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Zone of Promoted Action (ZPA) of Elementary School Teacher in Mathematics Learning

Karya: 1. Jauhara Dian Nurul Iffah
2. Akbar Sutawidjaja
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4. Subanji

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Results	Query	Domains (original links)
Unique	sutawidjaja@gmail.com, (iis_sadijah, subanjimat) @yahoo	-
Unique	Subject is Mathematics teacher on fifth grade elementary school	-
Unique	This qualitative research collect the data using interviews and observation	-
Unique	One subject material taught in educational institution was Mathematics	-
Unique	Mathematics thaught in primary school and secondary school was called as school mathematics	-
Unique	Therefore, social interaction between teacher and her/his students needed to be enhanced	-
Unique	Various characteristics of mathematics course should be comprehended by the teacher	-
Unique	ProceedingofICERD2015 148 TheStateUniversityofSurabayaTheoritical Review Vygotsky was born in Uni Soviet 1896	-
Unique	He concerned on a theory of teaching-learning social development	-
Unique	Such phenomenon was called as Zone of Proximal Development(ZPD)	-
Unique	ZPD theory was, then, extended by Valsiner by generating a new theory	-
Unique	Valniser proposed two futher zones of the relationship between children and environment	-
Unique	The second construct was Zone of Promoted Action(ZPA)	-
Unique	It emphasized on action promoted by teacher toward the students	-

Unique	Hence, the students were free to respond those promoted actions	-
Unique	When the ZPA was accepted by the students, it became accepted ZPA	-
Unique	Whereas, when it was rejected by the students, it became rejected ZPA	-
Unique	Some studies related to ZPA had already been conducted by teachers (Blanton,2005	-
Unique	Accordingly, the researcher took some indicators of teacher's ZPA as follows	-
Unique	The selection was randomly conducted	-
Unique	The researcher, then, observed the teaching process in class	-
Unique	Hence, observation and interview were both applied for data collection method	-
Unique	After all, the representative of each group would present the answer to the subject	-
Unique	All students gave a correct respond	-
Unique	It showed that the subject's ZPA was accepted by the students	-
Unique	It could be seen when the students correctly answer the question dealing with square	-
Unique	It also showed that the ZPA of the subject was accepted (accepted ZPA)	-
Unique	They needed to follow some steps written in their textbook/LKS to complete the task	-
Unique	While the students were reading the steps, the subject completed the task	-
Unique	The students understand all the steps practiced by the subject	-
Unique	Subject gave two exercises to find the square root	-
Unique	All students focused on the subject's explanation while a bit responding it	-
Unique	The subject pointed out one student, but he could not answer	-
Unique	The subject, then, threw the question to another student	-
Unique	They followed all the instructions asked by the subject	-
Unique	In this phase, ZPA of the subject was accepted by the students (accepted ZPA)	-
Unique	In groups, the students received a task and were asked to discussed the task	-
Unique	After finishing the task, each group presented and revised their answer	-

