

## **HISTORY EDUCATION MODEL DEVELOPMENT FOR THE 21<sup>ST</sup> CENTURY**

**Hansiswany Kamarga<sup>1</sup>**  
**Murdiyah Winarti<sup>2</sup>**  
**Yani Kusmarni<sup>3</sup>**  
**Tarunasena Ma'mur<sup>4</sup>**

### **ABSTRACT**

*This research aims to obtain a form of the 21st Century History Education Model based on the four converging forces, namely knowledge work, thinking tools, digital lifestyles, and learning research through local history as the substance in the ICT in History Learning course. It is done to anticipate the need of skill development that demanded in the 21st century, especially for Department of History Education which will produce the history teachers. The results of this research can be used and developed by the Department of History Education as the education model in every course which discusses about the historical thinking development. The results of the 21st Century History Education Model show that (a) in knowledge work aspect, 90,3% of students opined that this course gave them much knowledge about the development in information and argued technology world; (b) in thinking tools, this course got 'good enough' mark to help the students in learning, working, and recreating through browsers, email, blogs, UPI SPOT (Sistem Pembelajaran Online Terpadu / Integrated Online Instructional System, accessed on spot.upi.edu), and Wi-Fi facility in the faculty; (c) in digital lifestyles aspect, ICT in History Learning course could bring the changing of students' lifestyle and habit. The students started to habitually do their task by them selves or by groups without being bordered by time or space. The last aspect, (d) learning research aspect of the students are good enough in understanding in searching and developing the information of local history substance via internet, but in developing their skill of updating the knowledge into a meaningful learning, and skill of confirming the information of local history substance that been got from the internet and the local region through observation and interview, 60% of students did feel difficult. Developing students skills in researching, searching, and finding their region potencies through the tasks which related to their locality also could grow their pride with their locality itself, and their appreciation between the other regions' diversity. Kind of those thoughts are the requirement of the people in the 21st century: always think like a researcher search and find something new.*

**Key words:** *knowledge works, thinking tools, digital lifestyles, learning research*

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<sup>1</sup>**Hansiswany Kamarga, Murdiyah Winarti, Yani Kusmarni, and Tarunasena**, lecturer of History Department in Indonesia University of Education (UPI). For academic interest, the author can be contacted through the office address: Setiabudi Street, No. 229, Bandung, and email address: hkamarga@indo.net.id, murdiyahwinarti@yahoo.co.id, yani\_kusmarni@yahoo.co.id, tarunasena@upi.edu

## **Introduction**

Basically, history is a discipline about human (Kochhar, 2008: 3), studying about humans' hard working to reach their will, stories about what humans had been done, what they left for the next generation, the contributions for civilization that could bring a good progress in morality and materiel. All of these can be seen from the history which gives us understanding description about the way of unfinished events. It means, history contains time, space scope, explanation about the sequence of the past until present, and the dialogue between the past and the future. Also, history is the story about people awareness, as an individual and or in groups.

In this time, the understanding of history is much more scientific and developed well. History is not only comprehended as the great men history, personal history, and heroes history, but also now history gives presses to the evolution, growth, development of the human civilization. History does not always record the past events, but after pays close attention from time to time, then it can examine about the propensity of the society development. After that, the probability of what will happen in the future can be projected, so the society can anticipate in a needed form to prevent the unwanted things. In the similar phrase, Kocchar (2008: 12) explains that nowadays, history has four dimension, those are society, space, time, and idea, which all are needed to construct about human history comprehensively. Idea is the thinking result continuity that basically means as the point of view about propensity, so it is able to develop the projection. In this case,

understanding history is not only about knowing the past events, but also about the ability of creating projection so there will not be any faults, or in phrase known as 'history is the best teacher'.

Department of History Education targets to produce history teachers who can face the global challenges in the 21st century. But, if it is led to the back, in school there was often heard like these: 'What is history for? Is it for memorizing facts in students' textbook? Or just giving the knowledge that can be as a burden for students? Why do students below the middle school level have to learn history too? Why must history subject in every single ladder?' There are so many questions from the students which cannot be answered until now because their teachers neither give them an appropriate or satisfying statement. The main problem is why the history teachers still cannot give their pupils a positive understanding about the importance of learning history. Learning history is only placed as their obligation to fulfill the curriculum's target, more pathetically is if teachers only teach history just to fulfill the end semester exam. The essential thing of learning history cannot be seen, covered by history facts which will be re-asked in the exam. It can be seen there is a gap between teachers' ability (teacher candidate for the students of Department of History Education) to teach history as demanded for the 21st century. Deeper, students' conventional study pattern, just like memorizing history, will only hamper the achievement of skill of the 21st century.

This research focused on developing a history education model so that can reach the need of the teachers' skill in the 21st century based on the four converging forces,

they are knowledge work, thinking tools, digital lifestyles, and learning research. In this model, it is done comprehensively the development research covered of learning objectives development, learning material development, learning process development, and the evaluation of learning outcomes development; through the local history in ICT in History Learning course.

Based on the identification about the gap between the Department of History Education's students' ability in understanding history by memorizing it, and the needed of the learning skill of the 21st century, so it has to have a Research and Development to obtain the 21st Century History Education Model. The research questions are:

1. How are the students of Department of History Education's initial perceptions about the ICT in History Learning course?
2. How to develop the 21st Century History Education Model based on the four converging forces, namely knowledge work, thinking tools, digital lifestyles, and learning research through local history substance in ICT in History Learning course?
  - a. How to develop the learning objectives through local history substance in ICT in History Learning course based on the four converging forces?
  - b. How to develop the learning material through local history substance in ICT in History Learning course based on the four converging forces?
  - c. How to develop the learning process through local history substance in ICT in History Learning course based on the four converging forces?

