMMADIYAH PROF DR HAMKA**

Nomor: 279/F.03.07 / 2020
Tanggal: 20 Desember 2020

Bismillahirrahmanirrahim

Pada hari ini, Jum'at, tanggal Dua Belas, bulan Juni, Tahun Dua Ribu Dua Puluh, yang bertanda tangan di bawah ini **Prof. Dr. Suswandari, M.Pd.**, Ketua Lembaga Penelitian dan Pengembangan Universitas Muhammadiyah Prof. DR. HAMKA, selanjutnya disebut sebagai **PIHAK PERTAMA**; **Dra. IMAS RATNA ERMAWATI, M.Pd.**, selanjutnya disebut sebagai **PIHAK KEDUA**.

PIHAK PERTAMA dan PIHAK KEDUA sepakat untuk mengadakan Perjanjian Kontrak Kerja Penelitian yang didanai oleh RAPB Universitas Muhammadiyah Prof. DR. HAMKA.

Pasal 1

PIHAK KEDUA akan melaksanakan kegiatan penelitian dengan judul : **DEVELOPMENT OF BLENDED LEARNING MEDIA USING FLIPBOOK SMARTPHONE CHARACTER BASED** dengan luaran wajib dan luaran tambahan sesuai data usulan penelitian Batch 1 Tahun 2020 melalui simakip.ac.id.

Pasal 2

Bukti luaran penelitian wajib dan tambahan harus sesuai sebagaimana yang dijanjikan dalam Pasal 1, Luaran penelitian yang dimaksud dilampirkan pada saat Monitoring Evaluasi penelitian yang diunggah melalui simakip.uhamka.ac.id.

Pasal 3

Kegiatan tersebut dalam Pasal 1 akan dilaksanakan oleh PIHAK KEDUA mulai tanggal 20 Desember 2020 dan selesai pada tanggal 20 Juli 2021.

Pasal 4

Berdasarkan kemampuan keuangan lembaga, PIHAK PERTAMA menyediakan dana sebesar Rp.35.000.000,- (Terbilang : *Tiga Puluh Lima Juta*) kepada PIHAK KEDUA untuk melaksanakan kegiatan tersebut dalam Pasal 1.

Pasal 5

Pembayaran dana tersebut dalam Pasal 4 akan dilakukan dalam 2 (dua) termin sebagai berikut;
(1)Termin I 50 % : Sebesar 17.500.000 (Terbilang: *Tujuh Belas Juta Lima Ratus Ribu Rupiah*) setelah PIHAK KEDUA menyerahkan proposal penelitian yang telah direview dan diperbaiki sesuai saran reviewer pada kegiatan tersebut Pasal 1 yang dilengkapi dengan tanda tangan asli dekan dan ketua program studi.

(2)Termin II 50 % : Sebesar 17.500.000 (Terbilang: *Tujuh Belas Juta Lima Ratus Ribu Rupiah*) setelah PIHAK KEDUA mengikuti proses monitoring dan evaluasi serta mengunggah laporan akhir penelitian dengan melampirkan bukti luaran penelitian wajib dan tambahan sesuai Pasal 1 ke simakip.uhamka.ac.id.

Pasal 6

(1)PIHAK KEDUA wajib melaksanakan kegiatan tersebut dalam Pasal 1 dalam waktu yang ditentukan dalam Pasal 3.

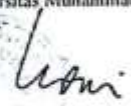
(2)PIHAK PERTAMA akan melakukan monitoring dan evaluasi pelaksanaan kegiatan tersebut sebagaimana yang disebutkan dalam Pasal 1. Bila PIHAK KEDUA tidak mengikuti Monitoring dan Evaluasi sesuai dengan jadwal yang ditentukan, tidak bisa melanjutkan penyelesaian penelitian dan harus mengikuti proses Monitoring dan Evaluasi pada periode berikutnya.

(3)PIHAK PERTAMA akan mendenda PIHAK KEDUA setiap hari keterlambatan penyerahan laporan hasil kegiatan sebesar 0,5 % (setengah persen) maksimal 20% (dua puluh persen) dari jumlah dana tersebut dalam Pasal 4.

(4)Dana Penelitian dikenakan Pajak Pertambahan Nilai (PPN) dari keseluruhan dana yang diterima oleh PIHAK PERTAMA sebesar 5 % (lima persen).

Jakarta, 20 Desember 2020

PIHAK PERTAMA
Lembaga Penelitian dan Pengembangan
Universitas Muhammadiyah Prof. DR. HAMKA
Ketua-


Prof. Dr. HJ Suswandari, M.Pd
MSI

PIHAK KEDUA
Peneliti.


Dra IMAS RATNA ERMAWATI

Mengetahui
Wakil Rektor II UHAMKA


Dr. ZAMAH SARI M.Ag.

TABLE OF CONTENTS

Endorsement Page	.....	ii
Table Of Contents	.....	iii
Appendix List	.....	iv
List of Tables	.....	v
list of Picture	.....	vi
List of Graphs	.....	vii
Summary	.....	viii
CHAPTER I	INTRODUCTION	2
1.1	Background	2
1.2	Motivational Topic Selection	4
1.3	Formula Problem	4
1.4	Research Objektive	4
1.5	Research Priorities	4
CHAPTER II	LIBRARY OVERVIEW	7
2.1	Media	7
2.2	Learning Media	7
2.3	Digital Learning Media	9
2.4	Blended Learning	11
2.5	Characters	12
2.6	Study Of Art Research	14
CHAPTER III	RESEARCH METHODS	15
3.1	Research methods	15
3.2	Place And Time Research	15
3.3	Research Flow Diagram	17
3.4	Step Research	19
3.5	Data Colletion Techniques	19
3.6	Data Analysis Techniques	19
CHAPTER IV	STAFF AND STUDENT MOBILITY PROGRESS	21
4.1	Staff Mobility Progress	21
4.2	Student Mobility Progress	23
CHAPTER V	RESULTS AND DISCUSSION	27
5.1	Research Result	27
5.2	Discusion	32
CHAPTER VI	EXTERNAL RESEARCH	34
CHAPTER VII	CONCLUSIONS AND SUGGESTIONS	35
7.1	Conclusion	35
7.2	Suggestions	35
BIBLIOGRAHY	.....	36

APPENDIX LIST

Appendix 1	Budget Justification	39
Appendix 2	Availability of Facilities and Infrastructure	40
Appendix 3	Organization structure	41
Appendix 4	Needs Analysis Questionnaire	42
Appendix 5	Needs Analysis Results	44
Appendix 6	Observation Results Needs Analysis	45
Appendix 7	Poll Interface	46
Appendix 8	Interface Questionnaire Results	48
Appendix 9	Usability and Data Questionnaire Results	50
Appendix 10	Value Pre And Post	55
Appendix 11	Pre-Post Test Data Processing	56
Appendix 12	Character Poll	58
Appendix 13	Character Questionnaire Results	61
Appendix 14	Data processing Character	62
Appendix 15	Hasil User Interface	65
Appendix 16	Modul Integral Dalam Flipbook	67
Appendix 17	Research Logbook	90
Appendix 18	RoadMap Joint Riset FKIP UHAMKA-UTP	100

TABLE LIST

Table 1.1	Target Plan And Annual Achievement	5
Table 2.1	Terminology comparisons between e and m- learning	10
Table 2.2	Values And Description Of Character Education Value	13
Table 3.1	Research Schedul	16
Table 3.2	Likert Scale Criteria	19
Table 3.3	Interprestasi Of Likert Scale Score	20
Table 5.1	Application Menu Component	28
Table 5.2	Student Trial Value	30
Tabel 5.3	Pre-Post Tes result	30

PICTURE LIST

Picture 3.1	Diagram Alir Penelitian	.....	18
Picture 4.1	Meeting with UTP Research Team UHAMKA	.....	22
Picture 4.2	Daring shared Seminars And When Taking User Interface Data	.....	23
Picture 4.3	Road Map Research Derivative Studens Form Mobility	.....	24
Picture 4.4	Student Perform Application	.....	25
Picture 5.1	Main Menu Screen	.....	28
Picture 5.2	The Indonesian Version Of Flipbook	.....	29
Picture 5.3	Average Value for 5 user interface	.....	33

GRAFIK LIST

Grafik 5.4	Pre – Post Test efektifiveness of media usage	31
Grafik 5.5	The character of the learning media process is blended learning	31

ABSTRACT

This study aims to determine the design stages of developing blended learning smartphone media learning products and to determine the feasibility of integral learning media using the developed flipbook. This study uses a small-scale trial at FKIP UHAMKA while for large-scale trials conducted UTP Malaysia with 29 respondents including physics education FKIP UHAMKA, mathematics education FKIP UHAMKA and also UTP Malaysia. The method used is Research and Development (R&D) using the Brog and Gall development procedure. The results of the media interface test obtained a percentage of 77.18%. This shows that the products developed included in the category are very feasible to use while for the effectiveness of students as teaching material in the learning process, the average of the effectiveness of students is 83.26%, the value obtained can be said to be very well seen from the Likert scale index used, then from the assessment of the effectiveness of media students it is feasible to be used in integral learning. Blended learning media with character given to one class in FKIP UHAMKA, obtained an average post-test score of 48.04. The data obtained, the character development of the character questionnaire was 75.04.

Keywords: Learning Media, Blended Learning, Character

CHAPTER I

INTRODUCTION

1.1. Background

In today's digital era, people can learn anytime and anywhere. In this case, learning is authentic and individual based. However, the current popular learning strategy in Indonesia is traditional learning, which is class-based (classical) learning using lecture methods. In classical learning, the student learning process is bound by the dimension of space and time, meaning that students must be in the same space and time as their classmates and prayers to perform learning activities. Therefore, it is necessary to look for alternatives for classical learning that can overcome the problem without losing the feeling of social bonds between students with classmates and students with their prayers. [1] When the lecture became the only learning method, the ability of Critical Thinking students became less honed because students were not accustomed to thinking outside the context conveyed by lecturers and being passive in selecting sources Additional learning resources provided by lecturers. In fact, lecturers are not supposed to be the only source of learning, especially in today's digital age, where the source of learning bias is relatively easy through the help of information technology.

Along with the rapid development of information and communication technology (ICT), the need for an IT-based (education) learning concept and mechanism is inevitable. The concept, later known as M-learning, carries the influence of the transformation process of conventional education into digital form, both in contents and in its system. Currently, the M-learning concept has been widely accepted by the world community, evidenced by the rise of the implementation of M-learning especially in educational institutions (schools, trainings and universities). Some colleges hold electronic learning activities as supplements (additionally) to lesson materials that are regularly presented in the classroom.

The digital-based education system at FKIP UHAMKA has been done so-called blended learning perceived as a 21st century innovation in accordance with government directives on the Industrial Revolution of 4.0. The system opens access to education for anyone, anywhere, and at any time. With these characteristics, the system is often regarded as a solution to various educational problems, especially those relating to the distribution and democratization of education, as well as the expansion of access to quality education to All walks of life.

Multimedia technology has promised a great potential in changing the way people learn, to obtain information, to customize information and so on. Multimedia also provides an

opportunity for educators to develop learning techniques, resulting in maximum results. Likewise for learners, with multimedia expected they will be easier to determine with what and how it can absorb information quickly and efficiently. Therefore, the presence of multimedia in the learning process becomes very beneficial. Media Learning has two components, namely hardware and software and has forms both text, audio, visuals, images, and animations that can stimulate the mind, feelings, attention, and interest and attention of students in such a way that the learning process occurs.

The rapid development of information and communication technology can be utilized by teachers/lecturers to support the learning process. In other words, learning is no longer only conveyed by expository methods where the student is only a passive learner, but the teacher/lecturer must facilitate students to study independently. This is according to the opinion of Chuang (2014) which states that the utilization of technology in learning will increase the motivation and learning outcomes of students. [2] In addition, the utilization of technology can be used as a learning medium that can be accessed anytime and anywhere using portable media such as smartphones (Herrington, 2008). [3] As such, the learning process can be performed interactively, inspiring, joyful, and motivating students by using technology-assisted learning media. Departing from some of these backgrounds, researchers are keen to make the latest trend in M-learning today known as Mobile Learning (M-Learning). The concept of learning uses portable media such as smartphones with the Android operating system. The Android operating system is one of the latest models of mobile communication device operating systems. M-Learning is based on Android combining and linking technology and educational content. M-learning can be used as a solution for solving problems in traditional learning systems so that M-learning can be used to improve the overall learning system. To date, Android is one of the operating systems that is still the main choice of the community.

The rapid development of Android indicates the existence of features and ease of use. The number of Android users in Indonesia period July 2017 reached 84.09% that has increased compared to year 2016 of 73.80% (Stat Counter, 2017). Further, the data reported from www.kominfo.go.id says that in 2018 the number of active users of smartphones in Indonesia are more than 100 million people. By the amount of that, Indonesia became the most active user of the fourth largest smartphone after China, India and America. One of the smartphone systems used is Android. Android is the most popular operating system used by the community, especially among students [3]. But in reality, the use of smartphones by students has not been maximized to support learning. The condition is seen from its use as limited as entertainment and social media. In fact, this mobile device can be used as a learning medium that

can be used anytime and anywhere. The results of the research conducted by Parise & Crosina (2012) show that technological media is a supplement in the classroom learning that has a significant influence on the improvement of collaborative learning and teamwork. [4] Technology Media provides a motion room for students to communicate between students and teachers quickly. Therefore, this research aims to determine the extent to which the use of mobile devices in supporting learning programs. This research is expected to provide information for teachers/lecturers and students in planning and organizing learning activities that are more effective and efficient.

1.2. Motivational topic selection

The latest Trend in e-learning today is known as Mobile Learning (M-Learning). The concept of learning uses portable media such as smartphones with the Android operating system. The Android operating system is one of the latest types of mobile communication device operating systems. M-Learning is based on Android combining and linking technology and educational content. M-learning can be used as a solution for solving problems in traditional learning systems.

1.3. Formula problems

From the background that has been conveyed above, the problem formulation of the research include:

- a. How is the quality of blended learning Media products using FlipBook for students worth use?
- b. Whether the use of this smartphone-based learning blended Learning Media application can increase the interest and creativity of tuna students

1.4. Research objectives

As for the purpose of this research is to produce learning application of blended learning media using smartphone / MIT APP, integrated flipbook character.

1.5. Research priorities

The virtue of this study includes:

1. A smartphone-based product on a calculus/integral course of student level at FKIP UHAMKA Jakarta Indonesia and UTP Malaysia

2. This developed application contains content in the form of text, images, video and evaluation tests.
3. Material content in the form of text, images, video and evaluation tests running on offline/online mode
4. Application installed on Android based smartphone Android OS version on a minimum smartphone 4.3 (Jelly Bean)

Tabel 1.1
Target Plan and annual achievement

No	External type		Achievement indicators		
			TS	TS+1	TS+2
1.	Scientific publications	International			
		Accredited National			
2.	Use in scientific appointments	International			
		National			
3.	<i>Invited speaker</i> In a scientific meeting	International			
		National			
4.	<i>Visiting Lecturer</i>	International			
5.	Patent intellectual Property (HKI)	Patent			
		Simple Patents			
		Copyright			
		Trademark			
		Trade secrets			
		Product design			
		Geographical indication			
		Protection of crop varieties			
		Integrated Circuit topography Protection			
6.	Appropriate Technology				
7.	Model/prototype/design/artwork/social engineering				

No	External type	Achievement indicators		
		TS	TS+1	TS+2
8.	Teaching books (ISBN)			
9.	Level of technology readiness (TKT)			

CHAPTER II

LIBRARY OVERVIEW

2.1. Media

The word media comes from the Latin language and is the plural form of the word medium which literally means intermediary or introduction. Medoë is the intermediary or introductory message from the sender to the message recipient. [5] The National Education Association (NEA) has a different understanding. "Media are forms of communication both printed and audiovisual and its equipment. The Media should be manipulated, viewable to be heard and read. "Both print and audiovisual can be manipulated in the form of vision, hearing and reading materials.

Literally medium means intermediary or introduction. Cecep and Bambang wrote some media notions according to some members (1) Sadiman suggests that the media is an intermediary or an introductory message from the sender to the message recipient. (2) Gagne states that the media is a different type of component and its environment. So media is a container of messages that the source wants to pass on to the goal or recipient of the message.

Of the three expert opinions on the media, it can be concluded that the media is a component used as an intermediary for delivering messages by the source addressed to the target or recipient of the message. AECT an organization engaged in the technology of education and Communication in the Book of Vienna defines the media as all forms used for the process of information transmission. Robert Hanick, DKK (in Sanjaya, 2012) defines the media is something that carries information between the source (source) and the receiver (receiver) information.[7]

From the opinions of AECT and Robert the media can be concluded, all forms of information that is carried out by the source (teacher) to the recipient (learners). Based on the media definitions of some of the experts that have been displayed above, the authors concluded that the media is a tool or material used to communicate in any form that can be manipulated as an information feeder process Teacher to the learners. Communication will run smoothly to the fullest when assisted by the media. Media can be print-visual and visually-compliant with the needs of the message source and receiver.

2.2. Learning Media

If the media carries messages or information aimed at learning or containing the meaning of learning, it can be said media learning.

Hamidjojo in the book Cecep and Bambang gave the media limitation as all forms of intermediaries used by humans to convey or spread ideas, ideas, or opinions so that the ideas, ideas or opinions expressed to the recipient The destination. [8] From the limits of media understanding according to Hamidjojo can mean media is a form of intermediary used by teachers to convey ideas, ideas or opinions so that the intended recipient is a student.

Sanjaya further (2012) wrote the opinions of Rossi and Briedly, the learning medium is all tools and materials that can be used for educational purposes such as radio, television, books, newspapers, magazines and so on. According to Rossi tools such as radio and television if used and in the program for education then is a medium of learning. [9] From a media sense according to Rossi and Briedly it can be interpreted all the tools and materials programmed to support and in accordance with the purpose of learning is a learning medium.

Gerlach and Ely (Sanjaya, 2012) View learning media not only in the form of tools and materials, but the things that students may be able to gain knowledge of. Furthermore Gerlach and Ely stated "A Medium, conceived is any person, material or even that establish condition which enable the learner to acquire knowledge, skill and attitude". [10] According to the General Geralch the Media (learning) includes people, materials, tools, or activities that create conditions that allow students to acquire knowledge, skills, and attitudes. So in this sense the media not only talks about tools and materials only, but humans also belong to the media for example in seminars or discussions that allow students to acquire knowledge, skills, and attitudes.

Muhammad Rohman writes the learning Media according to (1) Gagne, the media learning as a component of learning resources in the student environment that can stimulate students to study, (2) Briggs, learning Media is a physical attraction that contains material Lessons, (3) Wilbur Schramm, a learning media is an information carrying technique or message learning, (4) Yusuf Hadi Miarso, learning Media is anything that can stimulate the occurrence of the learning process.[11]

The opinions of the four experts above can be concluded, learning media is as a means of physical rides in a student environment that helps teachers in delivering learning that can stimulate learners to learn.

AECT (Assosiation for Education Comunication and Technology) in Sadiman, et al. Explain that:

"With the inclusion of various influences into educational treasures such as printing science, behaviorism, communication, and the pace of the development of electronic technology, the media in its development appeared in various types of formats (print modules, films, televisions,

film frames, film-series, radio programs, computers and so on) each with its own cirri-traits and abilities." [12]

Indicators of the Learning Media: 1) Learning Media must be in accordance with the needs of learning, 2) learning Media should be easy to understand by teachers and students, 3) learning Media must be interesting so stimulate students to want to learn, and 4) Media learning should have the benefit of not wasted.

Based on some descriptions of the learning media described previously, the researcher concluded that the media of learning is all forms of intermediaries used in the learning process and in accordance with the learning objectives. The proper use of learning media can help teachers facilitate the delivery of learning. In addition, learning media can also lead to curiosity and stimulate learners to learn.

2.3. Digital Learning Media (M-Learning)

In general, the concept of digital learning is the concept of teaching and learning that uses electronic circuits to purify the content of the material being taught. Computer, Internet, satellite, audio/video tape, interactive TV and CD ROM are some of the electronic media intended in this category

Mobile learning is defined by Clark N. Quinn (Quinn, 2000) as: The intersection of mobile computing and e-learning: accessible resources wherever you are, strong search capabilities, rich interaction, powerful support for effective learning, and performance-based assessment. ELearning independent of location in time or space. [13] Based on that definition, mobile learning is a learning model that utilizes information and communication technology. In this learning concept, mobile learning brings the benefit of the availability of teaching materials that can be accessed at any time and interesting material visualization.

Yi Jin (2009) A new kind of distance education mode, Mobile learning can provide learners with the maximizing learning autonomy, and also can provide the instructors and education administrators with more flexible teaching and managing methods. Being able to interpret a new type of remote education, mobile Learning (M-Learning) can provide learners with the freedom to maximize learning, and can also provide students with education and educational administrators with more flexible teaching and easy-to-manage methods. [14]

The term mobile learning (M-Learning) refers to the use of handheld and Mobile information Technology (IT) devices, such as mobile phones, laptops and tablet PCS, in teaching and learning. Mobile Learning (M-Learning) is part of electronic learning (e-Learning) so that, by itself, is also part of distance Learning (D-Learning).

The transition from e-learning to the M-Learning revolution is characterized by a change in terminology. For example, the dominant term in the e-learning ERA is: multimedia, interactive, hyperlinks, rich media environments, etc. In the era of M-learning terms such as spontaneous, intimate, moving, direct-connect, public, lightweight, private, private etc. are used to characterize the context (Modified from Sharma & Kitchens 2004). [15] There are several difference between e learning and M-learning according to Modified from Sharma & Kitchens as in Table 2.1

Tabel 2. 1.

Terminology comparisons between e- and m-learning

<i>e-learning</i>	<i>m-learning</i>
Computer	Mobile
Bandwidth	GPRS, G3, Bluetooth
Multimedia	Objects
Interactive	Spontaneous
Hyperlinked	Connected
Collaborative	Networked
Media-rich	Lightweight
Distance learning	Situated learning
More formal	Informal
Simulated situation	Realistic situation
Hyperlearning	Constructivism, situationism, collaborative

2.4. Blended Learning

Blended learning is a combination of traditional learning and electronic learning environment. Blended Learning combines web-based learning aspects, video streaming, synchronous and asynchronous audio communication with traditional "face-to-face" learning (Sjukur, 2012:4). [16] Learning with blended learning can move the principle of learning from teacher Center to student Center dynamically. Blended Learning Learning is complementary to the lack of learning face to face learning and e-learning, because according to Munir (Izzudin, 2012:11), the weakness of e-learning learning is physically separate students and teachers so that interactions face to face is reduced. E-elearning tends to be training rather than education that leads to cognitive and psychometric abilities and less attention to affective aspects. Learning with face to face learning lecturers are able to enable themselves as educators and give

encouragement direct and expressive motivation to students. Blended Learning makes student activities in the classroom become more varied. [17]

Blended learning is essentially a combination of face to face learning and virtual (e-learning) excellence. Online or elearning learning in blended learning becomes a natural extension of traditional classroom learning using face to face Learning (Izzudin, 2012:5) [18] Thorne (2003:16) explains that blended learning is the most logical evolution in learning. Blended Learning provides a solution for the challenge of adjusting learning and development for individual needs. Blended Learning is an opportunity to integrate innovative advancements and technologies offered by online learning with the best interaction and participation of traditional learning. Blended learning is a mixture of multimedia technology, CD ROM video streaming, virtual classroom, email, animated text online combined with traditional forms of training in the classroom. [19]

According to Carman (2005:2), there are five keys to conducting learning using blended learning, [20] namely:

- Live Event, synchronous or face-to-face learning in the same time and place or time, but different places.
- Self-Paced learning, namely combining with self-Paced learning that allows participants to learn anytime, anywhere online.
- Collaboration, combining collaboration with both teacher collaboration, and collaboration among learners
- Assessment, the designer must be able to combine the combination of online and offline assessment both test and non-test.
- Performance Support Materials, make sure the learning materials are prepared in digital form, accessible to the participants learn both offline and online.

Based on the explanation above, it can be concluded that blended learning is a combination of learning with web-based electronics (e learning) with the learning face-to-face in the classroom. Blended Learning is a learning that utilizes information technology in the form of e learning as a medium in delivering learning and to improve the motivation of learning students with more modern and interesting learning. The learning process with blended learning will be more effective because the learning process that is usually done conventional or face-to-face will be assisted by Web learning or e-learning with information technology that can be done Anytime and anywhere.

2.5. Characters

Character Education according to Koesoema (2010) is the place for the freedom of the individual in the governance of values that are regarded as good, noble, and worthy to be fought as a code of conduct for personal life to face With himself, fellow and Lord. Basically, education is not only obligated to improve academic achievement but also need the character formation of students. Fakry Gaffar in Dharma Kesuma, et al., raises character education as a process of transforming life's values to develop in a person's personality to become one in the person's life. [21] Character education is indispensable in education to create a succession of nations with a noble character. Education in Indonesia is based on nine basic character pillars. The basic characters become character education objectives. The nine pillars of this basic character, among others: (1) The Love of God and the universe and its contents; (2) Responsibility, discipline, and self-reliant; (3) Honest; (4) Respect and courtesy; (5) Compassion, caring, and cooperation; (6) Confident, creative, hard work, and unyielding; (7) Fairness and leadership; (8) Good and Humble, and (9) Tolerance, peaceful love, and unity. [22] Sahid Hamid Hasan in Zubaedi defines a number of character values for character education such as the following tables:

Table 2.2
Values and description of Character education value [23]

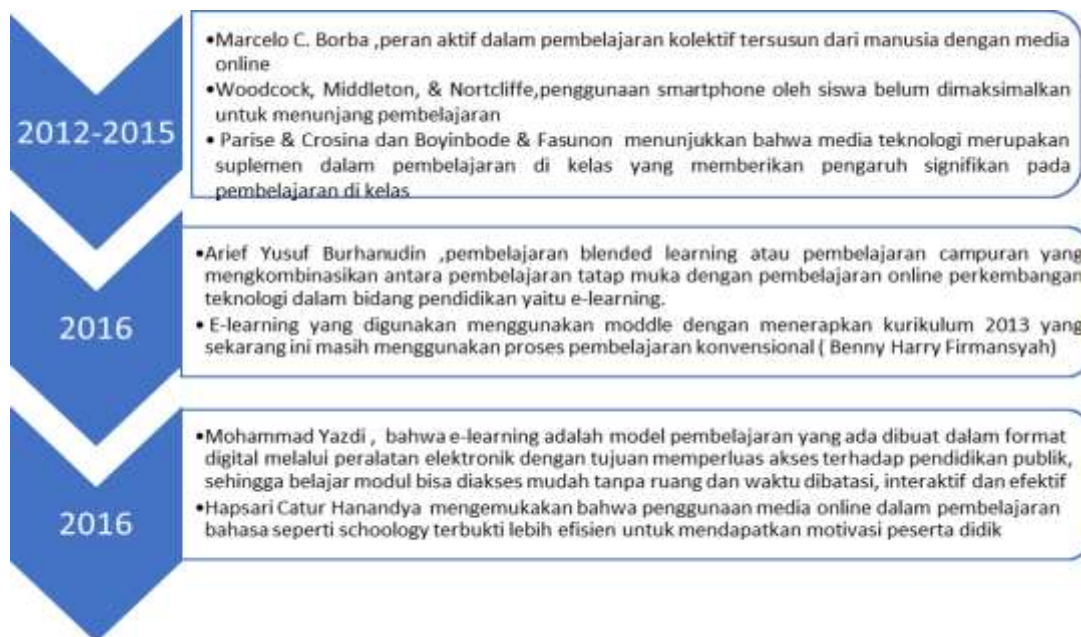
No	Value	Description
1.	Religious	The attitudes and behaviors that are obedient in carrying out the religious teachings he has adopted, are tolerant of the implementation of other religious worship, and living in harmony with the adherents of other religions.
2.	Honest	Behavior that is based on striving to make itself a person who is always trustworthy in Word, action, and work.
3.	Tolerance	Attitudes and actions that appreciate the differences in religion, ethnicity, ethnicity, opinions, attitudes, and actions of others that differ from themselves.
4.	Discipline	Actions that demonstrate orderly behaviour and compliance with various provisions and regulations.
5.	Hard work	Behaviors that demonstrate effort
6.	Creative	Think and do something to generate new ways or outcomes from something that you already have.

7.	Mandiri	Attitudes and behaviors are not easy depending on others in completing tasks.
8.	Democratic	A way of thinking, being, and acting that assesses the rights and obligations of himself and others.
9.	Curiosity	Attitudes and actions that always strive to know more deeply and extend from something they learn, see, and hear.
10.	National Spirit	A way of thinking, acting, and insightful that puts the interests of the nation and the country above its own interests and group.
11.	Love the Homeland	How to think, behave, and do demonstrate loyalty, caring, and high appreciation of the nation's language, physical, social, cultural, economic, and political environment.
12.	Rewarding achievements	Attitudes and actions that encourage him to produce something that is useful to society, and acknowledge, and respect the success of others.
13.	Friendly/Communicative	<i>Actions that show the pleasure of speaking, associating, and collaborating with others.</i>
14	Peace Love	Attitudes, words, and actions that cause others to feel happy and safe in their presence
15.	Love to read	The habit of giving time to read the various readings gives virtue to him.
16.	Caring Environment	Attitudes and actions that always strive to prevent damage to the surrounding natural environment, and develop efforts to repair natural damage that has occurred.
17.	Social care	Attitudes and actions that always want to give help to others and communities in need.
18.	Responsibility	One's attitude and behavior to carry out its duties and obligations, which should be done against oneself, society, the Environment (nature, social, and culture), the state, and the Almighty God.

Based on some exposure to the character value above the author takes some value that every student must have such as religious value, discipline, curiosity and responsibility. Because a successful generation is a generation that is always thirsty for science, it can be implanted in students through a value of curiosity and responsibility. And the discipline and religious value that someone must have if he wants to succeed in his life.

2.6 Study Of ART Research

Study Of ART Research shown in picture 2.6



From previous researchers have used a lot of blended learning as a learning medium in the curriculum 2013 and there is also a combination with the learning model. While research conducted by researchers using blended learning, in blended using FlipBook by using characters to measure the effectiveness of learning media.

CHAPTER III

RESEARCH METHODS

3.1 Research Methods

This research uses development research methods because researchers want to produce an effective product for use in universities. According to Akker et.al., development research has other terms that have the same goals and characteristics that are: Design research, design studies, design experiments, formative research, formative evaluation, and engineering research. [25] Development research methods because researchers want to produce an effective product for use in Campus/university learning. Motode Development Research uses a research and Development method whereby the research methods are used to produce a specific product and test the effectiveness of the product. [26] The study used the development model of Brog and Gall.

3.2 Place and Time research

A. Research site

The research was conducted with the implementation of observation analysis in 2 (two) universities, namely the University of Muhammadiyah Prof. Dr. HAMKA at the Faculty of Teacher training and education at the School of Physics and mathematics education Program in Jakarta and University of Petronas technology Malaysia (Perak). Then proceed with online Pesebaran poll analysis with student respondents. As for the design phase until the study was conducted at the campus FKIP UHAMKA and UTP Malaysia. Furthermore, the initial validity of the early stages was implemented in the UHAMKA Jakarta FKIP Limited to physics and mathematics education students. Then the second stage validation stage is implemented Malaysian UTP.

