

**THE EFFECT OF BLENDED LEARNING ON STUDENTS' CONCEPT
MASTERY AND MOTIVATION IN LEARNING SOLAR SYSTEM**

RESEARCH PAPER

Submitted as Requirement to obtain Degree of *sarjana pendidikan* in International
Program on Science Education (IPSE) Study Program



Arranged by:

Vania Zhafirah

1505040

**INTERNATIONAL PROGRAM ON SCIENCE EDUCATION
FACULTY OF MATHEMATICS AND SCIENCE EDUCATION
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APPROVAL SHEET

By:

Vania Zhafirah

1505040

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Approved and authorized by:

Supervisor I

Agus Fany Chandra, S.Pd., M.Pd.

NIP : 19810812200501103

Supervisor II

Nanang Winarno, S.Si., S.Pd., M.Pd.

NIP : 198403212014041001

Perceive,

Head of International Program on Science Education Study Program

Dr. Eka Cahya Prima, S.Pd, M.T

NIP: 199006262014041001

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Vania Zhafirah

International Program on Science Education
Universitas Pendidikan Indonesia
Vaniazhafirah1@gmail.com

ABSTRACT

Revolution industry 4.0 is really related to technology, in which the Internet and cloud computing create different opportunities and challenges for formal education systems. The advance of technology now days is always improving, and its also happen in educational system in Indonesia. Education should be easy to access by everyone, everytime and everywhere. Teaching learning process in some school are still teacher centered. Teachers have to make the learning process to become students centered. One of the alternative learning approach is by using Blended Learning. The purpose of this research is to investigate the effect of Blended Learning on students' concept mastery and motivation in learning solar system for 7th grade students. The method used in this research was weak experiment research. The one group Pre-test and Post-test design is used in this research as research design. The sample was taken by convenience sampling technique. Participants in this research were 16 male students at one Privat Junior High School in Bandung, Indonesia. Students of experiment group learnt with Blended Learning (N=16). The result of students' concept mastery that learnt by using Blended Learning were increase from pre-test to post-test with N-Gain 0,48 catagorized as medium improvement. The lowet of cognitive domain improvement was C2 (Understanding) that obtained 0.42 catagorized as medium improvement and the highest is C5 (Evaluating) that obtained 0.89 catagorized as high improvement. As much as 68.75% from total number of students who learn using Blended learning can pass the minimum criteria. The highest improvement is in the subtopic of Sun as the stars. Then the result of students motivation that learning using Blended Learning are 93,75 percent of students are catagorized as adequately motivated and 6,25 percent of students catagorized as high motivated. Based on this results showed that Blended Learning can be an alternative tool to improve students' concept mastery and students' motivation. Blended Learning can be use as teaching approach in Junior High School.

Keywords : Blended Learning, Students' Concept Mastery, Students' Motivation, Solar System

**PENGARUH *BLENDED LEARNING* TERHADAP PENGUASAAN
KONSEP DAN MOTIVASI SISWA DALAM PEMBELAJARAN SISTEM
TATA SURYA**

Vania Zhafirah

International Program on Science Education
Universitas Pendidikan Indonesia
Vaniazhafirah1@gmail.com

