PROCEEDINGS AISTEEL 2017
THE 2nd ANNUAL INTERNATIONAL SEMINAR ON TRANSFORMATIVE EDUCATION AND EDUCATIONAL LEADERSHIP

Educational Research to Endorse Productive and Innovative Generation in the 21st Century

16-17 October 2017
Ball Room Grand Mercure Hotel, Medan - Indonesia

Organized by:
Post Graduate School
State University of Medan
North Sumatera, Indonesia

Supported and Coordinated by: Support University
Indexing By: Google Scholar
Proceedings of The 2nd Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL 2017)

“Educational Research to Endorse Productive and Innovation Generation in The 21th Century”

Grand Mercure Hotel, Medan City, North Sumatera, Indonesia
October 16-17, 2017

Editorial Board

Editorial-in-Chief
Dr. Juniastel Rajagukguk, M.Si (State University of Medan, Unimed)

Deputy Editor
Dr. Saronom Silaban, M.Pd (State University of Medan, Unimed)

International Advisory Board / Scientific Committee
Prof. Dr. Kala Saravanamuthu (University of Newcastle, Australia)
Prof. Arjen EJ Wals (University of Gothenburg, Sweden)
Prof. Dr. Bornok Sinaga, M.Pd (Unimed, Indonesia)
Prof. Dr. Aytekin Isman (Sakarya University, Turkey)
Prof. Peter Charles Taylor, Ph.D., Med., B.Sc., Dip.Ed (Murdoch University, Australia)
Prof. Dr. Mukhlas Samani, Ph.D (Indonesia)
Prof. Dr. Jailani bin Md. Yunos (University Tun Hussein on Malaysia)
Prof. Dr. Nurahimah Mohd. Yusuf (UTM, Malaysia)
Assoc. Prof. Dr Pedro Isaia (University of Queensland, Australia)
Assoc. Prof. Elisabeth Taylor, Ph.D (Murdoch University, Australia)
Dr. Bambang Sumintono, M.Ed (Universiti Malaya, Malaysia)
Dr. Isma Widyat, M.Pd (UPI, Indonesia)
Prof. Dr. Syahrul R, M.Pd (UNP, Indonesia)
Prof. Amrin Saragih, MA., Ph.D (Unimed, Indonesia)
Assoc. Prof. Ade Gafar Abdullah, M.Si (Universitas Pendidikan Indonesia)
Eng. Asep Bayu Dani Nandiyanto (Universitas Pendidikan Indonesia)
Prof. Dr. Hartono, M.Pd (Universitas Negeri Semarang)

Please cite the proceeding as “Proceeding of the First Annual International Seminar on Transformative Education and Educational Leadership Vol. 2” with the following abbreviation: Proc. Aist., 2
Preface

The 2nd Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL with web link is http://aisteel2017.unimed.ac.id/) was held on October 16 -17, 2017 in Medan City, Indonesia. This conference was organized by Postgraduate School, State University of Medan (Unimed) and is the routine agenda at Unimed now. The Second Annual International Seminar on Transformative Education and Educational Leadership’ is realized this year with various presenters, researchers, lecturers and students from universities both in and out of North Sumatera participate in the theme of which is “Educational Research to Endorse Productive and Innovative Generation in the 21st Century.”

2nd AISTEEL is the annual international seminar with main aim is to discuss of recent research special for Transformative Education and Education Leadership. Several topics like: Teachers Education Model, Research Global Issue in Education, Mathematics and Science Education, Social, Language Education, Vocational Education, Curriculum, Economic, History and Management Education have been discussed at the 2nd AISTEEL 2017. 2nd AISTEEL international seminar provided experts’ view on transformative education and educational leadership as well as curriculum article presentation. There were five keynote speakers have been came Professor Keiichiro Yoshinaga, Dr. Bambang Sumintono, Dr. Sitti Maesuri Patahuddin, and Dr. Yulia Rahmawaty. The organizer had been use online submission system to receive all abstract, full paper and also communication with authors. All of information include with comment of reviewer can be checked real time by author.

Chairperson

Dr. Rahmad Husein, M.Ed
Welcoming Speech of Director of Postgraduate School State University of Medan

The Second Annual International Seminar on Transformative Education and Educational Leadership
(AISTEEL)

The honorable,
- Rector of State University of Medan, Prof. Dr. Syawal Gultom, M.Pd.
- Vice Rectors of UNIMED
- Professor Keiichiro Yoshinaga, PhD, Institute of Liberal Arts and Science, Kanazawa University – Japan
- Dr. Bambang Sumintono, M.Ed., University Malaya – Malaysia
- Dr. Sitti Maesuri Patahuddin, Faculty of Education, Science, Technology and Mathematics, University of Canberra – Australia
- Yuli Rahmawati, Chemistry Education Program, Universitas Negeri Jakarta
- Deans of Faculties of Education, Languages and Arts, Social Sciences, Natural Sciences and Mathematics, Engineering, Sports Sciences, and Economics
- Vice Directors of Postgraduate School of UNIMED
- All speakers, lecturers, researchers, students, and participants

Good Morning

Welcome the honorable guests speakers Professor Keiichiro Yoshinaga, Dr. Bambang Sumintono, Dr. Sitti Maesuri Patahuddin, Assoc. Prof. Emilia Zulmira de FAN, and other speakers, lecturers and students from outside and inside Unimed to this international seminar which is the routine agenda at Postgraduate program of Unimed now. I’m glad that ‘The Second Annual International Seminar on Transformative Education and Educational Leadership’ is realized this year with various presenters, lecturers and students from universities both in and out of North Sumatera and participate in the theme of which is “Educational Research to Endorse Productive and Innovative Generation in the 21st Century.”