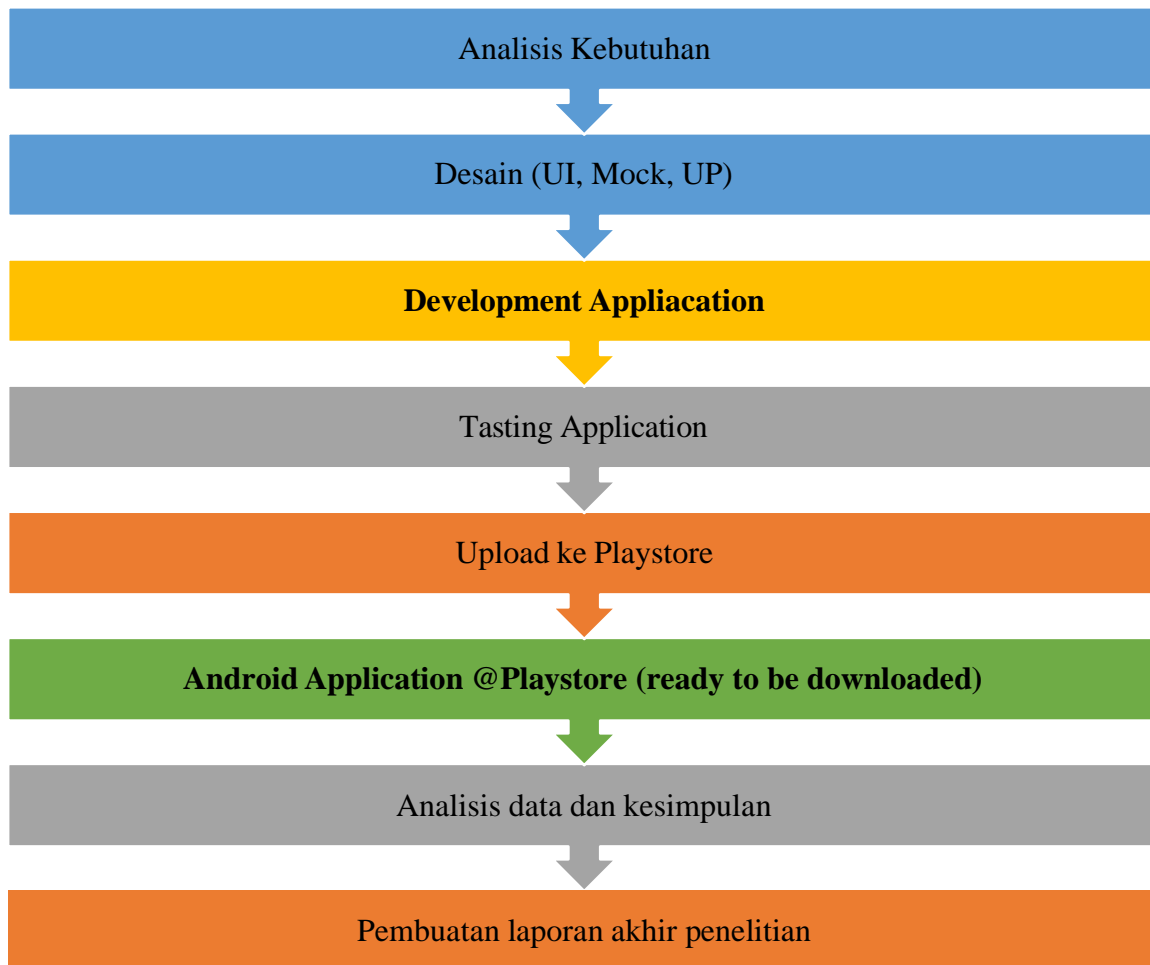
B. Research Schedule

Tabel 3.1
Research Schedul

No	Uraian	Jan				Feb				Maret				April				Mei				Sept				Okt			Nov				Des			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	1	2	3	4	1	2	3	4				
1	Studi Literatur																																			
2	Pembelian bahan																																			
3	Pembuatan Product																																			
4	Uji Coba Product I																																			
5	Revisi Product																																			
6	Uji Coba Product II																																			
7	Validasi Ahli																																			
8	Pengolahan Data																																			
7	Pembuatan Laporan																																			

3.3 Research Flow Diagram

The research flowchart can be seen in the following image::



Pictures 3.1 Research Flow Diagram

3.3 Step Research

A. Media Development Steps

1. Preliminary Research/Need analysis

The first step undertaken by researchers in the development process is collecting preliminary data that can be used as material for product planning. Steps taken to collect data by observing the field. Preliminary observations were obtained that lectures are centered on the lecturers to be the center of learning. Therefore, it takes adequate learning media to sustain students ' needs to make students more motivated and able to study independently. After potential problems are identified, further information is made. Information collection is very important to know the needs of the user community to the products that want to be developed through research and

development.

2. Product Design

Based on the results of the analysis of needs, the next step of research and development makes the design of the product to be developed.

- Design validation, the next step is to perform design validation: Design validation is a product design assessment process done by grading it based on rational thinking, without the field trials.

- Design Improvements

After product design is validated through expert assessment or discussion forum, revise the product design based on expert feedback and from discussion forum.

- Product Trial

After revising the product design, the next step is to test the product. Trials are conducted to determine the effectiveness of the products they are developing. Trials can be done in restricted groups.

- Product Revision

Product revisions need to be made for several reasons, namely: (a) The trial is still limited, so it does not reflect the actual situation and conditions, (b) in the trial found the weaknesses and disadvantages of the products Developed, (c) data to revise products may be netted through the user's product or that is the target of using the product.

3. Testing Application

After revision of the product, trials of product use were developed. Trials are conducted on a wider group to determine the effectiveness of developed products and obtain inputs to revise final-stage products.

4. Android Application

The implementation of this model or media is the next to be published by means of uploading to the Play Store so that everyone is biased to download the app for free. This media will also be introduced to lecturers and students as prospective educators. As well as adding material to the application so that students can use it for more physical material.

B. Model implementation / Media developed

This model or media implementation is next to be published by means of uploading to the Play Store so that everyone can download the app for free. This media will also be

introduced to lecturers and will certainly be used by the authors as learning. As well as adding material to the application so that students can use it for calculus material, especially more integrals.

3.5 Data Collection Techniques

The data collection techniques in this study use several steps, namely:

1. Interview

An interview technique was conducted to compile a data from the lecturer on the importance of media development in calculus learning about the integral material of rotating objects in which the media is using the MIT APP media, while for The student uses a questionnaire to analyse the need for the medium of lectures

2. Poll (questionnaire)

The poll techniques used in the research are media expert validation questionnaire, material expert validation poll, and student response questionnaire after trying the MIT APP app in the lecture.

3. Observation

The observation technique is done to see how the lecturer and student response to the media of the MIT APP Mobile Phone Application.

4. Documentation

Documentation techniques are conducted to obtain data and direct evidence that a student or respondent has tried a product made.

3.6 Data Analysis Techniques

In this research data obtained from poll, student response poll and lecturer will be analyzed using the calculation of Likert scale. In the use of Likert scale is used to measure the attitude, opinions, or perception of a person or group. The Likert scale is used to measure a person's attitudes, opinions and perceptions or a group of social events.

Table 3.2
Likert scale Criteria

Score	Answer
5	Excellent (SB)
4	Good (B)
3	Moderate (S)

2	Not good (TB)
1	Very Ungood (STB)

Percentage of answers of each question item can be counted for expert validation poll besides using Likert scale answer conclusion of the validation result using Guttman scale. The Guttman scale will produce a firm answer, i.e. "yes-no", "decent-not worth", "effective-ineffective" and "practical-impractical". To draw conclusions from media eligibility can be searched using the following ways:

$$\text{Persentase} = \frac{\sum \text{Answer worthy of the respondent}}{\sum \text{respondent}} \times 100\% \quad \dots (3.1)$$

The poll results will be analyzed with the following interachievements:

Tabel 3.3
Interachievement of Likert Scale score

Percentage score	Interpretation
0 % - 20%	Very not good
21 % - 40%	Not good
41 % - 60%	Good enough
61 % - 80%	Good
81 % - 100%	Excellent

CHAPTER IV

STAFF AND STUDENT MOBILITY PROGRESS

A. STAFF MOBILITY PROGRESS

In law No. 14 of 2005 on teachers and lecturers it is confirmed that lecturers are professional educators and scientists with the main task of transforming, developing, and disseminating science, technology, and the arts through education, Research, and community service.

Lecturer is a professional education and scientist, a person who has the capability in certain scientific field, and with his capabilities, he can teach, researching to develop theories and technologies in the field of science, And even devotions to the community to validate the theory or technology that has been produced through its research. The position of the lecturer, as stipulated in article 5 of LAW No. 14 of 2005 on teachers and lecturers, is confirmed that the position of lecturers as professionals become learning agents, developers of science, technology, and art, as well as the devotion to Community serves to improve the quality of national education.

In accordance with the rules set forth in Permendikbud No. 49 year 2014, lecturers must prepare the study plan, prepare teaching materials, perform the learning process, evaluate student learning outcomes, provide guidance on Students through structured tasks given lecturers to students every week, and provide student consultative services for their self-service activities conducted by lecturer instruction.

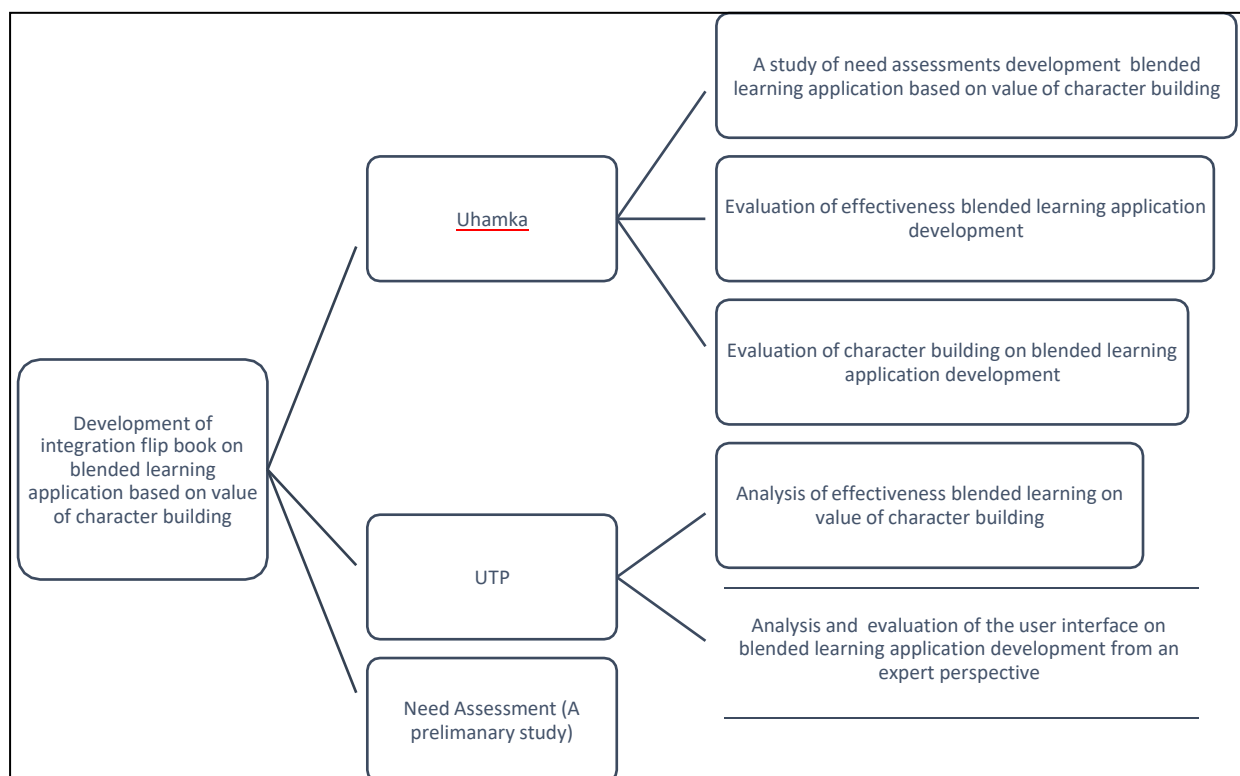
Not the first in UHAMKA feel the program mobility staff with fellow lecturer UTP (University Teknologi Petronas) provide a distinctive experience for us Dr Sri Astuti, Dra Imas Ratna Ermawati, M. Pd, Meyta Dwi Kurniasih S. Pd, M. Pd and Dr Onny Fitriana, M. Pd. As one of the 20 faculty of UHAMKA, run several programs such as mobility staff, student mobility, and join Reseach. The purpose of UHAMKA programs is to improve the quality of lecturers and students. By chance Fkip UHAMKA got the initial task of making guidelines for mobility staff. Therefore, UHAMKA started sending lecturers to University Teknologi Petronas (UTP).

The location of mobility staff refers to the purpose of establishing research collaboration with other universities. UTP is chosen as the location of the mobility staff because it has a similar science course that is calculus



Pictures 4.1 Meeting with UTP research TEAM-UHAMKA

From UHAMKA and UTP meetings resulted in a research roadmap



From the roadmap above the team of mobility staff went to UTP and there took data until the seminar was shared. UHAMKA Team Seminar was conducted at UTP with student UTP participants attended by approximately 20-30 students. Given by students to Dr Wan about the research plan to be conducted, students are required to focus on media research on the user interface to search the literature review on the user interface type and look for a literature review on value.

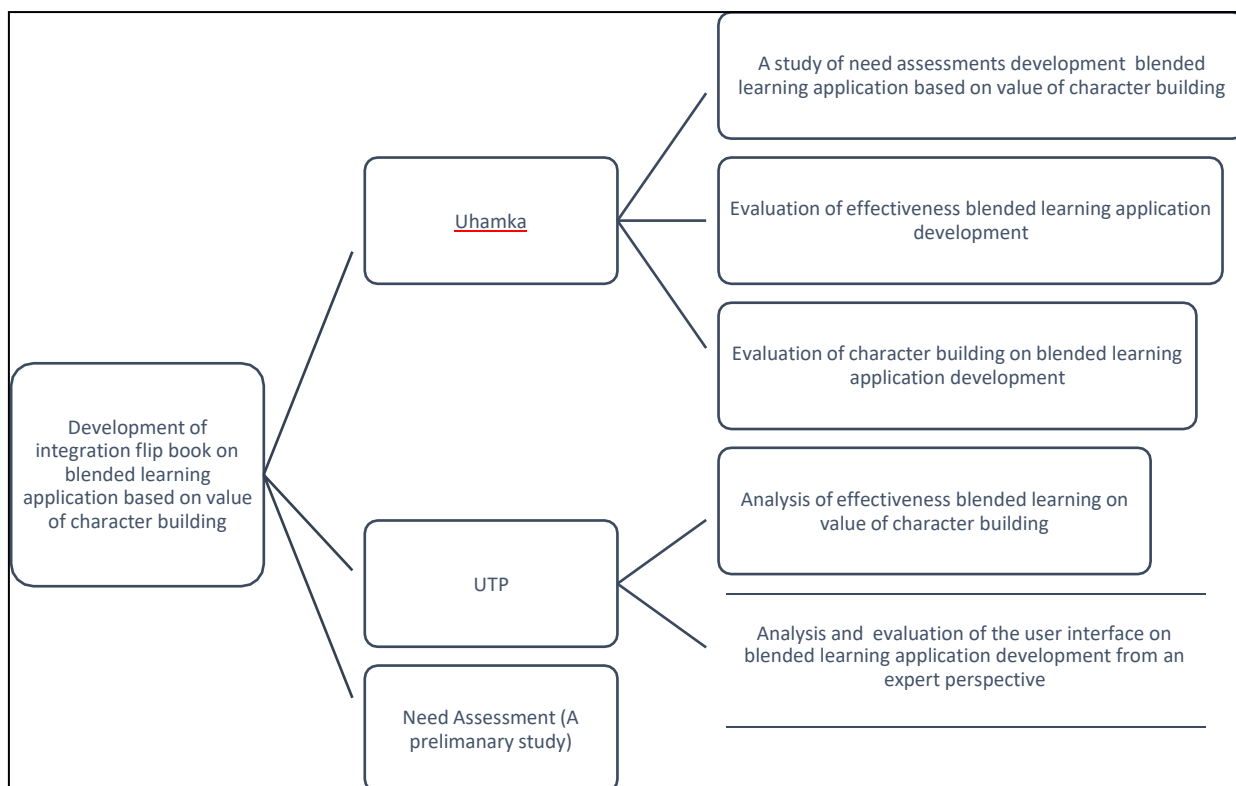


Pictures 4.2 During shared seminars and when taking user interface data

B. STUDENT MOBILITY

Before departing to UTP, students have been provided with procedures and activities that will be conducted during UTP by UHAMKA lecturer TEAM. Discussion of application programs to be built and students prepare the program as the focus of the research is a media application to implement the blended learning model with the integration of teaching materials in the form of Flipbook. Based on the team's delivery of the program's objectives, the student then created the application by using any developer application. Finally in early November before the student departure presented an application that has been developed against the UHAMKA team, so the implementation when at UTP aim to validate the application.

The first time he arrived in Malaysia, the UHAMKA team of lecturers and students did the meeting on the discussion of research and introduction of the research team between UHAMKA and UTP. Then the first task of students is to observe the performance analysis of the application program that has been previously applied in UTP IE U-Learn platform. After the observation, the internal discussion meeting was conducted by the UHAMKA team to coordinate the planning of the research road map to be conducted. Based on the observation result of U-Learn which is the media used as the implentation of blended learning is very good in UTP, so based on the observation results found a new research idea besides validation can also Obtain implementation effect data. The following research road map will be conducted:



Pictures 4.3. Road Map Research derivative students from mobility staff

Based on the research road map, finally agreed based on the results of the performance analysis is divided into two first-team students to perform the validation tool related user interface and the second team to conduct analysis research The effectiveness of the Blended learning program as well as the prevailing U-Learn platform in UTP of student learning habits whose enable is classified towards character value.

After the team made the deal, the next meeting of the students did the preparation of the instrument, because there are two focus on data retrieval in UTP so that the instrument prepared also two IE instruments for the data retrieval user interface against Applications that have been created. The second is the instrument of habit of students classified against character values. The preparation of instruments performed by the students is guided together both from UHAMKA team and UTP team. Students are asked to conduct a literature review for the creation of instruments from the analysis of journals and books.

The first week at UTP, the instrument was ready to be carried out in the next week. Every morning, students always coordinate on the UTP team (Dr. Wan Fatimah) about the activities that will be done and the progress of the research results. To minimize the spread of instrument data retrieval is prepared in the Google form that is linked through the barcode code so that the data retrieval deployment can be flexible.

As for the retrieval of the user interface research data, the student team conducted a demo application by visiting one by one respondent by requesting the respondent to install the application, then ask the respondent to assess the user interface Based on the instruments that have been prepared. Respondents from the data retrieval user interface is also focused to students of Computer Science Information UTP, where the respondent is an expert in the field. Then to capture data implementation of the effect of blended learning respondents who filled all UTP students. After 3 days the data retrieval process of each research data is obtained based on 30 of UTP students.



Pictures 4.2.

Students perform application demos to request validation of user interface data to one of UTP Master's program students

Once data is obtained then students conduct analysis of the data and perform coordination to the UHAMKA and UTP teams. As for the research results the user interface is done revision of design from experts based input. Finally data obtained based on the purpose of the research road map while in UTP fulfilled data. Then the student did re-coordinate the related data and publications by the research team.

As for other activities of students other than obtaining data and validating in UTP, Alhamdulillah on the occasion of research time is doing student exchange program also from Indonesian students at UTP, the program is followed by more or less 35 students from Indonesia and we are acquainted with friends then we are also given the opportunity to gather together with students of Indonesian Student Association (PPI) Malaysia to conduct meetings and discussion of each other information Especially academic activities at UTP Malaysia.



Pictures 4.3.

The meeting with PPI Malaysia students, UTP end of activities at UTP we created an article that will be published jointly by TIM UHAMKA and UTP.

CHAPTER V

RESULTS AND DISCUSSION

5.1 Research Results

A. Media Eligibility

In research on development of this learning media, feasibility test is conducted to the media by involving validation test and product use test. In the validation test conducted by Physics Education study Program Faculty of Teacher training and education of Muhammadiyah University and University Technology Petronas Malaysia as media experts, and test validation of material on the application is conducted by two A Physics education study Program Faculty of Teacher training and education of Muhammadiyah University of Prof. Dr. Hamka and University of Petronas Malaysia whereas, on the test of the use of the product is conducted by the Education Student Physics and education Mathematics Faculty of Teacher training and education of UHAMKA. Details of the stage researchers conducted in the study of the Learning Media development blended learning is as follows:

1. Analysis Stage

Analysis of student needs that will be the goal of using blended learning media to find out if blended learning based Learning media can assist in lecturing. At this stage it is necessary to gather analysis data on whether students need a more motivated learning medium to learn students in calculus learning with integral material of rotating objects.

After conducting analysis of the need to respondents about the need for learning media, then get the results of the analysis that has been done to the students can easily understand if the image listed in the textbook presented Uniting all files until formed in the application or media created.

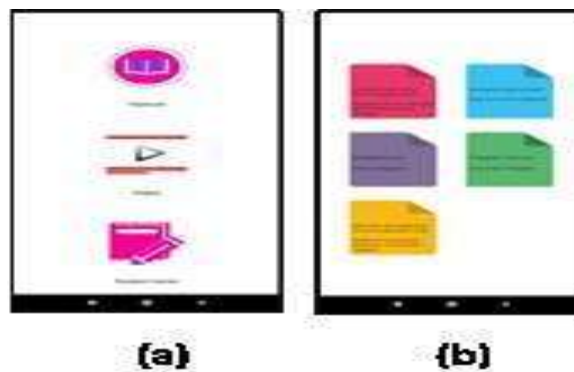
2. Media Feasibility phase

The application design stages, firstly, plan the application features that support the learning process with the blended learning model. In addition, from the main menu, there are links: Book with a swipe navigation (flipbook), then explanation of audio and video learning from lecturers, and there is also evaluation Test (quiz). Table 5. I Show the Application menu component.

Table 5.1
Application Menu Component

Component	Details
Selection Screen	Display selection Indonesia or English version
Menu	Indonesia Version : Flip Book, Video, and Student Center menu (link platform e-learning) English Version : Flip Book, Video, and Practice (General visitor)
Menu Flip Book	Display the learning sub-menu theory (Indonesia Language for Indonesia version and English Language for English version)
Menu Video	Display video learning from lecturer linked on Youtube (Indonesia Language for Indonesia version and English Language for English version)
Student Center	Display e-learning for FKIP UHAMKA's students (Indonesia Version)
Practice	Display evaluation test for general visitor students (English Version)

The application design stages, firstly, plan the application features that support the learning process with the blended learning model. The application features are designed to include: books with a swipe navigation (flipbook), then explanation of audio and video learning from lecturers, and there is also evaluation Test (quiz). After planning, build the application with Thinkable application. Here are a few screenshots of screen design apps.



Pictures 5.1. (a) Main menu screen; (b) Flipbook screen Menu

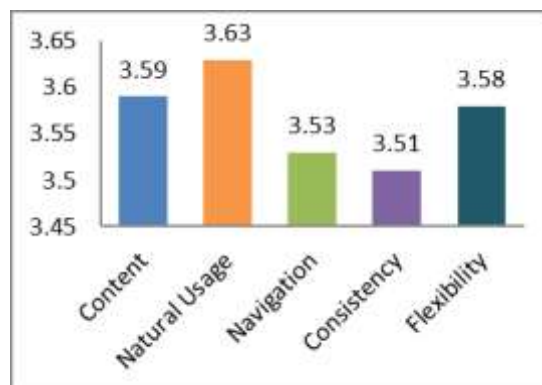
In Indonesia's main menu is Flip Book (Learning module using Bahasa Indonesia), Tutorial video link in Youtube using Bahasa Indonesia), and Student Center (e-Learning platform only students UHAMKA) in it there are tasks, resources, and forum To learn and similar to the main

menu English version there are Flipbook and Video Tutorial using English and the difference is there is a evaluation with a double choice quis (for the public).



Pictures 5.2. (a) The Indonesian version of FlipBook Menu; (B) English version of FlipBook Menu

After design, the app is rated user interface. Based on findings from Figure 5.2, it can be concluded that respondents have a high level of approval on the mobile application development user interface. This is demonstrated by the overall average score for 5 user interface principles at a high level of average content = 3.59; Natural use = 3.63; Average navigation = 3.53; Average consistency = 3.51; and the average flexibility = 3.58.



Pictures 5.3. Average value for 5 user interface principles

3. Media Effectiveness

In testing the effectiveness of media used for learning, first students were given pretes to measure the initial level of students, then after the study took place using a blended learning

medium Learning using the flipbook then done post-Test. Post-Test is given to know the level of students ' ability after using media. Analysis of the test data effectiveness conducted using statistical analysis of the data of research results conducted by the collation test to know there is an increase between pretests and posttest. Test Try to this student is done twice, ie small-scale trials and large scale trials. In this test, the aspect of the value is Learning media usage. Based on a small-scale trial With the total number of respondents 26 students gained a score An average of 4.46 and a percentage of 86.25% with very good categories.

Table 5.3

Student Trial Value

No.	Trial	Average Rating	Percentage
1	Small-scale	4,46	86,25%
2	Large-scale	4,01	80,2%
Average Rating		4,23	
Average percentage		83,23 %	

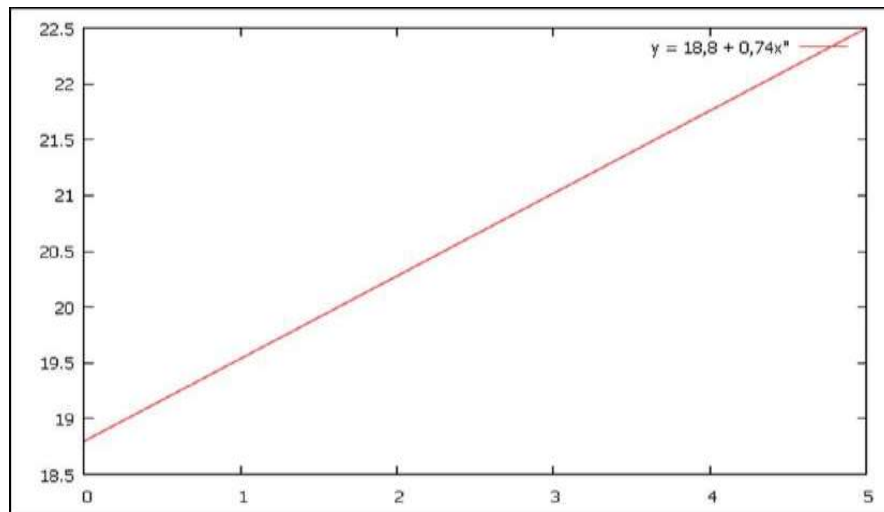
Then conducted a large-scale trial with total Reponden 26 students gained an average score of 4.01 and a percentage of 80.2% with a good category. The number of trial percentages is 83.23%, so it can be said that this developed media model is effectively used as a media learning calculus with integral material of rotating objects.

Table 5.4

Pre-Test and Post Test results

No	Test type	Average Rating	Percentage
1	Pre-test	39	39 %
2	Post Test	48	48 %
Average Rating		87%	
Average percentage		87 %	

Pre-Test and Post Test are given to a class in UHAMKA FKIP with a total of 26 students. Obtained an average pre-test value of 39 with a percentage of 39% and the average post test rate of 48 with a percentage of 48%. Based on the student learning results are increased after using the media seen from the post test value higher than the pre-test value. The effectiveness of the media developed was 87% with excellent categories.

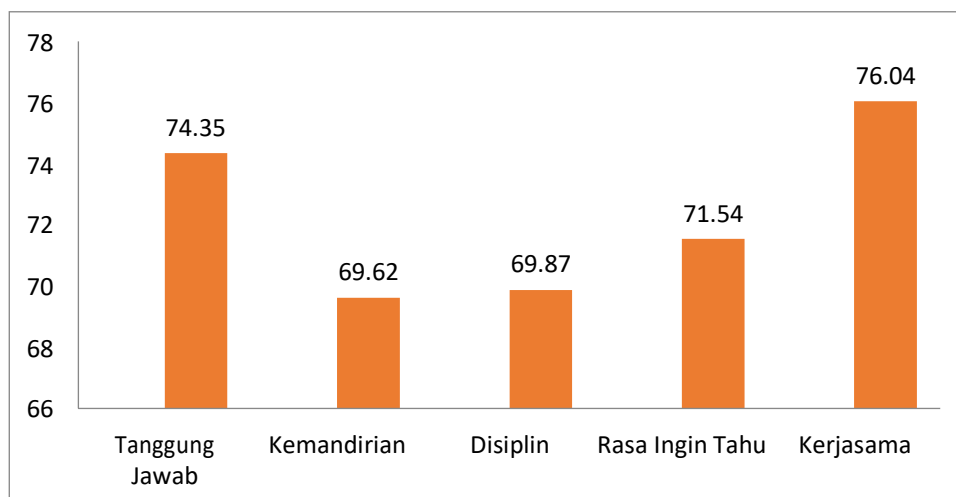


Graph 5.4 Pre – Post Test effectiveness of media usage

Pictures 5.4 can be seen that a simple regression value The effect of causation has the same results as calculations. The resulting curves on the graph form a linear curve so that it can be concluded that any increment of the X value will affect the increase of the Y value. This indicates that variable X has an influence on the variable Y

5. Character learning process Media

In testing these results imply that the value of character analysis in blended learning methods in the lecture has received positive feedback from the students and the overall result is given on the 4.5 chart. The average character value for the learning blended learning process is responsibility = 74.35; The sweetness = 69.62; discipline = 69.87; Curiosity = 71.54; cooperation = 76.04



Graphics 5.5

Character Process Media learning blended Learning

Based on the post-test with a learning medium blended learning with a character given to a class in FKIP UHAMKA with a total of 26 students. Received average post-test value of 48.04. The Data obtained, the character development of the character poll amounted to 75.04. The difference between the poll and observation value occurs because the characters in the students cannot be optimally observed.

5.2 Discussion

Based on the principles of the identified user interface results (Fig. 4.2), there are some discussions about the mobile app being developed. First principle, the overall application of the content presented is relevant to the competency for students. The application content is also designed in the form of points so that students can easily find important information. However, because this content is integral to the integral material of rotating objects, there are some inaccurate notations and symbols. Then, the second principle, the application installation process is easy to do and the process can be used in all versions of Android with all screen resolutions. But, this app has a large size memory. The third principle is navigation. The display button works well but the suggestion for revisions is given an additional button on the screen to move to another page or to move to another part with just one or two keystrokes. After that, consistency, all page layouts are designed equally. However, the size and font are inconsistent for all pages. And then, the principle of flexibility suggestion is to make the menu button back on screen so that the user can jump from one section to another easily. Therefore, based on data analysis results and suggestions for revisions, that is a more consistent design both in the selection of colors, font size. Then, the navigation buttons are created to make it more flexible to move from one page to another. However, the overall average score of the user interface element is 3.57 which is considered high. The results showed that the majority of respondents agreed that the developed application had a good user interface. However, some input from respondents to revision design was made to improve the application's user interface.

Characters indicate that the average score of a character in blended learning has been effectively integrated in an independent section for students, working on individual tasks, doing tasks by not following others, reading material First before the online class, create a summary after reading, create a study plan only when asked, plan and make your own decisions in terms of standards, perform tasks that are assisted by others. In the cooperation section, this has the highest value compared to the responsibilities, so this indicator can be integrated with the value of the character in blended learning, the part that has a good cooperative attitude to the group discussion, Feel happy and helpful to each other when given assignments, be considerate of

problem solving group assignments, also help accomplish tasks when experiencing difficulties, respecting with groups, appreciating the work of group members, and help others in a difficult group.