ABSTRAK

Revolusi industri 4.0 sangat erat kaitannya dengan teknologi, yang dimana internet dan komputasi awan menciptakan peluang dan tantangan yang berbeda untuk sistem pendidikan formal. Kemajuan teknologi saat ini selalu berkembang, dan inipun terjadi di dalam sistem pendidikan di Indonesia. Pendidikan harus dapat mudah di akses oleh siapapun, kapanpun, dan dimanapun. Proses belajar dan pembelajaran di beberapa sekolah masih berpusat kepada guru. Guru harus membuat proses pembelajaran menjadi berpusat pada siswa. Salah satu alternatif pendekatan mengajar adalah dengan menggunakan *Blended Learning*. Tujuan dari penelitian ini adalah untuk mengetahui pengaruh dari *Blended Learning* terhadap penguasaan konsep dan motivasi dalam pembelajaran sistem tata surya untuk kelas 7. Metode yang digunakan didalam penelitian ini adalah penelitian weak eksperimental. *The one group Pre-test and Post-test design* digunakan dalam penelitian ini sebagai desain penelitian. Sample diambil dengan teknik *convenience sampling technique*. Peserta didalam penelitian ini adalah sebanyak 16 siswa laki-laki di salah satu Sekolah Menengah Pertama Swasta di Bandung, Indonesia. Kelompok siswa yang belajar menggunakan *Blended Learning* (N=16). Hasil penguasaan konsep siswa yang belajar menggunakan *Blended Learning* meningkat dari hasil *pre-test* dan *post-test* dengan hasil N-Gain memperoleh 0,48 yang dikategorikan sebagai peningkatan sedang. Peningkatan terendah adalah C2 (pemahaman) yaitu sebanyak 0.42 dan dikategorikan sebagai peningkatan sedang dan peningkatan yang tertinggi adalah C5 (Evaluasi) yaitu sebanyak 0.89 dan dikategorikan sebagai peningkatan tinggi. Sebanyak 68.75% dari total siswa melampaui nilai kriteria minimum dan peningkatan tertinggi adalah di dalam subtopik matahari sebagai bintang. Kemudian hasil dari motivasi siswa yang belajar menggunakan *Blended Learning* adalah sebanyak 93,75 persen siswa dikategorikan sebagai cukup termotivasi dan sebanyak 6,25 persen siswa dikategorikan sebagai tinggi termotivasi. Berdasarkan hasil ini menunjukkan bahwa *Blended Learning* dapat menjadi salah satu alternatif untuk meningkatkan penguasaan konsep siswa dan motivasi siswa. *Blended Learning* dapat digunakan sebagai pendekatan pembelajaran di Sekolah Menengah Pertama.

Kata kunci : Blended Learning, Penguasaan Konsep, Motivasi Siswa, Sistem Tata Surya

LIST OF CONTENT

ABSTRACT	i
PREFACE	iii
ACKNOWLEDGEMENT	iv
LIST OF CONTENT	vi
LIST OF TABLES	viii
LIST OF FIGURES	x
LIST OF APPENDIX	xi
CHAPTER I	1
INTRODUCTION	1
1.1 Background	1
1.2 Research Problem	6
1.3 Resarch Objective	6
1.4 Research Benefit	6
1.5 Organizational Structure of Research Paper	7
1.6 Limitation of Problem	8
CHAPTER II	10
LITERATURE REVIEW	10
2.1 Blended Learning	10
2.2 Students' Concept Mastery	16
2.3 Students' Motivation	18
2.4 Solar System	19
2.4.1 Sun and Planets	20
2.4.2 Rotation and Revolution	21
2.4.3 Eclipses	22
2.5 Relevant Research	24
CHAPTER III	26
RESEARCH METHODOLOGY	26
3.1 Research Design	26
3.2 Population and Sample	27
3.3 Assumption	27
3.4 Hypothesis	28

3.5 Research Instrument	28
3.5.1 Students' Concept Mastery	28
a. Validity	29
b. Reliability	30
c. Difficulty Level	31
d. Discriminating Power	31
e. Distractor	32
3.5.2 Students' Motivation	32
3.5.3 Observation Sheet	34
3.6 Research Procedure	34
3.7 Instrument Validation Result	37
3.8 Data Analysis	38
3.8.1 Analysis of Students' Concept Mastery	38
3.8.2 Analysis of Students' Motivation	39
3.8.3 Hypothesis Test	40
3.8.4 Qualitative Data Analysis	40
3.9 Operational Definition	41
CHAPTER IV	43
RESULTS AND DISCUSSION	43
4.1 Implementation of Blended Learning	43
4.2 The effect of Blended Learning to Students' Concept Mastery	50
4.2.2 The effect of Blended Learning on Students' Concept Mastery Improvement per Subtopic in Solar System	70
4.2.3 The effect of Blended Learning on Students' Passing Rate in Solar System topic	74
4.3 The effect of Blended Learning on Student' Motivation	78
4.4 The effect of Blended Learning on each dimensions of Motivation.....	82
CHAPTER V	86
CONCLUSION AND RECOMMENDATION	86
5.1 Conclusion	86
5.2 Recommendation	87
REFERENCES.....	88
APPENDIX	95

