



SOCIAL STUDIES LEARNING AND 21st CENTURY : INQUIRY APPROACH TOWARDS IMPLEMENTATION OF CRITICAL THINKING IN STUDENTS IN THE INDUSTRIAL REVOLUTION 4.0

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Abstract : Social studies learning became subjects whose role is highly expected to be maximal in the formation of attitude, personality and ability of nation and state conformity in social communities. Because in life in the 21st century demands a variety of skills that must be mastered, so hopefully someone can education prepare students to master a range of skills in order to become successful in life. The relevance of education and employment, need to be adapted to the development of science and technology with the era and still provide the attention to aspects of the humanities so that graduates can be competitive then needed curriculum with the new orientation, since the existence of the revolutionary era 4.0 industry, not just simply using the old literacy (reading, writing, numeracy) as a capital base for the progress of society. To bridge the learning, social learning model then inquiry is one of the right model in fostering social soul and thinking skills of students of the school.

Keyword : social studies learning, 21st century, inquiry approach, critical thinking

I. INTRODUCTION

Social studies learning adopted inquiry approach called social enquiries. This is based on the assumption of the importance of learning in a society that increasingly, social studies quickly changed, as has been said of Robert a. wilkins (1990:85) stating that in the life of a society that is constantly changing, teaching, social studies should be stressed to development thinking. Therefore the social studies study designed to develop knowledge, understanding, and ability analysis of the social conditions of the society in entering the dynamic life of the Community (Mutiani, 2017). The occurrence of an explosion of knowledge, according to him, demanding a change in the pattern of teaching from merely considering the fact that is commonly done through learning approach with methods lecture (lecture) or of the method of exercise (drill) in traditional pattern, become the learning that can develop the ability to think. Because according to (Rustini, 2001) one of the learning strategies that help teachers to associate one of the concept learning with real-world is a model Inquiry. Basically the approach inquiry born of a social approach that occurs from the results of students and critical it happens (Fredlund et al., 2015).

II. LITERATURE REVIEW

Inquiry learning model is an alternative model of learning which is a series of learning activities that involve the most throughout the students and ability to find and investigate things (objects, people, or events) systematic, critical, logical and analysis so that students can make



the conclusions of the investigation (Putri, 2014). There are three characteristics of an inquiry approach in the social studies. First, there is the social aspect of the (problems) in a class that is considered important and can encourage the creation of a class discussion. Second, the formulation of the hypothesis as a focus of enquiries. Third, the use of fact as hypothesis testing.

By using social studies teacher enquiries approach basically has given the opportunity for students to learn actively. To enhance the experience and confidence in students. Social studies teachers can ask questions that require more thought as far as interpreting, analyzing, synthesize, or use. The question teachers certainly do not merely ask students to recall and therefore form the question should encourage students to discover themselves and solve the problem. The teacher should help students in mastering the learning cognitif is required in an investigation and thinking in the social sciences. The role of the teacher in the learning approach with social studies inquiry is as a supervisor and a facilitator as a stimulator, dealing with students to help them and identifying the questions and problems, and to guide the conduct of the investigation.

III. RESULTS AND DISCUSSIONS

3.1 Inquiry Approach in Developing Critical Thinking Students to The Social Studies Learning

Inquiry learning model is one of the models used in the study, social studies in order for these subjects to be more meaningful. In the perspective of social learning, critical thinking/inquiry higher-order thinking is one of the determining factors in the process of learning in social studies education. This is because the soul of an inquiry social learning model suggests the students to solve the problems existing in the process of learning through the process of thinking, find primary sources that can be used as reference in the process of thinking and the students are expected to interact directly with the social environment in which those problems explored (Ritauw & Salamor, 2017).