Ladies and Gentlemen,

In this second seminar exels the first one related to the administration by online and the publication index by either Thomson Reuters or Google Scholar. By the new policy on student’s publication, postgraduate program really matches the system, particularly for the students who will sit in the oral defence examination. Through the seminar, the postgraduate students improve their article journal writing and it is proved by many articles are submitted by the students.

The plenary speakers coming from 15 provinces in Indonesia will present topics covering multi disciplines. They will contribute a lot of inspiring inputs and new knowledge on current trending educational research topics all over the world. The expectation is that all potential lecturers will share their research findings to educational scientists and researchers as well for improving their teaching process and quality. Thus, this will contribute to the next young generation researchers to produce innovative research findings in education and educational leadership contexts.

This second seminar continues the promotion of the first sequel ‘Developing Future Teachers’ Education Model. Therefore, the propose of this second seminar on the transformative education and educational leadership research will trigger the young professional lecturers and educators to compete in the invention of innovative educational teaching and learning strategies, techniques and leadership.

I hope that the scientific attitude and skills through research will promote Unimed to be a well-known university which persists to be developed and excelled in the future.

Thank you the Rector of Unimed who always supports us in organizing the seminar. Thank you all guest and plenary speakers. Special thanks to both steering and organizing committee who have well-coordinated and collaborated in actualizing the seminar.

Director of Postgraduate Unimed

Prof. Dr. Bornok Sinaga, M.Pd
## TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Effect of Using Collaborative Learning Strategy on The Student’s Achievement in Writing Descriptive Text</td>
<td>1</td>
</tr>
<tr>
<td>Nursyah Handayani</td>
<td></td>
</tr>
<tr>
<td>The Development of Multicultural Based Teaching Materials on the Observation Report Text for Senior High School Student</td>
<td>5</td>
</tr>
<tr>
<td>Nurhasanah Permata Sari Sembiring, Khairil Ansari, Mutsyuhiito Solin</td>
<td></td>
</tr>
<tr>
<td>The Power Behind Advertisement</td>
<td>10</td>
</tr>
<tr>
<td>Endang Larasati</td>
<td></td>
</tr>
<tr>
<td>The Effect of Using Audio Visual Media on Student’s Vocabulary Mastery</td>
<td>13</td>
</tr>
<tr>
<td>Resti Citra Dewi</td>
<td></td>
</tr>
<tr>
<td>Ideational Taxonomic Relation of Hata Pangupa in Tapanuli Selatan Wedding Ceremony</td>
<td>17</td>
</tr>
<tr>
<td>Mutia Nasution</td>
<td></td>
</tr>
<tr>
<td>Pal’s Leadership Style and Teacher’s Performance of Islamic Junior High State School (MTsN) Hamparan Perak Deliserdang Distric</td>
<td>21</td>
</tr>
<tr>
<td>Nurmala, Maria Ulfah Handayani, Denny Khairani, Desi Prawita</td>
<td></td>
</tr>
<tr>
<td>The Influence of Work Motivation on Teacher’s Job Performance of Vocational High School in Medan</td>
<td>24</td>
</tr>
<tr>
<td>Darmawati, Sri Melfayetti, Selamat Triono Ahmad</td>
<td></td>
</tr>
<tr>
<td>Error Analysis by Using Tenses of Senior High School</td>
<td>28</td>
</tr>
<tr>
<td>Hariyanto</td>
<td></td>
</tr>
<tr>
<td>The Traditional Custom and Ceremonial Tradition in Suku Anak Dalam Language</td>
<td>32</td>
</tr>
<tr>
<td>Putri Ayu Lestari</td>
<td></td>
</tr>
<tr>
<td>The Impact of Internet Marketing on Success of Women Micro, Small and Medium Enterprises Innovation as Intervening Variable</td>
<td>36</td>
</tr>
<tr>
<td>Fivi Rahmatus Sofiyah, Ami Dilham</td>
<td></td>
</tr>
<tr>
<td>The Effect of Cooperative Integrated Reading and Composition (CIRC) Technique on Students Reading Comprehension</td>
<td>40</td>
</tr>
<tr>
<td>Linda Efrina Nasution</td>
<td></td>
</tr>
<tr>
<td>Translation Shifts in Translating Didong from Gayonese in to Bahasa Indonesia</td>
<td>44</td>
</tr>
<tr>
<td>Wike Yurida</td>
<td></td>
</tr>
<tr>
<td>The Effect of Team Assisted Individualization (TAI) Strategy on Student’s Reading Comprehension</td>
<td>48</td>
</tr>
<tr>
<td>Khairuni Syafitri</td>
<td></td>
</tr>
<tr>
<td>The Effect of Organizational Culture on Working Disciplines of Madrasah Ibtidaiyah Head Master in Deliserdang</td>
<td>53</td>
</tr>
<tr>
<td>Muhammad Rifa'i, Syafaruddin Siahaan, Siman Nurhadi</td>
<td></td>
</tr>
<tr>
<td>Student’s Achievement on Reading Comprehension in Narrative Text by Using Think Pair Share Technique (TPS) at SMPN 1 Lubuk Pakam</td>
<td>58</td>
</tr>
<tr>
<td>Eprimia Lestari Hutabarat</td>
<td></td>
</tr>
<tr>
<td>Ideational Taxonomic Relations of Hobar on Parpokatan Orja of South Tapanuli</td>
<td>63</td>
</tr>
<tr>
<td>Novria Grahmayanuni</td>
<td></td>
</tr>
<tr>
<td>The Effect of Using Task Based Learning Method on the Student’s Achievement in Reading Comprehension</td>
<td>69</td>
</tr>
<tr>
<td>Nilam Ulami Siregar</td>
<td></td>
</tr>
<tr>
<td>Relationship of Initiation Structure and Consideration with Effectiveness Leadership</td>
<td>72</td>
</tr>
<tr>
<td>Wanti Simanjuntak, Syaiful Sagala</td>
<td></td>
</tr>
<tr>
<td>The Effect of Storytelling Method on Students Writing Narrative Text Ability at the Eleventh Grade Students of MAN Panyabungan</td>
<td>77</td>
</tr>
<tr>
<td>Armita Novriiana Rambe</td>
<td></td>
</tr>
</tbody>
</table>
The Implementation of Curriculum 2013 in Vocational High School 4 Takengon........................................... 80
Zainal Arifin, Herbert C.B. Manalu, Rini Deliana, Fitri Ariyanti

