PROCEEDINGS
Volume 1

Educational Technology World Conference (ETWC) 2016

Theme:
"Educational Technology to Improve Quality and Access of Education for Prosperous Society"

Editors:

Prof. Atwi Suparman
Prof. Burhanuddin Tola
Prof. Ivan Hanafi
Prof. Karnedi
Dr. Trini Prastati
Dr. Yuli Rahmawati

PROCEEDINGS: Volume 1

Educational Technology World Conference (ETWC) 2016
"Educational Technology to Improve Quality and Access of Education for Prosperous Society"

Advisors:
  – Muhammad Nasir, Minister of Research, Technology, and Higher Education of the Republic of Indonesia
  – Anies Baswedan, Minister of Education & Culture of the Republic of Indonesia.

Steering Committee:
  – Djaali, UNJ Rector
  – Tian Belawati, UT Rector
  – Nyoman Jampel, Undiksa Rector
  – I Gusti Ayu Diah Werdhi Srikandi WS, Unmar Rector

Chairman (Head of Organizing Committee):
  – Atwi Suparman

Vice-Chair:
  – Ahmad Ridwan
  – Suci Isman
  – Muchis R. Luddin
  – Gusti Putu Sudiartha

Secretary:
  – Rusmono

Vice Secretary:
  – Muchlas Suseno
  – Putrini Maha Dewi

Editors:
  - Atwi Suparman
  - Burhanuddin Tola
  - Ivan Hanafi
  - Karnedi
  - Trini Prastati
  - Yuli Rahmawati

Secretariat:
  - Eva Leiliyanti
  - Listya Ayu Saraswati
  - Putri Restoening M

Welcoming Message
Chairman of the Organizing Committee

Prof. Dr. Muhammad Nasir, Minister of Research, Technology and Higher Education of the Republic of Indonesia
Rudiantara, Minister of Communication and Informatics of the Republic of Indonesia
Prof. Dr. H. Djaali, Rector of Universitas Negeri Jakarta
Prof. Ir. Tian Belawati, M.Ed., Ph.D., Rector of Universitas Terbuka
Prof. Dr. I Nyoman Jampel, M.Pd., Rector of Universitas Pendidikan Ganesha
Dr. I Gusti Ayu Diah Werdhi Srikandi, SE., MM., Rector of Universitas Mahendradatta
Prof. Dr. I Nengah Dasi Astawa, Head of Kopertis Wilayah VIII
Distinguished Speakers (Prof. Mike Spector, Ph.D, Prof. Barbara Lockee, Ph.D, Dr. Rob Branch, Prof. Dr. Johannes Cronje, Prof. Kay Persichittee, Dr. Marc Childress, and Mr. Chairul Tanjung)
Distinguished Guests
Ladies and Gentlemen,

Assalamu'alaikum Wr. Wb.
Peace be upon you with Allah's mercy and blessing
May God bless us all. Amen.

May I take this opportunity to welcome you all and to extend a further word of welcome to everyone here. I would like to extend my graditute to Rector of Universitas Negeri Jakarta, Universitas Terbuka, Universitas pendidikan Ganesha, Universitas Mahendradatta and Head of Kopertis Wilayah VIII that have accommodated and organised this first-ever world class conference of educational technology in Indonesia. We once again thank *Bapak/Ibu Rektor* and also *Kepala Kopertis Wilayah VIII* for the time, energy, support, assistance and also funding. The committee would also like to thank all sponsors (.....)* that support ETWC 2016.
The opening day and a few days forward of Educational Technology World Conference 2016 are certainly the moment we have been looking forward to, as preparing this world class academic forum is not something a fairy Godmother could do – waiving the magic wand and turning the poor little girl into a charming beautiful princess. For this, my highest appreciation goes to all committee members, streering and organising committee and also AECT team that have spent their time, energy and thought not only in convening this conference, but more importantly in making this world class conference a momentum in improving the quality of education. I also believe all of us, especially the keynote and plenary speakers, the parallel and round table sharing

session presenters here, will do their best in this conference – sharing and discussing their thoughts and ideas for the good of improving the quality of education in our great nation. For these, I thank you all.

Ladies and Gentlemen,

Looking back at the moment this conference was firstly initiated, it all started in a vision. We envisioned a dream of convening a world class academic forum in Indonesia which in the previous years had been predominantly held in the United States coordinated by Association for Educational Communications and Technology (AECT). Three years ago, in 2013, AECT invited us (Rector of Universitas Negeri Jakarta,...** and myself) to attend AECT International Convention in Anaheim, California, in 2013. AECT team and us discussed of how we could bring this academic forum to Asia continent, in this case Indonesia, as we contended that this was an imperative act, as the development of educational technology in Asia continent is growing rapidly and moving in a fast track. The target set by the Indonesian Government also inspired us to convene this academic forum. The hardwork resulted in a succes in bringing this ETWC to Indonesia.

Ladies and Gentlemen,

The committee received 320 papers. Among those 320 papers, 189*** papers will be presented at the parallel sessions whilst 120*** papers will be presented at the round table sharing sessions. We provided 10 rooms for the parallel sessions and 8 rooms for the round table sharing sessions. The committee has prepared tokens of appreciation for 30 best papers and made a special arrangement with the help of AECT for the opportunity to publish selected best papers in a book published by Springer. The selection process will be conducted by distinguished invited speakers coordinated by Mike Spector as well as the internal reviewers. We will later announce the 30 best papers and the committee and AECT will notify you as soon as possible.****

Ladies and Gentlemen,

Bali is chosen as a perfect place for us to exchange and discuss our ideas and thoughts not in a restless, strained, rushed condition (like the one we usually have in big cities, such as Jakarta), but more in a "heavenly-relaxed", but serious way. After all, as many people have said, Bali is the Island of Gods. It is the place where Gods create their heaven on earth. Thus, in this Balinese atmosphere, let us pour our best thoughts and exchange our brilliant ideas for the good of education quality improvement. Have a pleasant fruitful conference.