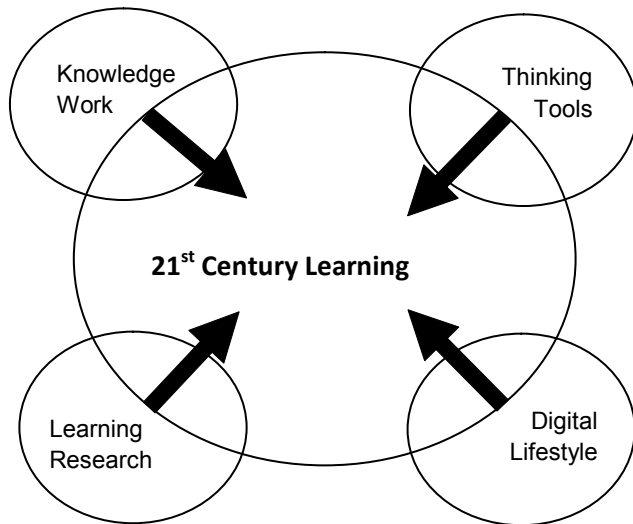
- d. How to develop the evaluation of learning outcomes through local history substance in ICT in History Learning course based on the four converging forces?
3. How are the students of Department of History Education's perceptions after using the 21st Century History Education Model through local history substance in ICT in History Learning course based on the four converging forces?
4. What are the strengths and weaknesses of the 21st Century History Education Model through local history substance in ICT in History Learning course based on the four converging forces?

## **Literature Review**

### **Development of Thinking Skills**

The consequences of learning through the using of actual events, contemporary problems, and controversial issues are the needed of thinking skills development. For that, it is requires the practices about the thinking skills. Trilling & Fadel (2009: 21) explained that there are four main forces which can form the 21st century skills; those are knowledge work, thinking tools, digital lifestyles, and learning research. The needed of knowledge work is to make the students create and produce innovation in order to solve the problems. Thinking tools are assumed as the potential power for the 21st century in line with the speed of information and communication development. Digital lifestyle is a lifestyle that cannot be released from the thinking tools, if people do not know how the technology works; they will be left far behind. Learning research is the requirement in the 21st century, people have to think like a researcher, searching

and finding something new (Trilling & Fadel, 2009: 24-31). The pictures below shows four forces that required in learning in the 21st century, as Trilling & Fadel's thought.



The thought of Trilling & Fadel is appropriate to consider by the history teachers. It means, although learning history means learn about humans' journey in the past, but in the learning activities itself; teachers have to think about present and future. The thinking skill, researching, and the ability of using technology are required in learning history.

Shalaway (2005: 122) explained, "Knowing how to think – to extend the mind beyond the obvious and develop creative solutions to problems – should be the outcome of a good education. Out thinking skills affect how well we can receive and process new information." In the era when the stars are technology and information, thinking skills have a big role in it. One of the ways that can be developed by teachers when they teach history is creating the atmosphere of thinking. Shalaway (2005: 122-123) also explained that practices are

needed to reach the thinking skill, and to make the practices done well, teachers need to create the atmosphere of thinking in their classes.

### **ICT Based Learning to Support the 21st Century Skills**

Teacher and lecturer regulation mandates to the educator us maintain the professionalism in accomplished their task and function. They must develop themselves so that they can solve the education problems that globally appear. One kind of the solving strategy is using ICT in the related subject learning, so that it can replace the learning paradigm from the teacher centered to the students centered (Sutrisno, 2011: 7). For the example of using ICT is the use of the internet as the media of learning process. The totality in integration of ICT in learning is one of the efforts to increase the education quality itself. With the fast growth of ICT, lecturing method and making note seem so old-fashioned. The needs of supports from many other component in the implementation of the ICT-based education and student centered learning are something that cannot be avoided.

To increase teachers' professionalism in global era in the context to improve the learning, there are two important things in ICT aspect that teachers have to pay attention. The dimensions are readiness in teaching, and self-motivation to act reflective and participate to spread out the ICT awareness to the society. Meanwhile, teachers' readiness to utilize the ICT should come from the institution and personally have vision to apply the ICT in class. Support and motivation of the educators can come from their selves, or from how often they use computer through

formal course or autodidact. Some factors themselves needed to consider by the educators in utilizing the ICT in learning can be such as their ability to identify what kind of ICT that can be applied along the learning objectives, so it can improve students' understanding.

The development of ICT has opened the wide probability to be utilized in education. The presence of ICT in learning means as a challenge for the education world: how to face the globalization. Many of soft wares with the connections could make the students as the pupils better if used well and accurately. The challenges of this era are responded in Department of History Education, UPI, by offering ICT in History Learning course, consists of 2 credits. As known together, as the teacher candidate, the students of Department of History Education should prepare themselves, so they can also create great students who have high order thinking skills, can solve problems, creative, innovative, communicative, and have information and media skills. That is why in this course, there is not only about how to operate computer, how to use technology to collaborate, communicate, and do research; but also about how to solve problems that grow more complex dynamically.

Instructional design which utilizes the electronic media (focused on using computer and internet technology) as the tool to help the learning itself is called as e-learning (Daryanto, 2011: 149). In Indonesia, it is generally used a blended e-learning. It means that it is used not as the main tool in learning, but as the complimentary tool in conventional learning. Lecturers' control in class is still dominant; students have not used the

internet totally as their part of learning. Internet functions as the supplement, not as the substitution of conventional learning process. Through computer, students could learn individually, whether of programed or not. With un-programmed learning, student can access many kinds of learning material and information via internet, freely and without any intervention from anyone.

As one of the media of learning process in class, internet is expected to give supports in the implementation of communicative and interactive learning between educators (lecturers or teachers) and the students (undergraduate students or school students). More attention should be focused on the instructional strategy that wanted to develop, just like the communication activities to invite the students to do their homework and help them to gain the needed knowledge in case of doing their homework. According to the internet characteristic that can be connected all the time, students can use the education program which served in it. Students are pleased to utilize the internet to find the academics material such as articles, journals, or any other references.