Inquiry in learning approach involves the process through the development of questions and inventions (problem solving) in order to build a new understanding. Dorothy J. Skeel says that inquiry is "*its main concerns with students learning a generalized method of problem solving. That method would include sensing a problem, articulating it, hypothesizing a plausible solution, gathering data, testing hypotesis and drawing appropriate conclusions.*" Inquiry in the learning process rather than put more emphasis on social studies products. Applied with a train students with problem-solving methods ranging from the set a problem, understand it, making hypotheses, collect data and break it with a solving the right problems. Research done by using an inquiry approach can be done using the issues related to problems that occur in everyday life by using theoretical thinking (DeMarrais & Lapan, 2004). Thus the social studies learning are integrated with the curriculum of 2013 the more meaningful because the learning process will be more oriented on the development of critical thinking skills of students of the school. In the inquiry process, indirectly character students also demanded more honed again. Through inquiry, students are required to be more active,



searching and set of issues related to the initial question, think of what a theory would help him solve problems by doing hypothesis testing/postulates that set. While many methods used in solving a variety of problems, however, are often the methods used do not match the problems that occurred. Thus, social studies no longer merely learning subjects that have to be memorized without knowing the existence or reality of the memorized material.

Learning inquiry can also help students remember longer than learning the steps. In its implementation, there is some mention of Banks related things, : *"doubt-concern, problem formulation, the formulation a hypothesis, definition of term-conceptualization, collecting of data, evaluation and analysis of data, testing hypothesis: deriving generalizations and theories, beginning anew inquiry "*. The model inquiry is a learning model in the delivery of the lesson material is not in final form, not directly. That is, in the submission of inquiry learners model himself was given a chance to seek (investigating/researching) and solve his own answer (problems) and applying problem-solving techniques. While teachers act as referrer, mediator, facilitator, and are required to provide relevant information, according to the issue or subject matter.

The goal of critical thinking themselves educating students to meet the demands of the future where the activities of the research methodology and discussion is able to prepare students for the participation effectively in work and society in the long term (Schoenberger-orgad & Spiller 2014). Critical thinking and creative thinking is an embodiment of higher-order thinking which occur in a person as well as a aims to make rational decisions about something that can be believed his righteousness (Sanun, 2014). Learning inquiry social model allows students to think and find facts, information, or data supporting the hypothesis in the evidentiary situation freely and directional Because the output of the inquiry approach is how to produce the students who can think creatively, communicative and innovative (Patimah, 2017).

3.2 21st Century Skills in The Process of Educational

This change is important to engender new forms of learning is needed in addressing the global challenges are complex. Identification of the competencies that students need to be developed is very important to face the 21st century While social studies can play a role as important in social skills groups as advanced various opinions include : interpersonal skills, skills in collaboration a cross the network, skills interactions cross cultural and social, personal and social responsibility, interactive communication, cultural literacy and global awareness (Setyana, 2014).

Students need to hone your skills and improve your studying to be able to cope with global challenges, such as critical thinking skills, the ability to effectively communicate, innovate and solve problems through negotiation and collaboration. There are many factors that affect the analysis of the 21st century in addition to human factors, such as leadership, ingenuity and diversity (Perrin et al., 2012). Without the opportunity to practice and apply new knowledge in a variety of contexts, the adaptation and integration of new knowledge will not be reached and will cripple creativity. Like his stuff was happening in various parts of the world such as in America, in social science education itself has taught how the investigation is not just limited to social



issues around but has also expanded, for example: the issue of gender, gap, race, gender and technology (Crocco et al., 2008).

Not only innovation, skill and ability will use the technology itself there are also some things that should be paying attention in progress following the upcoming 21st century. As said by (Gordon, 2017) one of the factors which are very needed in the real world of work, in addition to innovation, skill and other talent is the ability to be leadership. Therefore the existing organizations in the school must use everything possible in order to give birth to the students that in addition to the smart but also has the soul of a leader. In the world of work there is a key and important elements of the overall learning 21st century that : personal skills, social skills and learning skills (Zubaidah, 2017).

3.3 Development of Science and Technology in The Industrial Revolution 4.0

The rapid development of the industrial revolution 4.0 very influential towards the characteristics of jobs that exist today, where the skills and competencies to become the subject matter of this It should be noted. As said by (Picatoste et al., 2017) any person desiring a renewal as a country but sometimes change is not followed by the quality of each individual because in the era of the industrial revolution 4.0 integration utilization of technology and the internet are so sophisticated and massive also changes greatly affect the behaviour of the business world and the world of industry, society and the behaviour of consumers in general. Because it cannot be denied that every change is an absolute thing to happen, not just in science and technology but also the social and urban hunt (Edvinsson, 2013). Characteristics in the era of the industrial revolution include digitization, optimization and customization production, automation and adaptation, the interaction between man and machine, value added services and business, automatic data exchange and communication, as well as the use of information technology.