Thank you.
Bali, 31 July 2016
Prof. Dr. Atwi Suparman
Chairman of the Organising Committee

VOLUME 1: PARALLEL SESSIONS

Table of Content

Welcoming Message
Chairman of the Organizing Committee

Welcoming Speech
Rector of Universitas Negeri Jakarta (UNJ)

Opening Remarks & Keynote Speech 1
Minister of Research, Technology and Higher Education
Topic: Research Technology and Education

Plenary Panel Session I
1. Steve Harmon
2. Rob Branch
3. Chairul Tanjung

Keynote Speech 2
Mike Spector
Topic: Educational Technology Research and Practice

Keynote Speech 3
Minister of Communication and Informatics
Topic: Education in the Information Communication Era

Plenary Panel Session II
1. Johannes Cronje
2. Marcus Childress

Keynote Speech 4
Barbara Lockee
Topic: Instructional Design Strategies for Open and Distance Learning

Keynote Speech 5
Tian Belawati (Rector of Universitas Terbuka)
Topic: Open Online Learning and Instruction

Parallel Session 1.1 – Design and Development
1. **Lies Budyana, Maya Ariesta, and Intan Kusuma Nagari** - The effect of Listening Radio News in Developing Grade 5 Students' Listening Comprehension skills - Student of Educational Technology Department, State University of Surabaya
2. **Rijanto Purbojo** – Improving Learning Engagement in Blended Learning Strategy: Role of Learning Management Features – Universitas Pelita Harapan

3. **Nurdin Ibrahim, Maximus Gorky Sembiring and Amelia Sapriati** – Investigating Satisfaction with Blended Learning in Universitas Terbuka Framework - Universitas Negeri Jakarta; Universitas Terbuka

4. **Dorothy Dewitt, Norlidah Alias and Saedah Siraj** – Problem Solving Strategies of Malaysian Secondary School Teachers - Department of Curriculum and Intsructional Technology Faculty of Education and University of Malaya 50603 Kuala Lumpur, Malaysia

5. **Akbar Alwi and Emzir** – Teaching/Learning Materials for Writing Essays in English Based on Rhetoric Approach Research and Development at the English Language Teaching Study Program of Lakidende University of Konawe of Southeast Sulawesi Province - Postgraduate State University of Jakarta

6. **Dwi Deswary and Ary Sutanto** – Development of Management Information System in Master Study Program on Education Management Graduate Program of Jakarta State University - Universitas Negeri Jakarta

Parallel Session 1.2 – Information, Technology, and Communication Integration

1. **Siti Julaeha** – E-Learning for Teachers: Conceptual Consideration and Implementation Possibility - Universitas Terbuka, Indonesia

2. **Jo Tondeur, Johan van Braak, Ronny Scherer, Fazilat Siddiq and Evrim Baran** – Enhancing Preservice Teachers' Technological Pedagogical Content Knowledge: How Teacher Education Matters - Ghent University, Ghent, Belgium; University of Oslo, Oslo, Norway; Middle East Technical University, Ankara, Turkey

3. **Siswoyo and Hartati Muchtar** – The Effect of Teaching Strategy Using PhET Interactive Simulation and Information Technology Literacy on Students' Conceptual Understanding of Work and Energy - Universitas Negeri Jakarta, Indonesia

4. **Ade Dwi Utami** – The Use of Information and Communication Technology in Early Childhood Education - Universitas Negeri Jakarta

5. **Yuliani Nurani and Ade Dwi Utami** – Implementing ICT in Assessing Student's Teaching Skill - Universitas Negeri Jakarta

6. **Baehaqi Alanawa, Ivan Hanafi and Baso Marudani** – Development of Program Application For Learning Media Using the App Inventor on Android Operating System - Universitas Negeri Jakarta

Parallel Session 1.3 – Innovation and Creativity/ Networking and Collaboration, Open Educational Resources, Massive Open Online Courses (MOOCs) and Badges

1. **Jonathan Spector** – The Potential of Smart Technologies for Learning and Instruction - Professor Learning Technologies College of Information, University of North Texas

2. **Renee O'neal and Dr. Tara Wilson** – Elementary School Teaches' Perception of Implementing the Global Hour of Code - Sam Houston State University

3. **Siti Nurjanah** – The Development of Tools and Teaching Materials Economics for SMA/MA 2013 Curriculum Based on Scientific Approach for Acceleration Preparation of Indonesian Students in the Framework of the ASEAN Economic Community (AEC) - Universitas Negeri Jakarta

4. **Tonia A. Dousay** – Designing for creativity & cross cultural learning experiences - University of Wyoming
5. **Sapiudin** – Effect of Gasing Learning Method and Spatial Intelligence toward Students' Science Achievement - Dinas Pendidikan Kab. Konawe Utara
6. **David Squires** - Students' Expenses at Universitas Terbuka - The University of Georgia, United States

Parallel Session 1.4 – Distance Education
1. **Jackie Kim** – Improving the Quality of Online Discussion by Role-Playing - Armstrong State University
2. **Sugilar** – Predicting Student's Re–enrollment in Open and Distance Learning Environment - Universitas Terbuka
3. **Suryo Prabowo and Andayani** – Improving the Quality of Video Programs at Universitas Terbuka based on Problem–Based Learning Approach - Universitas Terbuka
4. **Rhini Fatma Sari** – Evaluation Of Academic Services Performance at University by Using Balanced Scorecard (A Study at Open and Distance University) - Universitas Terbuka
5. **Maximus Gorky Sembiring** – Exposing Academic Excellence and Satisfaction Related to Persistence perceived by ODL Graduates - Universitas Terbuka
6. **Rouhollah Khodabandelou, Siti Akmar Abu Samah and Azadeh Amoozegar** – Differences in Social Presence in Higher Education Blended Learning Environments - HELP University, UiTM, UPM

Parallel Session 1.5 – Design and Development/ Innovation and Creativity
1. **Sukirman and Rafika Bayu Kusumandari** – Organic Village As An Environmental Education Model Based Community for Early Childhood in Semarang City, Central Java, Indonesia - Semarang State University
2. **Dr. I Made Tegeh, S.Pd., M.Pd.** – Teachers' Strategies To Implement Character Education at Kindergartens in Buleleng Regency, Bali, Indonesia - Universitas Pendidikan Ganesha
3. **Sri Wahyu Kridasakti and Listiyodono Bawono** – The Challenges Of Developing and Managing Continuing Education Program Through Open and Distance Learning - Universitas Terbuka
4. **Nuryetty Zain and Susi Setya Wahyuni** – Developing Learning Analytics Framework Based on Self-Regulated Learning Principle for MOOCs - Universitas Negeri Jakarta
5. **Dina Mustafa** – Online Bridging Program Development As Student Support Services at Mathematics Study Program of Universitas Terbuka Indonesia (UT) - Universitas Terbuka
6. **Gemala Garibaldi** - Filmed Role Play on Social Media: Improving Interpersonal Skills of Hospitality Students Through Collaborative Learning - Swiss German University, Indonesia

Parallel Session 2.1 – Design and Development

1. **Desak Putu Parmiti** – Developing Project – Based Early Childhood Assessment Textbook to Improve the Students' Learning Achievement - Universitas Pendidikan Ganesha
2. **Eva Yulianti, S.E, M.Sc, Yansen Jutalo and Heni Widyaningsih** – Integrated Physical Activity in Classroom Management - Universitas Negeri Jakarta
3. **Murni Winarsih and Tuti Nuriah Erwin** – Development of Contextual–Learning Based Training Package for Teachers in Inclusive School - Universitas Negeri Jakarta
4. **Yi–Chun Hong and Ming–Hung Kao** – Examination of students' online discussion engagement in Statistics collaborative learning activities - Arizona State University
5. **Mohammad Imam Farisi, Dwi Sambada and Teguh Prakoso** – The Student's Reflective Inquiry Thinking Competencies on Problem Solving at Online Tutorial (Tuton) Assignments - Universitas Terbuka
6. **Rien Safrina** – Improvement to Music Teaching and Learning Through Self-Study - Universitas Negeri Jakarta