The presence of the ICT in education world does not stand alone. In its implementation, it is required some of related components. In the process, it cannot be denied that ICT has innovative roles as the learning sources, education facilities, and as tools which support schools' infrastructure and administration. In the course of ICT in History Learning, the students are expected to understand the basic concept of information and information technology, have a wide knowledge about the difference of

conventional and non-conventional learning, can collect, process, exchange, and utilize the information in the context of history learning. In this research, the course used local history as the substance of history learning.

### **Local History Definition**

Before we go further about local history, there are several definitions about the local history by the experts. Many historians defined and gave comprehension about the meaning of local history, but the exactly meaning of it has not agreed well yet. It is not easy to find the true meaning of it, but as Finberg and Skipp (1973: vii) said, "We don't know what we mean by local history, and we don't care; but we mean to go on with it."

Local history also called as a study about society's life, especially about the community by its certain neighborhood, in a dynamic of several aspect of human life development (Widja, 1991: 15). Finberg mentioned specifically the community as township or village (Fineberg: 1973). On the other hand, Goubert (1971: 113) explained, "... local history that which concern a village or a few villages, a small or middle-sized town (a large harbor or a capital is beyond the local scope), or a geographical area not greater than the common provincial unit..." It can be concluded that the scopes of local history are measured by the territory of village, township, or any geographic region where it is not bigger than province. There is an interesting point highlighted on Taufik Abdullah in his book '*Sejarah Lokal di Indonesia*' (Local History in Indonesia) which said that the local in this context refers to a place, space, or a locality that determined based on a offered 'agreement'

by the historian itself (Abdullah, 2010: 15). Simplified, the definition of local history is as the past stories of groups of a society in a limited region. This simple definition in this article also means the history that tells about the dynamics of life from the community in a society with its culture in a limited region.

Related to the object, local history in Indonesia can be divided by four types, those are: focused on certain events, focused on structures, focused on development of certain aspect in certain time (thematic history), and general history about the development about certain regions (provinces, cities, or municipals) times to times (Abdullah. 2010: 28). According to the last one, released from agree or disagree, but local history often claimed as the local history. Why? Because it is identic with politic that could ignore the culture and ethnic. Meanwhile, talk about local history, it always relates to its role in the sustainability of national history.

Local history seems has a little attention, assumed as un-really-important, and has no context about national history. Yet, nowadays, with the appearance of the ethnocentrism, it is needed the anticipation through the history perspective which can retie the Indonesian knots (Susanto Zuhdi, in Mulyana, 2007: 111). Conventions that discussed about local history have already been held five times, exactly in 1982, 1984, 1986, 1994, and 2000 (Departemen Pendidikan Nasional, 2001: vii). Beside of that, through Department of Education and Culture, the government held National History Inventory and Documentation Project and issued lot of local history monograph (Helius Sjamsuddin, in Mulyana, 2007: 207). In 2001, with

National History Awareness Project that held by Directorate General of Culture, Department of National Education, the government compiled book titled '*Kumpulan Makalah Diskusi Sejarah Lokal Sub Tema: Konflik Komunal Dan Ketersingkirannya Sosial I*' (Collection of Local History Discussion Papers Sub-Theme: Communal Conflict and Social Isolation I) and '*Kumpulan Makalah Diskusi Sejarah Lokal Sub Tema: Pembangkangan Sipil Dan Konflik Vertikal II*' (Collection of Local History Discussion Papers Sub-Theme: Civil Disobedience and Vertical Conflict II) (Departemen Pendidikan Nasional, 2001). Although those had not been satisfied various parties yet, it was a good effort by the government to document important events in several regions in Indonesia.

To create local history which could cultivate the values of independence, able to compete, respect differences, realize about self-identity through ethnic and culture; it can be developed through the ICT in History Learning course. This course used the principle of the the four converging forces, consisted of knowledge works, thinking tools, digital lifestyles and learning research.

### **Research Method**

This research used research and development (RnD) approach model. Borg & Gall (1979: 624) defined RnD as "a process used to develop and validate educational products." Procedure in this process was according to cycles based on the research finding which later develop as a product. The product development based on the preliminary stage was tested in a certain situation and got revised until it became a model (as a product) which can

be used to finish the output.

RnD cycles, according to Borg & Gall (1979: 626) consisted in 10 steps. Those are:

1. research and information collecting
2. planning
3. preliminary form of product
4. preliminary tests
5. main product revision
6. main tests
7. operational product revision,
8. operational tests
9. product last revision
10. dissemination and distribution

According to the procedures developed by Borg & Gall above, developing the product began with developing the preliminary form in an education library so the product would be as a micro-teach form. This preliminary product that trialed in the field (in real form) was the main trial and operational trial. Pointed about lecturer's ability to bring and train him in laboratory, so there were simplified RnD procedures, as the following:

1. Research and information collecting in a form of pre-survey research
2. Model development of direct learning in the field with the trial and revision stage used the approach of lecturer collaboration. In this case, the development itself was done in action research.
3. Model tests, it was tested in the way of validation testing, so in the end it would be gain the 21st Century History Education Model which ready to be disseminated.

### **Research Time and Place**

This research focused on the students of the Department of History Education which currently contract the ICT in History Learning. It means that the research took place in Bandung, pointed in Department of History Education, Faculty of Social Science Education, Indonesia University of Education (UPI). It was conducted in the in odd semester of 2013/2014, or since September until December 2013.

### **Research Subject**

The Subject of this research were the lecturer and the 3rd semester students who took the ICT in History Learning course in Department of History Education, Faculty of Social Science Education, Indonesia University of Education (UPI). The students in this semester rated had an adequate basic ability to understand the content and the process.

