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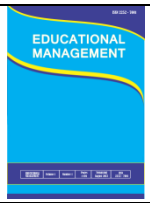

Influences of *Talking Stick* Model Assisted by *Powerpoint* Media to Primary School Students' Critical Thinking Skills

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Abstract

Based on constitution number 20 Year 2003 about educational system concerning with National education, it asserts that teaching - learning activity should be PAIKEM in nature. To promote PAIKEM learning, teachers should design the learning by cooperative learning model. In Public Primary School 2 Sambung, the teacher had implemented 2013 curriculum but the realization was not fully utilized PAIKEM well. This research aims to find out Talking Stick model assisted by PowerPoint medium influences to students' critical thinking skills. This qualitative descriptive research took population from Public Primary School in Sultan Agung cluster, Kudus municipality. Then, the sample was taken by purposive sampling, resulting to IV A class of Public Primary School 2 Sambung which consisted of 22 students as experimental group. Meanwhile, the control group was obtained from IV B class, consisting of 18 students. Techniques of collecting data were test - essay test, and non-test - documentation and observation. The calculation of independent sample t-test showed that t_{count}0.4, meaning that $t_{count}>t_{tabel}$.Result of experimental group's N-gain score was 0.65, categorized moderate. Meanwhile, the control group obtained 0.35, categorized moderate. It showed there was improvement of critical thinking skill after being intervened by talking stick assisted by PowerPoint media.

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INTRODUCTION

National education is a planned effort to improve national development quality which is brilliant and competitive to face global challenges. Such skill needed to face 21st century challenge is young generation skill whom have intelligence and creativity concerning with science and technology and capability to develop certain skill based on the needs. Government with its policy of implementing 2013 curriculum based on Government Regulation Number 32 Year 2013 has put efforts to revise Indonesian educational system.

Based on constitution number 20 Year 2003 about educational system concerning with National education, it asserts that teaching - learning activity should be PAIKEM (Active, Innovative, Creative, and Joyful Learning)(abbreviated in English AICJL) in nature. It has purpose to assist students to be actively developing their potencies to have religious strength based on religious education, self-control, psychological-sociological education oriented personality, valuable virtue intelligence, and skill. The standard process mentions that learning process should be more interactive, inspirational, joyful, challenging, and motivating students to get involved in learning (Permendikbud, Number 22, Year 2016).

The implemented curriculum in Indonesia is called 2013 curriculum emphasizes on integrated learning with scientific approach. It requires students to construct their own knowledge. Such learning has important roles in the curriculum renewals and is expected to improve Indonesia education quality. However, qualified learning needs beyond scientific approach. It needs supportive learning models and media to make students independent and to motivate them thinking critically. One of lessons emphasized on 2013 curriculum is Social study.

Social Study deals with human lives which involve behaviors and needs in the form of skill product of spatial environment (Banowati, 2013: 11). In primary school, social study is a lesson consisting of materials concerning with lives. The materials are so broad and keep up with the growth of current era. Social study always grows, develops, and does not only depend on existing books.

The purposes of social study, according to National Education Standard Agency are:

1. Recognizing concepts concerning with social life and its environment.
2. To have basic skill to think logically and critically; to have curiosity, to inquire, to solve problems, and to have social life skill.
3. To have commitment and awareness upon social values and humanity.
4. To have communication skill, cooperation, and competitive power in compound society both in local, national, and global levels.

From those purposes, one of them is to have basic skill to think logically and critically.

Social study lesson purpose could be achieved through a learning process. The purpose of the proses and educational outcome is to develop all students' potencies both cognitive, affective, and psychomotor aspects. Besides that, students will have independence and critical thinking skill. By having excellent thinking skill, students would have learning independence because every problem and information obtained by them will be processed (criticized) first. They will not merely accept it as a fact. Critical thinking skill is needed by students to assist them solving life problems. Critical thinking skill does not only emphasize on students' skills to solve problems but also their skills in evaluating problems. Critical thinking skill, according to Costa and Ennis (in Suryadi, 2008:20) is defined as a process of using thinking process effectively to assist an individual to create, evaluate, and take decision upon what he believes to do.

In fact, only a few schools habituate their students thinking critically. Schools, in contrast, make their students to answer correctly than to motivate them showing new ideas or thinking about existing conclusions. Teachers were not often to ask students telling, describing, analyzing, criticizing, concluding, and rethinking the already learned lesson. Thus,

students were only able to understand the materials during being taught. It could be said memorization without further understanding.