Parallel Session 2.2 – Information, Technology, and Communication Integration
1. **Muchlas Suseno** – Blended Learning and Multiple Intelligence in EFL Writing Class: A Case Study in Universitas Negeri Jakarta - Universitas Negeri Jakarta
2. **Tepati Hak Kewajiban** – Challenges and Solutions of Web–based Learning on Mobile Devices - Universitas Negeri Surabaya
3. **Kusnohadi** – Blended Learning Strategy; An Alternative Instruction In Information and Telecommunication Technology Era - LPMP Jawa Timur
4. **Eldarni and Ulfia Rahmi** – The Analysis of Instructional Video and Educational Television in The School - Universitas Negeri Padang
5. **Adrianus I Wayan Ilia Yuda Sukmana and Luh Putu Putrini Mahadewi** – The Implementation of Lesson Study on Programming I Blended Learning at the Department of Educational Technology - Universitas Pendidikan Ganesha
6. **Yasir Riady** – Optimization and Evaluation Online Registration System Used Utility Approach (Case Study of Implementation Online Registration in Jakarta, South Korea and Taiwan) - Universitas Terbuka

Parallel Session 2.3 – Innovation and Creativity
1. **Maria Paristiowati, Ucu Cahyana and Annisa Nur Fitria** – The Effect of Flipped Classroom Model on Reaction of Oxidation Reduction to the Student Learning Outcomes: Case Study at Senior High School, Jakarta - Universitas Negeri Jakarta
2. **Alim Sumarno** – Overcome of Digital Divide Resources Through Multimedia Using ICT Principle in Learning - Universitas Negeri Surabaya
3. **Nadiroh, Uswatun Hasanah and Samadi** – Mentoring Model Optimizing the Role of Women in Improving Utilization's Skill of Cassava leather in the Material as Accessories - Universitas Negeri Jakarta
4. **Myrnawati Chrie Handini Handini and Ruth Christiani Christiani** – Improving Children's Environment Adaptation Skill Through Playing Puzzle (An Action Research Conducted to the Pre-Kindergarten Refugee Children in Save Tanah Karo Pre-kindergarten, Karo Regency,North Sumatra, 2015) - Universitas Negeri Jakarta (PPs UNJ, Ikacana PPs UNJ)

5. **Achmad Fathoni Rodli** – The Implementation of iCloud System Based on Knowledge Management at University Maarif Hasyim Latif Sidoardjo - Universitas Maarif Hasyim Latif
6. **I Gusti Ayu Agung Sri Asri** – The Influence of Cooperative Learning Model on Student's Learning Result in Civic - Universitas Pendidikan Ganesha

Parallel Session 2.4 – Policy and Cultural Considerations, Quality Assurance, Certification, and Accreditation

1. **Adhi Susilo and Deddy Suhardi** – Importance–satisfaction analysis of face to face tutorial: a case study at Universitas Terbuka - Universitas Terbuka
2. **Haryono, Heri Triluqman, Edi Subkhan, and Urip Muhayat** – The Implementation of Educational Technology in Learning Quality Assurance at Schools - Universitas Negeri Semarang
3. **Ni Nyoman Parwati** – The Existence of Educational Technology in Building Positive Nation Character – IPTPI
4. **Maximus Gorky Sembiring** – Modelling Quality Education Observed from Educator, Curriculum and Public Participation Arrangements - Universitas Terbuka
5. **Syarif Sumantri** – The Relationship Between Achievement Motivation and Professional Competence with the Performance of Elementary Teacher - Universitas Negeri Jakarta
6. **Nyayu Khodijah** – Implementation of Character Education That Contains The Local Wisdom on Basic Education in South Sumatra - IPTPI

Parallel Session 2.5 – Policy and Cultural Considerations, Quality Assurance, Certification, and Accreditation/Design and Development

1. **Dem Vi Sara and Ratna Marta Dhewi** – Evaluation of Practicum in Primary–Teacher Education Program (A Case Study in UT's Bogor Regional Office - Universitas Terbuka
2. **Wardani Rahayu and Solihin** – The Effect of Sample Size and the Number of Option Answer Toward the Reliability - Universitas Negeri Jakarta, SMAN1
3. **Wahyu Sri Ambar Arum** – Online System and The Impact of the Human Resources Development - Universitas Negeri Jakarta
4. **Giri Saptoaji** – Input, The Warranty of Learning Result: Gender Mainstreaming Training Program Evaluation - National Institute of Public Administration
5. **Rizki Farani** – Blended Learning: Integrating Offline and Online Classroom to Create Meaningfull Learning - Universitas Islam indonesia
6. **Luh Putu Putrini Mahadewi** – Designing Blended Learning to Develop Students' Characters at Ganesha University of Education - Universitas Pendidikan Ganesha

Parallel Session 3.1 – Design and Development

1. **Ani Nur Hidayati** – The Development A Model Discovery Learning By Sets Approach (Science, Environment, Technology, Society) on IPA Subject to Foster Scientific Attitude The Students of 8th Grade SMPN 1 Kebomas - Kementerian Agama / Ministry of Religion
2. **Eni Fariyatul Fahyuni** – Development of Aqeedah Morals comic in Learning To Increase Reading Interest and Student Result Fourth Grade Primary School - Universitas Muhammadiyah Sidoarjo

3. **Riche Cynthia Johan** – Information Literacy Electronic Training For Teacher Librarians - Universitas Pendidikan Indonesia
4. **Laksmi Dewi and M Ridwan Sutisna** – Increasing Critical Thinking and Creative Competence Through Productive Failure Instruction (Classroom Action Research in Curriculum Development Subject) - Universitas Pendidikan Indonesia
5. **Toto Basuki** – Improving Social Competence of the Principal Through Model of Dynamics Grouping - LPMP Provinsi Jawa Timur
6. **Alwen Bentri and Ulfia Rahmi** – The Effectiveness of Blended Learning Strategy Formulation on Implementing Curriculum in Department of Curriculum and Educational Technology at Padang State University - Universitas Negeri Padang

Parallel Session 3.2 – Networking and Collaboration, Open Educational Resources, Massive Open Online Courses (MOOCs) and Badges

1. **Durri Andriani** – Utilizing the Internet to Fulfill Teachers' Needs to Conduct Quality Research - Universitas Terbuka
2. **Khaerudin** – The relationship between independent learning and digital literacy with learning outcomes are implemented in blended learning - Universitas Negeri Jakarta
3. **Sondang Purnamasari Pakpahan and Andy Sapta** – Development of Mathematics Chess Instructional Media to Improve Mathematics Learning Outcomes of Primary School Students - Universitas Terbuka UPBJJ Medan, Universitas Asahan
4. **Hartoto and Sella Mawarni** – Developing Learning Analytics Framework Based on Self-Regulated Learning Principle for MOOCs - Universitas Negeri Yogyakarta
5. **Mochamad Syaichudin, Wayan Ardana and Nyoman Degeng** – Cooperation Skills Upgrading Secondary High School Students in Social Studies with Used Learning Strategy Type Jigsaw – IPTPI
6. **Marisa Marisa, Siti Aisyah and Dimas Agung Prasetyo** – Providing Accessible and Quality Education Through Technology: - Universitas Terbuka