### **ICT in History Learning Profile**

This course was managed by Drs. Tarunasena Ma'moer, M.Pd. This course is a preferred course from history education clumps, and consists of two credits. The objectives of this course were to make the students:

1. Understand about the basic concepts of information and information technology
2. Have wide knowledge about the difference of conventional and non-conventional learning
3. Understand internet position in education world
4. Can collect, process, exchange, and utilize the information in the context of history learning, included the

understand the World Wide Web though the internet in the context of history learning

### **Data Collecting Instrument**

In this research, the researcher used three instrument. *First*, researchers made a questionnaire instrument for the students at the pre-survey research stage. Second, at the stage of model development, it was used (1) class observation about the learning process in the ICT in History Learning course, (2) class assessment which assessed the thinking skills based on the four converging forces during learning process, (3) performance assessment of students tasks through SPOT (*Sistem Pembelajaran Online Terpadu / Integrated Online Instructional System*, accessed on [spot.upi.edu](http://spot.upi.edu)). The instrument to measure the learning result which would be used in the even semester was on validation tests stage.

### **Data Processing**

Data processing in this research consisted of:

1. Pre-survey data processing, the data obtained by the qualitative approach using the SPSS to get the description about how the lecture developed the planning and implemented the course, students' skill and activity during the learning process, lecturer's abilities and performances, infrastructure during the course, and students' point of view during the course.
2. Data processing of the model development was done by the qualitative approach to process the result of observation. It used the triangulation, member check, and expert judgment to get the field tests description.



3. With SPSS, processing and validation testing done with the qualitative approach to see the how effective the model, through the experiment results. abilities and performances in the course, (3) students' activities and opinions about the course, and (4) infrastructures, facilities, and environment condition and utilization.

**Research Results**

**Pre-survey Research**

Preliminary study is a descriptive study. This study was done in order to identify the process pattern of ICT in History Learning course as the consideration in developing the 21st Century History Education Model. This stage was important because in an RnD, the developed model needed the empirical based on how the real profile and conditions of the research subject is. Data of the pre-survey could be gained from the respondents' answers on the questionnaire that was spread to 52 students of the ICT in History Learning course in 2013/2014 academic year.

According to the respondents' answers, it was assumed that the data can represent the preliminary study. There were four aspects as the descriptions of the ICT in History Learning course conditions, as following: (1) students' self-actualization, (2) students' perspective about lecturer's

**1. Students' Self-Actualization**

Before developing the 21<sup>st</sup> Century History Education Model based on the four converging forces, lecturer required to know students' condition covered their readiness and experience during following the course. Respondents consisted of 44 students, 23 men and 21 women; also divided in two class-year groups, they are class-year of 2010 consisted of 3 student, and class-year of 2012 consisted of 41 students. The instrument was given in the beginning or the course, so there were some of the class-year such as the class-year of 2007, 2008, 2009, 2010, and 2011, did not fill the questionnaire because of their absence. The data below showed that students' responds about improving their ways of learning in this course was various. It was related to students' characteristic and habits in learning.

Students' readiness and experience are served in the table below:

**Table 1.1**  
**Students' Learning Objectives**

Learning Objectives			Learning Expectations			Task in Learning		
To finish the college in precise time	To have knowledge and science	To change the thinking pattern to be more critical and comprehensive	To become a smart student	To become a creative and have critical thinking students	To become a clever and active student	As burden	As the effort to develop teacher professionalism	As student's obligation
5	15	24	2	30	12	-	23	21
11,4%	34,1%	54,5%	4,5%	68,2%	27,3%	-	52,3%	47,7%

**Table 1.2**  
**Mastery in Learning Material**

Satisfaction in Mastery the Learning Material		Ways to Achieve							
Yes	Not yet	Did not answer	(1) Reading the information source	(2) Discussing with friends	(3) Having more knowledge via internet	Answer number (1) & (2)	Answer number (1) & (3)	Answer number (2) & (3)	Answer number (1), (2), and (3)
1	43	3	6	1	4	3	8	2	17
2,3%	97,7%	6,8%	13,6%	2,3%	9,1%	6,8%	18,2%	4,5%	38,6%

**Table 1.3**  
**Improving the Ways of Learning**

Need to Improve the Learning Way in the Course		Ways to Improve							
Need	No need	Did not answer	(1) Reading the information source	(2) Discussing with friends	(3) Having more knowledge via internet	Answer number (1) & (2)	Answer number (1) & (3)	Answer number (2) & (3)	Answer number (1), (2), and (3)
44	-	2	6	6	4	3	6	5	12
100%	-	4,5%	13,6%	13,6%	9,1%	6,8%	13,6%	11,4%	27,3%

## 2. Students' Perspective About Lecturer's Abilities and Performances in the Course

**Table 1.4**  
**Students' Perspective about Lecturer's Performances**

Lecturer Performances	0	1	2	3	4
Lecturer described the learning objectives in the beginning	2	1	5	22	14
Lecturer gave questions in order to knows students' basic scheme about the topic that would be taught	2	1	10	23	8
Lecturer gave chances to the students to elaborate the concepts or phrases of the course learning material	3	1	5	24	11
Lecturer used the learning media	2	-	4	18	20
Lecturer introduced the internet to students	3	3	10	16	12
Lecturer gave task that should be done, related to the learning material being discussed	3	-	4	15	22
Lecturer gave task to widen up student knowledge through the internet access	2	1	16	13	12

### 3. Students' Activities and Opinions about the Course

**Table 1.5**  
**Students' Activities and Opinions about the Course**

<b>Students' Activities and Opinions</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
I think i will gain so much knowledge about ICT in this course	1	1	2	24	16
ICT is strongly needed, especially for history teachers	1	-	4	11	28
This course can be as a basic skill to be a teacher in global era	1	-	1	7	35
This course is not suitable for me	27	7	3	4	3
This course introduces me to the cyberspace	7	6	8	15	8
I use the internet via internet kiosk	11	12	12	4	5
I use the internet via UPI Net	11	8	20	3	2
I use the internet via laptop and modem	2	4	3	15	20
I use the internet via smartphone	17	7	7	6	7
I use the internet via iPad	33	7	2	1	1
I get chances in practicing the internet	6	-	10	18	10
This course gives me chances to explore my ability in using the ICT in daily life	2	-	3	22	17

According to the Table 1.5, ICT in History Learning course gave the students more knowledge about the ICT. It was proved by the students' positive answers that reach 90,9% about it. Besides getting the new knowledge, students also opined that this course gives them a basic skill to be a teacher in global era. It is proved by 88,6% of students thought this course is needed by the history teacher, and 95,4% said this course could be as the basic skill in global era.