Learning outcomes from IV graders of 4 Primary Schools n Undaan district showed low category on their semester classical score accomplishments in first semester of IV grade in academic year 2018/2019. Most of students were not capable to understand the materials comprehensively. When it is correlated to interview results and observations of learning process, then the cause of uneven skills of the students was lack of learning model variations used by teachers. It made students feeling bored and caused low level of conceptual understanding in learning the lesson material.

For the reason, the researcher determined a certain action to improve learning quality which could improve critical thinking skill of the students. The researcher used *Talking Stick* model assisted by *Power Point* media to improve learning quality in IV graders of Public Primary School 2 Sambung.

The findings of Yahya, Pramukantoro (2013) motivated the researcher to conduct investigation. The findings showed that *talking stick* could improve learning outcomes from the previous learning. By using *talking stick,* students could improve their understanding and speaking skills through their prior knowledge.

The learning process was carried out by assistance of *Power Point* learning media. According to Arsyad (2013:193), *Power Point* is a presentation program which is mostly used by individuals to show their learning materials, reports, or works. WinaSanjaya (2012:183) explained that *Power Point* is a software published by Microsoft and could be used for presentation interests. According to R Ibrahim and Nana, media are anything used to convey message (learning materials), to trigger thought, affection, and skill of students so that it could motivate learning process (Widodo, 2017). The statement is supported by Elpira's study that learning media are anything concerning with *software* which could be used to convey learning material from learning sources to in class learning. It could trigger their thoughts, affections, attentions, and learning interest so that learning process will be more effective (in Khaerunnisa*et al,* 2017).

METHOD

This research used quantitative method which come from problems or clear potencies. The quantitative research design used in this research is *quasi experimental design* with *nonequivalent control group design.*This *nonequivalent group* research design took population from generalized area, consisted of objects and subjects whose quality and certain characteristics as determined by researcher to be learned and to be concluded (Sugiyono, 2015:119)

The population was taken from Public Primary School, Cluster 1 Sultan Agung. The sample consisted of representatives of the investigated population (Arikunto, 2013:174). Then, according to Sugiyono (2013:118), the sample is a part of numbers and characteristics owned by population. The investigated sample must be representatives of both characteristics and numbers of the population (Sukmadinata, 2013:252). The used sample in this research was IV grade of PPS 2 Sambung.

Table 1. Numbers of Primary School Students (Research Sample)

No	Class	Students' Numbers
1.	IV A Class	22
2.	IV B Class	18
Total		40

This research has two collected data: initial student skills (*pretest*), critical thinking skill during learning process, observation of student activity in learning, final skill of the students (*posttest*).The research instruments

consisted of learning process and data collection instruments. The learning process instruments consisted of syllabus, lesson plan, learning material, and student worksheet. The instruments to collect data were initial student skill test and final student skill test.

FINDINGS AND DISCUSSION

Findings

The data were from pretest and posttest conducted in November 4 until 15, 2019. It lasted in 4 days. The researcher was also acting as the teacher of both groups. Each class was taught by two meetings with same materials.

Before intervening, pretest question was given to find out initial skill of the students. Then, in the final lesson, the students were given posttest to find out their critical thinking skill level. The given questions functioned to test critical thinking skills. It was examined in term of its reliability and validity in advance. The posttest data of experimental group was taken when the researcher had given the intervention. Meanwhile, the control group was given conventional method. Before finding out the influence of *Talking Stick* model assisted by *Power Point,* the researcher conducted requirement test by determining the formula to test hypotheses. The analysis of requirement test consisted of normality and homogeneity data tests. If the normality data test showed that the data was normally distributed, then the used analysis was proceeded to test the homogeneity. If the data was not normal, homogeneity test was not needed. The data which was tested its normality and homogeneity were from *posttest* scores.

Data Analysis Requirement Test

Table 2. Normality Pretest of Critical Thinking Skill Result

Tests of Normality							
	Class	Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	df	Sig.
Critical Thinking Skills	Control Pretest	.173	18	.163	.950	18	.420
	Experimental Pretest	.140	19	.200	.925	19	.138
This is a lower bound of the true significance.							
a. Lilliefors Significance Correction							

Table 2 shows that the data is normally distributed if the significance score (Sig) is in *One - Sample Kolmogorov-Smirnov* higher than 0.05 (Priyatno, 2010: 73). *The test* obtains Asymp. Sig. (2-tailed) for pretest score of critical thinking skill data of the experimental group obtains 0.2. Meanwhile, control group obtains 0.21 higher than 0.16. Thus, H_0 was accepted. It means the data is from normal distributed population. After the data was found to be normally distributed, then homogeneity test was carried out.