CHAPTER VI

EXTERNAL RESEARCH

External research from the team of Fkip Uhamka results in the form of articles that will be at the seminar at the Icoins cat Sarawak on 20 – 22 July 2020, the upcoming article will be exposed:

1. Analysis User Interface: Mobile Application to Blended Learning Model (Sri Astuti, Aisyah Fitriana, Wan Fatimah Wan Ahmad, Imas Ratna Ermawati, Mohid Hilmi Hasan)
2. Analysis of Effectiveness Character Value in Blended Learning (Onny Fitriana, Afif Abdul Rojak, Wan Fatimah Wan Ahmad,, Mohid Hilmi Hasan)
3. DEVELOPMENT OF BLENDED LEARNING MEDIA USING CHARACTER-BASED FLIPBOOK SMARTPHONE (Imas Ratna Ermawati, Meyta Dwi K, Sri Astuti, Onny Fitriana, Wan Fatimah Wan Ahmad,, Mohid Hilmi Hasan)
4. THE EFFECT OF CHARACTER-BASED TEACHING FLIPBOOK MEDIA ON THE RESULTS OF CALCULUS LEARNING (Meyta Dwi Kurniasih, Imas Ratna Ermawati, Sri Astuti, Onny Fitriana, Wan Fatimah Wan Ahmad,, Mohid Hilmi Hasan)

CHAPTER VII

CONCLUSIONS AND SUGGESTIONS

7.1 Conclusion

Evaluating the user interface is important in developing mobile apps. Knowing the principle achievement of the user interface can improve the quality of the application's created functions so that it is easier and more interested to use. In this research the results obtained from the Assessment 5 Principle user interface is 3.57 which is considered high. The results showed that the majority of respondents agreed that the developed application had a good user interface.

Based on the results of the study it was seen that the average outcome of integral learning class students were taught using blended learning using a flipbook of 87. Meanwhile, the average character-based blended learning results of 75.04. This suggests that blended learning using high-quality student flipbook use of blended learning FlipBook can be positively influential in obtaining optimum learning character.

7.2 Suggestions

From the results of this study, the author gave some advice as follows:

1. Facilities and infrastructures in UHAMKA inadequate in particular in the procurement of WIFI networks because it should each class have a strong network, to support the activities of lectures, especially for lecturers who use software teaching media (such as Blended learning FlipBook), making it easier for lecturers to study in class and be effective and efficient.
2. Lecturers must be more innovative and creative in the learning of one of them is using blended learning FlipBook. So that the lecture process becomes more vibrant so that it can grow the interest and interest of students in the activities of lectures.
3. Lecturers must be able to use learning media specially blended learning FlipBook.
4. It is hoped that lecturers use the learning model of blended learning that is interesting and creative in supporting the lecture process to facilitate the provision of materials to be studied.
5. Other authors should be motivated to complete this study using other media and other subjects and other learning models.

BIBLIOGRAPHY

- [1] Annisa, R. S., 2013, *Journal of Indonesian Accounting Education*, Vol. XI, No. 2, 32-43
- [2] Chuang, Y. T., 2014. "Increasing Learning Motivation and Student Engagement through the Technology-Supported Learning Environment". *Creative Education*, 5, 1969-1978.
- [3] Herrington, A., 2008. Adult Educators ' Authentic Use of Smartphones to Create Digital Teaching Resources. In *Hello! Where Are You in The Landscape of Educational Technology?*. Proceedings Ascilite Melbourne 2008. Retrieved from <http://ro.uow.edu.au/cgi/viewcontent.cgi?article=2009> & context = Edupapers,
- [4] Stat Counter., 2017. Top 8 Mobile & Tablet Operating Systems in Indonesia from July 2016 to July 2017. Retrieved from <http://gs.statcounter.com>, on Dec 24, 2018
- [5] Parise, S. and Crosina, E. 2012., "How a Mobile Social Media Game Can Enhance the Educational Experience". *MERLOT Journal of Online Learning and Teaching*, 8 (3), 209-222.
- [6] [7], Sadiman, et al. 1984. *Media Education*, Jakarta: PT Raja Grafindo Persada., HAL. 6
- [8], [9] cecep Kustandi and Bambang Sutjipto. 2011. *Learning Media*, Bogor: Ghalia Indonesia., HAL. 7-9
- [10], [11] Wina Sanjaya. 2012. *Learning communication Media*. Jakarta: Prenada Media Group., Hal. 57
- [12] Muhammad Rohman and Sofan Amri. 2013. *Strategy and design of learning system development*. Jakarta: The achievement of Pustaka., Hal. 156
- [13] Quinn, Clark N. 2000. *Academy: Mlearning For Higher Education*. Quinnovation: Clark Blogs at learnlets.com
- [14] Yi Jin, "Research of One Mobile Learning System, " in *Wireless Networks and Information Systems*, 2009. WNIS ' 09. International Conference on, vol., No., pp. 162-165, 28-29 Dec. 2009 DOI: 10.1109/WNIS. 2009.84
- [15] Sharma, S.K. and Kitchens, F.L. (2004). *Web Services Architecture for M-Learning*. *Electronic Journal on eLearning* Volume 2, Issue 1:203-216
- [16], [17] Sjukur. S. B. 2012. The effect of blended learning towards learning motivation and learning outcomes of SMK level students. *Vocational Education Journal*, Vol 2, Number 3, November 2012
- [18] Izzudin Syarif. 2012. Influence of application of blended learning model to the motivation and achievement of SMK students. *Vocational Education Journal*, Vol 2, Number 2, June 2012

- [19] Kaye Thorne. 2003. Blended learning how to integrate online and traditional learning. United States: Kogan Page
- [20] Carman, J.M. 2005. Blended Learning Design: five key ingredients. Retrieved November 18, 2019, from <http://www.agilantlearning.com/pdf/Blended%20Learning%20Design.pdf>
- [21] Koesoema Doni A. (2010). Character Education: Strategy to educate children in Modern times. (Jakarta: Grasindo, 2007), H. 80
- [22] Dharma Kesuma, et al., "Character Education Theory and practice studies in schools" (Bandung: PT adolescent Rosdakarya, 2011), p. 5
- [23], [24] Zubaedi, "Design of Character education: concept and application in educational institutions", (Jakarta: Kencana, 2011), p. 72
- [25] Tjeerd Plomp and Nienke Nieveen, "Educational Design Research", (Netherland: SLO, Enschede November 2013), p. 51 – 68

APPENDIX

Appendix 1
Budget justification

1. Salary				
Account	Volume	Time (month)	Cost (Rp)	Total (Rp.)
Laboratory assistant	2	3	500.000	3.000.000
Data Processing	1	3	2.000.000	6.000.000
SUB TOTAL (Rp.)				3.000.000
2. Consumables and equipment				
Account	Volume	Quanty	Cost (Rp)	Total (Rp.)
ICT Support	1	1	3.597.500	3.597.500
Uniform Team	6	1	187.000	1.122.000
Sovenir for UTP	4	1	274.000	1.096.000
SUB TOTAL (Rp.)				5.815.500
3. Fare (transport)				
Account	Volume	Quanty	Cost (Rp)	Total (Rp.)
Staff mobility	4	1	6.041.913	24.167.651
Student mobility	2	1	5.403.425	10.806.849
SUB TOTAL				34.974.500
4. Others (publications, seminars, reports, etc.)				
Account	Volume	Quanty	Cost (Rp)	Total (Rp.)
Reports	4	1	500.000	2.000.000
Proff Reading Artikel	4	1	2.000.000	8.000.000
ICCOINS2020	4	1	5.500.000	22.000.000
SUB TOTAL (Rp.)				32.000.000
TOTAL RESEARCH COSTS (Rp.)				75.790.000

Appendix 2
Availability of facilities and infrastructure

Saarana	Prasarana
Textbook	Public Library
Accredited National Journals	Workshop Mathematics/Physics
International journals	Computer Laboratories
Proceeding	Language Laboratories
Thesis, thesis, Dissertation	Micro Teaching Laboratory
Learning Software	Multimedia Laboratory

Appendix 3

Organization structure of research/implementation team and division

No	Name / NIDN	Original institution	Science	Time allocation (hours/week)	Task description
1	Dr. Sri Astuti, M.Pd./ 0302127002	UHAMKA	Economic education	20	Coordinating research activities
2	Dra. Imas Ratna Erawati, M.Pd./ 0314086804	UHAMKA	Physics Education	15	Manufacture of M-learning products
3	Meyta Dwi Kurniasih, M.Pd./ 0317058602	UHAMKA	Mathematics Education	15	Manufacture of M-learning products
4	Dr Onny Fitriana , M.Pd / 0307067202	UHAMKA	Economic education	15	Evaluation and preparation of research instruments
5	Aisyah Fitriana (15011150006)	UHAMKA	Physics Education	10	Student Exchange/help spread the poll and make a product
6	Afif Abdul Rozak (15011150002)	UHAMKA	Physics Education	10	Student Exchange/help spread the poll and make a product

Appendix 4

Requirement Analysis Questionnaire (Google foam)

NEED ANALYSIS

With respect,

In connection with the development of blended Learning-based character, then through this instrument I apply for the availability of Mr/Mrs to give input that will be made as a need analysis in the field to continue the development research.

Name:

School:

A. Charging instructions

1. Analytical Instrument sheet of necessity filled by lecturers
 2. Choose an answer based on the suitability by the father/mother
 3. Results will not be published, only used as the basis for development
 4. Feedback and suggestion of Mr/Mrs please write on the print provided
 5. On the availability of Mr/Mrs I say thank you
-

B. Stuffing Questionnaire

1. Gender
 - a. Female
 - b. Male
2. Civil Studies Program
 - a. Mipa
 - b. Faculty of Economics
 - c. Historical Pemdi
 - d. Biological Stas
 - e. Ingris language
 - f. Bahasa Indonesia
 - g. Education Mathematics
 - h. Physical Education
 - i. Economic education
 - j. PGSD
3. Year of lecture
 - a. I
 - b. II
 - c. III
 - d. IV
4. Do you have mobile learning
 - a. Yes
 - b. not
5. What Type of Smartphone brother
 - a. Android
 - b. Iphone
 - c. Xiomi

6. Do you use a smartphone
 - a. Yes
 - b. No
7. Learning apps that are on a brother's smartphone
 - a. Edmodo
 - b. Flipbook
 - c. Google Search
 - d. Google Translate
 - e. Kahoot
 - f. Geogebra
 - g. Schology
 - h. Youtube
 - i. Phet
 - j. Electronic book
 - k. Kamusku
 - l. Quizzii
8. What are the most difficult materials/topics according to your relatives
 - a. Rotary Object Volume
 - b. Flat Analytics
 - c. Space Analytics
 - d. Inferential statistics
 - e. Mechanical statistics
 - f. Order Differential Equation 2
 - g. Linear equations
 - h. Miscellaneous
9. Based on your experience, discussing the material like the one above you must have a character
 - a. Religious
 - b. Be honest
 - c. Tolerance
 - d. Discipline
 - e. Hard work
 - f. Independent
 - g. Curiosity
 - h. Miscellaneous
10. In the process of learning brothers are more pleased to use
 - a. Visual domination
 - b. audiothial domination
 - c. Kenestika domination
 - d. Combined domination

Appendix 6
Observation result needs analysis

NAMA	UHAMKA	UTP
Gender	Women	Male
School year	Iii	Iii
Courses	MIPA	Informatics Engineering
Has a Smartphone	Have	Have
What type of smartphone	Android	Android, Iphone
A learning app that's on a brother's smartphone	Have	Have
The most difficult material/topic according to your relatives	An integral	An integral
Based on your experience, discussing the material as above you must have a character	Character	Value
In the process of learning brothers are more pleased to use	Combined domination	Domination

Lampiran 7
Poll Interface

ANGKET INTERFACE / EXPERT INTERFACE PAPER

Nama / Name :

Instansi / Agency

=====

Instructions

Please answer according to the actual situation, by marking (☑) in the available answer column and charging can be more than one

Description:

- Learnbility** : Explain the level of simplicity of a user or user to complete basic tasks when they first view or deal with an existing system
- Efficiency** : Explain how quickly users can accomplish the tasks they had when they first learned the system.
- Memorability** : Explain the level of ease of user or user in the system with a good use, after some time not use it.
- Errors** : Describes the possibility of a user's error or error and how easily they can handle it
- Satisfaction** : Describes the level of user satisfaction in using a system that has been created

No	Questions	Aspek Usability				
		Learn	Effic	Memor	Error	Satisf
ASPEK SISTEM						
1	Is the Smartphone display easy to recognize? Is the Smartphone display easy to recognize?					
2	Is the Smartphone display easy to operate? /Is The Smartphone display easy to operate?					
3	Is the color display on Smarphone nice to see & not boring..?					
ASPEK PENGGUNA (USER)						
4	Is the menu display in the smartphone easy to recognize..?					
5	Is the Smartphone page app easy to find..?					
6	Is the existing app easy to read..?					
7	Is the required application easy to download..?					
8	Are image symbols easy to understand..?					
ASPEK INTERAKSI (INTERACTION)						
9	Is it easy to access the product information offered..?					
10	Are the product specifications offered according to the requirement..?					
11	Is the access to information on each page is					

	secured..?					
12	Whether the menu and page views Smrtphone is easy to remember..?					

Jakarta / Malaysia ,...2019
Validator

(.....)

Lampiran 8 Hasil Angket Interface

Indicator	Content	Natural Usage										Navigation					Consistency				Flexibility					
Responden	The suitability of the materials with competencies	The materials presented are coherently	The materials presented are clearly	The concepts of the materials are accurate	The data and facts of the materials are accurate	The notation symbols and numbers of the materials are accurate	Media content relevant to the materials	Minimal usage	The application installation process is easy to do	The application installation process can be used in all Android versions	The use of media is systematically and clearly so that it is easy to understand	Operation of the application is easy to use	The application is smooth	The application can run on all screen resolutions	The application for use are clear and systematic	The application is creatively presented	The application is displayed attractively	Easy to choose the services	Buttons displayed works	Appropriate layout selection in the application display	Colors match the application	Suitability of background selection	Appropriate size and font selection	The image used supports the material	Display buttons are attractive application is clear	The language used in the application is clear
1	3	3	4	3	3	3	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	4	3	3	4	4
2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
3	3	3	4	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
4	3	4	4	4	3	3	4	3	4	4	4	4	4	2	3	3	4	3	4	3	4	4	3	3	4	3
5	3	3	3	3	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	2	2	3	3	3
6	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
7	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
8	4	4	4	4	4	3	4	4	4	4	4	4	4	3	4	4	4	4	4	4	3	4	4	4	4	4
9	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
10	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
11	3	3	3	3	3	3	3	3	2	4	3	3	4	4	4	2	2	3	4	4	3	3	2	3	3	3
12	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	4	4	4	4	4	3	4	4	4
13	4	4	4	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4

14	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
15	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
16	4	4	4	3	4	3	4	4	4	4	3	3	3	4	3	2	3	3	3	3	3	3	3	3	3	3	
17	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
18	4	4	4	4	4	4	4	2	4	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
19	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	3	4	3	
20	3	3	3	4	4	4	4	3	4	4	3	4	3	4	3	3	3	3	4	3	4	4	4	4	4	4	
21	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
22	3	4	4	3	3	3	4	4	4	3	4	4	3	3	4	3	3	3	4	4	4	2	3	3	4	4	
23	4	3	4	4	4	4	3	4	4	4	4	4	4	3	4	4	3	4	4	3	4	4	4	4	4	4	
24	4	4	4	4	4	4	4	3	3	4	4	4	4	4	4	4	4	4	4	3	3	4	4	4	4	4	
25	3	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4	3	4	4	3	4	4	3	4	4	3	
26	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	4	3	4	3	3	3	4	3	3	4	3	
27	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	3	2	3
28	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
29	3	3	4	4	3	3	4	2	3	3	4	3	3	4	4	3	4	3	4	4	4	4	3	3	3	4	
30	3	3	3	4	4	4	3	3	3	3	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	
31	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
32	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
33	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
Total	116	118	122	119	117	117	121	115	120	122	121	122	119	118	121	115	113	117	121	116	118	118	111	116	120	118	
Mean	3,52	3,58	3,70	3,61	3,55	3,55	3,67	3,48	3,64	3,70	3,67	3,70	3,61	3,58	3,67	3,48	3,42	3,55	3,67	3,52	3,58	3,58	3,36	3,52	3,64	3,58	
Mean (Indicator)	3,59						3,63								3,53				3,51				3,58				

Lampiran 9

Hasil angket Usabilitas Dan Olah Data

Tim esamp	N ame	Insti tutio n	The suita bility of the mate rials with com peten cies	The mat eria ls pre sen ted are disc usse d coh eren tly	The mat eria ls pre sen ted are ver y cle ar	Th e con cep ts of the ma teri als are acc ura te	Th e dat a and fac t of the ma teri als are acc ura te	The not atio ns, sym bols and num bers of the ma teri als are acc urat e	Me dia con tent is rel eva nt to lect ure ma teri als	Mini ma l me mory usa ge	The appl icati on inst allat ion proc ess is easy to do	The appl icati on inst allat ion proc ess can be use d in all And roid vers ions	The use of medi a is arran ged syste matic ally and clear ly so that it is easy to under stand	Ope rati on of the appl icati on is easy to use	The appl icati on is smo oth to use	The appl icati on can run at all scre en reso luti ons	The inst ruct ion for use are clea r and syst emat ic	The appl icati on is crea tivel y pres ente d	The appl icati on disp lay is attra ctiv e	But ton dis play wo rks	Ea sy to ch oos e the serv ing men u	App rori ate layo ut sele ctio n in the appl icati on disp lay	Col ors mat ch in the appl icati on	Suit abili ty of back grou nd sele ctio n	App ropri ate size and font sele ctio ns	Th e im age use d sup ports the ma teri als	Dis play butt ons on attra ctiv e appl icati on	The lang uag e use d in the appl icati on is clea r	
-	R 1	Uha mka	4	3	3	4	4	4	4	4	4	3	4	4	4	3	4	4	4	3	3	3	4	4	4	3	3	3	4
-	R 2	Uha mka	4	3	3	3	3	3	3	3	3	4	4	4	3	3	4	4	3	3	2	3	3	3	3	3	3	3	3
-	R 3	Uha mka	3	3	4	4	3	4	4	3	4	4	3	3	3	3	3	3	3	3	4	3	4	3	4	3	3	3	3
-	R 4	Uha mka	4	4	3	3	3	3	4	3	3	3	3	3	3	2	4	3	2	3	3	3	3	2	3	3	3	3	3
-	R 5	Uha mka	4	3	3	3	4	4	3	4	4	4	3	3	3	3	4	3	3	3	3	3	4	3	4	3	3	3	4
-	R 6	Uha mka	3	4	4	4	3	3	4	3	3	3	4	4	3	3	4	3	3	3	3	3	3	3	2	3	3	3	3
-	R 7	UH AM KA	3	3	4	3	3	4	3	4	4	4	3	3	3	4	3	3	3	3	3	3	3	3	3	3	3	3	3
-	R 8	Uha mka	4	3	4	3	3	3	4	3	4	4	3	3	3	3	4	3	3	3	3	3	3	3	3	3	3	3	3
-	R 9	UH AM KA	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	3	3	3	3	3	3	3	3	3

-	R 1 0	UH AM KA	4	3	4	4	3	4	3	2	4	4	4	4	4	4	2	2	2	2	2	3	1	2	4	4	4	
-	R 1 1	Uha mka	4	3	4	4	3	4	3	3	4	3	4	4	3	4	4	3	4	4	3	4	4	4	4	3	4	4
-	R 1 2	Uha mka	3	3	4	3	3	3	3	3	3	3	3	3	3	4	3	3	3	3	3	3	3	3	3	3	3	3
-	R 1 3	Uha mka	3	3	3	3	3	3	3	3	3	3	4	3	4	4	3	3	3	3	3	3	3	3	3	3	3	3
-	R 1 4	Uha mka	4	3	4	3	3	4	3	3	3	4	4	3	4	3	4	3	3	3	3	3	3	4	3	4	3	3
-	R 1 5	Uha mka	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
-	R 1 6	Uha mka	4	3	3	2	4	4	2	3	3	3	3	4	4	3	4	3	3	3	3	3	3	4	4	3	3	3
-	R 1 7	Uha mka	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	3	3	3	3	3	3	3	3	3	3	3
-	R 1 8	Uha mka	4	3	2	2	3	3	2	3	2	3	2	3	4	3	4	3	4	3	4	3	3	2	3	3	3	3
-	R 1 9	Uha mka	4	4	4	4	4	4	4	4	4	4	4	3	4	3	4	4	4	4	4	4	4	4	4	4	4	4
-	R 2 0	Uha mka	4	4	3	4	4	4		4	4	4	4	4	3	3	3	3	3	4		4	4	4	4	4	4	4
-	R 2 1	Uha mka	4	3	3	3	3	4	4	4	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
-	R 2 2	UH AM KA	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
-	R 2 3	Uha mka	4	4	4	3	3	4	3	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4		4	4	4
-	R 2 4	Uha mka	4	4	4	4	3	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4
-	R 2 5	UH AM KA	4	3	4	3	4	4	3	4	4	4	4	3	3	3	4	4	4	4	4	4		4	4	4	4	4

-	R 2 6	UH AM KA	4	4	3	4	4	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4
-	R 2 7	UH AM KA	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4

Responden	Learnibility					Efficiency						Memoribility						
R1	4	3	3	4	4	4	4	4	4	3	4	4	4	3	4	4	4	3
R2	4	3	3	3	3	3	3	3	3	4	4	4	3	3	4	4	3	3
R3	3	3	4	4	3	4	4	3	4	4	3	3	3	3	3	3	3	3
R4	4	4	3	3	3	3	4	3	3	3	3	3	3	2	4	3	2	3
R5	4	3	3	3	4	4	3	4	4	4	3	3	3	3	4	3	3	3
R6	3	4	4	4	3	3	4	3	3	3	4	4	3	3	4	3	3	3
R7	3	3	4	3	3	4	3	4	4	4	3	3	3	4	3	3	3	3
R8	4	3	4	3	3	3	4	3	4	4	3	3	3	3	4	3	3	3
R9	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2
R10	4	3	4	4	3	4	3	2	4	4	4	4	4	4	4	2	2	2
R11	4	3	4	4	3	4	3	3	4	3	4	4	3	4	4	3	4	4
R12	3	3	4	3	3	3	3	3	3	3	3	3	3	3	4	3	3	3
R13	3	3	3	3	3	3	3	3	3	3	3	4	3	4	4	3	3	3
R14	4	3	4	3	3	4	3	3	3	4	4	3	4	3	4	3	3	3
R15	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
R16	4	3	3	2	4	4	2	3	3	3	3	4	4	3	4	3	3	3
R17	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	3	3	3
R18	4	3	2	2	3	3	2	3	2	3	2	3	4	3	4	3	4	3
R19	4	4	4	4	4	4	4	4	4	4	4	3	4	3	4	4	4	4
R20	4	4	3	4	4	4		4	4	4	4	4	3	3	3	3	3	4
R21	4	3	3	3	3	4	4	4	3	3	4	4	4	4	4	4	4	4
R22	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4
R23	4	4	4	3	3	4	3	4	4	4	4	4	3	4	4	4	4	4
R24	4	4	4	4	3	4	4	4	4	4	4	4	4	3	4	4	4	4
R25	4	3	4	3	4	4	3	4	4	4	4	3	3	3	4	4	4	4
R26	4	4	3	4	4	4	4	4	4	4	4	4	4	3	4	4	4	4
R27	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Total	100	89	94	90	89	98	87	92	95	96	95	95	92	88	103	90	89	89
Mean	3,703704	3,296296	3,481481	3,333333	3,296296	3,62963	3,222222	3,407407	3,518519	3,555556	3,518519	3,518519	3,407407	3,259259	3,814815	3,333333	3,296296	3,296296

Total Indicator	23,96296296	24,18518519	13,74074074	
Mean Indicator	3,423280423	3,455026455	3,435185185	

Lampiran 10
Nilai Pre dan Post Test

Responden	X	Y	X²	Y²	XY
R1	72	85	5184	7225	6120
R2	72	70	5184	4900	5040
R3	42	52	1764	2704	2184
R4	34	44	1156	1936	1496
R5	37	45	1369	2025	1665
R6	39	45	1521	2025	1755
R11	22	44	484	1936	968
R12	19	39	361	1521	741
R14	31	47	961	2209	1457
R15	31	50	961	2500	1550
R16	42	50	1764	2500	2100
R18	37	51	1369	2601	1887
R19	42	54	1764	2916	2268
R20	42	60	1764	3600	2520
R21	40	45	1600	2025	1800
R22	37	51	1369	2601	1887
R23	36	43	1296	1849	1548
R24	37	43	1369	1849	1591
R25	37	44	1369	1936	1628
R26	35	38	1225	1444	1330
R27	37	37	1369	1369	1369
R28	37	37	1369	1369	1369
R29	37	34	1369	1156	1258
R30	47	41	2209	1681	1927
R31	40	44	1600	1936	1760
R32	40	56	1600	3136	2240
JUMLAH	1022	1249	43350	62949	51458
Rata-rata	39,30769	48,03846154			

Lampiran 11
Pengolahan Data Pre-Post Test

Ket : X Pretest
 Y Post-test

Hasil Olah Data		
Rata-rata	Pre-test	39
	Post-test	48
Regresi		Y= 18,8+0,74x
R product		0,77
Kategori Korelasi		Kuat

$$b = \frac{n(\sum XY) - (\sum X)(\sum Y)}{n(\sum X^2) - (\sum X)^2}$$

= 07435

$$a = \frac{(\sum X^2)(\sum Y) - (\sum X)(\sum XY)}{n(\sum X^2) - (\sum X)^2}$$

= 18,8

Nilai Regresinya Y=18,8+0,74x

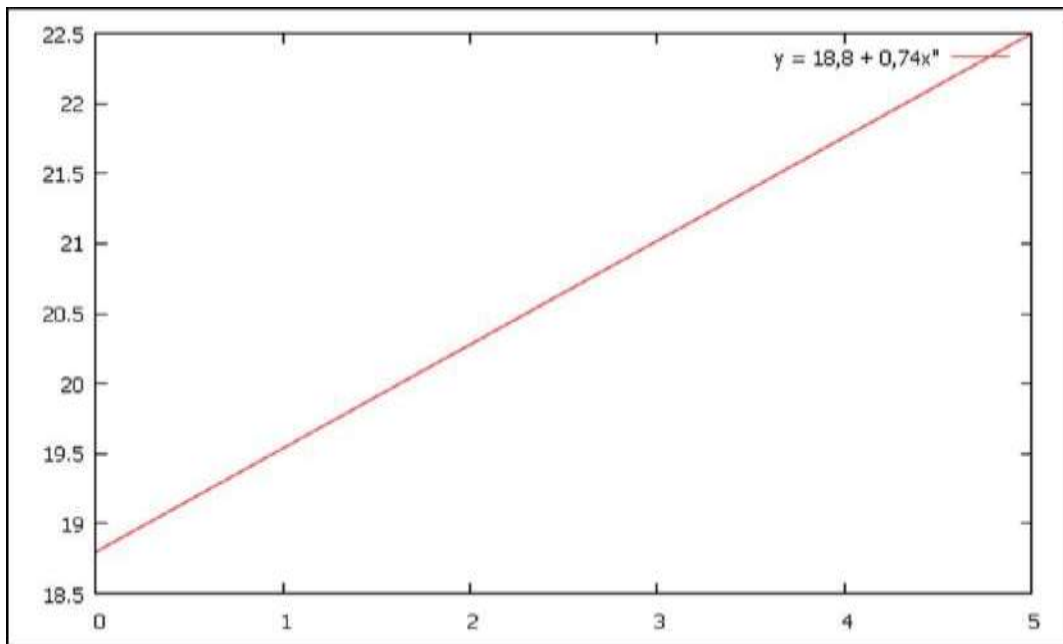
$$r_{xy} = r_{yw} = \frac{n(\sum XY) - (\sum X)(\sum Y)}{\sqrt{[n\sum X^2 - (\sum X)^2][n\sum Y^2 - (\sum Y)^2]}}$$

61430
 82616
 76673
 79589,05

R product = 0,77184

(Kategori Kuat pengaruhnya)

Y = 18,8 + 0,74 X



Appendix 12
Character poll

ANGKET KARAKTER MAHASISWA /
CHARACTER OF STUDENT CHARACTERS

Name:

Semester :

Introduction:

Please fill in the poll below in accordance with the process and daily learning activities.

Angket does not affect the value. / Please fill in the questionnaire below in accordance with with the process and daily learning activities. Questionnaire does not affect the value.

Instructions / Hint :

Put a check mark (v) in the column according to the statement that you think is suitable!

STS = Strongly Disagree

TS = Disagree

S = Agree

SS = Strongly agree

No.	Pernyataan / Statement	Kriteria / Criteria			
		STS	TS	S	SS
1	When doing tests or assignments, I do it myself.				
2	When working on tests or assignments, I cheat or see friends' answers.				
3	After the exercise was finished, I delivered the results of the exercise as it was according to the results of the exercise with a friend.				
4	After the practice was over, I changed the answers not according to the results of the exercise with friends.				
5	When it was time for learning, I came to class on time.				
6	When it was time for lectures, I was buying time to go to class.				
7	During lectures in class, I use the time available to do activities that are instructed by the lecturers.				
8	During lectures in class, I use the time available to do activities as I pleased.				
9	When the lecturer gives an assignment, I do the assignment with discipline.				
10	I always postpone the work given by the lecturer.				

11	When studying, I always look for information from various sources both print and electronic.				
12	When studying, I only search for information from the guidebook.				
13	If I do not understand the material, I will ask a friend or lecturer.				
14	If I don't understand the material, I'm lazy to ask questions and it's better to stay quiet.				
15	When discussing, I look for answers by linking the knowledge I have.				
16	When discussing, I prefer silence and do not want to think.				
17	When discussing, I have several alternative answers to a case.				
18	When discussing, I only have one answer to a case.				
19	I always try to learn so I can				
20	I am lazy to study if I find difficulties				
21	I completed the test given to find out what abilities I got.				
22	I work on the test questions at will without regard to the results that I will get				
23	I tried to work on the problem even though it was not ordered				
24	I will do the problems if instructed by the lecturer				
25	When practicing the questions, I followed from beginning to end to get results				
26	When practicing the questions, I only followed briefly				
27	When the lecture takes place, I follow it well so I can understand what the lecturer is saying.				
28	When learning activities take place, I joke with my classmate or group friend.				