There is an interesting point based on the questionnaire. 52,3% students confess this course could introduce them to the cyberspace, but 47,7% students gave the opposite answers. It has with similarity on students' answer which said 88,6% of this course gave them chances to explore their ability in using the ICT in their daily life. The other things which interesting are

84,2% is very rare, rarely, and sometimes used the internet via internet kiosk and UPI Net. Also, 82,9% of students confessed rare to use iPad and smartphone to connect the internet. Almost 79,6% of the students connected to the internet via laptop with their modem. It was showed that the students of Department of History Education have not maximized in using UPI Net that served by UPI to facilitate students to access the internet. The Wi-Fi signal itself is not good enough in campus.

#### 4. Infrastructures, Facilities, and Environment Condition and Utilization

Table 1.6 shows that 66,3% of students said incomplete about their classroom. But, there is an unclear reason about that. Only 40,9% of students gave the reasons:

**Table 1.6**  
**Classroom Completeness**

Classroom Completeness			Reasons				
Did not answer	Yes	No	(1) No reason	(2) Class size is not appropriate to students number	(3) Class tools do not support	Answer number (1) & (3)	Answer number (2) & (3)
2	14	28	26	7	7	3	2
4,5%	31,8%	63,6%	59,1%	15,9%	15,9%	6,8%	2,3%

**Table 1.7**  
**Learning Media Completeness**

Learning Media Completeness			Reasons			
Did not answer	Yes	No	(1) No reason	(2) Have no textbook	(3) Learning media is rarely used	Answer number (2) & (3)
2	20	22	28	11	3	2
4,5%	45,5%	50%	63,6%	25%	6,8%	4,5%

**Table 1.8**  
**Internet Access Completeness**

Internet Access Completeness			Reasons				
Did not answer	Yes	No	(1) No reason	(2) Have no internet access	(3) Learning material in course is adequate	Answer number (1) & (2)	Answer number (1), (2), & (3)
3	39	2	40	1	1	1	1
6,8%	88,6%	4,5%	90,9%	2,3%	2,3%	2,3%	2,3%

class size is not appropriate to students number and class tools did not support. In this case, especially about the chairs poor quality, bad Wi-Fi signal so they could not access the internet via Wi-Fi, dysfunction of electricity connector, and disability of

audio facility such as speaker so they could not display the audio-visual media.

According to the table 1.7 above, students gave an equal opinion about the learning media completeness. It was seen from the table that 45,5% students gave

positive opinion, and 50% gave negative opinion. Incompleteness of the learning media is because students had no textbook as the learning source, neither laptop. Some of the lecturer in the Department of History Education rarely used the learning media in class.

Table 1.8 shows that 88,6% students argued the completeness of internet access was adequate to support learning and teaching activities in class. It means that actually there is easy to access the internet. Some of the students complained that the Wi-Fi connection, especially in the faculty environment was not good. Students had to use their own laptop and modem to access the internet, while in fact many of them had not had laptop yet. If the Wi-Fi connectivity fixed, the students must be helped to access the internet.

There were various opinions about students' first task using SPOT (*Sistem Pembelajaran Online Terpadu / Integrated Online Instructional System*, access on [spot.upi.edu](http://spot.upi.edu)). (1) 20,45% students said that SPOT is confusing, especially in downloading and opening the web. (2) 11,36% students said that using SPOT for the task could reflect UPI's advance in science and technology in the global era. (3) 29,54% students argued that using SPOT make them easy in doing and collecting their task. In the other hands, (4) 6,81% students said using SPOT made the difficult because they had to open the internet access and if the task was late, it would not be accepted. (5) Another opinion came from 11,36% students, SPOT is such a green behavior because they needed no paper and ink. (6) Threat in using SPOT, again, came from the Wi-Fi connectivity; it made of 15,91% students had to be in

campus until night because the Wi-Fi was only fast at night. (7) The last one, 4,5% students said that SPOT give them experience in order to be a history teacher in global era.

### **The 21st Century History Education Model Development Based on The four converging forces through Local History Substance in the ICT in History Learning Course**

#### **1. Model Development Stage**

##### **a. Objectives**

This course expected that students could collect, process, exchange, and utilize the information in the context of history learning. In this research, the course used local history as the substance of history learning. Based on the objectives, this course prepared and implemented debate about Dipati Ukur and Mohammad Toha, inquiry discussion about art and culture. And group discussion about industries in students' hometown.

##### **b. Material**

Learning material that based on the four converging forces in the ICT in History Learning course explored information sources with had relations as the following topics:

- 1) Controversial issue about Dipati Ukur
- 2) Controversial issue about Mohammad Toha
- 3) Development of the art and culture development in students' hometown
- 4) Development of the industries development in students' hometown

##### **c. Process**

- 1) Controversial Issue Debate about Dipati Ukur

a) Product

It was begun from the task on SPOT UPI. Lecturer created the pro and the con groups to implement the debate on the 10th meeting and the general description of the tasks. The Task consisted of these following questions: (1) Explore, study, and discuss with your group about Dipati Ukur! (2) In your opinion, how was his effort based on local and national perspective? (3) Use comprehensive sources that was responsible about it! (4) Write in maximum of 3 sheets of A4 paper, 1 sheet for literature list, and upload your task individually on time.