Table 3. Homogeneity Pretest of Critical Thinking Skill Result

Test of Homogeneity Variances					
		Levene Statistic	df1	df2	Sig.
Critical Thinking Skills	Based on Mean	1,897	1	35	.177
	Based on Median	1,893	1	35	.178
	Based on Median and with adjusted df	1,893	1	34,808	.178
	Based on trimmed mean	1,964	1	35	.170

Based on the table, *pretst*of critical thinking skill data was from homogeneous population.

Hypothesis Tests

N-Gain Score Calculation

N-Gain Score was done to find out differences of *pretest* and *posttest* scores. The test was done after all requirements met both normality and homogeneity tests. Based on the normality and homogeneity test, it was known that the data was normally distributed and homogeneous. Then, *n-gain* score test was carried out. The results are presented in Table 4

Table 4. Calculation Result of Experimental and Control Groups' NGain

Groups	N-Gain
Experimental Group	0.65
Control Group	0.35

Based on the Table, it shows that there is improvement of experimental group with 0.65 and control group 0.35. The classification of N-Gain is as follows $g \leq 0{,}30$ = low, $0.30 < g > 0{,}70$ = moderate, $g \geq 0{,}70$ = high. N-gain results of experimental group showed 0.65. Thus, it included in high category. N-gain of control group was 0.35, categorized moderate. The n-gain result could be concluded that experimental group was higher than control group. Thus, experimental group learning was better.

Table 5. Critical Thinking Skill T-Test Results

	Paired Differences					t	Df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	-16.000	13.651	3.218	-22.789	-9.211	4.973	17	.000
Pair 2	-32.632	12.945	2.970	-38.871	-26.392	10.989	18	.000

Since the variants and both variables were homogeneous, then on T-test column, it could be seen on Sig column (2-tailed), the significance = 0.00 < 0.05 Thus, H_0 was denied. It meant there was difference of posttest average scores for both groups.

Discussion

This research had one data collected by using one instrument. It was test question. The data was used to analyze hypothesis test. Based on the analysis results, there were influences toward critical thinking skills by using *Talking Stick* model assisted by *Power Point* media. The T-test showed significance = 0.00 < 0.05. It meant there was posttest score average variance between both groups' critical thinking skills.

The given treatment was done by exposing *Talking Stick* learning model assisted by *power point* media. It was done by delivering the learning purpose. In this stage, the students listened the learning purpose as delivered by the teacher. The second stage was delivering the material through *power point.* It was main material delivery. The third stage, the students were asked to group themselves into 4 or 5 persons. The fourth stage was task delivery. The fifth task was promoting *Talking Stick.* In this stage, students obtained stick then those whom obtained it had to answer the given questions by the teacher. The sixth stage was concluding. In this stage, the teacher with his peers made conclusion. Seventh stage was evaluating stage. In this stage, the student worked on evaluation given by the teacher. The last stage was closing.

There was improvement of critical thinking skill as shown by developments of the students' critical thinking skills since they could understand the given materials during learning process. It is in line with Kasmadi and Sunariah (2014:29) whom defined that learning is an intentional, purposeful, and monitored effort to make individuals learn or to make them having relative internalized developments.

The N-gain score of experimental group taught by *Talking Stick* typed cooperative learning model was 0.65. Meanwhile, the N-gain score of control group was 0.35. After conducting hypothesis tests by using SPSS 25, there was significant influence of the cooperative learning model typed *Talking Stick* implementation.The analysis results showed that there was influence of critical thinking skill after the intervention.

Based on the calculation, it could be known that the proposed hypothesis was accepted or there was significant influence of *Talking Stick* learning model assisted by *Power Point* to critical thinking skills of Public Primary School 2 Sambung fourth graders. It is relevant with Mardiana's research (2014) showing that *Talking Stick* learning model had significant and positive influence to mathematics learning. The finding is in line with Lisdyanti (2014) showing there was significant learning outcome after being intervened by cooperative learning model typed *talking stick* assisted by pictorial media than those taught conventionally. Gunny (2019) also stated that *talking stick* could improve learning outcome accomplishment. Jamiah (2016) showed there was influence between *Talking Stick* model to mathematics learning outcome of fifth graders at Public Primary School 200211, Padang, Matinggi. The influences could be seen from learning outcome differences of both groups. It is consistent with findings showing there was influence of *Talking Stick* learning model asssited by *power point* media to the students' critical thinking skills with significance = 0.00 < 0.05. Based on the analysis, it could be known there was significant influence of *talking stick* model assisted by *power point* implementation to critical thinking skills of fourth graders in social study. It was due to the learning model was designed to involve students actively in learning process through rotating the sticks. It had purpose to test students' understanding, to make them speaking up, and to make them sharing their notions so that class would be more alive and not monotonous.