LIST OF TABLES

Table 2.1 Competence and Basic Competence analysis on Solar System in 7.....	19
Table 3.1 The One Group Pretest- Posttest Design	26
Table 3.2 Population and Sample.....	27
Table 3.3 Research Instruments list	28
Table 3.4 Blueprint of Objective test about Solar System Topic.....	29
Table 3.5 Interpretation of validity	30
Table 3.6 Interpretation of Reliability.....	30
Table 3.7 Interpretation of Difficulty level	31
Table 3.8 Blueprint of Students Motivation Questionnaire	33
Table 3.9 Interpretation of Motivation.....	34
Table 3.10 Analysis of Test item by ANATES.....	37
Table 3.11 Interpretation of Normalized Gain.....	39
Table 3.12 Interpretation of Motivation.....	40
Table 3.13 Interpretation of implementation percentage of Blended Learning ...	41
Table 4.1 Percentage of Blended Learning implementation.....	43
Table 4.2 Students activities in first meeting	44
Table 4.3 Students activities in second meeting	47
Table 4.4 Students activities in third meeting.....	49
Table 4.5 Results of Normality Test in Students' Concept Mastery.....	50
Table 4.6 Homogeneity Test of Variance on Students' Concept Mastery	51
Table 4.7 Result of Wilcoxon Test	51
Table 4.8 Pre-test and Post-Test for each cognitive level.....	63
Table 4.9 N-Gain comparison for each topic	70
Table 4.10 Comparison between before and after given a treatment.....	74
Table 4.11 The recapitulation of students' motivation score.....	78

LIST OF FIGURES

Figure 2. 1 Diagram of Blended Learning	12
Figure 2. 2 Display of Solar system scope.....	15
Figure 2. 3 Display of Google classroom	15
Figure 2.4The component of solar system	20
Figure 2. 3 Rotation and Revolution	21
Figure 2. 4 Moon's orbit	23
Figure 3. 1 Flowchart of Research Procedure	36
Figure 4. 1 Average score of Students' Concept Mastery	52
Figure 4. 2 N-Gain in Experimental group	53
Figure 4. 3 Features in the Solar System Scope application	57
Figure 4. 4 Natural satelites around planet Saturn	58
Figure 4. 5 Google Classroom display	60
Figure 4. 6Students' electronic worksheet	61
Figure 4. 7 Cognitive Domain of Bloom's Taxonomy	64
Figure 4. 8 One features in Solar system scope to help students understanding the materials	65
Figure 4. 9Students' homework and materials distribution via Google classroom.....	66
Figure 4. 10 One of the questions in C5 cognitive level.....	67
Figure 4. 11 Electronic worksheet for students.....	68
Figure 4. 12 Comparison of subtopic in Solar system topic	71
Figure 4. 13 Materials that distributed via Google Classroom	74
Figure 4. 14 Passing rate before the treatment.....	75
Figure 4. 15 Passing rate after the treatment.....	76
Figure 4. 16 The percentage of Students' Motivation.....	79
Figure 4. 17 Students' Motivation comparison between each dimension	82
Figure 4. 18 Students respond about Solar System Scope	83

Figure 4. 19 Students impression of using Google classroom in teaching learning process.....	84
Figure 4. 20 Students respond when learn with using Solar system scope apps ...	85

LIST OF APPENDIX

Appendix A.1 Draft of Pre-test post-test	96
Appendix A.2 Appendix A.2 Motivation Questionnaire	104
Appendix A.3 Observation Sheet.....	106
Appendix B.1 Lesson Plan.....	110
Appendix B.2 Worksheet.....	117
Appendix C.1 Data processing of Students Concept Mastery	128
Appendix C.2 Data processing of Students Motivation.....	132
Appendix D.1 Objective test validation from ANATEST	134
Appendix E.1 Photo Documentation	142
Appendix F.1 Expert Judgement.....	144
Appendix F.2 research permit	146

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