Lecture ordered students to find, process, and elaborate information about the controversial issue of Dipati Ukur adjusted to the pro / con group. Task in essay form should be uploaded to the SPOT.

b) Process

- (1) Lecturer chose three groups (pro/con) randomly (10 minutes)
  - (2) Lecturer pleased the groups to present their own essay with 15 minutes duration each group (45 minutes)
  - (3) Lecturer guided the debating process (20 minutes)
  - (4) Lecturer reviewed the debating process after finished
- 2) Controversial Issue Debate about Mohammad Toha

a) Product

- (1) Lecturer created the pro and the con groups to implement the debate on the 11th meeting and the general description of the tasks.
- (2) Lecture ordered students to find, process, and elaborate information

about the controversial issue of Mochamad Toha adjusted to the pro / con group. Task in essay form should be uploaded to the SPOT

b) Proses

- (1) Lecturer chose three groups (pro/con) randomly (10 minutes)
  - (2) Lecturer pleased the groups to present their own essay with 15 minutes duration each group (45 minutes)
  - (3) Lecturer guided the debating process (20 minutes)
  - (4) Lecturer reviewed the debating process after finished
- 3) Inquiry discussion about the art and culture development in students' hometown

a) Product

- (1) Lecturer explained about the general description the task
- (2) Lecturer created groups to implement the inquiry discussion in the 12th meeting
- (3) Lecture ordered students to find, process, and elaborate information from comprehensive sources about the art and culture development in their hometown. Task in essay form should be uploaded to the SPOT

b) Process

- (1) Lecturer chose three groups randomly (10 minutes)
- (2) Lecturer pleased the groups to present their own essay with 15 minutes duration each group (45 minutes)
- (3) Lecturer guided the discussion process (20 minutes)
- (4) Lecturer reviewed the debating process after finished

- 4) Group discussion about the industries development in students' hometown
  - a) Product
    - (1) Lecturer explained about the general description the task
    - (2) Lecturer created groups to implement the inquiry discussion in the 13th and 14th meeting
    - (3) Lecture ordered students to find, process, and elaborate information from comprehensive sources about the industries development in their hometown. Task in essay form should be uploaded to the SPOT
  - b) Process
    - (1) Lecturer chose three groups randomly (10 minutes)
    - (2) Lecturer pleased the groups to present their own essay with 15 minutes duration each group (45 minutes)
    - (3) Lecturer guided the discussion process (20 minutes)
    - (4) Lecturer reviewed the debating process after finished.

## **2. Limited Testing Stage**

### **a. Test I, Debate Method with Controversial Topic of Dipati Ukur**

As the beginning, students divided in small groups consisted of 4-6 students. Each group was ordered to explore through internet browsing and discuss about controversial topic of Dipati Ukur. After that, every single group had to upload their conclusion to the SPOT between September 23rd-October 10th 2013. Therefore, there would be a debate in class about the topic in October 4th 2013.

Lecturer started the session on that day with checking students' presence and asked their readiness in doing debate of Dipati Ukur. Lecturer chose the students randomly to present their essay (Divi, Sansan, Eki, Asep). Next, class' chair set up to be a U formation in order to debate implementation. Lecturer also discussed students' individual research in SPOT for a while.

Presentation and debate were so dynamic and full of arguments; sometime lecturer had to mediate students' opinion. To end that session, lecturer gave the understanding that a good debate could come from the comprehensive sources, especially in debate which discuss about controversial topics in history learning.

### **b. Test II, Debate Method with Controversial Topic of Mohammad Toha**

One week before the debate, lecturer divided the students in two large groups, the pro and the con. Both of groups were divided again in small groups consisted of 4-6 students. Each group was ordered to explore through internet browsing and discuss about controversial topic of Mohammad Toha. After that, every single group had to upload their conclusion to the SPOT between October 17th-25th 2013. Therefore, there would be a debate in class about the topic in October 25th 2013.

Lecturer started the session with checking students' presence and asked their readiness in doing debate of Mohammad Toha. The class' chairs set up face to face between the pros and the cons.

During the debate, lecturer sometimes neutralized the getting-warm-class situation. In the end of the session, lecturer

tried to give students understanding that in history there are so many events that still in pro-con stage. Because of that, students really needed adequate information from books even from the internet to discuss the topics. The future teachers needed skill to develop the learning through digital world. The session was ended by giving the task for next week.

**c. Test III, Inquiry Discussion Method with the Topic of Local History of Art and Culture Development**

One week before the session, lecturer divided the students into small groups consisted of 4-6 students. Each group was ordered to choose one topic about the art and culture development in their own hometown. After that, they had to explore through internet browsing, interview some of the natives, and discuss the topic together. After that, every single group had to upload their conclusion to the SPOT between November 1st -8th 2013. Therefore, there would be a debate in class about the topic in November 8th 2013

Lecturer started the session with checking students' presence and asked their readiness in doing the discussion. The class' chairs set up in a formation of small groups. Lecturer pleased the selected group to present their essay (Kemas, Reza, and Edi).

Lecturer tried to give the students understanding that there is still so many of thematic events of local history, included about art and culture theme. It could not be ignored because it had a strong effect in the

local society and it had its own contribution, in national level even in international level. Because of that, students needed much kind of sources, like from books, internet, etc. Lecturer reminded students that the future teachers needed skill to develop the learning through digital world. The session was ended by giving the task for next week.