The Difference of Mathematical Problem Solving Ability by Using Student Teams Achievement Division (STAD) and Direct Instruction on System Linear Equation Two Variable in Grade VIII SMP Negeri 11 Medan................................................................. 84
Faradilla Bafaqih, Cecep Nandar

The Influence of Problem-Based Learning and Every One is A Teacher Here Models on Higher Order Thinking Skills in Environmental Pollution Topics.......................................................... 89
Kurnia Putra, Hasruddin, Ahmad Rafiqi Tantawi

The Effect of Applying Task Based Learning (TBL) Approach on The Student’s Ability in Writing Descriptive Paragraph.......................................................... 94
Vijay Khana

Teacher’s Language Style in English Course Class........................................................................... 98
Dyan Yosephin Hutagalung

Differences Between Students Mark Taught With Co-Operative Learning Model Type TGT With Guess The Words Media Compared With Students Mark Taught With Co-Operative Learning Models With Words Square Media in Hydrocarbon Subject................................................. 101
Hariani Siregar, Gulmah Sugiharti

Language Used by Male and Female of Darul Ilmi Murni....................................................................... 107
Syakri Hidayati

The Use of Journal Writing in Improving Student’s Writing Skill of Recount Text........................ 110
Muhammad Ilham Adha

Teacher and Student Perceptions Toward Practical Implementation Obstacles at Learning Chemistry 114
Sepra Pajar, Ramlan Silaban, Zainuddin Muchtar

The Analysis of of the Implementation and Problems of Lab Work on Chemistry Learning........... 120
Elvira Lastri, Iis Siti Jahro, Marham Sitorus

The Implementation of Using Library Card and ICT Based Library Service Systemin Increasing Reading Interest of Primary School Students at Tanjung Gading of Batu Bara Regency ......... 125
Suci Amalia, Asih Menanti

Project Based Learning Tools Development on Alcohol and Ether Materials at Natural Science Faculty State University of Medan.................................................. 132
Nadia Armina Ramad, Jamalum Purba

The Development of Teaching Material to Write Explanation Text Based on Mind Map............... 138
Pienti Mala Ningsih Manalu, Biner Ambarita, Rosmawaty Harahap

Improvement of Student Learning Outcome Using Model of Collaborative Based Lesson Study with Student’s Worksheet on Materials Hydrolisis.................................................. 141
Agus Muliaman, Laila Majnun Hutagaol

The Application of Comic Learning Media to Improve Student’s Achievement on Reduction and Oxidation Reaction Topic..................................................... 146
Anggi Desviana Siregar, Rini, Herdini

The Application of Cooperative Learning Round Robin to Improves Student Learning Achievement on the Subject of Electrolyte-Nonelectrolyte and Redoxin Class X SMAN 1 Seberida............................. 150
Nora Santi, Betty Holiswarni, Johni Azmi

The Effect of Combination Cooperative Learning Models Toward Learning Result....................... 154
Sapnita Idamarna Daulay

The Maintenance of Hokkien Among Chinese Speakers in Stabat..................................................... 159
Widy Ningsih

Effect of Blended Learning Model and Learning Style to Civic Education Learning Results in Class VII in Junior High School Panca Budi Medan.................................................................................. 164
Madina Qudsia Labis, Reh Bungana Br.Perangin-angin, Mursid

EFL Student’s Uses of Um as Fillers in Speaking.................................................................................. 169
Eka Riana
The Influence of Role Playing Method and Self Concept of Social Skills of 5-6 Years Old Child
Rabiah Hanum Hasibuan, Anita Yoe, Yusnadi