Parallel Session 3.3 – Innovation and Creativity

1. **Eriva Syamsiatin** – Acquisition of Early Mathematic Thinking Skills of Chldren Age 4–5 Years Olds Through Unit Blocks Play Activity - Universitas Negeri Jakarta
2. **Ila Fadila** – Implementation Effectiveness Of Communication, Information and Education Intervention on Elderly People Nutrition Knowledge And Attitude - Universitas Terbuka
3. **Hartati Muchtar and Zulrahmat Togala** – The Effect of Scientific Approaches and Cognitive Style on Learning Outcomes - Universitas Negeri Jakarta, MAN 1 Kendari
4. **Ratnaningsih** – The Effect of Problem Posing, Problem Solving, Conventional Strategies and Numerical Mathematics on Critical Thinking Skills - Universitas Negeri Jakarta
5. **Herlina** – Increasing Reading Comprehension Ability Through Visualizing Media of 4th Grade Students at Labschool Primary School Setiabudi South Jakarta - Universitas Negeri Jakarta
6. **R.Madhakomala and Johansyah Anwar** – Learning Life Balancea Study to Regain Mental Peace of Senior High Students - Universitas Negeri Jakarta

Parallel Session 3.4 – Distance Education

1. **Vaikunthan Rajaratnam** – The Perception, Capabillity of Teachers and Learners and Success Factors for the Use of Mobile Learning in Medical Education in Singapore - KTPH Alexandra Healthcare
2. **Made Yudhi Setiani** – Teaching Presence in Online Graduate Program Tutorials at Universitas Terbuka - Universitas Terbuka
3. **Kristanti Puspitasari and Boedhi Oetoyo** – Implementation of a Study Schedule to Help ODL Students Learn - Universitas Terbuka
4. **Mohamad Toha** – MOOCs for Indonesian Open University: A necessity? - Universitas Terbuka
5. **Ginta Ginting** – Exploring Student Satisfaction and Behavioral Intention on Tutorial Online for Continuous Improvement Strategy of Universitas Terbuka's e–Learning System - Universitas Terbuka
6. **Titik Setyowati and Barokah Widuroyekti** – The Significance of Online Counseling Communities Forum in Solving the Student's Problem - Universitas Terbuka

Parallel Session 3.5 – Distance Education/Innovation and Creativity/ Design and Development

1. **Eha Saleha and Iis Solihat** – Effect of Distance Education of Local Community Development And Prosperity Outermost and Backward (3T) Province Banten - Universitas Terbuka–UPBJJ Serang
2. **Lies Budyana** – Using Instagram as Authentic Assessment tools in supporting Indonesian 2013 Curriculum - Universitas Negeri Surabaya
3. **Roshani Rajbanshi** – Learning through Technology in Student–Centered Approach - New Mexico State University
4. **Imam F. Rahmadi** – The Implementation of Online Tutorial in Islamic Education Course - Universitas Negeri Jakarta
5. **Anak Agung Gede Agung and I Gusti Putu Sudiarta** - The Implementation of The Economic Model of Educational Tours Which is Local Hinduistic Wisdom Oriented to Improve The Economics of Small and Medium Industries in Bali - Universitas Pendidikan Ganesha
6. **Budi Utomo** - Influence Learning Playing Cards And Use Media Interactive CD Against Learning Achievement in Mathematics Class IV student of SDN Jegreg And SDN Balongasem Subdistrict Lengkong Nganjuk - Akademi Gizi Surabaya

Parallel Session 4.1 – Design and Development

1. **Ketut Agustini** – Instructional Design for The Computer Network Subject: A Balinese Culture-based based Learning - Universitas Pendidikan Ganesha
2. **Suripto and Durri Andriani** – Implementation of Online Tutorial In Open & Distance Education: Tutors' Perceptions - Universitas Terbuka
3. **Andi Kristanto** – Utilization of Digital Camera Simulation Media of Courses Photos Media Development - Universitas Negeri Semarang
4. **Dwi Kusumawardani** – Instructional Needs Identification in the Process of Instructional Design at Learning Subject Level - Universitas Negeri Jakarta

Parallel Session 4.2 – Information, Technology, and Communication Integration

1. **Parulian Silalahi, Diana Nomida M and M. Atwi Suparman** – The Effectiveness of Training Materials for the Integration of ICT In Teaching Mathematics for Primary School Teachers - Politeknik Manufaktur Negeri Bangka, Universitas Negeri Jakarta, Universitas Terbuka
2. **Fajar Arianto, Punaji Setyosari, Mohammad Efendi and Saida Ulfa** – Mobile Technology as Mindtools Promote Problem Solving Skill for Cerabral Palsy - State University of Surabaya, State University of Malang; State University of Malang, State University of Malang
3. **Ahmad Fauzi, S. Pd, M. Ak** – The Influence of ICT–based Learning Media (Macromedia Flash) on the Students Motivation in SMA 44 Jakarta - Universitas Negeri Jakarta
4. **Sofia Hartati** – The Influence of Guided and Independent Training Toward Teachers' Competence to Plan Early Childhood Education Learning Program - Universitas Negeri Jakarta

Parallel Session 4.3 – Policy and Cultural Considerations, Quality Assurance, Certification, and Accreditation
1. **Meita Istianda** – Barriers and Challenges of Distance Education in the Period of Reform: Overview of Political Perspective - Universitas Terbuka
2. **Edi Subkhan and Wahzudik Niam** – Internet and the decreasing of students' academic values - Universitas Negeri Semarang
3. **Harianto GP** – National Education Policy Analysis System (Law No. 20 of 2003) about multicultural Education - Universitas Negeri Surabaya
4. **Made Wahyu Adhiputra and I Gusti Ayu Diah Werdhi Srikandi Wedasteraputri Suyasa** – The Path of Mandatory Spending On Education For The Human Capital Enhancement –Universitas Mahendradatta

Parallel Session 4.4 – Distance Education
1. **Sean Lancaster and Paula Lancaster** – Student Profile in Online Learning - Grand Valley State University
2. **Titi Chandrawati** – Increasing Students' Engagement in Learning in An Online Tutorial at Universitas Terbuka Indonesia - Universitas Terbuka
3. **Muhammad Yaumi and Muljono Damopolii** – New Integration Model of ICT Based Distance Education – UINAM
4. **Johanna Pantow** – Analysis Students' Papers on Online Examination - Universitas Terbuka