It is in line with Sari (2017) that *that talking stiicks learning model encourage students to dare to express their opinions, ehen teachers give an explanation about the material then students have time to read and write things they know after that the talking stick will be given to students and student that*

hold the stick must answer the question that teachers give or give the idea about thing that discussed, that is why cooperative learning talking stick type is one of an appropriate approach.

It is in line with Suprihatiningrum (2013) stating that learning is a mental or psychological activity lasting in active interaction to environment so it results to changes in cognition, understanding, psychomotor, value, and affection. Other studies telling that *talking stick* model could provide opportunities for students to cooperate and optimize their participations are such as Putri*et all.* (2017), RismaSireggar (2015), Unggu (2017), and Wahyudiantari (2015).Other study by Agustin (2014) showed that TGT and *Talking Stick* could improve students' learning achievements. This research was supported by Purwaningsih and Yahya (2013) and Sari (2017) showing that *talking stick* could improve students' learning outcomes and improve their understanding.

Learning media in this research also influenced students' critical thinking skills. Media are supportive assistant tools for teachers to deliver materials to make learning interesting. It is in line with notion telling that learning media function as support for learning process success (Srimaya, 2017). Media are interesting ways to attract students in understanding the materials easily. Khaerunnisa (2018) stated that Power Point influenced in improving students' learning interest. Nurhidayat (2013) stated that Power Point was effective to improve health of teeth and mouth knowledge for fourth graders at Public Primary School 02 Sukorejo and 03 Sukorejo, Gunungpati district, Semarang, in 2011.

CONCLUSION

The analysis and discussion provide conclusion that there was influence of *Talking Stick* learning model to critical thinking skill of the students on Social Study. The influence could be seen on both groups' average differences significantly.

REFERENCE

Agustin, P., Saputro, S., &Sri, R.D.A 2014. Pengaruh Model PembelajaranKoopertaifTipe*Talking Stick* dan Teams GmesTurnaments (TGT) DitinjaudariKemampuanMatematikPada MateriPokokHidrolisisGaramTerhadapPrestasiBelajarSiswaKelas XI SMA N KebakkramatTahunPelajaran 2013/104. *JurnalPendidikan Kimia (JPK)*, 3(4):31-40. https://jurnal.fkip.uns.ac.id/index.php/kimia/article/view/4462

Ainina, I.A.(2014).Pemanfaatan Media Audio Visual SebagaiSumberBelajarSejarah. https://journal.unnes.ac.id/sju/index.php/ijhe/article/view/3909

Arsyad, Azhar. 2013. Media Pembelajaran. Jakarta:RajaGrafindo.

Budimansyah, DasimdanSuryadi, Karim. 2008. PKN danMasyarakatMultikultural. Bandung: Program StudiPendidikanKewarganegaraanUniversitasPendidikan Indonesia.

Fujiyanto. 2016. Penggunaan Media Audio Visual UntukMeningkatkanHasilBelajarSiswaPadaMateriHubunganAntarMakhlukHidup. *Journal UPI, 1(1).* https://ejournal.upi.edu/index.php/penailmiah/article/view/3576

Gumay, O., Framanta, A. 2019. Penerapan Model Pembelajaran Talking Stick Pada Mata PelajaranFisikaSiswaKelas X SMA N Sukakarya. *Journal, STKIP PGRI, 13(1).* https://ojs.stkippgri-lubuklinggau.ac.id/index.php/JPP/article/view/304/195

Jamiah, R., Surya, E. 2016. Pengaruh Model Pembelajaran Talking Stick DenganMetode Math Magic TerhadapHasilBelajarMatematikaPadaPokokBahasanKubusdanBalok di Kelas V SD Negeri 200211 Padang Sidimpuan. *Journal PendidikandanMatematika, 5(2).* http://jurnal.uinsu.ac.id/index.php/axiom/article/view/420

Khaerunnisa, F, Sunarjan, YYFR &Atmaja, Tri Hamdan. 2018. PengaruhPenggunaan Media PowerpointTerhadapMinatBelajarSejarah SiswaKelas X Negeri 1 BumiayuTahunAjaran 2017/18. *Journal UNNES Educatio 6(1):31-41.* https://journal.unnes.ac.id/sju/index.php/ijhe/article/view/27352