172

The Effect of Learning Approach and Personality Type Towards Learning Outcomes
Dwiy Dinda Sari, Julaga Situmorang, Busmin Gunting

178

The Effect of Learning Models and Critical Thinking Skills on Social Science Learning Outcomes
Juriah Sirregar, Julaga Situmorang, Baharuddin

183

The Effect of Suggested Method on Student’s Achievement in Vocabulary
Heppy Yersin Digitala Purba

188

Application of Active Learning Strategy Type Everyone is A Teacher Here (ETH) to Increase Student Activity and Learning Outcomes in Chemistry on Salt Hydrolysis
Wita Fajrinia, Darra Utari Ningsih, Sri Adelila Sari, Habibati

193

The Effect of Learning Strategy and Type of Personality on Student’s Achievement in Economic Science
Dewi Shara Dalimunthe

198

Development of Learning Tools Based on Realistic Mathematics Education of Ethnomatematics Nuances to Improve Mathematical Communication Skill Students in Junior High School 2 Percut
Seituan

202

Rizqi Jamiah, Edi Syahputra, Kms. M. Amin Fauzi

The Impact of Cooperative Learning Strategy and Learning Interest Toward the Learning Result of Second Year of Senior High School Students in 2016/2017
Riswan Sianturi, Abdul Muin Sibuea, Edward Purba

208

The Development of Flash Program as a Media of Chemistry Learning on Chemical Equilibrium
Lenni Khotimah Harahap, Albinus Silalahi, Iis Siti Jahro

210

The Ethnic Mandailing Tradition of Courtship (Markusip) and Revitalization Efforts in the Formation of the Character Youth
Riadi Syafputra Siregar, Ratih Baiduri, Robert Sibarani

214

The Effect of Education on Unemployment Rate in Indonesia
Rahmat Putra Ahmad Hasibuan, Dede Ruslan, Fitrawaty

218

Development of Explanatory Text Materials Based on Problem Solving in Senior High School Pematangsiantar
Tiarma Nova Intan Malasari, Biner Ambarita, Malan Lubis

222

Learning Model of Strengthening Vocational Life Skills With Entrepreneurship Knowledge to Improve Student Learning Outcomes
Husni Wardi Tanjung

226

A Critical Discourse Analysis Wardah Halal Beauty Advertisements
Ayu Lestari Siregar, Mei Lastri E.F. Butar-Butar

229

Influence of Creative Problem Solving (CPS) Mathematics Learning Model to Mathematical Problem Solving and Self Efficacy Students of SMA Negeri 3 Binjai
Nurcahaya Hutaisot, Martua Manullang, Ani Minarni

232

Differences in Mathematics Problems Solving Students With Implementing Learning Model Think Pair Square and Group Investigation in Junior High Schools
Abdul Halim, Edy Surya

236

The Acquisition of Nouns and Verbs of Mandailingnese by Two-Year-Old Mandailing Children
Marwah, Amrin Saragih, Sri Minda Murni

240

Utilization of ICT Learning in Senior High School Teladan Medan
Tengku Salwa Miranti

244

The Effect of Cooperative Learning Model Based Interactive Media and Interpersonal Communication on Student’s Achievement
Catur Ayu Wulandari, Efendi Napitupulu, Keysar Panjaitan

248

Developing of Learning Material Based on Problem Based Learning to Increase Student’s Mathematical Reasoning Ability and Self-Efficacy in Grade X SMA Negeri 1 Medan
Anggi Paramita Daulay, Dian Armanto, Waminton R

253
Efforts to in Crease A Motivation to Learning Math Using “Program” Learning Model................................. 257
Linda Sari, Edi Syahputra

The Eford of Improving Mathematics Learning Outcome on Quadrilateral and Triangle Matter by Using Gradually Exercise Strategy with The Assistance of Image Media......................................................... 261
Ady Putra, KMS. Muhammad Amin Fauzi, Yulita Moliq

The Difference on Students’ Mathematical Creative Thinking Ability Between Realistic Approach with Conventional in The State Madrasah Tsanawiyah 2 of Medan................................................................. 264
Siska Lestari, Zul Amry, Hasratuddin

Developing Learning Materials Using Realistic Mathematics Education to Increase Junior High School Students’ Mathematical Disposition and Connection Ability......................................................... 269
Sy’aida Hasanah Nasution, Izwita Dewi, E.Elvis Napitupulu

Developing Learning Materials Using Problem Based Learning to Increase Senior High School Student’s Mathematical Disposition and Representation Ability......................................................... 275
Dewi Khairani, Mulyono, Izwita Dewi

The Effect of Question Students Have Strategy on The Result of Students Learning in Mathematics.... 281
Yuliwati Araun, Edi Syahputra

Analysis of Academic Supervision Competence and Managerial Supervision in Improving the Performance of Vocational High School Supervisors in Langsa City......................................................... 284
Muhammad Hendra, Saut Purba, Mian Sithan

The Use in Active Learning Strategy of Learning Starts with a Question Type in the Mathematics Learning......................................................... 289
Jeni Putria Efiz, Ani Minami, Pardomuan Sitompul

Improving the Ability to Learn Math by Using Rubu’-al-Mujayyab Media......................................................... 293
Muhammad Hidayat, Edi Syahputra, E.Elvis Napitupulu