Lampiran 13
Hasil angket Karakter

Responden	X	Y	X ²	Y ²	XY
R1	85	98	7225	9604	8330
R2	70	96	4900	9216	6720
R3	52	90	2704	8100	4680
R4	44	84	1936	7056	3696
R5	45	84	2025	7056	3780
R6	45	81	2025	6561	3645
R11	44	78	1936	6084	3432
R12	39	73	1521	5329	2847
R14	47	73	2209	5329	3431
R15	50	73	2500	5329	3650
R16	50	73	2500	5329	3650
R18	51	73	2601	5329	3723
R19	54	72	2916	5184	3888
R20	60	72	3600	5184	4320
R21	45	72	2025	5184	3240
R22	51	71	2601	5041	3621
R23	43	70	1849	4900	3010
R24	43	70	1849	4900	3010
R25	44	70	1936	4900	3080
R26	38	70	1444	4900	2660
R27	37	70	1369	4900	2590
R28	37	69	1369	4761	2553
R29	34	68	1156	4624	2312
R30	41	68	1681	4624	2788
R31	44	67	1936	4489	2948
R32	56	66	3136	4356	3696
JUMLAH	1249	1951	62949	148269	95300
Rata-rata	48,03846	75,03846154			

Ket : X Post-test
 Y Karakter

Lampiran 14

Pengolahan Data Karakter

Pengolahan Data

$$b = \frac{n(\sum XY) - (\sum X)(\sum Y)}{n(\sum X^2) - (\sum X)^2}$$

B= 0,534751

$$a = \frac{(\sum X^2)(\sum Y) - (\sum X)(\sum XY)}{n(\sum X^2) - (\sum X)^2}$$

a= 49,34982

$$r_{xy} = r_{yx} = \frac{n(\sum XY) - (\sum X)(\sum Y)}{\sqrt{\{n\sum X^2 - (\sum X)^2\}\{n\sum Y^2 - (\sum Y)^2\}}}$$

41001

76673

48593

61039,09

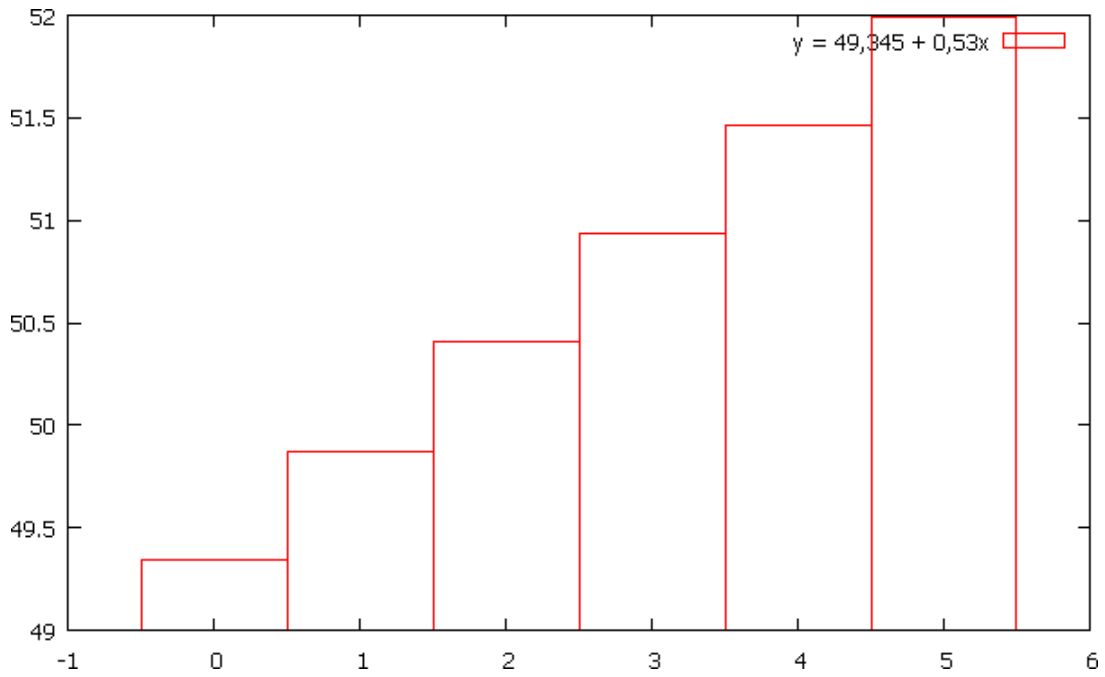
R product = 0,671717 (Kategori sedang hubungannya)

Nilai Regresinya Y=18,8+0,74x

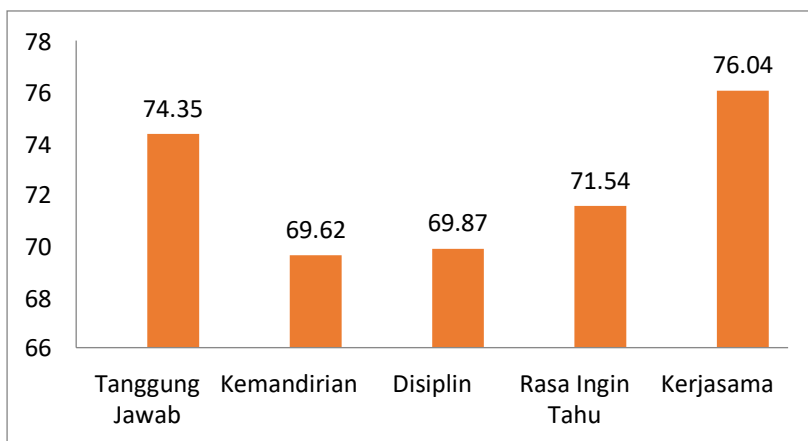
Hasil Olah Data

Rata-rata	Post-test	48,04
	karakter	75,04
Regresi		Y= 49, 345 + 0,53x
R product		0,67
Kategori Korelasi		Sedang

Grafik Korelasi Post-test dengan karakter pada penggunaan Media Blended



Tanggung Jawab	74,35
Kemandirian	69,62
Disiplin	69,87
Rasa Ingin Tahu	71,54
Kerjasama	76,04

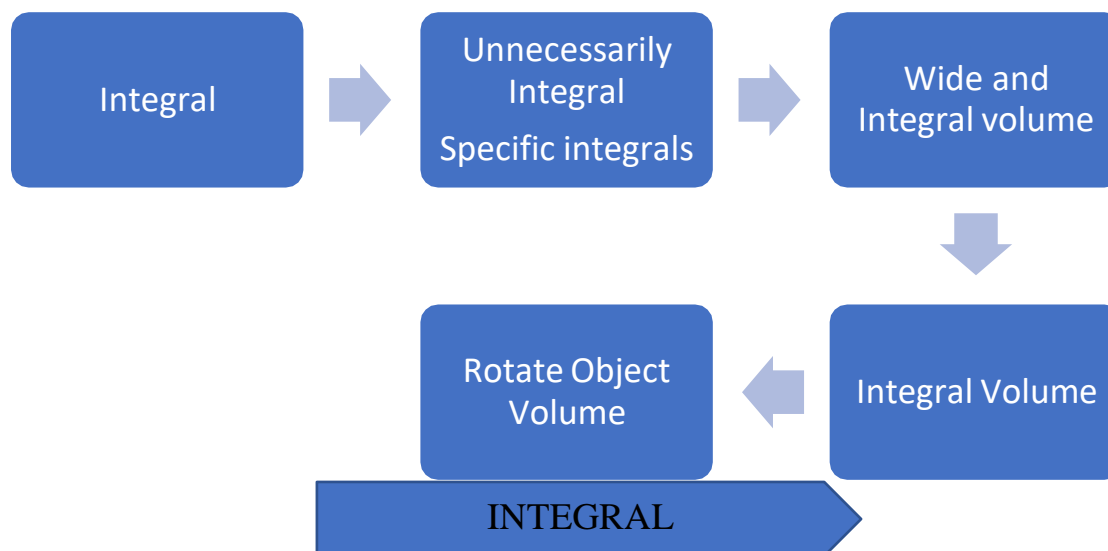


Lampiran 15

Complete all the task	Use ebooks and books to complete the task	Work on individual assignments	Work on assignments by not following the others	Read the material first before going to online classes	Make a summary after reading	Make learning plans only when asked	Plan and make your own decisions in matters of learning	Assignments are assisted by others	Comply with policies made in implementing online classes	Implementation of rules and regulations carried out in online class activities	Be rude to others people	Joking with friends when online class	Arrive on time	Leaving class without permission	Ask the lecturer when the material is difficult to understand	Search for ebooks or books to complete task	Actively involved in discussions in the online class	Complaining when the lecturer gives a difficult task	Go to the library when requested by the lecturer	Ask other people when you have difficulty understanding material	A good cooperative attitude towards group discussion	Felling happy and helping each other when given the task	Empathy towards other members	Help to complete tasks when having difficulties in solving the task	Respect with other team members	Appreciate the work of group members	Help others in a group that are having difficulty
4	5	2	3	2	4	2	4	3	4	4	1	2	4	1	3	4	3	3	3	4	4	5	4	4	4	4	3
5	5	5	5	5	4	4	4	2	5	5	1	1	5	1	5	5	5	1	1	4	5	5	5	4	5	5	5
4	4	4	3	1	4	3	4	4	4	4	2	3	3	1	4	4	3	3	4	4	4	3	3	4	4	4	
4	4	4	4	1	1	3	4	3	1	2	1	3	3	1	4	5	4	3	3	5	4	4	4	4	4	4	4
5	4	5	4	3	3	5	5	4	3	3	1	3	3	3	4	4	4	3	3	5	5	4	4	5	5	5	4
5	4	5	5	4	3	3	4	3	5	5	3	2	4	1	4	5	3	2	4	5	4	5	4	5	5	5	4
4	4	5	4	5	4	5	4	5	4	5	5	4	5	4	4	5	5	4	5	4	4	5	5	4	5	5	5
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	5	5	5	5	5	5	5	4	5	5	5
5	5	5	5	5	5	5	5	5	5	5	4	5	5	5	4	4	5	5	5	5	4	4	3	5	5	5	5
4	3	3	3	4	3	4	4	3	4	3	4	3	4	3	3	2	4	4	4	4	4	4	4	4	3	4	3
2	4	4	4	4	2	4	2	4	2	2	2	2	2	2	3	4	2	4	4	5	4	4	4	4	4	4	4
3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4	2	3	2	3	4	3	4	2	3	3	1	3	3	2	3	3	3	3	4	4	3	4	4	5	5	3	4
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	3	3	3	4	3	3	3	3	3	4	4	3	3	2	3	4	2	3	3	4	3	3	4	3	3

5	3	3	3	3	3	2	4	3	3	3	1	2	5	1	5	3	3	4	2	4	3	4	4	3	4	5	4	
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
2	3	2	3	2	2	3	3	3	3	3	3	3	4	3	5	4	4	3	2	4	4	4	3	3	4	4	4	
3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	3	3	2	3	3	3	3	3	3	3	3	3	
4	3	3	2	3	3	3	3	1	4	4	1	2	5	5	4	4	4	4	4	4	4	4	4	3	4	4	4	
4	4	3	4	3	3	3	3	3	4	4	4	4	5	4	4	3	4	3	4	3	4	4	4	3	3	4	4	
3	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	3	4	4	5	4	4	4	5	4	4	5	2	4	2	4	4	4	4	4	4	4	4	4	4	4	
3	3	3	3	3	3	3	2	3	3	3	3	4	5	1	3	3	3	2	3	5	3	3	3	3	5	5	4	
3	3	3	3	3	3	3	3	3	4	4	3	3	4	2	3	3	4	3	3	3	4	4	4	4	4	4	4	
5	5	4	4	4	3	2	4	3	3	3	3	1	4	1	4	5	3	2	4	5	3	4	4	3	4	3	3	
3	3	4	5	3	3	4	3	4	4	3	4	3	5	1	3	3	4	3	3	4	3	3	4	4	3	3	4	

CONCEPT MAP



Integral is a form of mathematical operation which is the inverse or called inverse of derivative operations and the limit of numbers or a certain area. Based on the understanding there are two things that are done in an integral to categorized into 2 types of integrals. That is, integral as inverse/inverse of derivative is also referred to as indefinite Integral. Secondly, it is integral as a limit of number or a certain area of a particular region called integral necessarily.

Unnecessarily Integral

Integral not necessarily in plain English is familiar with the name indefinite orders Integral or sometimes also called Anti-derivative which is a form of integration operation on a function that produces a new function. This function does not have a definite value until the integration way that resulted in the function is not necessarily called an integral one.

Integral Basic Formula

1. $\int dx = x + c$
2. $\int x^n dx = \frac{1}{n+1} x^{n+1} + c$
3. $\int ax^n dx = \frac{a}{n+1} x^{n+1} + c$
4. $\int k dx = kx + c$
5. $\int \frac{1}{x} dx = \ln|x| + c$
6. $\int a^x dx = \frac{a^x}{\ln a} + c$
7. $\int e^x dx = e^x + c$

Example:

1. **Known** $\int (2x + 1)(x - 5) dx$

Answer:

• $\int 2x^2 + x - 10x - 5 + C = \int 2x^2 + 9x - 5 + C$

$$\int \frac{2}{3}x^3 + \frac{9}{2}x^2 - 5x + C$$

2. If in know $\int 8x^3 - 3x^2 + x + 5 dx$ So seek its integrity.

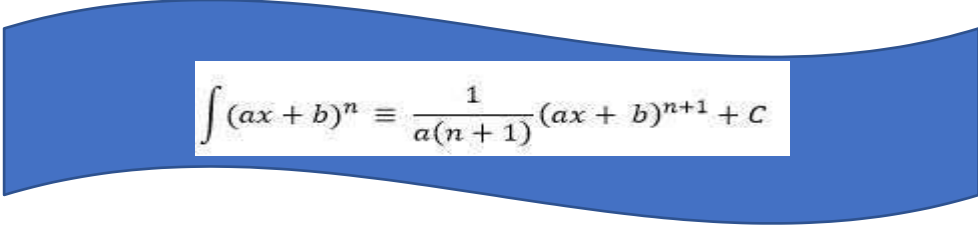
Answer:

$$\equiv \frac{8x^{3+1}}{3+1} - \frac{3x^{2+1}}{2+1} + \frac{1x^{1+1}}{1+1} + 5x + c$$

$$\equiv \frac{8x^4}{4} - \frac{3x^3}{3} + \frac{x^2}{2} + 5x + c$$

$$\equiv 2x^4 - x^3 + \frac{1}{2}x^2 + 5x + c$$

Integral Formula Development


$$\int (ax + b)^n \equiv \frac{1}{a(n + 1)} (ax + b)^{n+1} + C$$

Example:

Diketahui $\int \frac{1}{\sqrt[3]{3x + 2}^5} dx$

Berapakah integralnya

$$\begin{aligned}
&\equiv \int \frac{1}{(3x+2)^{\frac{5}{3}}} dx \\
&\equiv \int (3x+2)^{-\frac{5}{3}} dx \\
&\equiv \frac{1}{3\left(-\frac{5}{3}+1\right)} (3x+2)^{-\frac{5}{3}+1} + C \\
&\equiv \frac{1}{-2} (3x+2)^{-\frac{2}{3}} + C \\
&\equiv \frac{1}{-2(3x+2)^{\frac{2}{3}}} + C
\end{aligned}$$

2. $\int x^2 (x^3 + 5)^7 dx = \dots$

Jawab :

Misalkan : $u = x^3 + 5$

$du = 3x^2 dx \Leftrightarrow du/3 = x^2 dx$

$\int x^2 (x^3+5)^7 dx$

$= \int (x^3+5)^7 x^2 dx$

$= \int u^7 du/3$

$= 1/3 \int u^7 du$

$= 1/3 \cdot 8u^8 + C$

$= 8/3 u^8 + C = 8/3 (x^3+5)^8 + C$

Integral Tentu

Jika $y = f(x)$ adalah fungsi kontinu dan terdefinisi dalam interval tertutup $[a,b]$ sehingga $\lim_{n \rightarrow \infty} \sum_{i=1}^n f(x_i) \cdot \Delta x_i$ ada (mempunyai nilai), maka integral tentu $f(x)$ terhadap x dari $x = a$ sampai $x = b$ dinyatakan oleh

$$\int_a^b f(x) dx = \lim_{n \rightarrow \infty} \sum_{i=1}^n f(x_i) \cdot \Delta x_i$$

Dengan n adalah jumlah sub-interval di dalam interval $[a,b]$. Sifat-sifat integral tentu

1. $\int_a^a f(x)dx = 0$
2. $\int_a^b f(x)dx = -\int_b^a f(x)dx \rightarrow$ perhatian perubahan a dan b
3. $\int_a^b k f(x)dx = k \int_a^b f(x)dx$
4. $\int_a^b [f(x) + g(x)]dx = \int_a^b f(x)dx + \int_a^b g(x)dx$
5. $\int_a^b [f(x) - g(x)]dx = \int_a^b f(x)dx - \int_a^b g(x)dx$
6. $\int_a^c f(x)dx = \int_a^b f(x)dx + \int_b^c f(x)dx; a < b < c$

Example:

1. Hasil $\int_{-1}^2 (x^3 - 6x^2 + 8x + 2) dx = \dots$

Pembahasan

$$\begin{aligned}
 & \int_{-1}^2 (x^3 - 6x^2 + 8x + 2) dx \\
 &= \left[\frac{1}{4}x^4 - 2x^3 + 4x^2 + 2x \right]_{-1}^2 \\
 &= \left(\frac{1}{4}(2)^4 - 2(2)^3 + 4(2)^2 + 2(2) \right) - \left(\frac{1}{4}(-1)^4 - 2(-1)^3 + 4(-1)^2 + 2(-1) \right) \\
 &= 8 - \frac{17}{4} \\
 &= 3\frac{3}{4}
 \end{aligned}$$

2. Tentukan integral-integral berikut :

- a. $\int (2x + 5)^9 dx$
- b. $\int (px + q)^n dx$
- c. $\int (2x + 3) \cos(x^2 + 3x) dx$
- d. $\int \left(\frac{\sin \sqrt{x}}{\sqrt{x}} \right) dx$
- e. $\int_0^4 x \sqrt{x^2 + 9} dx$

Jawab:

a. $\int (2x + 5)^9 dx$

Misalkan $u = 2x + 5$, maka $\frac{du}{dx} = 2$ atau $dx = \frac{1}{2} du$

Substitusi $2x + 5 = u$ dan $dx = \frac{1}{2} du$, maka :

$$\int u^9 \left(\frac{1}{2} du\right) = \frac{1}{2} \int u^9 du = \frac{1}{2} \left(\frac{1}{9+1} u^{9+1}\right) + C = \frac{1}{20} (2x + 5)^{10} + C$$

b. $\int (px + q)^n dx = \int u^n \left(\frac{1}{p} du\right) = \frac{1}{p} \int u^n du = \frac{1}{p} \left(\frac{1}{n+1} u^{n+1}\right) + C = \frac{1}{p(n+1)} (px + q)^{n+1} + C$
, dengan n bilangan rasional dan $n \neq -1$.

c. $\int (2x + 3) \cos(x^2 + 3x) dx$

Misalkan $u = x^2 + 3x$, maka $du = (2x + 3) dx$

Substitusi $x^2 + 3x = u$ dan $(2x + 3) dx = du$, maka :

$$\int \cos u du = \sin u + C = \sin(x^2 + 3x) + C$$

d. $\int \left(\frac{\sin \sqrt{x}}{\sqrt{x}}\right) dx$

$$\int \sin u (2 du) = 2 \int \sin u du = -2 \cos \sqrt{x} + C$$

e. $\int_0^4 x \sqrt{x^2 + 9} dx$

$$\int \sqrt{u} \left(\frac{1}{2} du\right) = \frac{1}{2} \int u^{\frac{1}{2}} du = \frac{1}{2} \left(\frac{2}{\frac{3}{2}} u^{\frac{3}{2}}\right) + C = \frac{1}{3} (x^2 + 9)^{\frac{3}{2}} + C$$

$$\int_0^4 x \sqrt{x^2 + 9} dx = \left[\frac{1}{3} (x^2 + 9)^{\frac{3}{2}}\right]_0^4 = \frac{1}{3} (125 - 27) = \frac{98}{3}$$

Pengintegralan Dengan Rumus Integral

Misalkan $u(x)$ dan $v(x)$ masing-masing adalah fungsi dalam variabel x , maka pengintegralan $\int u dv$ ditentukan oleh hubungan :

$$\int u dv = uv - \int v du$$

Hubungan di atas menunjukkan bahwa pengintegralan $\int u dv$ dapat diubah menjadi pengintegralan $\int v du$, dan sebaliknya. Berhasil atau tidaknya pengintegralan dengan menggunakan rumus integral parsial ditentukan oleh dua hal berikut :

1. Memilih bagian dv sehingga v dengan segera dapat ditentukan melalui hubungan $v = \int dv$.
2. $\int v du$ harus lebih mudah diselesaikan dibanding dengan $\int u dv$

Example:

$$1. \int x\sqrt{x+1} dx = \dots$$

Jawab

Ada dua kemungkinan untuk memisalkan u , yaitu $u = x$ atau $u = \sqrt{x+1}$. Tetapi kita memilih $u = x$ karena turunannya lebih sederhana dibanding $u = \sqrt{x+1}$.

Jadi misalkan :

$$u = x$$

$$du = dx$$

Lalu

$$dv = \sqrt{x+1} dx$$

$$\int dv = \int \sqrt{x+1} dx$$

$$v = \int (x+1)^{\frac{1}{2}} dx$$

$$= \frac{2}{3}(x+1)^{\frac{3}{2}}$$

Lakukan substitusi u dan v

$$\int u dv = uv - \int v du$$

$$\int x\sqrt{x+1} dx = x \left[\frac{2}{3}(x+1)^{\frac{3}{2}} \right] - \int \frac{2}{3}(x+1)^{\frac{3}{2}} dx$$

$$= \frac{2}{3}x(x+1)^{\frac{3}{2}} - \frac{2}{3} \int (x+1)^{\frac{3}{2}} dx$$

$$= \frac{2}{3}x(x+1)^{\frac{3}{2}} - \frac{2}{3} \cdot \frac{2}{5}(x+1)^{\frac{5}{2}} + C$$

$$= \frac{2}{3}x(x+1)^{\frac{3}{2}} - \frac{4}{15}(x+1)^{\frac{5}{2}} + C$$

$$2. \int x^2 e^{3x} dx = \dots$$

Jawab

Melihat soal diatas, ada 2 fungsi yang bisa dijadikan u . Lalu dengan mempertimbangkan prioritas permisalan, kita memilih $u = x^2$ dan $dv = e^{3x} dx$

$$u = x^2$$

$$du = 2x dx$$

Lalu

$$dv = e^{3x} dx$$

$$\int dv = \int e^{3x} dx$$

$$v = \frac{1}{3}e^{3x}$$

Lakukan substitusi integral parsial

$$\int u dv = uv - \int v du$$

$$\int x^2 e^{3x} dx = x^2 \cdot \frac{1}{3} e^{3x} - \int \frac{1}{3} e^{3x} \cdot 2x dx$$

$$= \frac{1}{3} x^2 e^{3x} - \frac{1}{3} \int 2x \cdot e^{3x} dx$$

Bentuk $\int 2x \cdot e^{3x} dx$ menyebabkan kita harus sekali lagi melakukan metode integral parsial. Jadi lakukan permisalan :

$$u = 2x$$

$$du = 2 dx$$

Dan sama seperti sebelumnya

$$dv = e^{3x} dx$$

$$\int dv = \int e^{3x} dx$$

$$v = \frac{1}{3} e^{3x}$$

Lakukan substitusi sekali lagi melanjutkan yang tadi

$$\int x^2 e^{3x} dx = \frac{1}{3} x^2 e^{3x} - \frac{1}{3} \int 2x \cdot e^{3x} dx$$

$$= \frac{1}{3} x^2 e^{3x} - \frac{1}{3} \left[2x \cdot \frac{1}{3} e^{3x} - \int \frac{1}{3} e^{3x} \cdot 2 dx \right]$$

$$= \frac{1}{3} x^2 e^{3x} - \frac{1}{3} \left[\frac{2}{3} x e^{3x} - \frac{2}{3} \int e^{3x} dx \right]$$

$$= \frac{1}{3} x^2 e^{3x} - \frac{1}{3} \left[\frac{2}{3} x e^{3x} - \frac{2}{3} \cdot \frac{1}{3} e^{3x} + C \right]$$

$$= \frac{1}{3} x^2 e^{3x} - \frac{2}{9} x e^{3x} + \frac{2}{27} e^{3x} + C$$

Integral Trigonometri

Integrals are also able to operate on trigonometric functions. The integral operation of trigonometry is done with the same concept in an integral algebra i.e. the inverse of decline. It can be concluded that:

No.	Fungsi $f(x) = y$	Turunan $\frac{dy}{dx}$	Integral
1	$y = \sin x$	$\cos x$	$\int \cos x dx = \sin x$
2	$y = \cos x$	$-\sin x$	$\int \sin x dx = -\cos x$
3	$y = \tan x$	$\sec^2 x$	$\int \sec^2 x dx = \tan x$
4	$y = \cot x$	$-\csc^2 x$	$\int \csc^2 x dx = -\cot x$
5	$y = \sec x$	$\tan x \cdot \sec x$	$\int \tan x \cdot \sec x dx = \sec x$
6	$y = \csc x$	$-\cot x \cdot \csc x$	$\int \cot x \cdot \csc x dx = -\csc x$

a. $\int x^2 (x^3 + 5)^7 dx = \dots$

Jawab :

Misalkan : $u = x^3 + 5$

$du = 3x^2 dx \Leftrightarrow du/3 = x^2 dx$

$\int x^2 (x^3+5)^7 dx$

$= \int (x^3+5)^7 \frac{du}{3}$

$= \frac{1}{3} \int u^7 du$

$= \frac{1}{3} \cdot \frac{u^8}{8}$

$= \frac{1}{24} u^8 + C$

$= \frac{1}{24} (x^3+5)^8 + C$



b. $\int \cos^5 x dx = \dots$

Jawab :

$\int \cos^5 x dx$

$= \int (\cos^2 x) \cos x dx$

$= \int (1 - \sin^2 x) \cos x dx$

$= \int (1 - 2\sin^2 x + \sin^4 x) \cos x dx$

Misalkan : $u = \sin x$

$du = \cos x dx \Leftrightarrow du = \cos x dx$

$\int \cos^5 x dx = \int (1 - 2\sin^2 x + \sin^4 x) \cos x dx$

$= \int (1 - 2u^2 + u^4) du$

$= u - \frac{2}{3} u^3 + \frac{1}{5} u^5 + C$

$= \sin x - \frac{2}{3} \sin^3 x + \frac{1}{5} \sin^5 x + C$

3. $\int \frac{\arcsin x}{\sqrt{1-x^2}} dx \rightarrow \int \frac{x}{\sqrt{1-x^2}} \cdot \frac{1}{\sqrt{1-x^2}} du = \int u du = \frac{1}{2} u^2 + c$
 $= \frac{1}{2} [\arcsin x]^2 + c$

Misalnya: $s = u = \arcsin x$

$du = \frac{1}{\sqrt{1-x^2}} dx$

$dx = \sqrt{1-x^2} du$

CARA 2 :

1. $\int \frac{x}{\sqrt{x^2+1}} dx = \frac{1}{2} \int \frac{1}{\sqrt{x^2+1}} d(x^2+1)x$

$= \frac{1}{2} \int \frac{1}{\sqrt{x^2+1}} 2x dx \rightarrow$ Sama seperti semula
 \rightarrow Salah (X)

$= \frac{1}{2} \int \frac{1}{\sqrt{x}} dx$

$= \frac{1}{2} \cdot \frac{1}{-1/2+1} x^{1/2} + c = \sqrt{x^2+1}$

Latihan

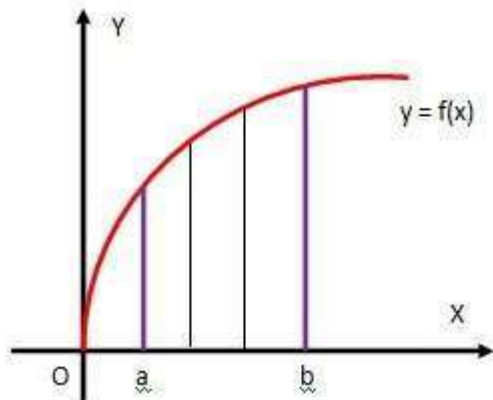
Carilah nilai integral dari :

1. $\int 4x^6 - 3x^5 - 8x^7 dx$
2. $\int (5 \sin x + 2 \cos x) dx$
3. $\int dx 4x^3$
4. $\int (5 \sin x + 2 \cos x) dx$
5. $\int \frac{dx}{\sqrt{9 - x^2}}$
6. $\int \frac{dx}{4 + x^2}$
7. $\int \sqrt{\frac{4x^2}{x^3 + 8}} dx$
8. $\int \frac{2x + 1}{x^2 + x + 1} dx$
9. $\int x^2 \cdot \ln x dx$
10. $\int \sqrt{\frac{x}{2x^2 + 3}} dx$
11. $\int (\sqrt{x^2 + 1}) x dx$
12. $\int 2x(1 + x^2)^4 dx$
13. $\int \frac{1}{(1 + x^2) \operatorname{arctg} x} dx$
14. $\int \frac{dx}{x^2 - 2x - 5}$
15. $\int \frac{dx}{\cos^2 x \sqrt{\operatorname{tg} x - 1}}$
16. $\int \frac{dx}{\sqrt{1 - x^2} \operatorname{arcsin} x}$
17. $\int \frac{\cos(\ln x)}{x} dx$
18. $\int \frac{x^2 + 1}{\sqrt[3]{x^3 + 3x}} dx$
19. $\int (e^x + 1)^3 \cdot e^x dx$
20. $\int e^{\cos 2x} \cdot \sin 2x dx$

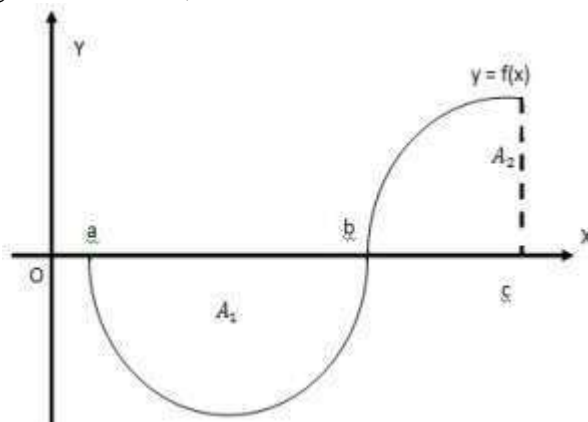
Penggunaan integral (Luas Daerah Dan Volume Benda)

1. Luas Daerah yang Dibatasi Kurva

Untuk menghitung luas daerah yang dibatasi suatu kurva dengan sumbu x dapat kita gunakan konsep integral tentu. Perhatikan Ilustrasi berikut



Misalkan kita diberikan gambar berikut,



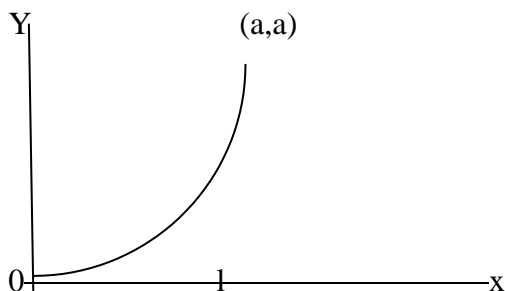
maka luas A_1 dan A_2 adalah :

$$: L_{A_1 \text{ dan } A_2} = \int_a^c f(x) dx - \int_a^b f(x) dx$$

Lihat contohnya yuk...