Parallel Session 4.5 – Distance Education/Innovation and Creativity/Policy and Cultural Considerations, Quality Assurance, Certification, and Accreditation
1. **Isti Rokhiyah and Heni Safitri** – Prospective Distance Education Learners Study Skills' Performance - Universitas Terbuka
2. **Suratinah and Trini Prastati** – The Development of Model of Face–to–Face Tutorial Based on the Implementation of Independent Study Strategy - Universitas Terbuka
3. **Irena Maureen and Damajanti Dewi** - Digital Storytelling: Supporting the Foreign Language Learning in 21st Century - State University of Surabaya

4. **Sofjan Aripin and Santi Dewiki** - An Analysis of The Organization, Interpretation, and Application of Online Program Learning System at Postgraduate Program of Universitas Terbuka - Universitas Terbuka

Parallel Session 5.1 – Design and Development
1. **Benny Agus Pribadi** – Concept Mapping Strategy in Academic Writing - Universitas Terbuka
2. **Robinson Situmorang, Kunto Imbar Nursetyo, and Retno Widyaningrum** – Implementation of Experiential Learning Models into Blended Learning - Universitas Negeri Jakarta
3. **Arita Marini** – Developing Elementary School Management Model Based on Gender Mainstreaming in DKI Jakarta - Universitas Negeri Jakarta
4. **Endry Boeriswati** – The Platinum Learning Model For Critical Thinking Skills - Universitas Negeri Jakarta
5. **Hernawaty Damanik, I Nyoman Sudana Degeng, Punaji Setyosari and I Wayan Dasna** – The Influence of Jurisprudental Inquiry Learning Strategies and Logical Thinking Ability toward leraning of Civics in Senior High School (SMA) - UPBJJ–UT Malang, Universitas Negeri Malang, Universitas Negeri Malang, Universitas Negeri Malang
6. **Izumi Horikoshi, Naoki Arimoto and Yasuhisa Tamura** – Learning Behavior Analysis on e–Materials with Additional Resources - Sophia University

Parallel Session 5.2 – Information, Technology, and Communication Integration
1. **Vina Serevina** – Improving the Physics Learning Result of Students on Particle Dynamics Topic by Using Contextual Teaching and Learning Model - Universitas Negeri Jakarta
2. **Rini Herminastiti** – Computer Usage in Play Group for Building Up Children's Early Literacy and Numeracy: an Example in Jakarta - STKIP Kusuma Negara
3. **Aceng Rahmat** – Information and Communication Technology (ICT) in Language Learning - Universitas Negeri Jakarta
4. **Anan Sutisna** – ICT Based Learning Model Development For Improving Students Independency - Universitas Negeri Jakarta
5. **Burhanuddin Tola** – Administration of National Examination (UN) By Using Computerized Adaptive Testing (CAT) Model - Universitas Negeri Jakarta
6. **Bambang Setiyo Hari Purwoko** – Implementation of Blended–Flipped Learning in the CNC Programming Instruction - Universitas Negeri Jakarta

Parallel Session 5.3 – Information, Technology, and Communication Integration/Networking and Collaboration, Open Educational Resources, Massive Open Online Courses (MOOCs) and Badges/Design and Development
1. **Bintang Petrus Sitepu and Mita Septiani** – The Use of ICT by Secondary School Students - Universitas Negeri Jakarta
2. **Lilies Yulastri** – Creativity Relationship to Student Learning Outcomes ff Course Crafts Education Study Program State University System Rias Jakarta - Universitas Negeri Jakarta

3. **Rusmono** – Effect of Instructional Strategies and Academic Procrastination Toward Mathematics Learning Outcomes - Universitas Negeri Jakarta
4. **Suyitno M** – Influence Model of Learning and Engineering Assessment of Learning Outcomes Occupational Health and Safety - Universitas Negeri Jakarta
5. **I Made Putrawan and Evita Anggereini** – Experimental Learning and Knowlegde about Ecosystem: Its Effect on Students Enviromental Behavior - Universitas Negeri Jakarta
6. **Eveline Siregar, Murti Kusuma Wirasti, and Cecep Kustandi** – Development of Standarized Instructional Media Evaluation Instrument Using Online Survey Tool - Universitas Negeri Jakarta

Parallel Session 5.4 – Distance Education/Design and Development
1. **Agung Putra** – Face-to-face Tutorial Program in Distance Education: How Effective to Improve Students' Performance - Universitas Terbuka
2. **Tutisiana Silawati** – Microscience as an Science Practicum Model for Distance Education Students - Universitas Terbuka
3. **Diki and Eko Yuliastuti** – Item analysis and item difficulty of multiple choice test of biology departments at Universitas Terbuka, Indonesia - Universitas Terbuka
4. **Gede Wira Bayu, S.Pd, M.Pd and I Wayan Widiana** – Effectiveness Evaluation Study of SEFL Development Program at PGRI 2 Denpasar High School (SMA PGRI 2 Denpasar) - Universitas Pendidikan Ganesha

Parallel Session 5.5 – Design and Development/Networking and Collaboration, Open Educational Resources, Massive Open Online Courses (MOOCs) and Badges
1. **Ninuk Lustyantie** – Contextual Approach Implementation in French Literature Text Universitas Negeri Jakarta (PPs UNJ)
2. **Li–Chen Wang, Pei–Yu Cheng and Yueh–Min Huang** – Using Mobile Instant Messaging for English Listening and Speaking Learning: A Case Study of EFL University Students in Taiwan - Tajen University, Center for General Education, Department of Engineering Science National Cheng Kung University Tainan, Department of Engineering Science National
3. **Diah Armeliza and Zulfiati Syahrial** - Effect of Learning Strategy and Ability Early Learning Outcomes of Statistics - Fakultas Ilmu Pendidikan Universitas Negeri Jakarta, Pascasarjana Universitas Negeri Jakarta
4. **Leonard, Hasbullah and Siti Nurani** - Learning Design Development of Research Methodology: A Needs Analysis - Indraprasta PGRI University, Indraprasta PGRI University, Universitas Indraprasta PGRI

PAPER CODING

Paper Coding:

Type of Paper Session.Parallel Number.Parallel Session-EasyChair Number-Sub Theme-ETWC 2016

Example: P1.2-210-ICT-ETWC2016

Type of Paper Session	Parallel Number	Parallel Session	Easy Chair Number	Subtheme
P (Parallel)	**1-5**	**1-6**	**1-196**	• **DD** (Design and Development)
R (Roundtable)				• **DE** (Distance Education)
				• **ICT** (Information, Technology, and Communication Integration)
				• **IC** (Innovation and Creativity)
				• **PQ** (Policy and Cultural Considerations, Quality Assurance, Certification, and Accreditation)
				• **MO** (Networking and Collaboration, Open Educational Resources, Massive Open Online Courses (MOOCs) and Badges)

Learning Design of Research Methodology: A Needs Analysis

Leonard [1]
leonard@unindra.ac.id
+6281382939050

Hasbullah [1]
hasbule@gmail.com
+6287878952046

Siti Nurani [2]
rani_siti16@yahoo.com
+6285882534841

[1] Mathematics Education Program, Faculty of Technic, Math & Science
Indraprasta PGRI University
Jl. Nangka No. 58c Tanjung Barat, Jakarta Selatan, 12530
DKI Jakarta, Indonesia, +6221-78835283