The Impact of Education Cost and Government Spending the Interest Rate of Bank Indonesia Subtitle......................................................... 297
Julika Rahma Siagian, Dede Ruslan, Arwansyah

The Implementation of Problem Based Learning Models to Improve Mathematical Problem Solving Ability of Students on Arithmetic Materials in Class VII Junior High School......................................................... 301
Elidar Tanjung, Izwita Dewi, Mulyono

The Effect of Learning Strategies to Trial By Jury in Participactiont Mathematics Learning Student of Junior High School......................................................... 305
Rizka Putri Rahayu, Ani Minami, Zul Amry

The Differences Between The Effect of Realistic Mathematics Learning Approach to Conventional Learning with The Students Mathematics Learning Outcomes in Junior High School of 38 Medan Grade VII......................................................... 309
Diah Ari Saputra, Syafari

The Effect of Value National Exam Standards at Learning Achievement of Students at Senior High School......................................................... 312
Nurdiana Fahmi, Bornok Sinaga, W. Rajagukguk

The Effect of Open Unemployment Rate and Level of Vocational High Education to Poverty in North Sumatera Province.................................................................................................. 315
Zulaiki, Indra Maipita

The Application of Cooperative Learning of Think-Pair-Share (TPS) Type to Increase the Students’ Ability of Problem-Solving......................................................... 320
Madriqah Fadhilah Siregar, Zul Amry, Syafari

The Relationship Between Metacognitive With the Results of Learning Outcomes on the Fungi Topic.. 324
Elizabeth, Herbert Sipahutar, Syahmi Edi

Comparison of DNA Isolation Methods from Economically Valuable Plants in Indonesia......................................................... 327
Chairiyani Rizka, Fauziyah Harahap, Syahmi Edi

Development of Learning Device Based on Realistic Approach to Improve Problem Solving Ability Mathematic of Student at Junior High School......................................................... 333
Susanna Romaria Harahap
Efforts to Improve Understanding and Use Concept of Additive Fractions and Reduction Using Media Comics on Model Cooperative Learning Type Student Team Achievement Division (STAD).......................... 339
Ratu Natalia Perangin-angin, Sahat Siahaan

The Effect of Cooperative Learning Type Games Teams Tournament (TGT) of Mathematics Learning Outcomes in the Fractions Matter.................................................................................................................. 342
Ansori Habibuan, Asmin Panjaitan, Asrin Lubis

Development of Authentic Mathematics Assessment in Application of Problem Based Learning Model to Improve Problem Solving Ability and Understanding of Student Mathematics Concept at Namorambe Secondary Private Middle School Junior High........................................................................................................ 347
Kartika Sari, Asmin, Bornok Sinaga

The Increasing of Student's Mathematics Problem Solving Ability and Learning Motivation Through Problem Based Learning Model...................................................... 351
Ridha Maulida

Dialect of Batakse Language Used by Senior High School Students’........................................................... 358
Rafika Nur Rahman

The Effectiveness of Tandur Method of Improving Students’ Learning Ability in Junior High School........... 362
Rahmatul Islam Elmujahidah, Mulyono, H. Banjarnahor

The Effect of Reciprocal Teaching Approach to Student Achievement on Ecosystem Topic in Junior High School.......................................................................................................................... 365
Nilawati, Nurika Dewi

Improvement of Student Learning Result by Using Cooperative Learning Model of Teams Games Tournament Type on Algebra Function Limit.................................................................................. 367
Rismayyah Manalu, E. Elvis Napitupulu, Martua Manullang

Noun Phrase of Culture Articles in The Jakarta Post..................................................................................... 371
Misdana

Application of Cooperative Learning Model Type Think Pair Share for Improved Communication.............. 374
Nurhasanah

Implementation Model of School Policy in Constructing Behavior of Troubled Students............................. 378
Khairtati Purnama Nasution, H. Syaiful Sagala

Efforts to Improving Creativity and Mathematics Learning Outcomes of Students With SPLET Strategy......................................................................................................................................... 382
Antoni

The Influence of Physical Education in Establishment of Self Esteem.................................................................. 386
Yustinus Tarigan, Tarsyay Nugraha

The Improvement of Dance Art Learning Achievement for Deaf Students Through Total Communication Application (Gesture/Signal) in Sekolah Luar Biasa (SLB) - E Negeri Pembina Tingkat Provinsi Sumatera Utara.................................................................................................................. 390
Siti Maryam

Innovation of Media Video Compact Disc Instructional Pencak Silat for High School...................................... 393
Marli Perangin-angin, Imran Akhmad, Agung Sunarno

Achievement Strategy of the Indonesian National Qualification Framework Based Curriculum Generic Description of Sport Education Postgraduate Program Universitas Negeri Medan.......................................................................................................................... 397
Muhammad Supriadi Siregar, Nurhayati Simatupang, Albadi Sinulingga

The Effect of Teaching Styles and Motor Ability as The Result of Study Dribbling Football............................. 401
Muhammad Fajar Doli Siregar

Semantic Analysis of English Loan Words in Indonesian Electronic Paper (Analisa)........................................ 404
Putri Nurul Rahmadani Siregar

Analysis of Empowerment of Competence Sinergy on Optimization of Education System.......................... 408
Rameyanti Tampubolon