1. Hitung luas permukaan benda putaran dari cubical parabola $a^2 y = x^3$ diantara $x = 0$ dan $x = a$, bila diputar keliling sumbu x

Jawab :



$$\frac{dy}{dx} = \frac{3x^2}{a^2}$$

$$ds = \sqrt{1 + \left(\frac{dy}{dx}\right)^2} dx = \frac{1}{a^2} \sqrt{a^4 + 9x^4} dx$$

$$O_x = \frac{2\pi}{a^2} \int_0^a x^3 \sqrt{a^4 + 9x^4} dx = \frac{2\pi}{a^4} \int_0^a x^3 \sqrt{a^4 + 9x^4} dx$$

$$= \frac{2\pi}{a^4} \int_0^a \frac{1}{4 \cdot 9} \frac{d(a^4 + 9x^4)}{dx} \frac{1}{2} (a^4 + 9x^4)^{\frac{1}{2}} dx = \frac{2\pi}{a^4} \cdot \frac{1}{36} \cdot \frac{2}{3} (a^4 + 9x^4)^{\frac{3}{2}} \Big|_0^a$$

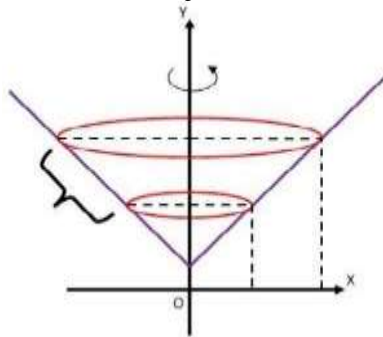
$$= \frac{\pi}{27a^4} (a^4 + 9x^4)^{\frac{3}{2}} \Big|_0^a = \frac{\pi}{27} (10\sqrt{10} - 1)a^2$$

2. Volume Benda Putar

Salah satu bentuk pengaplikasian dari integral selain untuk menghitung luas di bawah kurva juga berguna untuk menghitung suatu volume benda putar. Yang dimaksud dengan **volume benda putar** adalah volume yang diperoleh dari sebuah luasan yang diputar dengan poros putar tertentu (sumbu x atau sumbu y). Contoh paling sederhana dari benda putar yaitu pada sebuah tabung. Volume sebuah tabung diperoleh dari luas alas berbentuk lingkaran yang dikalikan dengan tinggi. Apabila alas sebuah tabung dinyatakan dengan fungsi $A(x)$ dan tinggi dari benda putar tersebut yaitu panjang selang dari titik a ke b pada sumbu x atau y , maka volume pada benda putar tersebut bisa dihitung dengan menggunakan rumus :

$$V = \pi \int_a^b (f(x))^2 dx = \pi \int_a^b y^2 dx$$

Perhatikanlah ilustrasi jika suatu bidang datar dirotasikan terhadap sumbu Y

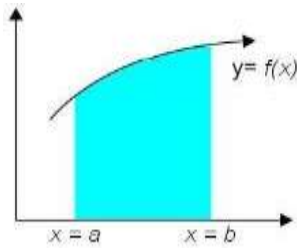


Untuk mencari volume benda putar yang dihasilkan dari sebuah luasan yang diputar menurut sumbu x dan y bisa menggunakan cara seperti penjelasan berikut ini :

- Jika alas tabung yang dinyatakan dengan fungsi $A(x)$ dan tinggi dari benda putar itu adalah panjang selang dari titik a ke b pada sumbu x atau y maka volume benda putar itu bisa dihitung dengan memakai rumus

$$V = \int_a^b A(x) dx$$

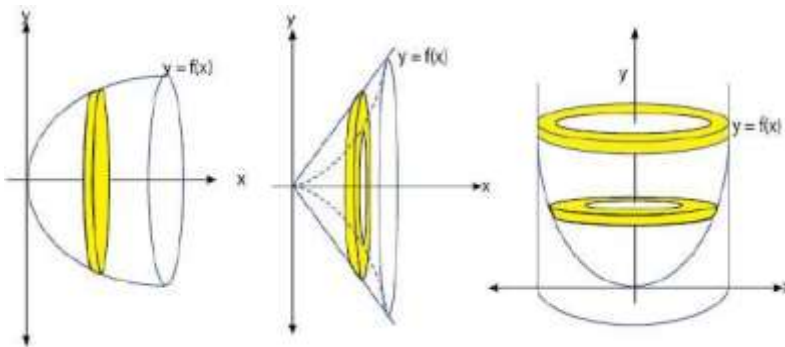
Untuk mencari volume sebuah benda putar yang didapatkan dari sebuah luasan yang diputar menurut sumbu x dan y bisa memakai cara seperti penjelasan, Volume Benda Putar Sumbu x yang dibatasi 1 Kurva



perhatikan gambar di atas. Luasan di bawah kurva $y=f(x)$ jika diputar dengan sumbu putar dengan titik batas a dan b mampu menghasilkan sebuah silinder tinggi selisih b dan a. Volume benda putar menurut sumbu x diatas bisa dicari memakai rumus

$$V = \pi \int_a^b (f(x))^2 dx$$

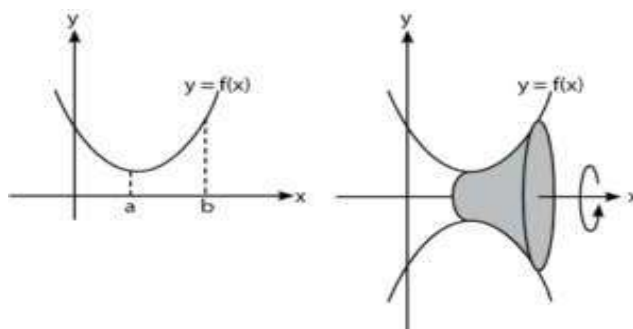
Seperti yang telah disebutkan sebelumnya bahwa luas daerah yang dibatasi kurva akan membentuk volume jika daerah yang dibatasi kurva tersebut diputar mengelilingi sumbu - x, sumbu y, atau sebuah persamaan garis lurus. Berikut ini akan diberikan gambar ilustrasi luas daerah yang dibatasi sebuah kurva dan diputar mengelilingi sumbu x, luas daerah yang dibatasi dua buah kurva dan diputar mengelilingi sumbu x, serta luas daerah yang diputar mengelilingi sumbu y.



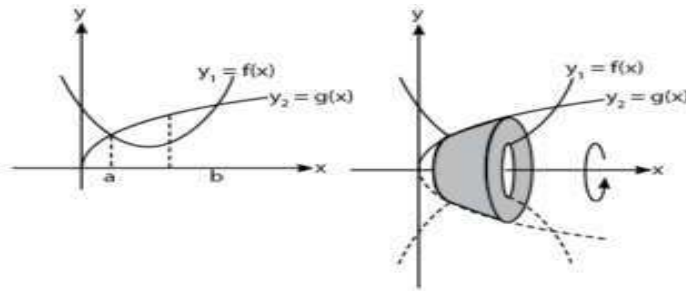
Volume Benda Putar Mengelilingi Sumbu X

Kasus volume benda putar yang diputar mengelilingi sumbu x dibagi menjadi dua permasalahan. Permasalahan pertama, volume benda putar yang dibatasi sebuah kurva. Kasus yang kedua adalah volume benda putar yang dibatasi dua buah kurva.

1. Volume benda putar pada interval ,yang diputar mengelilingi sumbu x



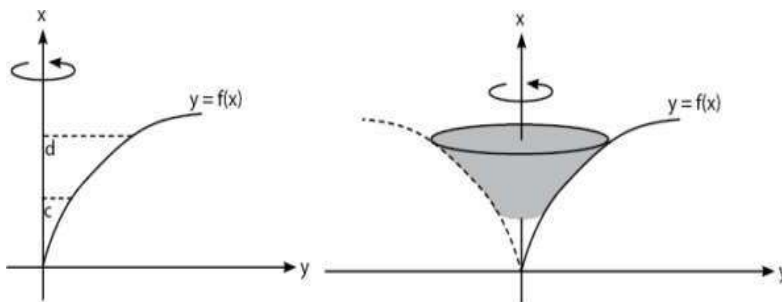
- Volume benda putar pada interval ,yang diputar mengelilingi sumbu x dan dibatasi kurva $f(x)$ dan $g(x)$.



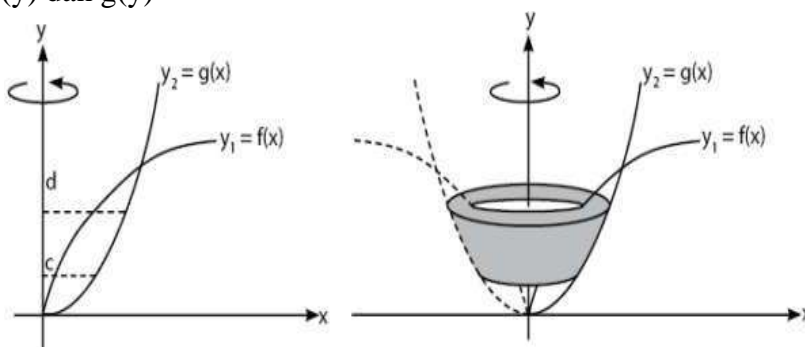
Volume Benda Putar Mengelilingi Sumbu Y

Seperti halnya volume benda putar yang diputar mengelilingi sumbu x, volume benda putar yang diputar mengelilingi sumbu y juga dibedakan menjadi dua jenis kasus. Pertama, volume benda putar yang dibatasi sebuah kurva dan diputar mengelilingi sumbu y. Kedua, volume benda putar yang dibatasi dua buah kurva dan diputar mengelilingi sumbu y.

- Volume benda putar pada interval ,yang diputar mengelilingi sumbu y



- Volume benda putar pada interval ,yang diputar mengelilingi sumbu y dan dibatasi kurva $f(y)$ dan $g(y)$



Lihat contohnya yuk...

- Hitunglah isi benda yang terjadi bila lingkaran $x^2 + (y - b)^2 = a^2$ diputar keliling sumbu x

Jawab :

$$y_1 = b + \sqrt{a^2 - x^2}$$

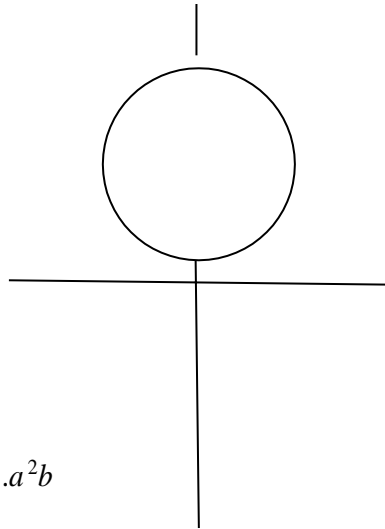
$$y = b \pm \sqrt{a^2 - x^2}$$

$$v = \pi \int_{-a}^a (y_1^2 - y_2^2) dx$$

$$v = \pi \int_{-a}^a (y_1 + y_2)(y_1 - y_2) dx$$

$$v = \pi \int_{-a}^a 2b \cdot 2\sqrt{a^2 - x^2} dx$$

$$v = 4\pi b \left(\frac{a^2}{2} \arcsin \frac{x}{a} + \frac{x}{2} \sqrt{a^2 - x^2} \right) \Big|_{-a}^a = 2\pi \cdot a^2 b$$



2. Volume benda putar jika daerah yang dibatasi kurva $y = -x^2 + 4$ dan $y = -2x + 4$ diputar 360° mengelilingi sumbu Y adalah.....

Jawab

Langkah pertama yang biasa ditempuh adalah membuat sketsa grafik kurva-kurva yang terlibat agar nampak batas-batas yang akan diambil,

Kurva pertama bentuknya persamaan kuadrat,

$$y = -x^2 + 4$$

Cari titik potong pada sumbu x, berarti y diberi harga nol, $y = 0$

$$y = -x^2 + 4$$

$$0 = -x^2 + 4$$

$$0 = 4 - x^2$$

Faktorkan,

$$0 = (x + 2)(x - 2)$$

$$x = -2 \text{ atau } x = 2$$

Titik-titik yang diperoleh dari langkah ini adalah (2, 0) dan titik (-2, 0)

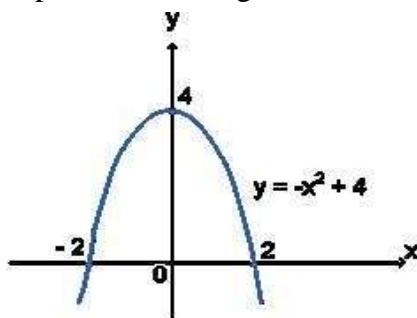
Titik potong pada sumbu y, berarti x diberi harga nol, $x = 0$

$$y = -x^2 + 4$$

$$y = -0^2 + 4$$

$$y = 4$$

Titik yang diperoleh dari langkah ini adalah (0, 4)



Kurva Kedua berbentuk persamaan linier

$$y = -2x + 4$$

Titik potong sumbu x, berarti $y = 0$

$$y = -2x + 4$$

$$0 = -2x + 4$$

$$2x = 4$$

$$x = 4/2 = 2$$

Diperoleh titik (2, 0)

Titik potong sumbu y, berarti $x = 0$

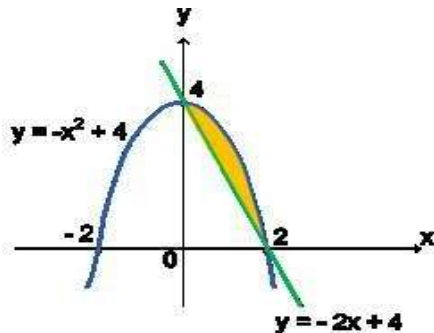
$$y = -2x + 4$$

$$y = -2(0) + 4$$

$$y = 4$$

Diperoleh titik (0, 4)

Grafik selengkapnya sebagai berikut



Menentukan Batas-batas

Jika diputar pada sumbu x, terlihat dari gambar batas-batasnya adalah 0 dan 2

Jika diputar pada sumbu y, terlihat batas-batasnya adalah 0 dan 4

Kali ini akan dihitung untuk putar sumbu y, sehingga batas yang diambil 0 dan 4

Dari rumus volume benda putar pada sumbu y untuk dua buah kurva:

$$V = \pi \int_a^b ([f_1(y)]^2 - [f_2(y)]^2) dy$$

atau

$$V = \pi \int_a^b ([x_1]^2 - [x_2]^2) dy$$

→ Ubah bentuk "y = ..." menjadi "x = ..." atau "x^2 = ...",

$$y = -x^2 + 4$$

$$x^2 = 4 - y$$

$$y = -2x + 4$$

$$2x = 4 - y$$

$$x = 2 - 1/2 y$$

$$x^2 = 4 - 2y + y^2/4$$

sehingga

$$V = \pi \int_a^b ([x_1]^2 - [x_2]^2) dy$$

$$V = \pi \int_0^4 ([4 - y] - [4 - 2y + y^2/4]) dy$$

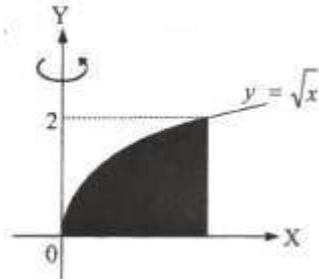
$$V = \pi \int_0^4 (4 - y - 4 + 2y - y^2/4) dy$$

$$V = \pi \int_0^4 (y - y^2/4) dy$$

$$V = \pi [1/2 y^2 - y^3/12]_0^4$$

$$V = (1/2 \cdot 16 - 64/12)\pi - (0) \pi = 8/3 \pi$$

4. Perhatikan gambar diarsir di samping!



Jika daerah yang diarsir diputar mengelilingi sumbu Y, maka volume benda putar yang terjadi

Pembahasan

$$y = \sqrt{x}$$

$$y^2 = x$$

$$y^4 = x^2$$

$$x^2 = y^4$$

Dari rumus volume benda putar pada sumbu y untuk satu buah kurva:

$$V = \pi \int_0^2 x^2 dy$$

$$V = \pi \int_0^2 y^4 dy$$

$$V = \pi \left[\frac{1}{5} y^5 \right]_0^2 = \frac{1}{5} \pi \left[y^5 \right]_0^2$$

$$V = \frac{1}{5} \pi \left[(25) - (05) \right] = \frac{32}{5} \pi = 6 \frac{2}{5} \pi \text{ satuan volume}$$

5. Volume benda putar yang terbentuk dari daerah yang di kuadran I yang dibatasi oleh kurva $x = 2\sqrt{2} y^2$, sumbu Y, dan lingkaran $x^2 + y^2 = 9$, diputar mengelilingi sumbu Y

Pembahasan

Volume benda putar pada sumbu Y.

Kurva I

$$x = 2\sqrt{2} y^2$$

$$x^2 = 8y^4$$

Kurva II

$$x^2 + y^2 = 9$$

$$x^2 = 9 - y^2$$

Tentukan titik potongnya dulu

$$8y^4 = 9 - y^2$$

$$8y^4 + y^2 - 9 = 0$$

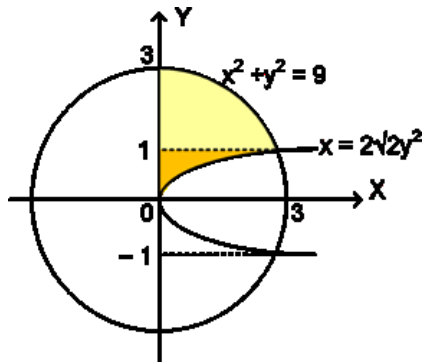
Faktorkan

$$(8y^2 + 9)(y^2 - 1) = 0$$

Ambil $y^2 - 1 = 0$

$$y^2 = 1 \rightarrow y = \pm 1$$

Sketsa kasar grafiknya sebagai berikut:



Terlihat Volumenanya

$$V = \pi \int_0^1 x_1^2 dy + \pi \int_1^3 x_2^2 dy$$

$$V = \pi \int_0^1 8y^4 dy + \pi \int_1^3 (9 - y^2) dy$$

$$V = \pi \left[\frac{8}{5} y^5 \right]_0^1 + \pi \left[9y - \frac{1}{3} y^3 \right]_1^3$$

$$V = \pi \left(\frac{8}{5} (1^5) + 9(3 - 1) - \frac{1}{3} (3^3 - 1^3) \right)$$

$$V = \pi \left(\frac{8}{5} + 18 - \frac{26}{3} \right) = \frac{164\pi}{15}$$

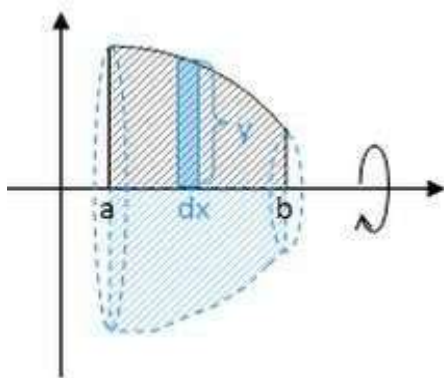


1. Tentukan volume benda putar jika daerah yang dibatasi oleh kurva $y = x^2$, $y = 3x^2$, dan $y = 3$ di kwadran pertama diputar mengelilingi sumbu Y sejauh 360°
2. Hitung volume benda putar jika daerah yang dibatasi oleh kurva $y = 6x - x^2$ dan $y = x$ diputar mengelilingi sumbu X sejauh 360°
3. Carilah volume yang didapat dengan memutar luas bidang yang diketahui terhadap garis yang diketahui, gunakan metoda diskus A , $y = 2x^2$, $y = 0$, $x = 0$, $x = 5$ terhadap sumbu x.
4. Carilah volume yang diperoleh dengan memutar luas daerah yang diketahui $y = x^2 + 5x + 6$ terhadap sb y
5. Tentukan volume benda putar terbentuk oleh perputaran terhadap garis $x = -4$ dari daerah dibatasi oleh dua parabola $x = y - y^2$ dan $x = y^2 - 3$

Metode Menghitung Volume Benda Putar

Metode yang dipakai untuk menghitung volume benda putar memakai 2 integral yaitu :

1. Metode Cakram



Untuk gambar di samping:
 $Luas = \pi \cdot r^2 = \pi \cdot y^2$
 Jika diambil potongan tinggi benda adalah dx, karena tinggi benda berkisar dari a hingga b, maka:

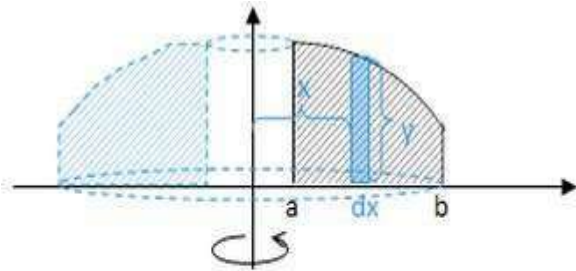
$$V = \int_a^b \pi \cdot y^2 dx = \pi \int_a^b y^2 dx$$

Berdasarkan rumus Volume = Luas Alas X tinggi

Luas Alas selalu merupakan lingkaran maka Luas Alas = πr^2 (r = jari jari putaran) dipakai jika batang potongan tegak lurus dengan sumbu putar

2. Metode Cincin Silinder

Jika suatu luasan diputar pada sumbu tertentu, akan terbentuk suatu benda putar dengan volume sebesar luasan itu dikali dengan keliling putaran. Dikarenakan keliling lingkaran adalah $2\pi r$, jika luas bidang yang diputar = A, maka volume adalah $2\pi \times A$ dipakai jika batang potongan sejajar dengan sumbu putar



Untuk gambar di samping, luas bidang yang diarsir:

$$L = \int_a^b y dx$$

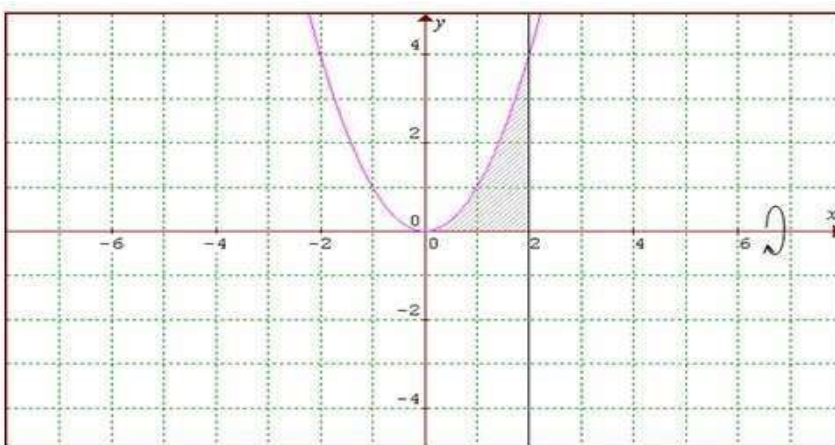
Luasan itu kemudian diputar dengan jari-jari x, sehingga

$$V = \int_a^b 2\pi \cdot y dx = 2\pi \int_a^b x \cdot y dx$$

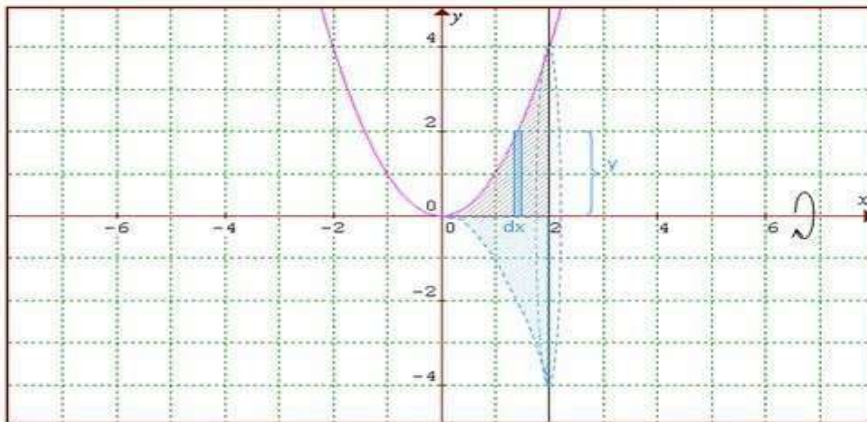
Lihat contohnya yuk...

1. Berapakah volume benda putar yang terbentuk dari daerah yang dibatasi kurva $y = x^2$, sumbu x, dan $0 \leq x \leq 2$ jika diputar kepada sumbu x?

Jawab :

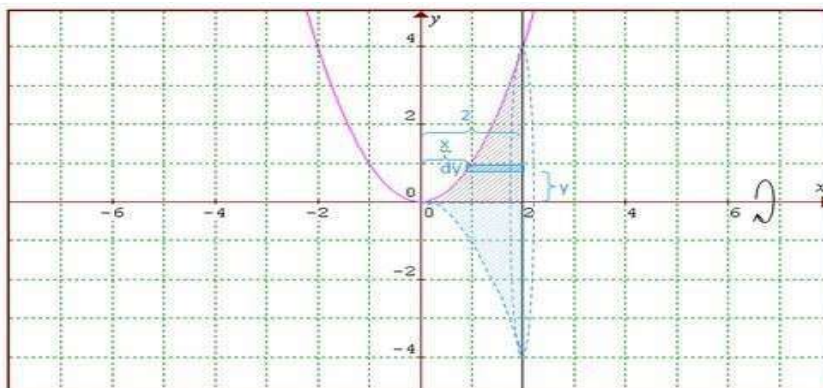


metode cakram



$$\begin{aligned}
 Vx &= \pi \int_0^2 y^2 dx \\
 &= \pi \int_0^2 (x^2)^2 dx \\
 &= \pi \int_0^2 x^4 dx \\
 &= \pi \left[\frac{1}{5} x^5 \right]_0^2 \\
 &= \pi \left[\left(\frac{1}{5} \cdot 2^5 \right) - \left(\frac{1}{5} \cdot 0^5 \right) \right] \\
 &= \frac{32}{5} \pi - 0 = 6 \frac{2}{5} \pi \text{ satuan volume}
 \end{aligned}$$

metode silinder



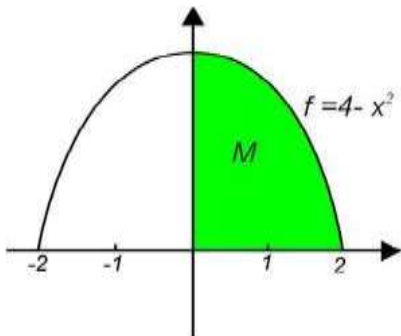
$$y = x^2 \rightarrow x = \pm \sqrt{y}$$

karena daerah yang diarsir ada di sebelah kanan

sumbu x, maka dipilih $x = \sqrt{y}$

$$\begin{aligned} Vx &= 2\pi \int_0^4 y(2-x) dy \\ &= 2\pi \int_0^4 y(2-\sqrt{y}) dy \\ &= 2\pi \int_0^4 (2y - y^{\frac{3}{2}}) dy \\ &= 2\pi \left[y^2 - \frac{2}{5} y^{\frac{5}{2}} \right]_0^4 \\ &= 2\pi \left[\left(4^2 - \frac{2}{5} \cdot 4^{\frac{5}{2}} \right) - \left(0^2 - \frac{2}{5} \cdot 0^{\frac{5}{2}} \right) \right] \quad ** 4^{\frac{5}{2}} = (2^2)^{\frac{5}{2}} = 2^5 = 32 \\ &= 2\pi \left(16 - \frac{64}{5} - 0 + 0 \right) = 2\pi \left(\frac{80}{5} - \frac{64}{5} \right) = 2\pi \cdot \frac{16}{5} \\ &= \frac{32}{5} \pi = 6 \frac{2}{5} \pi \text{ satuan volume} \end{aligned}$$

2. Berapakah volume dari benda putar jika daerah dibatasi oleh fungsi $f(x) = 4 - x^2$, sumbu x, dan sumbu y diputar 360° terhadap sumbu x dan terhadap sumbu y ?



- a. Diputar mengelilingi sumbu x

Dari grafik di tersebut terlihat bahwa luasan r dibatasi titik di sumbu x (0,0) dan (0,2)

$$\begin{aligned}
 V &= \pi \int_0^2 (4-x^2)^2 dx = \pi \int_0^2 (16-8x^2+8x^4)^2 dx \\
 &= \pi \left[16x - \frac{8}{3}x^3 + \frac{1}{5}x^5 \right]_0^2 \\
 &= \pi \left[16(2) - \frac{8}{3}(2^3) + \frac{1}{5}2^5 \right] - 0 \\
 &= \pi \left[32 - \frac{64}{3} + \frac{32}{5} \right] - 0 \\
 &= \frac{256}{15} \pi
 \end{aligned}$$

Maka, volume benda putar jika luasan M diputar mengelilingi sumbu x yaitu sebesar $360^\circ = 256/15 \pi$

b. Diputar mengelilingi sumbu y

Mencari volume benda putarnya harus menyatakan kurva $y = f(x) = 4-x^2$ menjadi bentuk persamaan x^2 .

$$y = 4-x^2$$

$$x^2 = 4-y$$

Luasan M memotong sumbu y pada titik (0,0) dan (0,4)

$$\begin{aligned}
 V &= \pi \int_a^b (f(y))^2 dy \\
 &= \pi \int_0^4 (4-y)^2 dy \\
 &= \pi \left[4y - \frac{1}{2}y^2 \right]_0^4 \\
 &= \pi \left(4(4) - \frac{1}{2}4^2 \right) - 0 \\
 &= \pi(16-8) = 8\pi
 \end{aligned}$$

maka, jika M diputar 360° derajat mengelilingi sumbu ya mampu menghasilkan volume 8π satuan volume.



1. Cardioida $x = 2 \cos \theta - \cos 2\theta - 1$, $y = 2 \sin \theta - \sin 2\theta$; terhadap sumbu x, carilah volume yang diperoleh dengan memutar bidang yang diketahui terhadap garis, gunakan metoda yang tersedia.

2. Carilah volume yang diperoleh dengan memutar luas bidang yang diketahui, gunakan metoda sel (jawaban dalam kubik) . $y = x^3$, $x = 2$, $y = 0$ terhadap $y = 8$
3. Carilah luas bagian bidang lingkaran $x^2 + y^2 = 25$ yang lebih kecil akibat pembelahan oleh garis $x = 3$
4. Carilah luas bidang persekutuan antara lingkaran-lingkaran $x^2 + y^2 = 4$ dan $x^2 + y^2 = 4x$
5. Cardioida $x = 2 \cos \theta - \cos 2\theta - 1$, $y = 2 \sin \theta - \sin 2\theta$; terhadap sumbu x, carilah volume yang diperoleh dengan memutar bidang yang diketahui terhadap garis , gunakan metoda yang tersedia.



DAFTAR PUSTAKA




- Ayres , Jr.F , Theory and Problems Of Differential and Integral Calculus, 2nd ed, (New York : Schaum Publ . Co ,1964)
- Baisuni .Hasyim,H.M , Kalkulus ,(Jakarta :Universitas Indonesia ,2005)
- Gazali .Wikaria & Soedadyatmodjo , Kalkulus , (Yogyakarta , Graha Ilmu , 2007)
- Kline, Morris , Mathematics For The Nonmathematician , (New York ,Dover Publications , INC 1967)
- Kreyszig,Erwin , Advanced Engineering Mathematics ,(New York ,Chichestes Brisbane, 1978)
- Martono,K, Kalkulus Dan Ilmu Ukur Analitik , (Bandung : Angkasa 1985)
- Mundit.K.Armawa , Advanced Calculus ,(Bandung :Armeco, 1979)
- Mundit . K . Armawa , Kalkulus Differensial Dan Integral , (Bandung : Armeco , 1980)
- Piskunov, N , Differential And Integral Calculus ; (Moscow , 1974)
- Pipes. Louis A , Applied Mathematics For Engineers And Physicists ; (London ,Hamburg Johannesburg : Book Company , 1982)
- Purcell. Edwin J , Kalkulus Dan Geometri Analitis Jilid 1 ; (Jakarta , Erlangga , 1987)
- Spiegel, M.R ,Theory and Problem of Differential Equations, (New York:Schaum Publ.Co,1961.)
- Stroud , K.A , Matematika Teknik , (Jakarta, Erlangga , 2003)
- Wylie, Jr, C.R. Advanced Engineering Mathematics. 3 rd ed .Tokyo,Japan : Mc Graw-Hill Kogakusha, Ltd,1966)

Appendix 17
Logbook Research

CATATAN KEMAJUAN/PELAKSANAAN PENELITIAN

Bulan : September 2019

No.	Tanggal *)	Kegiatan / Aktivitas	Catatan Kemajuan/Hasil Aktivita**)
1	Senin,09 Sept 2019	Pertemuan dengan TIM Riset UTP dihari pertama dan di sambut oleh Dekan FKIP UHAMKA dan Wadek 1 sebagai ketua tim dari Tim Riset FKIP UHAMKA.	
2	Selasa.10 Sept 2019	Menyamakan Persepsi Riset (Judul Dan luaran yang akan dihasilkan) dari pukul 09.00 – 11.30 wib	

		Alhamdulillah menghasilkan judul yang sepakati (awal januari 2019 judul kami tentang anak berkebutuhan khusus) dan saat tatap muka ,kami menghasilkan kesepakatan untuk mengubah judul dari masing-masing tim riset.	
3	Rabu, 11 Sept 2019	Tim riset UTP dan tim Riset UHAMKA berkerja sendiri- sendiri untuk mencari study literatur	- Menghasilkan Artikel dan buku
4	Kamis,12 Sept 2019	Tim riset UTP dan Tim Riset Uhamka memaparkan hasil studi literatur dan menghasilkan judul yang di sepakati	
		Setelah seharian bergelut dengan judul dan paparan riset Kami mengajak tim riset UTP (Wan Fatimah) mengunjungi masjid attin dan museum alquran di TMII	

5	Jumat,13 Sept 2019	Wan Fatimah berkeliling FKIP UHAMKA dan mengunjungi Lab fisika, lab matematika , lab IPA ,seketariat,lab ICT ,rusunawa, masjid darun ulum dan kelas-kelas FKIP UHAMKA	
		Tim Uhamka membuat google form untuk studi pendahuluan atau analisis kebutuhan.	Hasil google form tentang optimalisasi perkuliahan
6	Sabtu,14 Sept 2019	Wan Fatimah mengakhiri kunjungan	
7	Senin,16 Sept 2019	Sosialisasi google form ke mahasiswa Indonesia dan Malaysia	Sudah ada yang mengisi (30 responden)
8	Rabu ,18 Sept 2019	Google form sudah terisi dari mahasiswa Indonesia	Terisi (120 responden)
9	Senin,23 Sept 2019	Google form sudah terisi dari mahasiswa Indonesia	Terisi (195 responden)
10	Jumat,27 Sept 2019	Google form sudah terisi dari mahasiswa Indonesia	Terisi (235 responden)
11	Senin,30 Sept 2019	Google form sudah terisi dari mahasiswa Indonesia	Terisi (260 responden)

Notasi:

*) jika perlu diisikan pula jam

**) Berisi data yang diperoleh, keterangan data, sketsa, gambar, analisis singkat, dokumen lampiran/ditulis nomornya dan dilampirkan.