In addition to the above strategies, there are other things that are must have students in the face of the industrial revolution 4.0 that is an strategies of critical thinking (Martin, 2014). Therefore, the world of education and the industry should be able to develop strategies industry with the transformation sector human resources competencies in their jobs In general, there are five major challenges that will be faced, namely the aspects of knowledge, technology, economic, social, and political. To answer these challenges, required a great effort, planned and strategic both in the regulator (government), among academics as well as practitioners. (Prasetyo & Sutopo 2018) to convey needed the involvement of academia in the form of research and development to realize the Industry 4.0.

According to the Minister of research, technology and higher education (Menristekdikti) Mohammad Nasir says that challenges the industrial revolution 4.0 should be responded quickly and appropriately by all stakeholders in the environment Kemenristekdikti to improve the competitiveness of the nation of Indonesia in the middle of the competition. For that higher education is obliged to formulate a strategic policy in various aspects ranging from institutional, field of study, curriculum, resources, and development the cyber university, and rising to innovation. It is revealed



in the opening event of the Minister Nasir National Working Meeting (Rakernas) of the Ministry of research, technology, and higher education (Kemenristekdikti) 2018 held on the campus of University of North Sumatra (USU), Medan (17/1).

Menristekdikti describes the five important elements that should be a concern and will be implemented by the Kemenristekdikti to encourage economic growth and the competitiveness of Nations in the era of the industrial revolution 4.0, including:

1. The preparation of a more innovative learning system at colleges such as the readjustment of curriculum learning, and enhance the ability of the student in terms of data on Information Technology (IT), Operational Technology (OT), Internet of Things (IoT), and Big Data Analytic, integrating physical, digital objects and humans to produce college graduates who are competitive and skilled especially in the aspect of data literacy, technological literacy and human literacy.
2. Reconstruction of higher education institutional policy is adaptive and responsive to the industrial revolution 4.0 in developing transdisciplinary sciences and courses required.
3. Preparation of human resources in particular lecturers and researchers as well as engineer which is responsive, adaptive and reliable to deal with industrial revolution 4.0. In addition, the rejuvenation of the infrastructure and the development of the infrastructure of education, research, and innovation also needs to be done to shore up the quality of the education, research, and innovation.
4. A breakthrough in the research and development that supports the industrial revolution 4.0 and ecosystem research and development to improve the quality and quantity of research and development at universities, research institutions, government agencies and development no ministry, industry and society.
5. Innovation and retaining system innovation to increase productivity and improve industrial company based beginner technology.

4.0 industry brought changes in many people's lives. 4.0 industry fundamentally has changed the way human activity and provide a great influence on the world of work. 4.0 industry requires a workforce that has the skills in digital literacy, technology literacy, and literacy of humans. Although with the main objective of the development of the industrial revolution 4.0 is referring to new ideas to resolve the challenges of social, cultural, economic and environmental (Vasja Roblek, Maja Mesko, 2018). In order for Indonesia to have competitive graduates required curriculum with new orientation because the existence of the era of the industrial revolution 4.0 not only enough with the old literacy (reading, writing and counting) of capital as the basis for progress in community.

IV. CONCLUSION AND RECOMMENDATION

Prepare students for work, be good citizens and able to cope with life in the 21st century was a struggle. Globalization, technology, migration, international competition, changes in global markets, transnational environmental and political changes it all leads to the needs the



skills and knowledge needed by students to be successful in the 21st century. This has been the focus of study materials or research to develop a range of curriculum, approaches, models, strategies, methods, assessment and all things related, are effective in establishing the competencies and skills of students towards the 21st century.

Learning inquiry social model is one of the learning models ascribed social interaction which invites students to think critically and creatively in solving social problems. But the success of a study in schools not only from the learning model used but is supported by other important components like the teacher, the curriculum, and others. Because as good as any model of learning would not be meaningful and successful without the presence of components of learning to another.