Inquiry-Based Video Learning Media For Overcoming Student Learning Difficulty (Case Study at State Junior High School 3 Lubuk Pakam Deliserdang District)................................................................................. 412
Megawati
The Development of Mathematics learning Tool Oriented on Problem Based Learning to Enhance Mathematics Problem Solving Ability and Self Efficacy .............................................................. 416
Solawati Nainggolan, Mulyono, Hasratuddin
The Effectiveness of Contextual Inquiry-Based Worksheet on the Matter of Fungi on Food Towards Students’ Higher-Order Thinking and Science Process Skills of Biology Education ..................................................................................... 422
Nurjamiah Siregar, Hasruddin, Syahmi Edi
The Function of Limits Mastery on Mathematics Learning Achievement in Derivative Subject at the Eleventh Grade of Madrasah Aliyah Yayasan Pendidikan Karya Setia Padangsidimpuan ......................... 426
Hasna Dewi Ritonga
Effect of Education Level, Income, Inflation on Community Consumption Pattern in North Sumatera Province ...................................................................................................................... 431
Nelly Hutajulu, Fitrawaty, M. Fitrri Rahmadana
Application of Problem Based Learning Model Assisted by Cabri Software to Improve Problem Solving Ability of Mathematics Students ........................................................................................................ 437
Ahmad Darmawan, Edi Syahputra, Kms. M. Amin Fauzi
Optimization of Academic Supervision Competence of High School Supervisor in Karo Regency with Critical Events Model (CEM) .................................................................................................... 441
Karyawan Keliat, Yasaratodo Wau, Irsan
The Concept of Physics Learning Media Based Computer Animation ........................................................................................................... 446
Ratna Tanjung, Mukhtar, Efendi Napitupulu
Cultivating Children’s Critical Attitude with Educational Philosophy ........................................................................................................... 451
Daulat Saragi
Efforts to in Crease A Motivation to Learn Math Using “Program” Learning Model

Linda Sari
UNIMED
Jalan Willem Iskandar Pasar V
MEDAN
misslindasari23@gmail.com

Edi Syahputra
UNIMED
Jalan Willem Iskandar Pasar V
MEDAN

Abstract — This study aims to determine motivation to learn math using PROGRAM learning model for 2nd semester 7th Grade Junior High School on sub material Knowing the Sets. Technique of data analysis in this research is data reduction and data presentation to know student motivation to learn math. Techniques and data collection tools in this research is based on the results of tests and observations. data collection of this research using the test description. And the subject of research is 7th Grade Junior High School which amounted 40 students. This research was conducted through two cycles. In the initial test, the students' learning mastery achieves 27.5% and in the first cycle increases to 57.5% and cycle II increase to 85%, if reviewed from the completeness of learning then the initial test obtained 11 completed students and cycle I to 23 students who completed then cycle II to 34 students are completed their learning. Student learning motivation classically during pretest of 1.22 in cycle I increased to 2.02, in cycle II increased to 3.03. It means that after using the learning model of PROGRAM in learning mathematics on the subject to know the sets, student learning motivation has increased.

Keywords: motivation. Learn math, PROGRAM learning Model

I. INTRODUCTION (HEADING 1)

Education and teaching are a conscious process of purpose. The meaning is that teaching and learning activities is an event that is bound, aimed at the goal and implemented to achieve the goal. In education and teaching, goals can be interpreted as an attempt to provide the expected outcome formulation of the student/subject of learning, after completing/ gaining the learning experience.

Teachers since planning their learning activities have been thinking about their behavior towards the students so that it can attract attention and cause student motivation and does not stop at the learning plan in the implementation of learning activities. Behavior which is the implication of the principle of attention and motivation for teachers can be seen more than one behavior in a learning activity.

Based on the results of interviews and observations of researchers to teachers in the field of mathematics studies at JUNIOR HIGH SCHOOL N 44 Medan said that the motivation to learn mathematics students is still low. Because students who do not have a passion in learning mathematics, assume that math lessons are difficult, do not want to respond to questions and ask and so forth. And students have difficulty in solving math problems.

The use of learning models that are less interesting and unpleasant so students quickly get bored and do not like mathematics. Because during this time students learn mathematics only memorize the formula so that students can only remember without any media and learning methods shown by teachers to students. This makes the students' lack of motivation in analyzing and understanding the subject matter of the teacher.

Here the classroom action research is done to improve the motivation of learning mathematics of JUNIOR HIGH SCHOOL N 44 Medan students by using PROGRAM learning model. Where the learning model of the PROGRAM is the teacher explaining the learning objectives, explaining the required learning resources, the teacher helps students define and organize conflict-related learning tasks, the teacher encourages students to gather relevant information, conduct internal discussion experiments to get explanations and problem solving/ conflict, teachers help students plan and prepare the work, and help them to share tasks with their friends and teachers to help students reflect on their investigations and the processes they need to know. By using the model of learning program is expected to overcome students' difficulties in learning mathematics.

II. REVIEW IF LITERATURE

A. Learning

Learning according skinner's view in Dimyati learning is a behavior. At the time people learn, then the response becomes better. Conversely, if he does not learn then the response decreases. (Dimyati, 2013)
Learning by Gagne in Dimyati learning is a complex activity. Learning outcomes are capabilities. After learning people have the skills, knowledge, attitudes, and values. (Dimyati, 2013)

In this case learning means an attempt to change behavior. So learning will bring a change to the individual-learners. Changes are not only related to the addition of science, but also in the form of skills, skills, attitudes, understandings, self-esteem, interests, temperament, self-adjustment.