Tambahan halaman ini sesuai kebutuhan

Pemonitor


Prof.Dr Suswandari,M.Pd



Ketua Peneliti



Dr Sri Astuti , M.Pd

CATATAN KEMAJUAN/PELAKSANAAN PENELITIAN

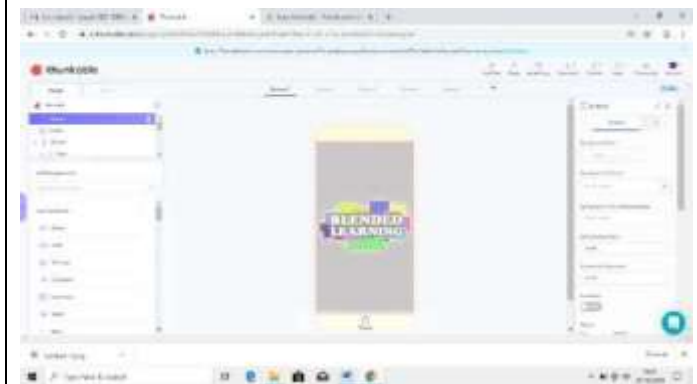
Bulan : Oktober 2019

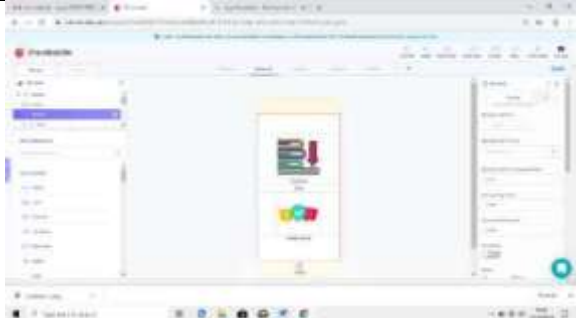

No.	Tanggal *)	Kegiatan / Aktivitas	Catatan Kemajuan/Hasil Aktivita**)
1	Selas,01 Okto2019	-Google form sudah terisi dari mahasiswa Indonesia - Masih Proses Di UTP	Terisi (276 responden)
2	Sabtu,05Okto 2019	-Google form sudah terisi dari mahasiswa Indonesia -Masih Proses di UTP-	Terisi (290 responden)
3	08 – 17 Okt 2019	Menyiapkan materi volume benda	Hasil materi (lampiran)
4	18 Okt 2019	Mencari referensi apk yang dapat mendukung blended learning dengan flipbook	Menggunakan mit app inventor yang nantinya dapat di converter .apk dan didaftarkan di google playstore 

5	21 Okt 2019	Pembuatan template blended learning (screen awal)	 <p>Tampilan awal screen (loading screen)</p>
6	23 Okt 2019	Pembuatan database untuk sign in dan sign up pada apk blended learning	 <p>Database yang tersimpan menggunakan Tinydb yang terdapat didalam mit app inventor 2</p>
7	24 Okt 2019	Pembuatan template untuk sub menu pada apk	<p>Sub menu yang terdapat dalam apk sementara ini terdapat menu chatting room (ruang diskusi), flipbook, video, dan quiz</p>

			
8	26 Okt 2019	Pembuatan konten flipbook	<p>Pembuatan apk flipbook design menggunakan software adobe photoshop kemudian dilanjutkan dengan pengimport-an data untuk membuat animasi flipbook menggunakan flipbuilder</p> 
9	27-29 Okt 2019	Pembuatan chatting room	<p>Pemuatan konten chatting room bermasalah terkait database kemampuan untuk mengakses database terlebih dahulu sehingga yang akses chatting room hanya bisa diakses personal (hanya terhadap dua orang). Beberapa fungsional botton untuk di flipbook terkedala akan akses html yang offline sehingga tidak dapat diakses melalui mit app inventor</p>
10	30 Okt 2019	Peralihan penggunaan aplikasi pembuatan app dari MIT App Inventor menjadi penggunaan Thunkable App	<p>Pembuatan aplikasi yang semula menggunakan MIT App Inventor, diganti menggunakan aplikasi</p>

thinkable app karena beberapa fungsional dari MIT yang tidak mendukung konten. Kemudian peralihan database yang semula akan dimuat dalam aplikasi basisnya menjadi peralihan dengan pengintegrasian website (link) dengan menggunakan student center sebagai link untuk blended learning, fungsional untuk flipbook dimuat berupa design langsung melalui thinkable dengan dimuatnya secara swipe dan didalamnya sudah dimuat konten video (yang semula rencana awal terpisah)



			
11	31 Okt 2019	Pengisian materi pada konten, penentuan brand app	<p>Pengisian konten flipbook dengan dimuat swipe, penentuan kefokuskan penelitian sebagaimana hasil studi pendahuluan yaitu pada materi volume benda putar, sehingga perencanaan selanjutnya untuk pembuatan konten video disetiap materi. Adapun penentuan brand app yaitu “SMART.EDU”</p> 

Notasi:

- *) jika perlu diisikan pula jam
- **) Berisi data yang diperoleh, keterangan data, sketsa, gambar, analisis singkat, dokumen lampiran/ditulis nomornya dan dilampirkan.

Tambahan halaman ini sesuai kebutuhan

Pemonitor


Prof.Dr Suswandari,M.Pd



Ketua Peneliti


Dr Sri Astuti , M.Pd

CATATAN KEMAJUAN/PELAKSANAAN PENELITIAN



Bulan : November 2019



No.	Tanggal *)	Kegiatan / Aktivitas	Catatan Kemajuan/Hasil Aktivita**)
1	1 Nov 2019	Persentasi hasil program yang telah di kembangan oleh student dengan team. Serta penentuan jadwal dan kegiatan keberangkatan	<p>Persentasi hasil program paparan yang disampaikan oleh mahasiswa kemudian dilanjutkan dengan penentuan jadwal dan kegiatan dimulai berangkat tanggal 17 November</p>  <p>Diskusi penentuan waktu keberangkatan</p>
2	2-3 Nov 2019	Penyusunan jadwal kegiatan selama di UTP oleh mahasiswa dan team dosen	Jadwal kegiatan dibuat rinci selama waktu yang ditentukan 17 – 29 November 2019
3	4-10 Nov 2019	Pengecekan pengisian seluruh konten flip book di sub bahasan	Pengisian seluruh konten sub-bab flip book
4	11-13 Nov 2019	Pengambilan shoot konten video pembelajaran	Pengambilan video tutorial dimuat dalam bentuk visual auditorial dengan diisi oleh suara dari Dra. Imas Ratna Ermawati, M.Pd

			 <p>Pengambilan video dengan Dra. Imas Ratna, M.Pd</p>
5	14-15 Nov 2019	Pengeditan konten video	<p>Pengeditan menggunakan software Sony vegas pro dimuat dalam sub-bab pembahasan durasi singkat kurang dari 10 menit setiap pembahasan</p>  <p>Pengeditan konten video dengan sony vegas pro</p>
6	16 Nov 2019	Kesiapan program yang akan dikembangkan di cek kembali	<p>Kesiapan program yang telah dikembangkan di cek seluruh botton dapat termuat terlink dengan fungsi dan tujuan tercapai</p>

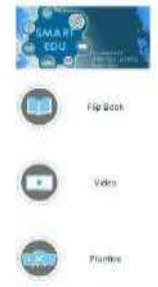

7	17 Nov 2019	Keberangkatan Indonesia ke Malaysia	Keberangkatan team penelitian UHAMKA-UTP dari Indonesia ke Malaysia. Pertemuan di sambut oleh Dr. Wan di Kuala Lumpur kemudian singgah di rest area untuk menikmati sate kujang dan nasi himpit kemudian kami team beristirahat di hotel Kampar
8	18 Nov 2019	Keberangkatan Team Uhamka ke UTP	<p>Penyambutan team Uhamka ke UTP oleh Dr. Wan di gedung Blok J-3. Kami disambut kemudian perkenalan dengan team UHAMKA-UTP, penyusunan schedule ulang selama di UTP, Pengenalan suasana dan fasilitas kampus UTP kepada team UHAMKA kunjungan ke IRC (Perpustakaan UTP) kunjungan ke lab. Kemudian team mahasiswa melakukan observasi analisis kinerja dari aplikasi blended learning yang sudah berjalan di UTP yaitu U-Learn</p>  <p>Analisis kinerja U-Learn (Observasi)</p>
9	19 Nov 2019	Perkenalan Kampus UTP (Manajemen Humanities Departemen dan CeTaL) dan diskusi Team	Pengenalan team research dengan Departemen Manajemen Humanities UTP kemudian kunjungan ke CeTaL untuk mempelajari pembelajaran flip classroom dan melihat media

			<p>visualisasi yang dimiliki UTP, di lanjutkan dengan diskusi team internal uhamka dengan pembahasan hasil analisis kinerja kemudian road map peniliat yang akan dilakukan selama di UTP</p>  <p>Kunjungan ke CeTaL UTP</p>
10	20 Nov 2019	Seminar Oleh team UHAMKA kepada mahasiswa UTP	<p>Seminar team UHAMKA dilakukan di UTP dengan peserta mahasiswa UTP peserta dihadiri kurang lebih 20-30 mahasiswa. Diskusi mahasiswa kepada Dr Wan tentang rencana penelitian yang akan dilakukan, mahasiswa diminta fokuskan ke penelitian media pada user interface untuk mencari kajian pustaka pada tipe user interface dan mencari kajian pustaka tentang value.</p>

			
11	21 Nov 2019	Pemaparan road map penelitian dari mahasiswa ke Dr. Wan	<p>Pemaparan dua focus penelitian yang diperoleh selama di UTP, konsultasi hasil instrumen yang telah dibuat kemudian berdasarkan saran dari Dr Wan untuk dimuat dan dibagi dalam bentuk scan barcode</p>  <p>Barode instrument user Interface</p>
12	22 Nov 2019	Kajian pustaka membuat instrumen user interface dan value	<p>Kajian pustaka, mencari berbagai sumber tentang user interface dan value kemudia dilanjutkan dengan pembuatan instrument value</p>

13	23 Nov 2019	Pertemuan mahasiswa UHAMKA dengan PPI di UTP	<p>Silaturahmi mahasiswa UHAMKA dengan PPI di UTP serta student mobility dari Indonesia saling sharing berbagi pengalaman selama di UTP</p> 
14	24 Nov 2019	Penyiapan instrument untuk pengambilan respon	<p>Pencetakan barcode untuk memperoleh respon untuk instrument user interface</p>
15	25 Nov 2019	Pengambilan data Responden dan bimbingan dengan Dr Wan	<p>Pengambilan data diperoleh untuk user interface diperoleh data 18 responden kemudian bimbingan untuk instrument value</p>  <p>Sosialisasi user interface program</p>
16	26 Nov 2019	Pengambilan data Responden dan bimbingan user interface dengan Dr Wan	<p>Bimbingan diawali untuk melihat statistik 18 responden untuk user interface kemudian Dr Wan</p>

			<p>menambah target responden sebanyak 30 responden minimal masing-masing penelitian, kemudian pengambilan data untuk instrument value dan penambahan data untuk user interface, penilaian user interface program yang telah dikembangkan oleh Dr Wan</p> 
17	27 Nov 2019	Pengambilan data Responden dan bimbingan dengan Dr Wan	<p>Pengambilan data kemajuan untuk user interface diperoleh 32 responden statistiknya dimuat dalam bentuk mean (rerata) skala 1-4 diperoleh skala 3,5 hasil dari user interface diperoleh data yang baik di awal penelitian kemudian revisi beberapa view dari tampilan untuk dimuat program dalam bentuk tujuan umum yang dapat diakses oleh semua.</p> <p>Pengambilan data responden value sebanyak 33 respden, kemudian dipelajari statistic yang akan digunakan</p>

			 <p>View setelah direvisi</p>
18	28 Nov 2019	Pemaparan data statistik dan kegiatan yang telah diperoleh selama di UTP, pamitan dengan mengucapkan terima kasih dan memohon maaf	<p>Pemaparan data yang telah diperoleh kemudian pembahasan untuk dimuat jurnal dengan user interface dikaitkan dengan era revolusi 4.0 dengan hubungan blended learning kemudian untuk value dikaitkan pada social 5.0. pamitan kami dari team uhamka kepada UTP dan permohonan maaf atas segala kesalahan selama di UTP kepada khususnya Dr Wan dan kakak selama di COSI yaitu ada kak arif dan ka ajzmer</p> 
19	29 Nov 2019	Kepulangan mahasiswa dari UTP ke Indonesia	Keberangkatan dari Malaysia pukul 12.20 sampai Jakarta pukul 14.00

Notasi:

*) jika perlu diisikan pula jam

**) Berisi data yang diperoleh, keterangan data, sketsa, gambar, analisis singkat, dokumen lampiran/ditulis nomornya dan dilampirkan.

Tambahan halaman ini sesuai kebutuhan

Pemonitor

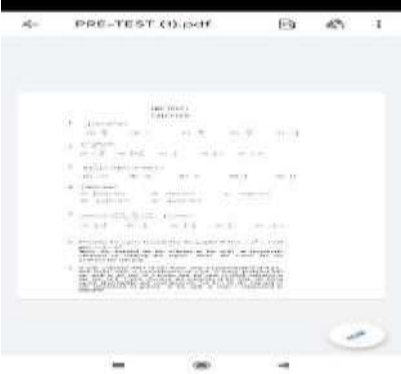
Prof.Dr Suswandari,M.Pd

Ketua Peneliti


Dr Sri Astuti , M.Pd


CATATAN KEMAJUAN/PELAKSANAAN PENELITIAN

Bulan : Desember 2019

No.	Tanggal *)	Kegiatan / Aktivitas	Catatan Kemajuan/Hasil Aktivita**)
1	2 Des 2019	Diskusi hasil penelitian dengan team	Pembahasan hasil yang telah diperoleh dari UTP, kemudian pembahasan agenda penulisan tim untuk publikasi jurnal di ICCOINS
2	3 Des 2019	Diskusi hasil penelitian dengan team	Pembahasan latar belakang yang akan di peroleh dan pengembangan rencana road map penelitian besar untuk persiapan data implementasi aplikasi
3	6 Des 2019	Persiapan untuk implementasi aplikasi	Persiapan pre-test, pembuatan barkode pengunduhan aplikasi untuk dilakukan perkenalan kepada mahasiswa. 
4	9 Des 2019	Pelaksanaan Implementasi Tahap 1 (Pre-Test)	Pelaksanaan Pre-Test kepada mahasiswa materi integral untuk mengevaluasi pembelajaran yang sudah dilakukan dan akan dilakukan pengenalan aplikasi pengembangan

			
5	10 Des 2019	Perkenalan aplikasi pengembangan yang telah di user interface pada mahasiswa	Perkenalan aplikasi pengembangan yang telah dilakukan penilaian user interface dan yang telah di revisi kepada mahasiswa 
6	11 Des 2019	Pembahasan statistik yang digunakan untuk analisis data (Judul Penelitian Pengembangan Judul Inti)	Pembahasan statistik rash model untuk pemrosesan analisis data yang telah diperoleh

			
7	12-13 Des 2019	Diskusi penulisan artikel dengan team	Persiapan penulisan awal untuk jurnal publikasi, analisis data
8	16 Des 2019	Pertemuan team Jakarta dengan Dr. Wan Fatimah	Pertemuan team Jakarta dengan Dr Wan Fatimah
9	17 Des 2019	Diskusi penelitian dengan Dr Wan Fatimah	Pembahasan tindak lanjut penelitian dan analisis data pembahasan publikasi jurnal dan pembahasan solusi-solusi kendala yang dihadapi untuk penulisan artikel kepada mahasiswa
10	18-20 Des 2019	Penulisan artikel untuk publikasi	Penulisan artikel berdasarkan hasil penelitian dan pencapaian hasil analisis data penelitian disesuaikan dengan aturan tujuan publikasi menggunakan template IEEE
11	23 Des 2019	Visiting Lecture : How to write good a research article and How to publish a winning journal	Penyampaian materi pada seminar kelas bagaimana cara menulis artikel dengan baik bersama mahasiswa dan cara publishin jurnal dengan dosen

			
--	--	--	---

Notasi:

- *) jika perlu diisikan pula jam
- **) Berisi data yang diperoleh, keterangan data, sketsa, gambar, analisis singkat, dokumen lampiran/ditulis nomornya dan dilampirkan.

Tambahan halaman ini sesuai kebutuhan

Pemonitor

Prof.Dr Suswandari,M.Pd

Ketua Peneliti

Dr Sri Astuti , M.Pd

**SCHEDULE OF STUDENT EXCHANGE
RESEARCH COLABORATION OF UHAMKA - UTP**

**DEVELOPMENT OF BLENDED LEARNING LEARNING MEDIA USING VALUE BASED
SMARTPHONE 3D FLIPBOOK**

PROPOSER TEAM

- | | |
|--------------------------------------|----------|
| 1. Dr Sri Astuti , M.Pd | (UHAMKA) |
| 2. Dra Imas Ratna Ermawati , M.Pd | (UHAMKA) |
| 3. Meyta Dwi Kurniasih , S.Pd , M.Pd | (UHAMKA) |
| 4. Dr Onny Fitriana Sitorus , M.Pd | (UHAMKA) |
| 5. Wan Fatimah Wan Ahmad | (UTP) |
| 6. Hilmi Hasan | (UTP) |

Time	Activity
1 st – 2 nd Day	Learn about the meaning of blended learning (discussion on the definition, the advantages, and the lacks of blended learning)
3 rd – 4 th Day	Learn about the methods in blended learning (how to choose the right methods) in blended learning using the flipbook method
5 th – 10 th Day	<ul style="list-style-type: none"> • learn about software that is commonly used and the accuracy in use blended learning • learn about software that is commonly used and the accuracy in use flipbook
11 th – 15 th Day	<ul style="list-style-type: none"> • learn more about the stages in the flipbook volume of rotating objects • learn more about the stages in the flipbook exercise about value-based rotary object volumes
16 th – 22 th Day	learn more about the stages in the material flipbook and practice the value-based volume of rotating objects in a simulation
23 th – 27 th Day	Learn how to analyze the results of each method and software





Aisyah Fitriana


Personal Details

Gender / Age : Female / 21
Place / date of birth : Depok / February 11th 1997
Nationally : Indonesia
Religion : Moslem



Contact


 Jl Jimun II No 108 Rt 02/02
Abadijaya, Sukmajaya,
Depok 16417


 +62 82261995005


 aisyah1501115006@gmail.com

Education


 Abadijaya 3 Elementary School
2003-2009

 3 Depok Junior High School
2009-2012

 Plus PGRI Cibinong Senior High School
2012-2015

 University of Muhammadiyah Prof. DR. HAMKA
Faculty of Teacher Training and Education
2015-2019

Experience

- Assistant Laboratory of Modern Physics Class in Physics Laboratory FKIP UHAMKA (2018)
- Appertince Teacher in 48 Jakarta Senior High School (2018/2019)
- Research Member of “Proof of the effect electric current on function of tara calor using total derivative” (2017/2018)
IOP Conf. Series : Journal of Physics: Conf Series 948 (2018). doi : 10.1088/1742-6594/948/1/012070

Resume

I am Aisyah Fitriana. I am a recent graduate bachelor’s degree of Education in Muhammadiyah Prof. DR. HAMKA University. I have experienced in teaching and learning activities. I am interest in research and development of Physics, Education, and Techonology. My first best research is mathematchal physics in 2017, my article until published indexed scopus. My final research year project of “*Development of Physics Higher Thingking Skills Test Integrated Character Value*”. Because at this time, education has entered the 4.0 revolution. One of the current curriculum policies support the development of technology and education. Therefore now, I am very interest to combine research in the field of technology and education.

Best Regards,

Aisyah Fitriana
Indonesia



Afif Abdurrozak

Profil Details

Gander / Age : Male / 21th
Place / Date of Birth : Magelang / 8 October 1997
Nationality : Indonesia

Experience

Chairman of Students Physics Assosiation UHAMKA (2016-2017)
Member of Dedication Society about The Introduction of Science Tools in An-Nuriyah Boarding School (2017)
Member of Social Field in BEM FKIP UHAMKA (2017-2018)
Chairman of the group PKM-KC Development Of Biocensor Cholesterol with Particle Nano Zno as Electrode Censor Matter. (2018)
Science Laboratory Assistant in Science Laboratory of FKIP UHAMKA (2018-2019)
Private Lesson Tutor in Educate (2019)

Education

Elementary School in SDN 3 Kutabumi, Kabupaten Tangerang (2003-2009)
Junior High School in SMPN 1 Pasarkemis (2009-2012)
Senior High School in SMAN 11 Kab. Tangerang (2012-2015)
Bachelor's Degree in Universitas Muhammadiyah Prof. DR. HAMKA, Teacher Training and Education Faculty Primary School Teacher Education, Student of Physics Education (2015-2019)

Resume

I am Afif Abdurrozak. I am a Muslim from Indonesia. I just finished my bachelor's degree of Physics Education "The Effect of a Liveboard-Based Blended Learning Model in Terms of Affective Aspects in Modern Physics Courses". I used blended learning model to look for the effect of affective aspects learning supported by liveboard application. I was very happy to use this model because i could optimize and combine my abilities in the fields of technology and education.



Kp. Pangodokan Kidul
RT.04/03 No. 104,
Kutabumi, Pasarkemis, Kab.
Tangerang, 15560



+6289602605114



afifabdurrozak@gmail.com

Instagram : afifabdurrozak



Twitter : @afifabdurrozak

WA : +6289602605114

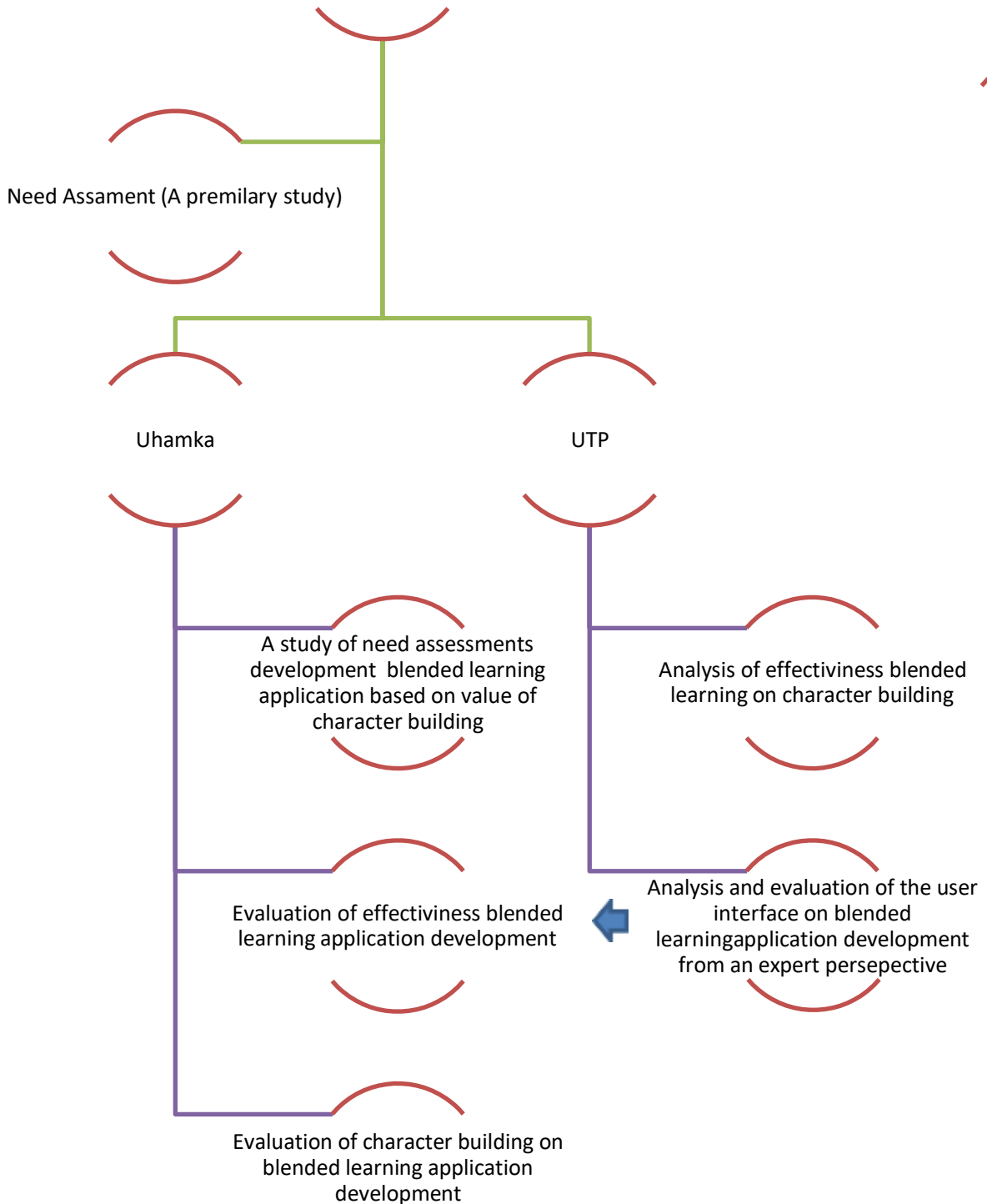
Best Regards

Afif Abdurrozak
Indonesia

Appendix 18
Road Map Join Research of UHAMKA FKIP-UTP

ROAD MAP JOINT REARCH FKIP UHAMKA – UTP 2019

Development of integration flip
book on blended learning
application based on value of
character building



Appendix 19
Biodata Chairman and member of the research

Dr . Hj Sri Astuti , M.Pd
Dra Imas Ratna Ermawati , M.Pd
Meyta Dwi Kurniasih , M.Pd
Dr. Onny Fitriana , M.Pd
Aisyah Fitriana
Afif Abdul Rozak

CURRICULUM VITAE

A. IDENTITAS DIRI

1	Nama Lengkap	:	Dr. Sri Astuti, M.Pd
2	Jabatan Fungsional	:	Lektor Kepala
3	NPD/NIDN	:	D.93.0350/03.0212.7002
4	NPWP	:	25.603.264.0-045.000
5	Tempat dan Tanggal Lahir	:	Jakarta, 2 Desember 1970
6	Alamat Rumah	:	Jl. Mahoni Selatan No. 13, Tugu Utara Koja-Jakarta Utara
7	Nomor Hp	:	+62081297940659
8	Alamat Kantor	:	FKIP UHAMKA Jl. Tanah Merdeka, Kp. Rambutan, Ps. Rebo-Jakarta Timur
9	Nomor Telp/Faks	:	021-8400341/0218411351
10	Alamat Email	:	sriastuti99@yahoo.com /sri_astuti@uhamka.ac.id
11	Mata Kuliah yang diampu	:	1. Landasan Pengembangan Kurikulum 2. Manajemen Pendidikan Non-Formal Informal 3. Literasi Gender 4. Metodologi Penelitian 5. Kepemimpinan Pendidikan 6. Ketahananmalangan 7. Adm. Dan Supervisi Pendidikan

B. RIWAYAT PENDIDIKAN

	S1	S2	S3
Nama Perguruan Tinggi	IKIP Muhammadiyah Jakarta, sekarang, Universitas Muhammadiyah Prof. DR. HAMKA (UHAMKA)	Universitas Negeri Jakarta	Universitas Negeri Jakarta
Bidang Ilmu	Pendidikan Administrasi Perkantoran	Manajemen Pendidikan	Manajemen Pendidikan
Tahun Lulus	1992	2000	2009
Gelar	S.Pd	M.Pd	Dr.