**d. Test IV, Group Discussion Method with the Topic of Local History of Industries Development**

One week before the session, lecturer divided the students into small groups consisted of 4-6 students. Each group was ordered to choose one topic about the industry development in their own hometown. After that, they had to explore through internet browsing, interview some of the natives, and discuss the topic together. After that, every single group had to upload their conclusion to the SPOT between November 11th -15th 2013. Therefore, there would be a debate in class about the topic in November 15th 2013

Lecturer started the session with checking students' presence and prepared the class for discussion. Each group presented their inquiry results. The presentation and question session was very interesting and made curiosity between groups.

After that, lecturer discussed about the earlier discussions. Group 1 and 2 had a similarity; meanwhile Group 3 had more systematic, scientific, and clear discussion. Group 4 had poor presentation slides, but their way to present their essay was good, so they could grab audience's attention.



### 3. Test Results

**Table 1.9**  
**Recapitulation of Score Gaining in Each Model Test**

Group	Task							
	Dipati Ukur		Mohammad Toha		Art and Culture		Industry	
	Product	Process	Product	Process	Product	Process	Product	Process
1	15/A	16/A	15/A	17/A	15/A	21/A	15/A	21/A
2	15/A	15/B	12/B	14/B	14/A	19/A	15/A	21/A
3	12/B	12/C	12/B	14/B	13/A	21/A	15/A	21/A
4	11/B	18/A	15/A	18/A	15/A	21/A	15/A	21/A
5	15/A	18/A	14/A	17/A	14/A	21/A	15/A	21/A
6	12/B	12/C	12/B	14/B	15/A	19/A	15/A	21/A
7	12/B	12/C	15/A	14/B	14/A	21/A	15/A	21/A
8	15/A	18/A	12/B	14/B	15/A	21/A	15/A	21/A
Sum- mary	107	121	107	122	115	164	120	168
Aver- age	13.38	15.13	13.38	15.25	14.38	20.50	15	21

Based on the test results, there were significant score increasing started from the first test, second, third, until the fourth test. The product scores moved forward from 3.38, 13.38, 14.38, to 15. Meanwhile, the process scores also were same, the scores moved forward from 15.13, 15.25, 20.50, to 21. It means that the indicators of product and process got increased, had perfect score, and achieve the A grades. It can be concluded that the achievement had already gain the indicators of the four converging forces. In another word, the set of model tests was success as expected in the plan.

#### **Students' Perceptions after Using the 21st Century History Education Model**

Nowadays, Indonesia society is on globalization era, and there are so many

fundamental transformations in every aspect in their life. This transformation caused by the advance of the ICT. One of the efforts that we can do to have critical behavior to face the global transformations is through education process. The critical, creative, and innovative education process can help us to adapt in the fast-paced global era. Kind of this era need people who do not only can think, but also can choose; and people who can choose are the critical, creative, and innovative people. One of the ways to train the thinking skills is through the 21st century education model that based on the four converging forces, namely knowledge work, thinking tools, digital lifestyles, and learning research (Trilling & Fadel, 2009: 21).

The four converging forces in forming the skills of the 21st century education model as said above has been tested in the

ICT in History Learning course. Through this course, students are expected to understand about the basic concepts of information and information technology, have wide knowledge about the difference of conventional and non-conventional learning, understand internet position in education world; can collect, process, exchange, and utilize the information in the context of history learning, included the understand the World Wide Web though the internet in the context of history learning. The future teachers, besides having teaching skill of history as the past of humans, teachers also have to have the thinking skills, research ability, and the ICT skills. As Shalaway (2005:122) explained that in the era when the stars are technology and information, thinking skills have a big role in it. The thinking skills will affect somebody's way in receiving and processing the information.

The testing of the 21st Century History Education Model through local history substance in ICT in History Learning course based on the four converging forces was done. To investigate students perception about the course, there was questionnaire delivered to the students as the data of research respondents. The number of students in ICT in History Learning in 2013/2014 academic year course was 41 students.

**Table 1.10**  
**Respondents Data**

<b>Class-Year</b>	<b>Number of Students</b>
2007	1
2008	1
2010	2
2012	37

According to the respondents data above, the given answer of the questionnaire assumed that students is represented their perception and experience during the course. There were six aspects described in this part as the process description of the ICT in History Learning course. The six aspects were: (1) students perception of lecturer abilities and performances in managing the ICT in History Learning course, (2) students activities in form of knowledge work, (3) students activities in form thinking tools, (4) students activities in form of digital lifestyles, (5) students activities in form of research learning, (6) students' perception about the given task that should be done via SPOT.

The collected and processed data showed that the ICT development in history learning via internet could develop students' convergent thinking skills. It could be seen from many aspects. *First*, from knowledge work, students could create some of innovation to solve the problem in this course. 90,3% students argued that the course could give them knowledge about ICT world. The knowledge application was identified from the following activities such as: (1) accessing information source from the internet, (2) searching the information and knowledge from the cyberspace and analyze them, (3) processing the information from the internet to be a new knowledge and arranging it in essay form, (4) uploading the tasks through SPOT, and (5) using the sources from the internet as the discussion material.

*Second*, from thinking tools aspect, the potential forces for the 21st century could harmonize with the speed of ICT development. According to Tilaar (2012: 51), thinking is one of the human existence

aspects. The ability to actualize it can be from the way of thinking process itself. The thinking process can be from the low level thinking, or the high level thinking such as in making argumentation, problem solving, critical thinking, and innovative thinking. From these aspects, students can make an active, creative, and innovative participation in the global transformations in their daily life. This course got 'good enough' mark to help the students in learning, working, and recreating through browsers, email, blogs, SPOT (Sistem Pembelajaran Online Terpadu / Integrated Online Instructional System, accessed on spot.upi.edu), and Wi-Fi facility in the faculty.

*Third*, in digital lifestyles aspect, nowadays, there is a need to develop the thinking tools. Everyone has to have that in this global era. The ICT in History Learning course could bring the changing of students' lifestyle and habit. The students started to habitually do their tasks by themselves or by groups without being bordered by time or space. The other things from this aspect were the students uploaded their tasks freely, they did not need to meet the lecturer face to face, and it was enough to upload the tasks via SPOT. They also started to discuss the task without a direct meeting, just made the commutation through the internet.