B. Motivation
According to Mc. Donald in sardiman that motivation is a change of energy in a person characterized by the emergence of "feeling" and preceded by a response to the existence of goals (Sardiman, 2011).

Learning activities, motivation can be said as the overall driving force within the students that leads to learning activities, which ensures the continuity of learning activities and that gives direction to learning activities, so that the goal desired by the subject of learning can be achieved.

C. Learning Model PROGRAM
Characteristics of learning model PROGRAM according to Suryosubroto (2004) namely:

1. Application of Communication Principles
   Learning-oriented design of teaching and learning process (PMB) commonly called Classroom-oriented. This model is based on the communication process that occurs in class. The role of the teacher and the role of the learners are clearly defined. Teachers as the presenter of the material apply the rules of communication so that learners can absorb messages or teaching materials well. Thus, as the presenter of the material, the teacher must carefully select the applied media.

2. Simple System
3. Its working structure refers to a simple system only. The PMB component consists of the formulation of learning objectives or competencies, teachers, learners, media, methods, or delivery systems and assessment of learning.

4. Presence of Aspects of Classroom Management
   Classroom management includes how the presentation will be carried out, how the classroom setting, the location of the media, the learners’ seat, and so forth. In addition, classroom management is also concerned with the learning process that must be pursued by the learners, ie whether in a large class, team or self-study. Each learning process has its own goals and roles for competency mastering.

III. METHODOLOGY
A. Location and Time of Study
   This research was conducted at Junior High School 44 Medan. While the time of this research is April 2014 until June 2014.

B. Subjects and Research Objects
1. Research subject
   Subject of this research is all students of class VII-A Junior High School 44 Medan TP 2013/2014. Which amounted to 40 people.

2. Object of research
   Object of this research is the application with learning model of PROGRAM to improve motivation in learning mathematics of Junior High School 44 TP 2013/2014.

C. Types of research
   This type of research is a classroom action research (Classroom Action Research). In accordance with the type, then this research is done through the stages in the form of cycles.

D. Research procedure
   Accordance with this type of research is a classroom action research then this research has the stages of this study in the form of cycles.
   Subharsimi Arikunto (2010) states that PTK is implemented in the form of recurrent cycles in which there are four stages, namely:
   1. Planning
   2. Implementation of action
   3. Observation
   4. Reflection.
   This study is limited only by two cycles but does not close the possibility to do the next cycle.

E. Data collection Tool
   The techniques used in data collection are as follows:
   1. Test

According to Aiken, the test is an instrument or tool to measure one's behavior or performance (Sahrum, 2007). The test used is in the form of a description. Giving tests performed twice, ie pre-test (before the administration of the action) and the post-test (after the action). The test given after the learning is done will be seen whether there is an increase in student motivation in learning mathematics by using the program learning model.

2. Observation
   Observation (observation) is a technique that is done by holding a careful observation and recording systematically. Observations made in the study is an observation of all activities undertaken during the learning process takes place both to students and researchers. This observation focuses on the motivation of student learning motivation observation example can be seen from the table below.

F. Analysis of Data
   Data analysis in this study consists of several stages:
   1. Data reduction
      In this data reduction phase, the thing done is selecting, simplifying and transforming the data that has been obtained. This data reduction activity aims to find out the problem of students in solving the problems in the sub material Know the Set.

   2. Data Presentation
Presentation of data is done with percentage mastery learning result. Student cognitive aspect data is analyzed by determining the mean value, individual completeness with predetermined indicator.

IV. FINDING AND DISCUSSION
A. Observation of Action (Observation) I
Observations are conducted by subject teachers starting from the beginning of the action implementation to the end of the implementation of the learning action with the PROGRAM model approach with the effort to increase the students' motivation on the subject to know the set. The results of learning motivation can be seen in the following table:

Table 4.1 Observation of Student Motivation in Cycle I

<table>
<thead>
<tr>
<th>NO</th>
<th>Aspects Observed</th>
<th>Cycle I</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Attention to the lesson</td>
<td>2.15</td>
<td>Medium</td>
</tr>
<tr>
<td>2</td>
<td>Have confidence / confidence</td>
<td>1.64</td>
<td>Less</td>
</tr>
<tr>
<td>3</td>
<td>Have a curiosity</td>
<td>2.05</td>
<td>Medium</td>
</tr>
<tr>
<td>4</td>
<td>Diligent and not easily bored</td>
<td>2.38</td>
<td>Medium</td>
</tr>
<tr>
<td>5</td>
<td>Have a strong interest in solving problems</td>
<td>1.86</td>
<td>Less</td>
</tr>
<tr>
<td></td>
<td>amount</td>
<td>10.08</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>2.02</td>
<td>Medium</td>
</tr>
</tbody>
</table>

From table 4.1 shows that the level of student learning motivation is still quite enough, because it can not be fully able students to be more motivated in learning. This is seen because the student activity is still not yet optimal in the learning activities take place, the students' attention is also in learning is not focused, the students' attention is still relatively low so the result of participation of students perindividu and group still less maximal, student curiosity when the teacher explains the material to be submitted still has an average of 2.15 in the medium category, because some students are still not used to issuing opinions and students still like to cheat answers of friends rather than doing their own. Diligent and not easily bored of teaching activities provided by the teacher is also still fairly enough with a value of 2.38. So is the student's self-confidence is still low with a value of 1.64 because some of the students are still timid and embarrassed to answer questions given teachers so that the motivation in learning to solve problems not in accordance with the expected. Based on all aspects observed in motivating learning from 40 students it has an average of 2.02.