C. RIWAYAT JABATAN

Jabatan	Masa Jabatan	Unit
Sekretaris Pusat Studi Gender dan Perlindungan Anak	1997-sekarang	UHAMKA
Jabatan	Masa Jabatan	Unit
Sekretaris Lembaga Pemberdayaan dan Pengabdian Masyarakat	2009-2010	UHAMKA
Ketua Program Studi Pendidikan Ekonomi (S1)	2013-2017	FKIP UHAMKA
Ketua Asosiasi Pendidikan Ekonomi Perguruan Tinggi Muhammadiyah se-Indonesia	2015-2020	PTM
Wakil Dekan 1 Bidang Akademik dan Kerjasama FKIP UHAMKA	2017-2021	FKIP UHAMKA
Ketua Lemlitbang ASPAPI (Asosiasi Sarjana dan Praktisi Perkantoran Indonesia)	2019-sekarang	NASIONAL

D. PENGALAMAN PENELITIAN DALAM 3 TAHUN TERAKHIR

No	Tahun	Judul Penelitian	Sumber Dana
1	2018	EVALUASI PROGRAM PRAKTEK KERJA LAPANGAN Penelitian Evaluatif Berdasarkan Context, Input, Process, Product (CIPP) pada Program Studi Pendidikan Ekonomi FKIP UHAMKA	Lemlitbang UHAMKA
2	2018	Evaluasi Program Pelaksanaan Seateacher di Thailand dan Filipina bagi Mahasiswa FKIP UHAMKA Menggunakan Model CIPP	Lemlitbang UHAMKA
3	2017	Analisis Kualitas Soal Dosen FKIP UHAMKA pada Ujian Tengah Semester (UTS) Genap Tahun Akademik 2016-2017	Lemlitbang UHAMKA
4	2016	Kajian Perlindungan Anak yang menjadi Perlindungan Anak yang menjadi Korban Stigmatisasi dari Pelabelan terkait kondisi Orang Tua (KPPPA RI)	KPPPA RI
5	2016	Implementasi Sinergi Program Pemberdayaan Perempuan dan Perlindungan Anak bagi Lembaga Masyarakat di Rumah Susun (KPPA RI)	KPPPA RI
6	2016	Analisis Situasi Perempuan dan Anak di Rumah Susun Marunda Jakarta Utara	KPPPA RI
7	2016	Profil Gender FKIP UHAMKA	Lemlitbang UHAMKA

No	Tahun	Judul Penelitian	Sumber Dana
8	2016	Integrasi Kurikulum berprespektif Gender di KPPPA RI	KPPPA RI
9	2015	Hibah Penelitian Pengembangan Model Pembelajaran Berkarakter Melalui Integrasi Nilai Kearifan Lokal Etnik Betawi	Kemenristek DIKTI RI
10	2015	Pengaruh Metode Pembelajaran Kooperatif <i>Team Games Tournament</i> (Tgc) Terhadap Hasil Belajar Siswa (Studi Eksperimen Pada Materi Indeks Harga Dan Inflasi Mata Pelajaran Ekonomi Kelas X Semester Genap Di SMA Negeri 1 Maumere)	Lemlitbang UHAMKA
11	2015	Evaluasi Program Praktek Kerja Lapangan (Penelitian Evaluatif Berdasarkan Model Context – Input – Process – Product (Cipp) Program Studi Pendidikan Ekonomi FKIP UHAMKA	Lemlitbang UHAMKA
12	2015	Implementasi Manajemen Mutu Terpadu dalam Optimalisasi Daya Serap Lulusan terhadap Lapangan Kerja (Studi pada SMK Binakarya Mandiri Kota Bekasi)	Lemlitbang UHAMKA

E. PENGALAMAN PENGABDIAN KEPADA MASYARAKAT DALAM 3 TAHUN TERAKHIR

No	Tahun	Judul Pengabdian	Sumber Dana
1	2019	Pendampingan dan Penguatan Manajemen SMK Jurusan Priuritas Pemerintah di Desa Tertinggi Angka Putus Sekolah	LPPM UHAMKA

F. PENGALAMAN PENULISAN KARYA ILMIAH DALAM 3 TAHUN TERAKHIR

No	Judul	Tahun	Media
1	How to Measure Organization Health (an overview of Organizational Health)	2017	Proceeding 8 th Pedagogy International Seminar 2017
2	Gender Pendidikan dan Literasi	2016	UPI PRESS
3	Buku Teks Sebagai bahan Ajar yang berwawasan Gender	2015	UPI PRESS
4	Method Of Language Development Early Childhood	2015	Zikrul Hakim (Anggota IKAPI)

No	Judul	Tahun	Nama Jurnal
5	Analisis Bauran Promosi dalam Peningkatan Jumlah Mahasiswa Baru di FKIP UHAMKA Jakarta	2015	UHAMKA Press

G. PENGALAMAN PENYAMPAIAN MAKALAH SECARA ORAL PADA PERTEMUAN/ SEMINAR ILMIAH DALAM 3 TAHUN TERAKHIR

No	Nama Pertemuan Ilmiah/Seminar	Judul Makalah	Waktu dan Tempat
1	Rapat Kerja Daerah	Menumbuh kembangkan Jiwa Kepemimpinan Skrikandi Aisyiyah	Aisyiyah Daerah Jakarta Utara 2016
2	Sinergi Program	Model Sinergi Program antar Lembaga Masyarakat bagi Rusun Marunda	KPPPA RI 2016
3	Organisasi Keagamaan, Organisasi Kemasyarakatan Akademisi dan Lembaga Riset	Pengarusutamaan Gender Pemberdayaan & Perlindungan Hak Perempuan Perlindungan dan Pemenuhan Hak Anak	KPPPA RI 2016
4	PKK Jakarta Barat	Konsep Gender dan Pengarusutamaan Gender	Kota Administrasi Jakarta Barat 2016
5	FIKES UHAMKA	Pelatihan Excellent Service FIKES UHAMKA	UHAMKA 2016
6	Sektor Pendidikan Kebersihan dan Pertamanan DKI Jakarta	Pengembangan Revolusi Mental	LPMJ Prov. DKI Jakarta 2015
7	Pelatihan Guru-Guru BK Se-Jakarta Utara	Membangun Ketahananmalangan Guru dalam rangka Membentuk Etos Kerja	MGMP BK Jakarta Utara 2015
8	Pelatihan Publik Relation untuk para Penggiat TBM	Public Speaking dalam rangka Mengembangkan Kepercayaan Diri	LPMJ Prov. DKI Jakarta 2015
9	Pemda Jakarta Utara	Konsep Gender dan Pengarusutamaan Gender dalam Pembangunan	Kota Administrasi Jakut 2015

No	Nama Pertemuan Ilmiah/Seminar	Judul Makalah	Waktu dan Tempat
10	Rumah Susun Marunda	Kegiatan Parenting Skill di RUSUN Marunda	Kota Administrasi Jakut 2015
11	Forum Anak Jakarta Utara	Pengenalan Gender Sejak dini	Kota Administrasi Jakut 2015
12	Guru SMA Muhammadiyah 3	Motivasi Guru di SMA Muhammadiyah 3 Limau	SMA 3 Limau 2015
13	Pusat Pengembangan Kompetensi Guru dan Kejuruan (P2KKGK)	Pelatihan Kompetensi bagi Guru SMK DKI Jakarta Program Keahlian Pemasaran bekerjasama dengan DU/DI	Puslatdikjur 2015

H. PENGALAMAN PENULISAN MODUL/BAHAN AJAR DALAM 3 TAHUN TERAKHIR

No	Judul Modul/Bahan Ajar	Tahun
1	Ketahanmalangan	2017
2	Literasi Gender	2018
3	Perguruan Tinggi Responsif Gender	2019

I. ORGANISASI PROFESI DAN ORGANISASI KEMASYARAKATAN

No	Nama Organisasi	Jenis
1	Muhammadiyah	Organisasi Kemasyarakatan
2	Aisyiyah	Organisasi Kemasyarakatan
3	Asosiasi Dosen Indonesia (ADI)	Organisasi Profesi
4	Asosiasi Sarjana dan Praktisi Administrasi Perkantoran Indonesia (ASPAPI)	Organisasi Profesi

Demikian Biodata ini saya buat dengan sesungguhnya dan penuh rasa tanggung jawab.

Jakarta, Januari 2020
 Dr. Sri Astuti, M.Pd
 NIDN. 03.0212.7002

CURRICULUM VITAE

A. IDENTITAS DIRI

1	Nama Lengkap	:	Dr. Onny Fitriana Sitorus, M.Pd														
2	Jabatan Fungsional	:	Lektor														
3	NPD/NIDN	:	D.04.0615/03.0706.7202														
4	NPWP	:	25.563.791.0.412.000														
5	Tempat dan Tanggal Lahir	:	Jakarta, 7 November 1972														
6	Alamat Rumah	:	Jl. Turi VII No. 244 Depok II Timur														
7	Nomor Telp/Faks/Hp	:	081297940659														
8	Alamat Kantor	:	Jl. Tanah Merdeka, Kp. Rambutan, Ps. Rebo Jakarta Timur														
9	Nomor Telp/Faks	:	021-8400341/0218411351														
10	Alamat Email	:	onnyfitriana@uhamka.ac.id														
11	Mata Kuliah yang diampu	:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">1.</td> <td>Statistika Penelitian</td> </tr> <tr> <td style="text-align: center;">2.</td> <td>Metodologi Penelitian</td> </tr> <tr> <td style="text-align: center;">3.</td> <td>Seminar Proposal</td> </tr> <tr> <td style="text-align: center;">4.</td> <td>Literasi Gender</td> </tr> <tr> <td style="text-align: center;">5.</td> <td>Ketahanmalangan</td> </tr> <tr> <td style="text-align: center;">6.</td> <td>Kualitas Layanan Jasa</td> </tr> <tr> <td style="text-align: center;">7.</td> <td>Strategi Promosi Pemasaran</td> </tr> </table>	1.	Statistika Penelitian	2.	Metodologi Penelitian	3.	Seminar Proposal	4.	Literasi Gender	5.	Ketahanmalangan	6.	Kualitas Layanan Jasa	7.	Strategi Promosi Pemasaran
1.	Statistika Penelitian																
2.	Metodologi Penelitian																
3.	Seminar Proposal																
4.	Literasi Gender																
5.	Ketahanmalangan																
6.	Kualitas Layanan Jasa																
7.	Strategi Promosi Pemasaran																

B. RIWAYAT PENDIDIKAN

	S1	S2	S3
Nama Perguruan Tinggi	IKIP Muhammadiyah Jakarta, sekarang, Universitas Muhammadiyah Prof. DR. HAMKA (UHAMKA)	Universitas Negeri Jakarta	Universitas Negeri Jakarta
Bidang Ilmu	Pendidikan Tata Niaga	Manajemen Pendidikan	Manajemen Pendidikan
Tahun Lulus	1995	1999	2018
Gelar	S.Pd	M.Pd	Dr.

C. RIWAYAT JABATAN

Jabatan	Masa Jabatan	Unit
Sekretaris Program Studi Administrasi Pendidikan (S2)	2004-2011	PPs UHAMKA, sekarang SPs UHAMKA
Ketua Lab IPS	2016-2017	FKIP UHAMKA
Sekretaris Program Studi Pendidian Ekonomi (S1)	2017-2020	Pendidikan Ekonomi FKIP UHAMKA

D. PENGALAMAN PENELITIAN DALAM 3 TAHUN TERAKHIR

No	Tahun	Judul Penelitian	Sumber Dana
1	2018	EVALUASI PROGRAM PRAKTEK KERJA LAPANGAN Penelitian Evaluatif Berdasarkan Context, Input, Process, Product (CIPP) pada Program Studi Pendidikan Ekonomi FKIP UHAMKA	Lemlitbang UHAMKA
2	2018	Evaluasi Program Pelaksanaan Seateacher di Thailand dan Filipina bagi Mahasiswa FKIP UHAMKA Menggunakan Model CIPP	Lemlitbang UHAMKA

E. PENGALAMAN PENGABDIAN KEPADA MASYARAKAT DALAM 3 TAHUN TERAKHIR

No	Tahun	Judul Pengabdian	Sumber Dana
1	2018	Pelatihan Belajar Bisnis Online bagi Pemuda Karang Taruna Kelurahan Jatiwarna Pondok Melati Bekasi	LPPM UHAMKA
2	2019	Penguatan Mutu Pendidik dan Tenaga Kependidikan melalui Pemenuhan Standar Pendidik dan Tenaga Kependidikan di SMK Muhammadiyah Cariu	LPPM UHAMKA
3	2019	Pelatihan Kepemimpinan Guru dan Kepala Sekolah SD Muhammadiyah 4 Cawang	LPPM UHAMKA

F. PENGALAMAN PENULISAN ARTIKEL ILMIAH PADA JURNAL DALAM 3 TAHUN TERAKHIR

No	Judul Artikel Ilmiah	Volume/Nomor/Tahun	Nama Jurnal
1	Organizational Commitment of Head of Department of Muhammadiyah's Higher Education Institution In Kopertis (Private Higher Education Cootrdination) Region III	1/2/2017	Journal of Education Research in Administration and Management (JERAM)
2	Effect of Quality Learning Media on Student Motivation at Student's SMK Negeri 13 Jakarta	1/1/2017	Proceeding 8 th Pedagogy International Seminar 2017
3	Pelaksanaan Lesson Study dalam Pembelajaran Korespondensi Bahasa Indonesia pada Bidang Keahlian Administrasi Perkantoran Program Studi Pendidikan Ekonomi FKIP UHAMKA	1/1/2018	Prosiding Seminar Nasional Era Revolusi UMJ

G. PENGALAMAN PENYAMPAIAN MAKALAH SECARA ORAL PADA PERTEMUAN/ SEMINAR ILMIAH DALAM 3 TAHUN TERAKHIR

No	Nama Pertemuan Ilmiah/Seminar	Judul Makalah	Waktu dan Tempat
1	Diklat Profesi Guru	Penelitian Tindakan Kelas	Kampus FKIP UHAMKA Jalan Tanah Merdeka Kp. Rambutan, PsRebo
2	Diklat Penguatan Kepala Sekolah	Teknik Analisis Manajemen	Kampus Diklat Wisma Hijau Jalan Mekarsari Raya Cimanggis-Depok

H. PENGALAMAN PENULISAN MODUL/BAHAN AJAR DALAM 3 TAHUN TERAKHIR

No	Judul Modul/Bahan Ajar	Tahun
1	Kualitas Layanan Jasa	2016
2	Strategi Promosi Pemasaran	2017

I. ORGANISASI PROFESI DAN ORGANISASI KEMASYARAKATAN

No	Nama Organisasi	Jenis
1	Muhammadiyah	Organisasi Masyarakat
2	Aisyiyah	Organisasi Masyarakat
3	Asosiasi Dosen Indonesia (ADI)	Organisasi Profesi
4	Asosiasi Profesi Pendidikan Ekonomi Indonesia (ASPROPENDO)	Organisasi Profesi

Demikian Daftar Riwayat Hidup ini saya buat dengan sesungguhnya dan penuh rasa tanggung jawab.

Jakarta, Januari 2020

Dr. Onny Fitriana Sitorus, M.Pd
NIDN. 03.0706.7202

**LAPORAN KERJA PENELITIAN**

NIDN 0317058602
NAMA LENGKAP : Meyta Dwi Kurniasih M.Pd.
FAKULTAS/PROGRAM STUDI : Keguruan dan Ilmu Pendidikan/S1 Pendidikan Matematika
JABATAN AKADEMIS : Asisten Ahli
PANGKAT/GOL RUANG : Pangkat Penata Muda Tingkat I, III/b

Penelitian Mandiri

Jumlah: 0

No.	Tahun	Judul	Lokasi
-----	-------	-------	--------

Jenis Luaran: Buku/Bahan Ajar

Jumlah: 1

No.	Judul	Buku
-----	-------	------

- | | | |
|---|-------------------------------|---|
| 1 | Tangkas Geometri Transformasi | Penerbit: Rajawali Press
ISBN : 978-602-425-290-8
Jml. Halaman :122 |
|---|-------------------------------|---|

Jenis Luaran: Publikasi Jurnal

Jumlah: 8

No.	Judul	Penulis Publikasi	Jurnal
-----	-------	-------------------	--------

- | | | | |
|---|--|-----------------------------|---|
| 1 | Kendali Diri Siswa Terhadap Prestasi Belajar Matematika | • Meyta Dwi Kurniasih M.Pd. | Jurnal Inovasi
ISSN : 2252-536X
Volume : 0
Nomor : 2
Halaman : 69 - 76
URL: |
| 2 | Forecasting Jumlah Penumpang Pesawat Domestik Di Indonesia Tahun 2014-2020 | • Meyta Dwi Kurniasih M.Pd. | Jurnal Matematika, Aplikasi dan Pembelajaran
ISSN : 1412-8632
Volume : 13
Nomor : 1
Halaman : 35 - 42
URL: http://journal.unj.ac.id/jurnalunj/?page=view&id=161 |
| 3 | Penerapan Metode Inkuiri Untuk Kemampuan Berpikir Kritis Matematis Mahasiswa Calon Guru | • Meyta Dwi Kurniasih M.Pd. | Jurnal Euclid
ISSN : 2355-1712/ e ISSN 2541-4453
Volume : 4
Nomor : 2
Halaman : 417 - 427
URL: http://jurnal.unswagati.ac.id/index.php/Euclid/article/view/417 |
| 4 | Pengaruh Pembelajaran REACT Terhadap Kemampuan Berpikir Kritis Matematis Ditinjau dari Habit | • Meyta Dwi Kurniasih M.Pd. | Kalamatika
ISSN : 2527-5607/ P-ISSN 2527-5615
Volume : 2 |



of Mind Mahasiswa		Nomor : 1 Halaman : 29 - 38 URL: http://www.kalamatika.matematika-uhamka.com/index.php/kmk/article/view/48
5	Pendampingan Orang Tua Membimbing Matematika Anak di Jatiluhur, Jatiasih, Kota Bekasi	• Meyta Dwi Kurniasih M.Pd. Jurnal SOLMA ISSN : Print ISSN: 2252-584x Online ISSN: 2614-1531 Volume : 1 Nomor : 1 Halaman : 120 - 126 URL: https://journal.uhamka.ac.id/index.php/solma/article/download/659/397/
6	The Influence of Generative Learning Model Assisted with Wingeom Software to Student's Mathematical Learning Outcome	• Meyta Dwi Kurniasih M.Pd. FORMATIF Jurnal Ilmiah Pendidikan MIPA ISSN : p-issn: 2088-351x, e-issn: 2502-5457 Volume : 3 Nomor : 8 Halaman : 225 - 232 URL: http://journal.lppmunindra.ac.id/index.php/Formatif/article/view/2614/2116
7	EXTERNAL REPRESENTATION FLEXIBILITY OF DOMAIN AND RANGE OF FUNCTION	• Meyta Dwi Kurniasih M.Pd. Journal on Mathematics Education ISSN : 2087-8885 Volume : 10 Nomor : 1 Halaman : 143 - 156 URL: https://ejournal.unsri.ac.id/index.php/jme/article/view/5257/pdf
8	EXTERNAL REPRESENTATION FLEXIBILITY OF DOMAIN AND RANGE OF FUNCTION	• Meyta Dwi Kurniasih M.Pd. • Tian Abdul Aziz Ph.D. Journal on Mathematics Education ISSN : 2407-0610 Volume : 10 Nomor : 1 Halaman : 143 - 156 URL: https://ejournal.unsri.ac.id/index.php/jme/article/view/5257

Jenis Luaran: Forum Ilmiah

Jumlah: 10

No.	Nama Dosen	Judul Makalah	Penyelenggara
1	Meyta Dwi Kurniasih M.Pd. NIDN : 0317058602 Status : ketua	The influence of React Strategy Towards Mathematical Belief Forum : International Seminar on Innovation in Mathematics and Mathematics Education	Institusi : Universitas Negeri Yogyakarta Tgl. : 26/11/2014 - 30/11/2014 Tempat : Universitas Negeri Yogyakarta
2	Meyta Dwi Kurniasih M.Pd. NIDN : 0317058602 Status : ketua	Perbedaan Hasil Belajar Matematika Siswa Dengan Model Pembelajaran Kooperatif Tipe Mood Understand Recall Digest Expand Review (Murder) Dan Tipe Numbered Heads Together (NHT) Di SMP Negeri 9 Depok Forum : Seminar Nasional Pendidikan	Institusi : Universitas Muhammadiyah Prof DR HAMKA Tgl. : 22/10/2016 - 22/10/2016 Tempat : Universitas Muhammadiyah Prof DR HAMKA



Matematika UHAMKA III		
3	<p>Meyta Dwi Kurniasih M.Pd. NIDN : 0317058602 Status : ketua</p>	<p>Penerapan Metode Inkuiri Untuk Kemampuan Berpikir Kritis Matematis Mahasiswa Calon Guru Forum : Seminar Nasional Pendidikan Matematika</p> <p>Institusi : Universitas Pendidikan Matematika Tgl. : 17/12/2016 - 17/12/2016 Tempat : Universitas Pendidikan Indonesia</p>
4	<p>Meyta Dwi Kurniasih M.Pd. NIDN : 0317058602 Status : ketua</p>	<p>Penerapan Metode Inkuiri Untuk Kemampuan Berpikir Kritis Matematis Mahasiswa Calon Guru Forum : Seminar Pendidikan Matematika</p> <p>Institusi : Universitas Pendidikan Indonesia Tgl. : 17/12/2016 - 17/12/2016 Tempat : Universitas Pendidikan Indonesia</p>
5	<p>Meyta Dwi Kurniasih M.Pd. NIDN : 0317058602 Status : ketua</p>	<p>The effect of ice-breaking using stand-up comedy on students' mathematical belief system Forum : 1 st ICE STEM 2017</p> <p>Institusi : UHAMKA dan IndoMS Tgl. : 17/10/2017 - 19/10/2017 Tempat : FKIP UHAMKA</p>
6	<p>Meyta Dwi Kurniasih M.Pd. NIDN : 0317058602 Status : ketua</p>	<p>Perbedaan Hasil Belajar Matematika Siswa dengan Model Pembelajaran Kooperatif Tipe CPS dan Tipe NHT di MAN 2 Jakarta Forum : Seminar Nasional Pendidikan Matematika 5</p> <p>Institusi : UHAMKA Tgl. : 20/10/2018 - 20/10/2018 Tempat : FKIP UHAMKA Jalan Tanah Merdeka Ps Rebo, Kp Rambutan Jakarta Timur</p>
7	<p>Meyta Dwi Kurniasih M.Pd. NIDN : 0317058602 Status : ketua</p>	<p>PENGARUH MODEL PEMBELAJARAN KOOPERATIF TIPE THINK TALK WRITE(TTW) BERBANTU PREZI TERHADAP KEMAMPUAN PEMECAHAN MASALAH MATEMATIS SISWA DI SMP NEGERI 20 JAKARTA Forum : Seminar Nasional Pendidikan Matematika 5</p> <p>Institusi : UHAMKA Tgl. : 20/10/2018 - 20/10/2018 Tempat : FKIP UHAMKA Jalan Tanah Merdeka Ps Rebo, Kp Rambutan Jakarta Timur</p>
8	<p>Meyta Dwi Kurniasih M.Pd. NIDN : 0317058602 Status : ketua</p>	<p>PENGARUH MODEL PEMBELAJARAN SFE TERHADAP KEMAMPUAN KOMUNIKASI MATEMATIS SISWA KELAS VII DI SMPN 222 JAKARTA Forum : Seminar Nasional Pendidikan Matematika 5</p> <p>Institusi : UHAMKA Tgl. : 20/10/2018 - 20/10/2018 Tempat : FKIP UHAMKA Jalan Tanah Merdeka Ps Rebo, Kp Rambutan Jakarta Timur</p>
9	<p>Meyta Dwi Kurniasih M.Pd. NIDN : 0317058602 Status : ketua</p>	<p>PENGARUH MODEL PEMBELAJARAN SFaEBERBANTU LAS TERHADAP KEMAMPUAN PEMECAHAN MASALAH MATEMATIS SISWA SMPN 222 JAKARTA Forum : Seminar Nasional Pendidikan Matematika 5</p> <p>Institusi : UHAMKA Tgl. : 20/10/2018 - 20/10/2018 Tempat : FKIP UHAMKA Jalan Tanah Merdeka Ps Rebo, Kp Rambutan Jakarta Timur</p>
10		<p>PENGARUH STRATEGI KNOWLEDGE</p> <p>Institusi : UHAMKA</p>



Meyta Dwi Kurniasih M.Pd.

NIDN : 0317058602

Status : ketua

SHARINGBERBANTU SOFTWARE
GEOGEBRATERHADAP KEMAMPUAN
ANALOGI MATEMATIS SISWA DI SMA
NEGERI 5 JAKARTA

Forum : Seminar Nasional Pendidikan
Matematika 5

Tgl. : 20/10/2018 - 20/10/2018

Tempat : FKIP UHAMKA Jalan
Tanah Merdeka Ps Rebo, Kp
Rambutan Jakarta Timur

Jenis Luaran: Hak Cipta

Jumlah: 1

No.	Nama Dosen	Judul	HKI
1	Meyta Dwi Kurniasih M.Pd. NIDN : 0317058602	Profile Pendidikan Matematika Fakultas Pendidikan dan Ilmu Keguruan UHAMKA	Jenis : Paten No. Pendaftaran : 000122352 Status: terdaftar

Jenis Luaran: Luaran Lainnya

Jumlah:

No.	Luaran	Deskripsi Singkat
-----	--------	-------------------

Semua data yang saya isikan dan tercantum dalam biodata ini adalah benar dan dapat dipertanggungjawabkan secara hukum. Apabila di kemudian hari ternyata dijumpai ketidak-sesuaian dengan kenyataan, saya sanggup menerima risikonya.

Demikian biodata ini saya buat dengan sebenarnya untuk memenuhi pelaporan kinerja penelitian dosen Universitas Muhammadiyah Prof DR HAMKA.

Jakarta, 15 Januari 2020
Pembuat Kinerja Penelitian

Meyta Dwi Kurniasih M.Pd.

**LAPORAN KINERJA PENELITIAN**

NIDN 0314086804
NAMA LENGKAP :DRA IMAS RATNA ERMAWATI M.PD
FAKULTAS/PROGRAM STUDI :KEGURUAN DAN ILMU
PENDIDIKAN/S1 PENDIDIKAN FISIKA
JABATAN AKADEMIS :LEKTOR KEPALA
PANGKAT/GOL RUANG :PANGKAT PEMBINA TINGKAT I, IV/B

Jenis Luaran: PUBLIKASI JURNAL

Jumlah: 2

No.	Judul	Penulis Publikasi	Jurnal
1	PENGARUH KETRAMPILAN PROSES SAINS TERINTEGRASI KARAKTER TERHADAP HASIL BELAJAR FISIKA	♦ DRA IMAS RATNA ERMAWATI M.PD	JPF ISSN : P-ISSN: 2337-5973 - E-ISSN: 2442-4838 Volume : 7 Nomor : 1 Halaman : 106 - 115 URL: OJS.FKIP.UMMETRO.AC.ID/INDEX.PHP/FISIKA/ARTICLE/VIEW/1923
2	EFEKTIFITAS MODEL PEMBELAJARAN QUANTUM LEARNING DI TINJAU DARI METAKOGNITIF FISIKA SISWA DI SMAN 48 JAKARTA	♦ DRA IMAS RATNA ERMAWATI M.PD	JPF ISSN : 2337-5973 Volume : 8 Nomor : 1 Halaman : 24 - 32 URL: HTTP://DX.DOI.ORG/10.24127/JPF.V8I1.2600

Jenis Luaran: BUKU/BAHAN AJAR

Jumlah: 6

No.	Judul	Buku
1	BAHAS TUNTAS MATEMATIKA DAN IPA SMA	Penerbit: PT GRASINDO ISBN : GWI 703.13.7.017 Jml. Halaman :275
2	KONSEP DASAR FISIKA BERBASIS NILAI	Penerbit: UHAMKA PRESS ISBN : 978-602-1078-17-4 Jml. Halaman :145
3	ALJABAR LINIER	Penerbit: ALIA MEDIA ISBN : 978-602-71278-4-5 Jml. Halaman :85
4	SUPERTRIK KUASAI MATEMATIKA & IPA	Penerbit: PT GRAMEDIA WIDIASARANA INDONESIA ISBN : 978-6023-752041 Jml. Halaman :397
5	FISIKA MATEMATIKA	Penerbit: UHAMKA PRESS ISBN : 978-602-1078-42-6



Jml. Halaman :389

6 FISIKA DASAR I BERBASIS NILAI

Penerbit: UHAMKA PRESS
ISBN : 978-602-1078-42-4
Jml. Halaman :324

Jenis Luaran: PEMAHALAH FORUM ILMIAH

Jumlah: 11

No.	Nama Dosen	Judul Makalah	Penyelenggara
1	DRA IMAS RATNA ERMAWATI M.PD NIDN : 0314086804 Status : KETUA	PEMBUKTIAN PERSAMAAN TEORITIK DENGAN MENGGUNAKAN OSILOSKOP PADA OSILATOR RELAKSASI DENGAN RANGKAIAN OP-AMP Forum : THE 3RD INTERNATIONAL CONFERENCE ON THEORETICAL AND APPLIED PHYSICS 2013 AND SIMPOISUM FISIKA NASIONAL	Institusi : UNIVERSITAS NEGERI MALANG Tgl. : 09/10/2013 - 10/10/2013 Tempat : MALANG JAWA TIMUR
2	DRA IMAS RATNA ERMAWATI M.PD NIDN : 0314086804 Status : KETUA	EKSPERIMEN AKUISISI DATA SEDERHANA DALAM PEMBELAJARAN FISIKA Forum : SEMINAR NASIONAL JURUSAN FISIKA FMIPA UM 2015	Institusi : UNIVERSITAS NEGERI MALANG Tgl. : 19/11/2015 - 20/11/2015 Tempat : MALANG JAWA TIMUR
3	DRA IMAS RATNA ERMAWATI M.PD NIDN : 0314086804 Status : KETUA	PENGARUH BERPIKIR KREATIF DENGAN MENGGUNAKAN METODE PEMBELAJARAN INDUKTIF TERHADAP HASIL BELAJAR FISIKA PADA MATERI TEORI KINETIK GAS Forum : SNIPS 2017	Institusi : INSTITUT TEKNOLOGI BANDUNG Tgl. : 26/07/2017 - 27/07/2017 Tempat : AULA TIMUR ITB BANDUNG JABAR
4	DRA IMAS RATNA ERMAWATI M.PD NIDN : 0314086804 Status : KETUA	APLIKASI PROGRAM FOTRAN 95 PADA DINAMIKA SISTEM MASSA DAN PEGAS DENGAN MENGGUNAKAN NILAI EIGEN DAN VEKTOR EIGEN Forum : QUANTUM25	Institusi : UNIVERSITAS ACHMAD DAHLAN YOGYAKARTA Tgl. : 27/01/2018 - 27/01/2018 Tempat : INA HOTEL MALIOBORO YOGYAKARTA
5	DRA IMAS RATNA ERMAWATI M.PD NIDN : 0314086804 Status : KETUA	ANALYSIS OF CAPACITANCE OF ELECTRODES IN GAUSS LAW IN PEJAL BALL AND PEJAL CONDUCTORS Forum : SEMINAR NASIONAL FISIKA	Institusi : UNIVERSITAS RIAU Tgl. : 29/09/2018 - 29/09/2018 Tempat : HOTEL MERDEKA PEKAN BARU RIAU
6	DRA IMAS RATNA ERMAWATI	NEW METHOD IN MUON-HADRON ABSORPTION ON THX DUO2 NANO MATERIAL STRUCTURE AT 561 MHZ	Institusi : UHAMKA Tgl. : 17/10/2017 - 18/10/2017 Tempat : FKIP UHAMKA



	M.PD NIDN : 0314086804 Status : KETUA	QUANTUM GYRO-MAGNETIC Forum : INTERNATIONAL CONFERENCE OF EDUCATION SCIENCE,TECHONOLGY,ENGINERIN G OF MATHEMATICS (ICE – STEM 2017)	
7	DRA IMAS RATNA ERMAWATI M.PD NIDN : 0314086804 Status : KETUA	MINYAK JELANTAH SEBAGAI SUMBER ENERGI: PENGARUH WAKTU REAKSI DAN KECEPATAN PENGADUKAN TERHADAP VOLUME BIODIESEL Forum : KOLOKIUUM HASIL PENELITIAN	Institusi : UHAMKA Tgl. : 13/12/2018 - 14/12/2018 Tempat : FEB UHAMKA
8	DRA IMAS RATNA ERMAWATI M.PD NIDN : 0314086804 Status : KETUA	ANALISIS BANDGAP KARBON NANODOTS (C-DOTS) KULIT BAWANG MERAH MENGGUNAKAN TEKNIK MICROWAVE Forum : SEMINAR NASIONAL TEKNOKA	Institusi : FAKULTAS TEKNIK UHAMKA Tgl. : 17/11/2018 - 17/11/2018 Tempat : FAKULTAS TEKNIK UHAMKA
9	DRA IMAS RATNA ERMAWATI M.PD NIDN : 0314086804 Status : KETUA	PENGARUH PENGGUNAAN IRADIASI GAMMA TERHADAP PLASTIK POLIPROPILEN DI TINJAU DARI SIFAT MEKANIKNYA Forum : SEMINAR NASIONAL TEKNOKA	Institusi : FAKULTAS TEKNIK UHAMKA Tgl. : 17/11/2018 - 17/11/2018 Tempat : FAKULTAS TEKNIK UHAMKA
10	DRA IMAS RATNA ERMAWATI M.PD NIDN : 0314086804 Status : KETUA	ABSORBAN ION LOGAM CU (II) BERBASIS HIDROGEL SUPERABSORBAN CMC–G– PKA/NAALG DENGAN TEKNIK IRADIASI SINAR GAMMA Forum : SEMINAR NASIONAL FISIKA 2018	Institusi : UNIVERSITAS NEGERI JAKARTA Tgl. : 18/10/2018 - 18/10/2018 Tempat : FAKULTAS MIPA UNJ
11	DRA IMAS RATNA ERMAWATI M.PD NIDN : 0314086804 Status : KETUA	NEW METHOD IN MUON-HADRON ABSORPTION ON THX DUO2 NANO MATERIAL STRUCTURE AT 561 MHZ QUANTUM GYRO-MAGNETIC Forum : ICE-STEM	Institusi : UHAMKA Tgl. : 19/09/2017 - 21/09/2017 Tempat : UHAMKA JAKARTA

Jenis Luaran: HKI

Jumlah: 3

No.	Nama Dosen	Judul	HKI
1	DRA IMAS RATNA ERMAWATI M.PD	BUKU FISIKA MATEMATIKA	Jenis : PATEN SEDERHANA No. Pendaftaran : EC00201700646,24 MARET 2017



NIDN : 0314086804

Status: GRANTED

- | | | | |
|---|--|-------------------------------|---|
| 2 | DRA IMAS RATNA ERMAWATI M.PD
NIDN : 0314086804 | FISIKA DASAR I BERBASIS NILAI | Jenis : HAK CIPTA
No. Pendaftaran : EC00201804991
Status: GRANTED |
| 3 | DRA IMAS RATNA ERMAWATI M.PD
NIDN : 0314086804 | FOTONOVELA MAGNET | Jenis : HAK CIPTA
No. Pendaftaran : EC00201973405
Status: GRANTED |