Mardiana. 2014. Pengaruh Model Pembelajaran Talking Stick TerhadapHasilBelajarMatematikaSiswaKelas VII SMP NegeriKendari. JurnalPenelitianPendidikanMatematika Vol.3. No.3:136-137. http://jurnal.fkip.unila.ac.id/index.php/pgsd/article/view/16037

Nurhidayat, Oki, TunggulEram, Wahyono, Bambang. 2012. Perbandingan Media Powerpointdengan Flip Chart DalamMeningkatkanPengetahuanKesehatan Gigi danMulut. *Jurnalunnes, 1(1).* https://journal.unnes.ac.id/sju/index.php/ujph/article/view/179

Sanjaya, Wina. 2012. *MediaKomunikasiPembelajaran*. Jakarta: Kencana.

Sari. 2017. Analysis Of Students' Mathematical Communication Ability By Using Cooperative Learning Talking Stick Type. Infinity Journal. Vol.6 No.2:185-187. http://jurnal.fkip.unila.ac.id/index.php/pgsd/article/view/16037

Siregar, S. 2015. Pengaruh Model Pembelajaran Talking Stick TerhadapHasilBelajardanAktivitas Visual SiswaPadaKonsepSistemIndra. *JurnalBiotik, 3(2): 100-106.* https://jurnal.arraniry.ac.id/index.php/biotik/article/view/999/803

Syahbana,Ali. 2012." PeningkatanKemampuanBerpikirKritisMatematisSiswa SMP MelaluiPendekatan Contextual Teaching And Learning", JurnalEdumatica/Vol.2,No. 01, hal 45-57. https://journal.unnes.ac.id/nju/index.php/kreano/article/view/3325

Undang-UndangNomor 20 Tahun 2003 tentangSistemPendidikanNasional.

PeraturanPemerintahNomor 32 Tahun 2013 TentangSistemPendidikan.

PermendikbudNomor 22 Tahun 2016 TentangStandar Proses.

Purwaningsih, A.; Sulistyo, s.; & Sri, R.D. 2014. Pengaruh Model PembelajaranKooperatifTipe Talking Stick dan Teams Games Tournaments (TGT) Ditinjau Dari KemampuanMatematikPadaMateriPoKOKHidrolisGaramTerhadapPrestasiBelajarSiswaKelas XI SMA N KebakkramatTahunPelajaran 2013/2014. *JurnalPendidikan Kimia,* 3(4);31-40. https://jurnal.fkip.uns.ac.id/index.php/kimia/article/view/4462

Suprihatiningrum, Jamil. 2013. StrategiPembelajaran: TeoridanPraktik. Yogyakarta.Ar-ruzz Media. http://opac.kaltimprov.go.id/ucs/index.php?p=show_detail&id=36769

Srimaya. 2017. Efektivitas media pembelajaranpowerpointuntukmeningkatkanmotivasidanhasilbelajarbiologisiswa. *JurnalBiotek, 5(1).* http://journal.uinalauddin.ac.id/index.php/biotek/article/view/3446/3241

Unggu. S. B; Dasa, I.E; &Awuy, E. 2017. Penerapan Model PembelajaranKoopertaifTipe Talking Stick UntukMeningkatkanHasilBelajarSiswaPadaMateriOperasiHitungMatriks di Kelas X SMK JustitiaPalu. *AKSIOMA JurnalPendidikanMatematika,* 6(1):46-59. http://jurnal.untad.ac.id/jurnal/index.php/AKSIOMA/article/view/8368/6644

Wahyudiantari, A.A; Parmiti; &Wayan, R.S. 2015. Pengaruh Model PembelajaranKooperatifTipe Talking Stick berbantuan Multimedia PembelajaranIntersktifDalamMeningkatkanHasilBelajar IPA. E-*Journal EdutechUniversitasPendidikanGanesha*3(1):1-11.

http://ejournal.undiksha.ac.id/index.php/JJTP/article/view/5831/4213

Yahya, M. N., &Pramukantoro. J.A. 2013. PengembanganPerangkat Model PembelajaranKooperatifTipe Talking Stick PadaStandarKompetensiMengoperasikan PeralatanPengendaliDayaTeganganRendah Di SMK 2 Surabaya. *JurnalPenelitianPendidikanElektro,* 1(1): 95-103. https://jurnalmahasiswa.unesa.ac.id/index.php/jurnal-pendidikan-teknik elektro/article/view/