B. Analysis of Learning Outcomes I
1. Data reduction
Data reduction process is done by selecting, simplifying and menstransformasikan data that has been presented in the form of field notes. Student value data obtained from the results of the test I can be seen in the following table.

Table 4.2 Student Study Results In Cycle I

<table>
<thead>
<tr>
<th>Amount of Value</th>
<th>2545</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Class</td>
<td>63.625</td>
</tr>
<tr>
<td>Number of Unfinished Students</td>
<td>17</td>
</tr>
<tr>
<td>Number of Students Completed</td>
<td>23</td>
</tr>
</tbody>
</table>

Exposing Data
Based on the results of study I obtained data exposure that the results of student learning in solving the problem of knowing the set is still not maximal, because of 40 students only 23 students (57.5%) who managed to reach the level of mastery learning with a value of ≥ 70 with a value of 100, while 17 (42.5%) have not yet reached the level of mastery learning with the lowest score obtained by the students is 30. the average value of learning test class VII-A in the first cycle is 63.625. This can be seen from the observation result of student's learning motivation, in student learning activity not yet active, with average value of all observed aspects 2.02 with enough category.

Observation of Action (Observation) II
Based on observations made by researchers found that at the time of learning took place looks: From the result of observation, the students' motivation in learning seems better than cycle II in summary student motivation can be seen in the table below:

Table 4.3 Observation of Student Motivation in Cycle II

<table>
<thead>
<tr>
<th>No</th>
<th>Aspects Observed</th>
<th>Cycle II</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Attention to the lesson</td>
<td>3.15</td>
<td>Good</td>
</tr>
<tr>
<td>2</td>
<td>Have confidence / confidence</td>
<td>2.75</td>
<td>Medium</td>
</tr>
<tr>
<td>3</td>
<td>Have a curiosity</td>
<td>3.06</td>
<td>Good</td>
</tr>
<tr>
<td>4</td>
<td>Diligent and not easily bored</td>
<td>3.38</td>
<td>Good</td>
</tr>
<tr>
<td>5</td>
<td>Have a strong interest in solving problems</td>
<td>2.79</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>amount</td>
<td>15.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>3.03</td>
<td>Good</td>
</tr>
</tbody>
</table>

From the table above seen that student motivation cycle II increases. Where students to lessons increase from 2.15 to 3.15. From the observation of students obtained that the overall average of the student's motivation in all aspects amounted to 3.03 with both categories.

b. Analysis of Learning Outcomes II
1) Exposing Data
Based on the test results of learning I obtained exposure data that students' learning outcomes in solving problems to know the set of increasing.

Of the 40 students there were 34 students (85%) who achieved the highest level of learning with a score of ≥70, while 6 (15%) had not reached the learning completeness level with the lowest score obtained by the students was 40. Average score the students' learning test of class VII-A in cycle II is 82. It can be seen from the observation of student's learning motivation in student learning activity started to look motivated, with overall average value is 3.03 with good category.

2) Data reduction

The data reduction process is obtained by selecting, simplifying and transforming the data presented in the form of field notes. Student value data obtained from the results of the learning test II can be seen in the following table:

<table>
<thead>
<tr>
<th>Table 4.4 Student Study Results Cycle II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount of Value</td>
</tr>
<tr>
<td>Average Class</td>
</tr>
<tr>
<td>Number of Unfinished Students</td>
</tr>
<tr>
<td>Number of Students Completed</td>
</tr>
</tbody>
</table>

V. CONCLUSION

Based on the description of the discussion in this study, it can be taken some conclusions as follows:

1. The use of learning methods by using the model of learning PROGRAM was able to increase student learning motivation and also student learning activities in learning mathematics

2. By using the learning method using the PROGRAM learning model this can help students interact with each other among students, making it easier for students to answer other questions.

3. Students' mastery of learning materials increases. This can be demonstrated by the level of completeness of the results of classical evaluation of learners before using the PROGRAM learning model reached 27.5% increased to 57.5% and then in the second cycle increased to 85%. This means an increase of 30% in the first test to cycle I and 27.5% from cycle I to cycle II. Or in the initial test there were 29 people who scored less than 70 and in the first cycle to 17 people and in cycle II to 6 people.

4. After observing the learning process with PROGRAM Learning model showed student's motivation classically at pre test of 1.22 in cycle I increased by 2.02, in cycle II increased to 3.03. Thus the students 'motivation from pre test, cycle I, cycle II has significant improvement, and it can be concluded that the students' motivation when using the model of Learning PROGRAM in learning has increased in terms of interest and attention, in increasing the activity of students on the subject know the set on students of JUNIOR HIGH SCHOOL N 44 Medan Lesson Year 2013/2014.

REFERENCE