[2] English Education Program, Faculty of Language and Art
Indraprasta PGRI University
Jl. Nangka No. 58c Tanjung Barat, Jakarta Selatan, 12530
DKI Jakarta, Indonesia, +6221-78835283

Abstract

Research methodology is considered as a compulsory lecture in the academic context of universities, particularly for educational program, or teachers' training program. The competence of doing such research will create innovative and creative teachers, especially in the instructional system development. However, the fact that nowadays many teachers or in this case the participants who pass the lecture of research methodology, are not yet able to apply the system in daily context. Hence, research development tends to be significant to be conducted, primarily in developing the learning design for the lecture of research methodology. The development process of learning design carries out the modified development model of Dick & Carey, particularly towards to the characteristics of developed lecture. This present research is a multi-year research with an effective and an efficient learning design as its output, whereas this article is a result of the first-year research that will discuss the result of needs analysis in order to get both instructional goal(s) and instructional objective(s). This research is still considered as a research proposal that is hoped to be accomplished and presented in ETWC 2016.

Keywords: research methodology, research & development, needs analysis, dick & carey model, teachers

INTRODUCTION

Education is simply assigned to increase the quality of human resources in a nation. It means that if a nation develops the quality of its education, then either directly or indirectly the quality of its human resources also increases. The regulation Number 20 Year 2004 of National Education System stated that education is a conscious and planned effort to create better condition and process as well as learning result as students actively develop their ability, have a strong self controlling, and skill for themselves and for the society. Therefore, it needs a well-organized plan to do the education process appropriately as the objective of the national education could be achieved due to the regulation.

Learning can be defined as the process of changing attitude that is permanent-relative as the impact from the interaction among students with the learning source. Hence, teachers must do their best effort as the learning process could be done effectively and efficiently, particularly to build students' motivation and spirit as affirmed by Suparman (2012), that teachers could create a creative-innovative with the learning objective as its benchmark. In line with this, someone or a group of teachers do not merely act as the learning operator, but also must act as a learning designer. This case still meets problem in the learning process, that is, teachers, in this case is lecturers do not spare enough time to plan their lecture's process. As the impact, the learning runs flat, no confirmed plan and objective, and the result will later release on dissatisfaction.

The lecture of Research Methodology is considered as a compulsory lecture that has to be followed by students in universities, and nowadays it only discusses about research procedure. The ultimate result aims at doing the thesis for students on time. However, the fact is not the same as the expectation as the students who passed the lecture of Research Methodology not yet have a competence that is needed to accomplish the thesis in a good quality. The cause is that this lecture is not well set up, no communication among parallel lecturers and also undeveloped learning device that is based on the learning objective itself. Therefore, it needs the application of education technology to increase learning

quality in the lecture of Research Methodology, and one of them is by designing and developing learning design of the lecture of Research Methodology.

The education technology as the applied science gives a firmed capture and direction in the process of developing the quality of learning. AECT stated that "Educational technology is the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological process and resources" (Definition and Terminology Committee of the Association for Educational Communications and Technology, 2008). From the above definition, it can be identified that the application of education technology is considered as the ethical practice in facilitating the learning process and increasing the performance by creating, using, and directing needed resources and technology process. One of the products from the application of education technology is by designing the learning device, in this case will be applied one model of instructional development, that is, Dick & Carey, which is also adopted by Suparman (2012) named MPI (Instructional Development Model).

The target of this developmental research is the creation of learning design which is developed based on the instructional development model, with the optimalization of students' learning result in the lecture of Research Methodology as its goal. It is considered as important as the research competence is a compulsory competence that should belong to every student, particularly for those who will accomplish S1 level (bachelor). The developmental instructional process of Dick & Carey model consists of several stages, namely: (1) do the needs analysis, (2) determine the instructional goal(s), (3) do the analysis of competence mapping, (4) do the student's characteristic analysis, (5) determine the instructional objective(s), (6) design the evaluation and scoring device, (7) design the learning strategy, (8) arrange the teaching materials, and (9) do the formative analysis. Moreover, the implementation process, summative evaluation, and diffusion innovation that will also be done, however, that process is not included in the research development process.

LEARNING DESIGN OF RESEARCH METHODOLOGY

Why is the lecture of Research Methodology developed? Particularly developed for Education Study Program? In fact, the students of education study program are as the candidate of teachers who will engage with students in school, hence it is important for them to have such comprehension of doing the research as they can develop the quality of learning. However, the fact shows that the teachers nowadays do not have sufficient competence to do the research. This fact is shown from the former research result that was done by the researchers, there are almost 70 percent of surveyed teachers do not have appropriate comprehension of problems concept of the research, even almost 90 percent teachers never did the research, and the last causes almost 100 percent teachers never publish the research result. Hammersley (1993) proposed that, "educational research should be an integral part of the work of teachers in schools rather than an activity carried out on schools by outsiders". From the case that it is clearly seen that between research and learning process are interrelated, research is therefore considered as the main competence which must be mastered by teachers.

Januszewski & Molenda (2008) wrote that educational technology is the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological process and resources. This is shown that education technology facilitates learning process for any kinds of learners, unlimited for the students, but also for the teachers or other educators. Education technology is hoped to bring the quality of learning process significantly, in this case education process and training towards teachers in school. Learning process should be embodied in a well-organized and pleased circumstance, therefore, it can emerge students' motivation in learning, which is at the end can achieve the instructional objectives made by teachers or lecturers. However, many teachers and lecturers do not design the learning process appropriately that the learning seems deliberate conventional, even more, many teachers and lecturers teach without clear instructional objectives.

The lecture of Research Methodology in the Mathematics Education study program is given at the fifth or sixth semester, and it is embodied to give a clear capture of the research process. In fact, after the students follow the lecture, they

still do not have a complete thought, and tend to misperceive the appropriate research procedure. The final impact, the students are not able to do the research in completing their thesis. This is as a cause that can be predicted, as the lecturers of this lecture have different education background, as they teach with their own style and materials. Some lecturers teach with the goal that students must comprehend the research procedure, and others teach with the goal that students comprehend data analysis, and the rests teach with the goal that students must be able to do the research application, and so forth. This definitely gives a negative impact to the students as they are not taught by standard and by the un-standardized learning device. Therefore, it is significant to do the research in creating the learning design which can be used together in the lecture of Research Methodology.

METHOD

This research is considered as a development research that is to develop learning design of Research Methodology, with the creation of learning device that guarantees this lecture's objectives as its focus. Generally, the researchers divide this research into three (3) stages, namely: 1) preparation, 2) development and formative evaluation, and 3) implementation and summative evaluation. Those stages division will be implemented in the total of time allocation in three (3) years.