*Fourth*, learning research is the requirement of the people in the 21st century: always think like a researcher search and find something new. Because of that, the developed learning researched aimed to train students in searching and developing the information of local history content through the internet, developing students ability in updating the new knowledge to be a meaningful learning,

confirming the information of local history content which gained from the internet and from the observation and interview of the natives. The other affects in the learning research aspect, in fact, developing students' skills in researching, searching, and finding their region potencies through the tasks which related to their locality also could grow their pride with their locality itself, and their appreciation between the other regions' diversity. For examples, the industries of Sumedang soy, Cimahi spicy chips, Purwakarta earthenware vessels, Sukabumi mochi; or any art and culture in the local society could develop students' creativity in expressing the course's tasks, in the form of essay or even in product presentation.

### **The Strengths and Weaknesses of the 21st Century History Education Model**

#### **1. The Strengths**

##### **a. Knowledge Work Aspect**

- 1) Giving new knowledge about ICT world
- 2) Giving skill to access the sources from the internet
- 3) Giving ability to search information and knowledge from the cyberspace and to analyze the information
- 4) Giving ability to process the information from the internet to be new knowledge and arrange it in essay form
- 5) Giving ability to upload the tasks via SPOT
- 6) Giving ability to use the sources from the internet as the discussion material

##### **b. Thinking Tools Aspect**

This course helped the students in learning, working, and recreating through

browsers, email, blogs, UPI integrated instructional system, and Wi-Fi facility in the faculty

### **c. Digital Lifestyles Aspect**

This course brought the changing of students' lifestyle and habit. The students started to habitually do their task by themselves or by groups without being bordered by time or space.

### **d. Learning Research Aspect**

- 1) Growing students' pride with their locality
- 2) Growing students' appreciation between the other regions' diversity.
- 3) Developing students' creativity in expressing the course's tasks
- 4) Increasing students' knowledge (especially in local history) via internet, and utilize it in daily life as the basic of the future history teacher
- 5) Using SPOT made them easy in doing their task without being bordered by space and time, and also developed green behavior among them because they needed no paper and ink
- 6) Using SPOT trained their disciplines because they had to open SPOT regularly to know the tasks and the time limit of the tasks.

## **2. The Weaknesses**

### **a. Knowledge Work Aspect**

Students still needed training and habituation in doing discussion based on cyberspace sources.

### **b. Thinking Tools Aspect**

- 1) 61% students in this course rarely and sometimes used email as the communication tool between students to students or between students to lecturer

- 2) Blogs as the information sources rarely and sometimes used by the students
- 3) 51,2% students used the Wi-Fi rarely in campus because of the poor network.

### **c. Digital Lifestyle Aspect**

Students' independence in direct and indirect studying and cooperating still needed to be directed.

### **d. Learning Research Aspect**

- 1) The poor internet network connection, especially Wi-Fi connection in campus, made 13,63% students used their own modem
- 2) Doing the task via SPOT could be as a burden for the 6,82% students who did not have any laptop and modem
- 3) 53,6% students got difficulty in relating the information from the internet with the information from the interview and observation with the natives

## **Conclusion**

*First*, related to students' initial perception to the ICT in History Learning. Most of the students had positive perception to lecturer's performance. Most of the students also argued that this course was very useful as the basic skill to be teacher in global era. Generally, students' perception about SPOT was good, but the poor Wi-Fi facility made them hard to access the cyberspace in campus.

*Second*, the 21st Century History Education Model based on the four converging forces through local history as the substance in the ICT in History Learning course that covered:

1. The learning objectives through local history substance in ICT in History Learning course based on the four

converging forces were to make students could collect, process, exchange, and utilize the information in the context of history learning

2. The learning material through local history substance in ICT in History Learning course based on the four converging forces were the controversial issues of Dipati Ukur and Mohammad Toha, art and culture development and local industries development in students' hometown.
3. The learning process through local history substance in ICT in History Learning course based on the four converging forces were formed as:
  - a. Product in essay form of Dipati Ukur, Mohammad Toha, art and culture, and local industries.
  - b. Process in:
    - 1) Debate of Dipati Ukur controversial issue
    - 2) Debate of Mohammad Toha controversial issue
    - 3) Inquiry discussion about art and culture development in students' hometown
    - 4) Group discussion about local industries development in students' hometown
4. The evaluation of learning outcomes through local history substance in ICT in History Learning course based on the four converging forces were about the product evaluation and process evaluation. Each evaluation form developed with its comprehensive tasks and rubrics, valid and reliable. The test results showed the increasing of the 21st century history learning skills.

*Third*, student's perception after using the 21st Century History Education Model based on the four converging forces

through local history as the substance in the ICT in History Learning course was very positive. Students could develop their skills in researching, searching, and finding their region potencies through the tasks which related to their locality. It also could grow their pride with their locality itself, and their appreciation between the other regions' diversity.

*Fourth*, the strengths and weaknesses of the 21st Century History Education Model through local history substance in ICT in History Learning course based on the four converging forces were as the following below:

1. Strengths
  - a. Growing students' pride with their locality
  - b. Growing students' appreciation between the other regions' diversity.
  - c. Developing students' creativity in expressing the course's tasks
  - d. Increasing students' knowledge (especially in local history) via internet, and utilize it in daily life as the basic of the future history teacher
  - e. Using SPOT made them easy in doing their tasks without being bordered by space and time, and also developed green behavior among them because they needed no paper and ink
2. Weaknesses

The poor internet network connection, especially Wi-Fi connection in campus, made 13,63% students used their own modem, and doing the task via SPOT could be as a burden for the 6,82% students who did not have any laptop and modem.

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