REFERENCES

- DeMarrais, K., & Lapan, S. D. (2004). *Foundations for Research Methods of Inquiry in Education and The Social Sciences*. London : Lawrence Erlbaum Associates.
- Crocco, M. S., Cramer, J., Meier, E. B. (2008). Never Mind the gap ! Gender equity in social studies in the twenty-first century. *Multicultural Education & Technology Journal*, 2 (1).
- Edvinsson, L. (2013). IC 21 : Reflections from 21 Years of IC Practice and Theory. *Journal of Intellectual Capital*, 14 (1), 163-172.
- Fredlund, T., Linder, C., & Airey, J. (2015). A Social Semiotic Approach to Identifying Critical Aspects. *International Journal for Lesson and Learning Studies*, 4 (3), 302-316.
- Martin, D. (2014). Thinking about thinking. *Journal of Business Strategy*, 35 (5), 49-54.
- Mujiatin Setyana. (2014). Peran Guru dalam Mengembangkan Keterampilan Sosial, 2 (1), 8-9.
- Mutiani. (2017). Ips Dan Pendidikan Lingkungan : Urgensi Pengembangan Sikap Kesadaran Lingkungan. *Socio Didaktika : Social Science Education Journal*, 4 (1), 45-53.
- Pamela Ann Gordon, Brett Anthony Gordon. (2017). The role of volunteer organizations in leadership skill development. *Journal of Management Development*, 36 (5), 712-723.
- Patimah, L. (2017). Redesain Pembelajaran Pendidikan Islam dala Perspektif Abad 21, *Jurnal Pendidikan Sekolah Dasar*, 3 (2), 35-42.
- Perrin, C., Perrin, P. B., Blauth, C., Apthorp, E., Duffy, R. D., Bonterre, M., & Daniels, S. (2012). Factor analysis of global trends in twenty-first-century leadership. *Leadership & Organization Development Journal*, 33 (2), 175-199.
- Picatoste, J., Pérez-ortiz, L., Ruesga-benito, S. M., Novo-corti, I. (2017). Smart Cities for Wellbeing : Youth Employment and Their Skills on Computers. *Journal of Science and Technology Policy Management*, 1-16.
- Prasetyo Hoedi, S. W. (2018). Industri 4.0: Telaah Klasifikasi Aspek dan Arah Perkembangan Riset. *Jurnal Teknik Industri*, 13 (1), 17-26.
- Putri, A. (2014). Pengaruh Model Pembelajaran Inkuiri Sosial Terhadap Hasil Belajar IPS Kelas IX Semester I SMP Negeri 8 Kota Jambi. Jambi : Fakultas Keguruan dan Ilmu Pendidikan. Universitas Negeri Jambi.
- Ritiauw, S. P., & Salamor, L. (2017). Mengembangkan Keterampilan Berpikir Kritis Siswa Sekolah Dasar Melalui Implementasi Model Pembelajaran Sosial Inkuiri. *Jurnal*



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- Pedagogika Dan Dinamika Pendidikan*, 4 (1), 43-56.
- Rustini, T. (2001). Penggunaan Model Inkuiri untuk Meningkatkan Kemampuan Berpikir Kritis Siswa dalam Pembelajaran IPS di SD.
- Sanun, et al. (2014). Pengaruh Penerapan Model Pembelajaran Berbasis Masalah Terhadap Berfikir Kritis dan Kreatif Siswa.
- Schoenberger-orgad, M., Spiller, D., & Spiller, D. (2014). Critical thinkers and Capable Practitioners Preparing Public Relations Students for. *Journal of Communication Management*, 18 (3), 210-221.
- Vasja Roblek, Maja Mesko, V. D. (2018). Smart Technologies as Social Innovation and Complex Social Issues of The Z Generation.
- Zubaidah, S. (2017). Keterampilan abad ke-21: keterampilan yang diajarkan melalui pembelajaran. 1-18.
- Kementrian Ristek Dikti. 17 Januari 2018. *Pengembangan Iptek dan Pendidikan Tinggi di Era Revolusi Industri 4.0*, (online), (www.ristekdikti.go.id. 12 Oktober 2018).