This research is a qualitative research with the tendency of designing and developing the learning system, with the basis of data and information from the discussion of Research Methodology. The stages of research methodology consists of the needs analysis, the determination of instructional objectives, the development of scoring device, the design of learning strategy, the development of material device, the investigation of formative evaluation, implementation, and summative evaluation. The literature review and the early data collection, the data collection and data construction, some stages of survey and analysis, studies, validation and verification, then the design of learning model and experimental learning model to find out the efficiency and effectiveness of learning model.

Model is referred to a simulation form which becomes as a foundation or reference in doing such activities or developing something. As explained by Richey, Klein & Tracey (2008), Model implies a representation of reality presented with a degree of structure and order, and models are typically idealized and simplified views of reality. Model represents the reality of fact, which is displayed through degrees and simpler structure, but seen as real.

Model that is one considered as a system-oriented is a model by Dick and Carey. The development stages release in many stages, namely: (1) doing the needs analysis, (2) determining the instructional goal(s), (3) analyzing a map competence, (4) analyzing students' characters, (5) determining the instructional objective (s), (6) designing evaluation and scoring device, (7) designing learning strategy, (8) constructing the materials, and (9) doing the formative evaluation. The implementation process, summative evaluation and innovation diffusion are still investigated, but the process is not included as the development research. For a clear discussion, the stages of development can be seen in figure 1.
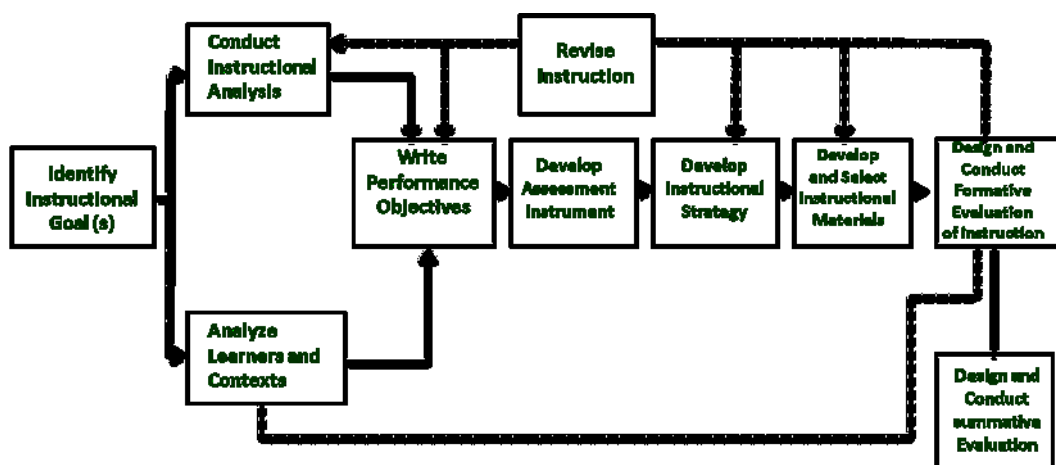

Figure 1. Procedure of Development Model Dick & Carey

Dick dan Carey Model, explains the development process which can be applied for a broader context in detail. This model is one of the models that is known as the most systematical designing model and be as a standard for other learning models.

LEARNING DESIGN OF RESEARCH METHODOLOGY

This research is planned for three (3 years), and this article is the result of the first year research which focuses on the needs analysis to find out new significant aspects which become as the foundation in developing the learning design of the Research Methodology. To get the data of needs analysis, the researchers will have a discussion with the interviewees from Professors, the lecturers of Research Methodology, teachers who are from educational background of study, and the college students. Specifically, the researchers will come to several accredited campuses in Indonesia, such as Universitas Negeri Jakarta (Prof. Dr. Basuki Wibawa), Universitas Sriwijaya Palembang (Prof. Dr. Zulkardi), Universitas Pendidikan Indonesia Bandung (Prof. Dr. Yaya S. Kusumah), and Universitas Negeri Medan (Prof. Dr. Hasratuddin, M.Pd.), and also completed by local keynote speakers from Universitas Indraprasta PGRI (Prof. Dr. Sumaryoto and Dr. Supardi U.S.).

RESULT AND DISCUSSION

Research Result

The beginning activity of doing the research is conducting the needs analysis. This needs analysis employs the rubric instrument as well as the interview guidelines that aims at getting deep information from keynote speakers that are determined before. The information derived from several experts, particularly the ones who deal with the Research Methodology, that is, Prof. Dr. Zulkardi, M.I.Kom., M.Sc., Prof. Dr. Hasratuddin, M.Pd., Dr. Somakin, three (3) teachers and three (3) college students of Research Methodology.

Gagne (2005) defined that learning design as: … a series of learning sources and procedures which are used to facilitate the learning process. Furthermore, Reigeluth (1986) said that instructional development concentrates on the comprehension, such as professional activity, and it is like in constructing the building and blueprint which is done by the architect. The instructional development is a kind of process in giving the recipe and the use of optimum procedure in creating the new learning activity in a situation which is conditioned

at the time. The result of instructional development as the professional activity is ready to use as the instructional sources, scientific report, and or learning plan.

From all interviewees said that students are really eager to follow the process in the lecture of Research Methodology, as they notice that this lecture plays a big part to determine their passing point, that is, it is used to accomplish their thesis. It shows that the importance level of this lecture is considered high as it can take students seriously to learn this subject. On the other hand, students are still depending on the lecturer's explanation and as a result the lecturers must give students a motivation, not only for accomplishing the assignments. Prof. Hasratuddin further asserts that a research is basically an honesty of the research itself.

The interviewees mostly state that the end product of this lecture is a proposal draft that comprises background, the identification of problems, the formulation of problems, the objectives of the research, the significance of the research, literature review, and research method. A draft of proposal is a deep analysis that is taken by students after they do the observation to the field (school), as they find the most significant actual problems to solve directly. It means that this lecture demands students to conduct the observation to the school and get information relating to the research topic that is aimed to be as the topic of the thesis. It is informed that student's proposal cannot be proposed to be the thesis as they do not accomplish the field research (PPL) yet, as of they do not have acknowledgement of the real problem at school.

A draft of proposal that is as the end product, is considered as a must, because a final-year student is basically on the level of evaluation and creativity, so that they are asked to create a scientific work, particularly to thesis accomplishment. However, to accomplish such thing, the lecturers are also asked to explain more about the related former materials, such as the basic learning process, learning methods, psychological education, and so forth. In other words, the candidate students of Research Methodology must master the prerequisite materials before they take and pass the Research Methodology.

Prof. Zulkardi technically states that the activity of Research Methodology is done altogether, the students are asked to discuss per chapter, per topic, presentation, writing, and collecting the paper. Even more, the students are also asked to present the proposal by using the poster, as it clearly indentifies the research planning. The students are also asked to read the relevant thesis and journals actively as they will get more information to choose the research topic. Particularly for thesis, the students are directed to evaluate the accomplished thesis by analyzing the strength as well as the weakness point so they know the significant things of the thesis accomplishment. The role of lecturers is very important to facilitate the used journals, that is, qualified journals, minimally of national accredited journals, and better of reputable international journal.