Jenis Luaran: LUARAN LAIN

Jumlah:

No.	Luaran	Deskripsi Singkat
1	IMPLEMTASI LISTRIK BIOGESTER TYPE VERTIKAL DENGAN PENGADUK GUNA MENGATASI KEKURANGAN AIR BERSIH Jenis Luaran: TEKNOLOGI TEPAT GUNA	BIOMASSA / BIOGAS MERUPAKAN SALAH SATU SOLUSI TEKNOLOGI ENERGI UNTUK MENGATASI KESULITAN MASYARAKAT AKIBAT KENAIKAN HARGA BBM, TEKNOLOGI INI BISA SEGERA DIAPLIKASIKAN, TERUTAMA UNTUK KALANGAN PETERNAK SAPI. DALAM RANGKA PEMENUHAN KEPERLUAN ENERGI RUMAH TANGGA, SALAH SATU UPAYA TEROBOSAN YANG DILAKUKAN ADALAH MELAKSANAKAN PROGRAM BIO ENERGI PERDESAAN (BEP), YAITU SUATU UPAYA PEMENUHAN ENERGI SECARA SWADAYA (SELF PRODUCTION) OLEH MASYARAKAT KHUSUSNYA DI PERDESAAN. PERMASALAHAN YANG TERJADI DI PEDESAAN ADALAH BELUM MAMPU MEMANFAATKAN LIMBAH KOTORAN TERNAK SEBAGAI PENGHASIL ENERGI ALTERNATIF PENGGANTI KAYU DAN BBM, DIMANA KEGIATAN SEHARI-HARI MEREKA SANGAT TERGANTUNG PADA BBM / GAS DAN KAYU BAIK UNTUK MEMASAK MAUPUN PENERANGAN. ALAT YANG DIDISAIN SEBAGAI DIGESTER BIOGAS TERBUAT DARI DRUM YANG BERUKURAN 200 LITER, 120 LITER DAN 35 LITER. PIPA BERUKURAN 2 INCI DAN BERUKURAN 0.5 INCI YANG MUDAH DIDAPAT DENGAN BIAYA YANG RELATIF MURAH. PEMBUATAN ALAT INI SANGAT MUDAH DENGAN PROSES PEMBUATAN SEPERTI PEMOTONGAN, PENGELASAN, GERINDA DAN PENGECORAN. UNTUK SATU EKOR SAPI RATA-RATA DAPAT MENGHASILKAN 20 KG KOTORAN PER HARI, DAN SETARA DENGAN 1 M3 - 1,2 M3. PADA PROSES PENGHITUNGAN GAS METHAN YANG DIHASILKAN DARI 20 KG KOTORAN SAPI PER HARI, MAKA AKAN DIHASILKAN GAS METHAN SEBESAR CAMPURAN 0.10285 KG DAN GAS METHAN MURNI SEBESAR 0.061714 KG. KATA KU NCI: BIOGESTER; MODIFIKASI; PENGADUK, PENGELASAN
2	PELATIHAN PEMBUATAN ALAT BANTU PENGAJARAN FISIKA PADA PERCOBAAN BANDUL MATEMATIS, TEKANAN HIDROSTATIS, PENGUKURAN TEKANAN ZAT CAIR SERTA KECEPATAN DAN PERCEPATAN BAGI GURU-GURU FISIKA SLTP DI MAUMERE	ALAT PERAGA ADALAH SEMUA ATAU SEGALA SESUATU YANG BISA DIGUNAKAN DAN DAPAT DIMANFAATKAN UNTUK MENJELASKAN KONSEP-KONSEP PEMBELAJARAN DARI MATERI YANG BERSIFAT ABSTRAK ATAU KURANG JELAS MENJADI NYATA DAN JELAS SEHINGGA DAPAT



Jenis Luaran: MODEL/PROTOTYPE

MERANGSANG PIKIRAN, PERASAAN, PERHATIAN SERTA MINAT PARA SISWA YANG MENJURUS KEARAH TERJADINYA PROSES BELAJAR MENGAJAR. ALAT PERAGA DIGUNAKAN UNTUK ALAT YANG DIPAKAI UNTUK MEMBNTU DALAM PROSES BELAJAR-MENGAJAR YANG BERPERAN BESAR SEBAGAI PENDUKUNG KEGIATAN BELAJAR-MENGAJAR YANG DILAKUKAN OLEH PENGAJAR ATAU GURU. PENGGUNAAN ALAT PERAGA INI MEMPUNYAI BERTUJUAN UNTUK MEMBERIKAN WUJUD YANG RIIL TERHADAP BAHAN YANG DIBICARAKAN DALAM MATERI PEMBELAJARAN. ALAT PERAGA YANG DIPAKAI DALAM PROSES BELAJAR-MENGAJAR DALAM GARIS BESARNYA MEMILIKI MANFAAT MENAMBAHKAN KEGIATAN BELAJAR PARA SISWA, MENGHEMAT WAKTU BELAJAR, MEMBERIKAN ALASAN YANG WAJAR UNTUK BELAJAR, SEBAB DAPAT MEMBANGKITKAN MINAT PERHATIAN DAN AKTIVITAS PARA SISWA. KEGIATAN PELATIHAN INI DILAKUKAN DI STKIP MAUMERE NTT PADA HARI KAMIS DAN JUMAT TANGGAL 23 -24 FEBRUARI 2017. PESERTA DALAM PELATIHAN ALAT PERAGA INI ADALAH GURU - GURU SMP DAN SMA YANG BERJUMLAH 70 GURU DI MAUMERE NTT. TEKNIK YANG DIGUNAKAN DALAM MENYAMPAIKAN MATERI PELATIHAN ADALAH PELATIHAN PEMBUATAN ALAT PERAGA..

3 WORKSHOP PEMBUATAN “ALARM AIR PENUH” BERBASIS TRANSISTOR NPN SEBAGAI MEDIA PEMBELAJARAN FISIKA DI SMA

Jenis Luaran: MODEL/PROTOTYPE

ALAT PERAGA ADALAH SEMUA ATAU SEGALA SESUATU YANG BISA DIGUNAKAN DAN DAPAT DIMANFAATKAN UNTUK MENJELASKAN KONSEP-KONSEP PEMBELAJARAN DARI MATERI YANG BERSIFAT ABSTRAK ATAU KURANG JELAS MENJADI NYATA DAN JELAS SEHINGGA DAPAT MERANGSANG PIKIRAN, PERASAAN, PERHATIAN SERTA MINAT PARA SISWA YANG MENJURUS KEARAH TERJADINYA PROSES BELAJAR MENGAJAR. ALAT PERAGA DIGUNAKAN UNTUK ALAT YANG DIPAKAI UNTUK MEMBNTU DALAM PROSES BELAJAR-MENGAJAR YANG BERPERAN BESAR SEBAGAI PENDUKUNG KEGIATAN BELAJAR-MENGAJAR YANG DILAKUKAN OLEH PENGAJAR ATAU GURU. PENGGUNAAN ALAT PERAGA INI MEMPUNYAI BERTUJUAN UNTUK MEMBERIKAN WUJUD YANG RIIL TERHADAP BAHAN YANG DIBICARAKAN DALAM MATERI PEMBELAJARAN. ALAT PERAGA YANG DIPAKAI DALAM PROSES BELAJAR-MENGAJAR DALAM GARIS BESARNYA MEMILIKI MANFAAT MENAMBAHKAN KEGIATAN BELAJAR PARA SISWA, MENGHEMAT WAKTU BELAJAR, MEMBERIKAN ALASAN YANG WAJAR UNTUK BELAJAR, SEBAB DAPAT MEMBANGKITKAN MINAT PERHATIAN DAN AKTIVITAS PARA SISWA. KEGIATAN PELATIHAN INI DILAKUKAN DI SMA MUHAMMADIYAH 23 JAKARTA PADA HARI KAMIS 21 FEBRUARI 2019. PESERTA DALAM PELATIHAN ALAT PERAGA INI ADALAH SISWA – SISWA SMA YANG BERJUMLAH 40 ORANG. TEKNIK YANG



DIGUNAKAN DALAM MENYAMPAIKAN MATERI PELATIHAN ADALAH PELATIHAN PEMBUATAN ALAT PERAGA BERUPA ALARM.

Jenis Luaran: PPENYELENGGARA FORUM ILMIAH

Jumlah: 6

No.	Nama Kegiatan	Mitra & Pelaksana	Pelaksanaan
1	Tahun: 2016 SEMINAR NASIONAL EDIFISIKA DAN NEGERI MADANI TINGKAT NASIONAL	Unit Pelaksana : PENDIDIKAN FISIKA UHAMKA DAN HIMPUNAN FISIKA INDONESIA Mitra / Sponsorship : BATAN DAN LIPPI	Tgl. : 05/03/2016 - 05/03/2016 Tempat : UHAMKA PASAR REBO JAKARTA TIMUR
2	Tahun: 2015 WORKSHOP ALAT PERAGA DISPERSI CAHAYA TINGKAT REGIONAL	Unit Pelaksana : PENDIDIKAN FISIKA UHAMKA DAN HIMPUNAN FISIKA INDONESIA Mitra / Sponsorship : MGMP JAKARTA	Tgl. : 20/08/2015 - 20/08/2015 Tempat : AULA LT 6 GD A FKIP UHAMKA JAKARTA
3	Tahun: 2017 WORKSHOP UNTUK GURU-GURU FISIKA DKI BEDAH KISI-KISI SOAL UN DAN UASBN MATA PELAJARAN FISIKA TINGKAT REGIONAL	Unit Pelaksana : PENDIDIKAN FISIKA FKIP UHAMKA Mitra / Sponsorship : MGMP FISIKA DKI	Tgl. : 08/02/2017 - 08/02/2017 Tempat : AULA SYAFEI MAARIF LT 6 GD A FKIP UHAMKA
4	Tahun: 2017 WORKSHOP PELATIHAN PENULISAN SOAL SOAL BERBASIS CBT UNTUK GURU-GURU FISIKA DI BEKASI TINGKAT REGIONAL	Unit Pelaksana : PENDIDIKAN FISIKA FKIP UHAMKA Mitra / Sponsorship : MGMP FISIKA BEKASI	Tgl. : 23/02/2017 - 24/02/2017 Tempat : SANGGAR MGMP FISIKA BEKASI SMA NEGERI 4 TAMBUN
5	Tahun: 2017 SEMINAR NASIONAL EDUFISIKA DAN NEGERI MADANI II TINGKAT NASIONAL	Unit Pelaksana : PENDIDIKAN FISIKA FKIP UHAMKA Mitra / Sponsorship : HFI DAN BATAN	Tgl. : 04/03/2017 - 04/03/2017 Tempat : AULA SYAFEI MAARIF LT 6 GD A FKIP UHAMKA
6	Tahun: 2018 SEMINAR NASIONAL FISIKA (FISIKAWAN DIDALAM KELAS:IMPLEMENTASI PEMBELAJARAN BERKARAKTER) TINGKAT NASIONAL	Unit Pelaksana : PENDIDIKAN FISIKA FKIP UHAMKA Mitra / Sponsorship : HFI, BATAN DAN LIPPI	Tgl. : 03/03/2018 - 03/03/2018 Tempat : AULA AHMAD DAHLAN GD A UHAMKA

PENELITIAN MANDIRI

Jumlah: 1

No.	Tahun	Judul	Lokasi
1	2015	ANALISIS DERET FOURIER UNTUK MENENTUKAN PERSAMAAN FUNGSI GELOMBANG SINUSOIDAL ARUS AC PADA OSILOSKOP Anggaran: Rp. 5.000.000,- Sumber Dana: Non-Pemerintah	LABORATORIUM FISIKA UHAMKA

Jenis Luaran: PENELITIAN DIKTI

Jumlah: 0

No.	Nama Skema Penelitian	Judul Penelitian	Lama Penelitian	Revenue Penelitian
-----	-----------------------	------------------	-----------------	--------------------

**Jenis Penelitian Internal: PENELITIAN PENGEMBANGAN IPTEK (PPI)**

Jumlah: 4

No.	Nama Peneliti	Judul Penelitian	Batch Penelitian
1	Ketua: DRA IMAS RATNA ERMAWATI M.PD	PENGEMBANGAN DAN IMPLEMENTASI DISTANCE LEARNING DALAM COVID-19 MENGGUNAKAN SCHOODOLOGY DAN ZOOM TERINTEGRASI KARAKTER (UNTUK MATA KULIAH FISIKA MATEMATIKA DI FKIP UHAMKA)	BATCH 2 - 2020
2	Ketua: DRA IMAS RATNA ERMAWATI M.PD	PENGEMBANGAN MEDIA PEMBELAJARAN FISIKA MENGGUNAKAN ANDROID BERBASIS KARAKTER UNTUK SISWA TUNA RUNGU (SLB – B)	BATCH 1 - 2019
3	Ketua: DRA IMAS RATNA ERMAWATI M.PD	MINYAK JELANTAH SEBAGAI SUMBER ENERGI	BATCH 1 - 2018
4	Ketua: DRA IMAS RATNA ERMAWATI M.PD Anggota 1: WAHYU DIAN LAKSANAWATI S.PD, M.SI Anggota 2: DR LISZULFAH ROZA S.SI, MIS	PEMBUATAN LAPISAN KONDUKTIF ELEKTRODA TRANSPARAN NANOPARTIKEL PERAK MENGGUNAKAN METODE REDUKSI KIMIA SECARA LANGSUNG	BATCH 1 - 2017

Semua data yang saya isikan dan tercantum dalam biodata ini adalah benar dan dapat dipertanggungjawabkan secara hukum. Apabila di kemudian hari ternyata dijumpai ketidak-sesuaian dengan kenyataan, saya sanggup menerima risikonya.

Demikian biodata ini saya buat dengan sebenarnya untuk memenuhi pelaporan kinerja penelitian dosen Universitas Muhammadiyah Prof DR HAMKA.

Jakarta, 02 Juni 2020
Pembuat Kinerja Penelitian

DRA IMAS RATNA ERMAWATI M.PD



Afif Abdurrozak

Profil Details

Gander / Age : Male / 22th
Place / Date of Birth : Magelang / 8 October 1997
Nationality : Indonesia

Experience

Chairman of Students Physics Assosiation UHAMKA (2016-2017)
Member of Dedication Society about the Introduction of Science Tools in An-Nuriyah Boarding School (2017)
Member of Social Field in BEM FKIP UHAMKA (2017-2018)
Chairman of the group PKM-KC Development Of Biocensor Cholesterol with Particle Nano ZnO as Electrode Censor Matter. (2018)
Science Laboratory Assistant in Science Laboratory of FKIP UHAMKA (2018-2019)
Private Tutor at Educate (2019)
Research Attachment at Universiti Teknologi Petronas (2019)

Education

Elementary School in SDN 3 Kutabumi, Kabupaten Tangerang (2003-2009)
Junior High School in SMPN 1 Pasarkemis (2009-2012)
Senior High School in SMAN 11 Kabupaten Tangerang (2012-2015)
Bachelor's Degree in Muhammadiyah University Prof. DR. HAMKA, Teacher Training and Education Faculty Primary School Teacher Education, Student of Physics Education (2015-2019)

Resume

I am Afif Abdurrozak. I just finished my bachelor's degree of Physics Education. Recently, I just made thesis to achieve my degree with titled "The Effect of a Liveboard-Based Blended Learning Model in Terms of Affective Aspects in Modern Physics Courses". Which I used blended learning model to look for the effect of affective aspects learning supported by liveboard application. My biggest reason using this model because i could optimize and combine my abilities in the fields of technology and education.

Best Regards

Afif Abdurrozak
Indonesia



Kp. Pangodokan Kidul
RT.04/03 No. 104,
Kutabumi, Pasarkemis,
Kab. Tangerang, 15560



+6289602605114



afifabdurrozak@gmail.com

Instagram : afifabdurrozak



Twitter : @afifabdurrozak

WA : +6289602605114



Aisyah Fitriana



Personal Details

Gender / Age : Female / 21
Place / date of birth : Depok / February 11th 1997
Nationally : Indonesia
Religion : Moslem

Contact



Jl Jimun II No 108 Rt 02/02
Abadijaya, Sukmajaya,
Depok 16417



+62 82261995005



aisyah1501115006@gmail.com



Education



Abadijaya 3 Elementary School
2003-2009



3 Depok Junior High School
2009-2012



Plus PGRI Cibinong Senior High School
2012-2015



University of Muhammadiyah Prof. DR. HAMKA
Faculty of Teacher Training and Education
2015-2019

Experience

- Assistant Laboratory of Modern Physics Class in Physics Laboratory FKIP UHAMKA (2018)
- Appertince Teacher in 48 Jakarta Senior High School (2018/2019)
- Research Member of "Proof of the effect electric current on function of tara calor using total derivative" (2017/2018)
IOP Conf. Series : Journal of Physics: Conf Series 948 (2018). doi : 10.1088/1742-6594/948/1/012070

Resume

I am Aisyah Fitriana. I am a recent graduate bachelor's degree of Education in Muhammadiyah Prof. DR. HAMKA University. I have experienced in teaching and learning activities. I am interest in research and development of Physics, Education, and Techonology. My first best research is mathematical physics in 2017, my article until published indexed scopus. My final research year project of "Development of Physics Higher Thingking Skills Test Integrated Character Value". Because at this time, education has entered the 4.0 revolution. One of the current curriculum policies support the development of technology and education. Therefore now, I am very interest to combine research in the field of technology and education.

Best Regards,

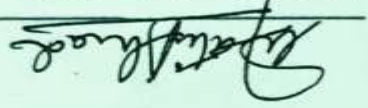
Aisyah Fitriana
Indonesia

CERTIFICATE OF ACKNOWLEDGEMENT

Afif Abdurrozak

ATTENDED

Research Attachment at Universiti Teknologi PETRONAS
from 18th - 28th November 2019



AP Dr Wan Fatimah Wan Ahmad
Head, Centre of Social Innovation
Universiti Teknologi PETRONAS
28th November 2019



UNIVERSITI
TEKNOLOGI
PETRONAS



UNIVERSITI
TEKNOLOGI
PETRONAS

CERTIFICATE OF ACKNOWLEDGEMENT

Aisyah Fitriana

ATTENDED

*Research Attachment at Universiti Teknologi PETRONAS
from 18th - 28th November 2019*

AP Dr Wan Fatimah Wan Ahmad
Head, Centre of Social Innovation
Universiti Teknologi PETRONAS
28th November 2019



[ICCOINS2020]: Notification of Acceptance for paper #1570626811 (Analysis User Interface: Mobile Application to Blended Learning Model)

1 message

iccoins2020@utp.edu.my <iccoins2020=utp.edu.my@edas.info>
Reply-to: iccoins2020@utp.edu.my
To: S. Astuti <aisyah1501115006@gmail.com>

Tue, Apr 28, 2020 at 08:55

Dear Mrs. S. Astuti

We are pleased to inform that your paper #1570626811 (Analysis User Interface: Mobile Application to Blended Learning Model) has been accepted for ICCOINS2020. Due to the current situation of Covid-19, please be informed that the conference has been shifted to a new date, i.e., **13-15 July 2021**, at the same venue which is Borneo Convention Center, Kuching, Sarawak.

In view of the new date, we value your work and are very hopeful that you are still interested to join us in sharing your work with the other researchers.

For camera ready submission, please revise your paper according to the comments given, and also ensure your paper is formatted according to IEEE format provided in ICCOINS 2020 website. In addition, please also ensure that the paper similarity index does not exceed 30%. Failure to do so may result in rejection of your paper automatically by EDAS.

Please note that the **due date for registration and submission of camera ready paper** will be as follow:

1. Early Bird - 30th September 2020
2. Normal Registration - 31st December 2020

A separate email will be sent later for method and link for payment. Do follow the latest news regarding the conference at the following link: <http://estcon.utp.edu.my/iccoins/>. Thank you.

Review 1

Comments to Authors: Please highlight to the authors the strengths and weaknesses of their paper and justify your assessment. Please indicate any changes that should be made to the paper if it is accepted.

Strengths

This work involves respondents outside Malaysia.

Weaknesses

Title of the paper needs revising. Confusing. Abstract - difficult to follow. Please rewrite. What is this paper about??? Please rewrite. Describe the research problems and specify the objectives clearly. References - mixture of formats

Review 2

Comments to Authors: Please highlight to the authors the strengths and weaknesses of their paper and justify your assessment. Please indicate any changes that should be made to the paper if it is accepted.

This paper presents usability study of the developed mobile application for blended learning. My comments for improvement are as follows:

1. The abstract is lacking of critical issues that the study wants to address and the impact of study.
2. How blended learning theory is implemented in the developed mobile application?

3. Bar graph in Figure 5 can be improved. Scale of y-axis should start with 1.
 4. In page 3, final paragraph, there is a statement "Then, second principle, the application installation process is easy to do and process can be used in all Android versions with all screen resolutions." The second principle, natural usage does not refer to easy installation. That principle should focus more to UI. Please check other studies usability principles as well. It needs to follow the title which is user interface.
 5. Too many errors on sentence structures and grammar starting from the title until the end of the paper. Please proofread.
 6. Add more recent references.
-

Best regards,

Chair,
ICCOINS2020
International Conference on Computer and Information Sciences 2020 (ICCOINS2020) Computer
and Information Sciences Dept.
Universiti Teknologi PETRONAS31750
Seri Iskandar
Perak, MALAYSIA.
T : +6053687402 | F: +6053656180
E : iccoins2020@utp.edu.my
W: <http://estcon.utp.edu.my/iccoins>

[ICCOINS2020]: Notification of Acceptance for paper #1570627161 (Development of Blended Learning Media Using Character-Based Flipbook Smartphone)

Inbox x



iccoins2020@utp.edu.my <iccoins2020=utp.edu.my@edas.info>
to me ▾

Apr 28, 2020, 8:58 AM



Dear Mrs. I. Ermawati

We are pleased to inform that your paper #1570627161 (Development of Blended Learning Media Using Character-Based Flipbook Smartphone) has been accepted for ICCOINS2020. Due to the current situation of Covid-19, please be informed that the conference has been shifted to a new date, i.e., **13-15 July 2021**, at the same venue which is Borneo Convention Center, Kuching, Sarawak.

In view of the new date, we value your work and are very hopeful that you are still interested to join us in sharing your work with the other researchers.

For camera ready submission, please *revise* your paper according to the comments given, and also ensure your paper is *formatted* according to IEEE format provided in ICCOINS 2020 website. In addition, please also *ensure* that the paper similarity index does not exceed 30%. Failure to do so may result in rejection of your paper automatically by EDAS.

Please note that the **due date for registration and submission of camera ready paper** will be as follow:

1. Early Bird - 30th September 2020
2. Normal Registration - 31st December 2020

A separate email will be sent later for method and link for payment. Do follow the latest news regarding the conference at the following link: <http://estcon.utp.edu.my/iccoins/>. Thank you.

Review 1

Comments to Authors: Please highlight to the authors the strengths and weaknesses of their paper and justify your assessment. Please indicate any changes that should be made to the paper if it is accepted.

need to revise the title. it has redundant words the paper is not following IEEE paper format

the abstract is not clear. the authors did mentioned the aims of the work however it is very hard to understand. the authors need to send the paper to proofreader to increase readability.

some references do not have years

need to explain in brief on Brog and Gall development methodology

Table 1 need to be revisit

Table 1 and table 2 were not referred in the paper

the work mentioned conducting pre- and post-test in the result section, however it was not mentioned in the abstract

what is written in Methodology Section is mismatch with the reported result in Result Section. in the methodology section, it was mentioned that authors do some development, however, in the result section, the authors reported on the pre and post-test

Review 2

Comments to Authors: Please highlight to the authors the strengths and weaknesses of their paper and justify your assessment. Please indicate any changes that should be made to the paper if it is accepted.

1. Use IEEE format (two columns)
2. typo in the title
3. In the abstract, "This study aims to determine the design stages of developing blended learning smartphone media learning products..." How did you determine the design stages?
4. The abstract lacks of info on critical issues that the study tries to solve, methodology and impact of study
5. citation format is not consistent through out the paper
6. Too many errors in sentence structure, grammar and spelling. Please proofread
7. This is project-based paper. It would be better to interject some research elements.
8. Methodology can still be improved. It is too shallow.
9. Tables are not nicely presented.
10. Graph 1 should be presented in English
11. Add few more recent references

Best regards,

Chair,
ICCOINS2020
International Conference on Computer and Information Sciences 2020 (ICCOINS2020)
Computer and Information Sciences Dept.
Universiti Teknologi PETRONAS
31750 Seri Iskandar
Perak, MALAYSIA.
T : +6053687402 | F: +6053656180
E : iccoins2020@utp.edu.my
W: <http://estcon.utp.edu.my/iccoins>

Meyta Dwi Kurniasih

6:53 AM (5 hours ago)

to me

----- Forwarded message -----

Dari: iccoins2020@utp.edu.my <iccoins2020@utp.edu.my>

Date: Sel, 28 Apr 2020 09.02

Subject: [ICCOINS2020]: Notification of Acceptance for paper #1570627526 (The Effect of Character-based Teaching Flipbook Media on the Result of Calculus Learning)

To: Meyta D. Kurniasih <meyta.dkurniasih@uhamka.ac.id>

Dear Mrs. Meyta Kurniasih

We are pleased to inform that your paper #1570627526 (The Effect of Character-based Teaching Flipbook Media on the Result of Calculus Learning) has been accepted for ICCOINS2020. Due to the current situation of Covid-19, please be informed that the conference has been shifted to a new date, i.e., **13-15 July 2021**, at the same venue which is Borneo Convention Center, Kuching, Sarawak.

In view of the new date, we value your work and are very hopeful that you are still interested to join us in sharing your work with the other researchers.

For camera ready submission, please *revise* your paper according to the comments given, and also ensure your paper is *formatted* according to IEEE format provided in ICCOINS 2020 website. In addition, please also *ensure* that the paper similarity index does not exceed 30%. Failure to do so may result in rejection of your paper automatically by EDAS.

Please note that the **due date for registration and submission of camera ready paper** will be as follow:

1. Early Bird - 30th September 2020
2. Normal Registration - 31st December 2020

A separate email will be sent later for method and link for payment. Do follow the latest news regarding the conference at the following link: <http://estcon.utp.edu.my/iccoins/>. Thank you.

Review 1

Comments to Authors: Please highlight to the authors the strengths and weaknesses of their paper and justify your assessment. Please indicate any changes that should be made to the paper if it is accepted.

Strength:

1. Introducing flipbook innovative teaching tool.
2. Theory of character is introduced. Weakness:
3. The discussion of results to character building/theory are missing - this is the contribution of this work.

Review 2

Comments to Authors: Please highlight to the authors the strengths and weaknesses of their paper and justify your assessment. Please indicate any changes that should be made to the paper if it is accepted.

Strengths: Flip Book vs Traditional Teaching Method

Weaknesses: Rewrite the whole abstract. Only include summary of the result. Also, include the contribution of this research.

Poorly written paper with lots grammatical errors and incomplete/too lengthy sentences The paper needs proofreading

The authors are using both APA and IEEE styles. Please redo it, and only use IEEE referencing style (e.g. (Herrington, 2008) [2]) / Coon (Zubaedi, 2011)

The figure is too small and unclear --> Fig 1. (a) Main menu screen; (b) Menu Flipbook screen

Explain more details on the the research design (Methodology --> used was the PostTest Only Control Group Design) and Abstract (results of the analysis calculation on the analysis prerequisite test that is using the post test sample)

The table 1 is not readable (Table 1 Percentage of each Character Development). Make the table into landscape format across whole two columns.

The sentence is long and confusing. Please rewrite clearly --> This study, the retrieval is character questionnaire data and primary data of post-test learning outcomes

Is there observation done? Is not stated in the Methodology section but it is in the result section --> Data obtained, character development from character questionnaires and observations are not much different. The difference in questionnaire and observation values occurs because the characters present in students cannot be observed optimally.

The discussion is too abstract and too brief. Data obtained, character development from character questionnaires and observations are not much different --> So, flip book is not good or not suitable, but why? Please explain clearly.

So that the success of character education is not determined by the role of educators in learning but is also determined by the social environment in providing situations that are conducive to character development [12] --? How does this influence your study and the role of flip book? Please explain clearly.

But, the paper concludes the finding as "The conclusion is "there is a significant influence on the use of flipbook teaching media in physics learning on calculus learning outcomes" --> But, it seems contradict with above statements.

For Graph 1--> Rewrite as Figure 1 --> Please add English language too as it ease the readers from various background.

Is this the correct format --> X2calculated (experimental class)

Spelling Error --> Tabel 1.Uji Hipotesis. Please use English language.

The study is about flip book for the subject Calculus. But, why do the authors measure on character honest, disciplined, curious, creative , hard work and responsibility. It is confusing for readers. Please explain it more clearly to increase the readability and contribution of this study/paper.

Format of the references --> IEEE only. Add latest literature from year 2018, 2019 and 2020.

Best regards,

Chair,
ICCOINS2020
International Conference on Computer and Information Sciences 2020 (ICCOINS2020)
Computer and Information Sciences Dept.
Universiti Teknologi PETRONAS
31750 Seri Iskandar
Perak, MALAYSIA.
T : +6053687402 | F: +6053656180
E : iccoins2020@utp.edu.my
W: <http://estcon.utp.edu.my/iccoins>



[ICCOINS2020]: Notification of Acceptance for paper #1570627246 (Analysis of Effectiveness Character Value in Blended Learning)

1 message

iccoins2020@utp.edu.my <iccoins2020=utp.edu.my@edas.info>

Tue, Apr 28, 2020 at 08:59

Reply-to: iccoins2020@utp.edu.my

To: Onny Fitriana Sitorus <afifabdurrozak@gmail.com>

Dear Mrs. Onny Sitorus

We are pleased to inform that your paper #1570627246 (Analysis of Effectiveness Character Value in Blended Learning) has been accepted for ICCOINS2020. Due to the current situation of Covid-19, please be informed that the conference has been shifted to a new date, i.e., **13-15 July 2021**, at the same venue which is Borneo Convention Center, Kuching, Sarawak.

In view of the new date, we value your work and are very hopeful that you are still interested to join us in sharing your work with the other researchers.

For camera ready submission, please *revise* your paper according to the comments given, and also ensure your paper is *formatted* according to IEEE format provided in ICCOINS 2020 website. In addition, please also *ensure* that the paper similarity index does not exceed 30%. Failure to do so may result in rejection of your paper automatically by EDAS.

Please note that the **due date for registration and submission of camera ready paper** will be as follow:

1. Early Bird - 30th September 2020
2. Normal Registration - 31st December 2020

A separate email will be sent later for method and link for payment. Do follow the latest news regarding the conference at the following link: <http://estcon.utp.edu.my/iccoins/>. Thank you.

Review 1

Comments to Authors: Please highlight to the authors the strengths and weaknesses of their paper and justify your assessment. Please indicate any changes that should be made to the paper if it is accepted.

Strength:

1. The title and introduction of the work is interesting.
2. The work involved analysis of effective characters value in blended learning is interesting and has merit.

Weakness:

1. Having a grand theory related to character values will make the work sound.
2. The explanation on survey instruments are missing.
3. Discussion should lead to insights that involve contributions to body of knowledge/ theory and practice - that are deemed important in any research.

Review 2

Comments to Authors: Please highlight to the authors the strengths and weaknesses of their paper and justify your assessment. Please indicate any changes that should be made to the paper if it is accepted.

The topic is excellent. However, the entire paper is only 2 1/2 pages which is truly insufficient to be acknowledged as a conference paper. Result section was only two sentences with one graph. Really need major reconstruction. Paper can be accepted if every section is improved by the author.

Best regards,

Chair,
ICCOINS2020
International Conference on Computer and Information Sciences 2020 (ICCOINS2020)
Computer and Information Sciences Dept.
Universiti Teknologi PETRONAS
31750 Seri Iskandar
Perak, MALAYSIA.
T : +6053687402 | F: +6053656180

E : iccoins2020@utp.edu.my
W: <http://estcon.utp.edu.my/iccoins>

HALAMAN 49