The materials given in the Research Methodology are generally classified into three (3) major discussions, namely: 1) to find the problem (topic) that needs to be analyzed. The research cannot be standing in isolation, like climbing the nut tree, a researcher has to read other's research result to define the things that are already analyzed, and to find new topic of the research. 2) to find the theory. The things that are used to solve the research problem, particularly of the educational research, as the research methods are needed to be discussed in detail. 3) to discuss the method. The used methods are varies, but the significant to be taught is a descriptive method, developmental research, experiment, and research action. Besides those three things, students should also learn about curriculum review, research method review, and learning method review.

The learning media used is ICT that the students are asked to make a blog and to write all the research plans there, besides the students try to access the internet to find scientific articles related to the research. The students are directed to make a log book as the evidence of observation, as the research process from time to time can be well verified. The learning strategy uses a cooperative principle, where students make a scrapbook about the topic which is displayed around the class then other students do a peer review of reading to give comments each other.

The Research Methodology is ideally conducted in the sixth semester, considering to the fact that many prerequisite lectures are already learnt before. After that, it continues to PPL, proposal seminar, and finally thesis accomplishment.

Discussion

The educational background students, in this case as the teachers' candidates will face the Research Methodology, that is a major reference to do the research and to pass from their educational program. This lecture is also targeted to prepare students to become competent teachers, as they can increase the learning quality classroom context. In other words, this research and development is hoped to create students as the teacher who also become as a researcher, or known as teacher as researcher.

This research is not said as the new stuff in the learning process, as the learning development is always started by the research, or in other words learning process that is still going on at the present time is the research result that was done in the past time. In Indonesia, the tendency that was happened is teachers do not do the research to increase the learning quality, do not find new ideas of learning methods, even evaluation device. Teachers only wait the research result from the academic civitas, then try to apply if it is considered as easy to be done, or vice versa, to deny if it is considered as difficult. Cheruvu (2014) said that, "although there is consensus that teacher research is a useful tool to improve practice on an individual or context-specific level, many teacher educators shy away from or are discouraged from engaging in teacher research." This weakness has to be overcomed, as later teachers do not only act as educator but also act as researchers.

Findings in the needs analysis show that Research Methodology is considered as an important subject to learn and to master for students, particularly for education program students. The end product, that is, a draft of proposal is a logic consequence from the characteristics of this lecture which is very practical and technical as it later creates the better qualified thesis that the former.

The mastery of various research methods is definitely as a must for students to do the research properly. Selvi (2010) affirmed that research competencies include the competencies of research methods and techniques, designing and carrying out research in teachers' fields. … the research competencies of teachers are of great importance for students in gaining the scientific thinking and scientific process skills. In this case, a teacher candidate is said to be competent in the research if the teacher is able to comprehend and to do the research that is suited to the appropriate method and technique. Moreover, research is considered as important to the students to increase their way of thinking and their ability in scientific process.

Moreover, Cheruvu (2014) affirmed, "Yet teacher research—systematic data collection and analysis of a problem of practice—is helpful for improving one's practice, gaining a deeper understanding of students' perspectives and needs, and, ultimately, improving students' learning." Cheruvu's opinion clearly determines that becoming researchers, teachers will be able to increase students' comprehension that is suited to their needs, which clearly develops their learning quality. Teachers who create their learning process due to the research result-independent-will be able to create the more effective and efficient learning process, also pleases their students. Teachers who acts as the researchers also change their perception, about curriculum, about learning process and the competence itself. As proposed by Souto-Manning (2012) argues that teacher educators must engage in teacher research with three goals in mind: to transform the self, to transform curriculum, and to transform teaching in teacher education. These goals can collectively lead to a transformation of society. Indeed, Cheruvu (2014) stated this notion of teacher research in teacher education has significantly shaped my work as a teacher educator. It shapes my teaching and my research as well, in terms of how I understand my role as a teacher educator on an individual and collective level.

Cheruvu (2014) stated that from where I stand now on my continuing journey as a teacher educator-researcher, I see that my research has worked toward transforming the self, curriculum, and the larger field of early childhood

teacher education. My research has forced me to interrogate the knowledge, assumptions, and positionalities that govern my teaching. This interrogation has led to a transformation of self. Engaging in teacher research has also improved my teaching practice in small, practical ways, such as how I structure discussions, assignments, and interacts with preservice students. It has also had more conceptual influences on my view of my role as a teacher educator, my pedagogical approaches, and my perspectives on preservice curriculum. These changes to my teaching have in essence led to a transformation of curriculum. The point is by doing the research, there is a massive change relied on the teachers themselves, they tend to have more knowledge, a more systematical way of thinking, scientific way of thinking, more independent, and at the end will increase the learning quality, as the learning process that is planned before always be started by the research.

The research result in this beginning stage becomes a foundation in developing learning design of Research Methodology, and it is hoped to be transferred into a good and qualified design. The significant things must be as an important consideration in designing various learning device which will be developed later. All this process is hoped to be as a device to increase the quality of learning of Research Methodology in general, and the quality of student's thesis in particular.

CONCLUSION

The process of learning development of Research Methodology is as the need that has to be embodied. This needs a commitment and creativity from the development team to create learning design which really answers the needs of students, particularly the students of educational background as the teacher's candidate or educator.

REFERENCES

Cheruvu, R. (2014). Focus on teacher as researcher: Teacher educators as teacher researchers: practicing what we teach. *Childhood Education*, 90 (3), 225-228.

Definition and Terminology Committee of the Association for Educational Communications and Technology. (2008). Definition. In A. Januszewski & M. Molenda, (Eds.) Educational technology: A definition with commentary (pp. 1–14). New York: Lawrence Erlbaum Associates.

Gagne. M. R., et. al. (2005). Principles of Instructional Design**.** New York: Wadsworth Publishing.

Hammersley, M. (1993). On the teacher as researcher. *Educational Action Research*, 1 (3): 425-445.

Januszewski, A. & Molenda, M. (2008). Educational Technology. New York: Taylor & Francis Group.

Reigeluth, M. Chariest. (1986). Instructional Design Theories and Models. London: Lawrence Eribaum Associates.

Richey, R. C., Klien, J. D., and Tracey, M. W. (2011). *The Instructional Design Knowledge Base: Theory, Research, and Practice.* New York: Routledge.

Selvi, K. (2010). Teachers' competencies. *Cultura- International Journal of Philosophy of Culture and Axiology,* 7 (1): 167-175.

Souto-Manning, M. (2012). Teacher as researcher: Teacher action research in teacher education. *Childhood Education*, *88*(1), 54-56.

Suparman, A. (2012). Desain Instruksional Modern. Jakarta: Erlangga.

Walter, D., Carey, L. and Carey, J. O. (2005). The Systematic Design of Instructional**.** Sixth Edition. New York: Pearson.