Unique	Hence, it showed that the ZPA of the subject was rejected (rejected ZPA)	-
Unique	The subject gave the second question to discuss in group	-
Unique	She responded the needs and guided the student	-
Unique	This showed that the students did not follow the subject’s instructions	-
Unique	The representatives of each group, then, presented their answers	-
Unique	Next, the subject gave an individual task	-
Unique	After finishing the task, both the subject and the students discussed the task	-
Unique	The subject asked for the answer toward the students, and they correctly responded it	-
Unique	Recognizinng such sircumstance, the subject immediately pointed out the student to answer the question	-
Unique	They were busy by their own, falling a sleepy, and less focus	-
Unique	In addition, teacher gave them homework to deepen their understanding related to the concept	-
Unique	There was little alteration between teaching and implementation	-
Unique	It occurred when the students accomplished the task in group	-
Unique	It seemed when they correctly answered the questions	-
Unique	Additionally, it was also found when they could understand the given construct	-
Unique	However, there were still some rejected actions or rejected ZPA by the students	-
Unique	Rejected ZPA also arose when the students did not follow the given instructions	-
Unique	Rather than following the given instructions for particular task, they precisely did another action	-
10 results	There are limitations to this study	uptodate.com forum.academica.ca microbialfoods.org medscape.com thepublicdiscourse.com bhf.org.uk craysor.com 123helpme.com 123helpme.com gabi-journal.net
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Unique	(2000) Goos, Merrilyn: a sociocultural analysis of learning to teach	-
1 results	Mathematics Teacher Education and Development	en.wikipedia.org
Unique	EM TEIA – Revista de Educação Matemática e Tecnológica Iberoamericana – vol	-
Unique	(2012) Hussain MA, dkk: Extending Valsiner's Zone Theory to Theorise Student-Teacher Development	-
Unique	(2012) Riddle, Elizabeth: Lev Vygotsky's Social Development Theory	-
86 results	R: Kiat Pendidikan Matematika di Indonesia	library.um.ac.id downloadptkptssdsmpsma.blogspot.com docplayer.info scribd.com ptkpendot.wordpress.com digilib.uinsby.ac.id scribd.com core.ac.uk eprints.walisongo.ac.id digilib.uin-suka.ac.id
2 results	Jakarta: Departemen Pendidikan Nasional	hefce.ac.uk scribd.com
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14 results	Cambridge, MA: Harvard University Press	amazon.com amazon.com iase-web.org let.rug.nl sonjalyubomirsky.com en.wikipedia.org en.wikipedia.org americanyawp.com urbanchildinstitute.org
Unique	(1978) Walle, John V: Matematika sekolah dasar dan menengah	-
Unique	(2002) ProceedingofICERD2015 TheStateUniversityofSurabaya 155	-
Unique	Iffah 1 , Akbar Sutawidjaja 2 , Cholis Sa'dijah 2 , Subanji 2 1 STKIP	-
Unique	Valsiner develop the theory by generating a new theory, that is Zone of Promoted Action	-
Unique	ZPA discuss about the action taken by the teacher during the learning process so	-
Unique	The character of the ZPA is not binding, so that it can be accepted	-
Unique	Several studies have been done related to the ZPA, but has not led to	-
Unique	of several previous studies, in which the goal is to classify the teacher actions which	-
Unique	about the way teachers teach, students follow teachers instructions and students are able to achieve	-
Unique	Rejected ZPA apparent when students are not enthusiastic about the way teachers teach, students	-
Unique	to guide students in taking their behaviour, including moral, spiritual, and social, into better human	-
Unique	According to Soedjadi (2000), Mathematics was a knowledge related to making sense and numeric	-

Unique	It often refered to elements or parts of mathematics selected based on and oriented	-
Unique	The objective of mathematics teaching in elementary and secondary school is to prepare students	-
Unique	starting point for the students to have the construct that was subsequently applied as	-
Unique	In addition, the basic concept of Mathematics in elementary school provided the students supplies	-
Unique	Thus, teaching Mathematics in elementary school needed to be considered by many dimensions, including	-
Unique	ProceedingofICERD2015 TheStateUniversityofSurabaya 147Current teaching process has already applied various strategies in order to make	-
Unique	The teaching process was no longer merely about ‘teacher explained, and students listened’ activity,	-
Unique	Interaction both student and teacher during learning process was considered by the teacher to	-
Unique	Accordingly, Walle (2002) suggested that teacher had to transform her/his teaching approach from teacher	-
Unique	Goos (2012) stated that social perspective could be useful both to comprehend the teaching	-
Unique	In this perspective, learning was seen as individual participation within social environment that interaction	-
Unique	(2000) also mentioned that students learned through speaking, thus made them able to express their	-
Unique	The most important thing was that teacher should give opportunities toward the students to	-
Unique	Mathematics learning might become more meaningful if both students and teacher understood the characteristics	-
Unique	He/she also needed to consider the characteristics of his/her students to make the teaching	-
Unique	Accordingly, Lui (2012) stated that teaching process in class followed the characteristics of teacher,	-
Unique	The distinctive characters of the students had also linkage to their capability in receiving	-
Unique	Vygotsky generated a theory of ZPD (Zone of Proximal Development), a theory facilitating students	-
Unique	Then Valsiner had extended the theory by generating ZPA (Zone of Promoted Action), related	-
Unique	Different conditions of the students in class needed a significant consideration by the teacher	-
Unique	The phases or actions might no exceede the students’ capability, that they could join	-
Unique	Hence, study was needed to observe the teaching implementation and try to classify which	-
Unique	be either accepted or rejected by the students, so that he/she could prepare particular subsequential	-
Unique	He believed that this lifetime development process was depend on social interaction, and social	-

Unique	problem solving and level of potential development determined by problem-solving under the guidance of adults	-
Unique	In other words, students were able to do the task they had whether with	-
Unique	ZPD was seen by Vygotsky to draw on students current and subsequent development achieved	-
Unique	The idea was that the most appropriate time for individual to learn was when	-
Unique	Such collaborative afford might be with some more creative people, thus made individual could	-
Unique	Lui (2012) mentioned that the easiest condition to make students achieve the course was	-
Unique	It could be quite difficult to determine whoever needing help in teaching process when	-
Unique	to act during the teaching process, and Zone of Promoted Action(ZPA), emphasizing all across action	-
Unique	ZFM refered to an area with boundaries of which students' behavior could be accepted	-
Unique	If their behaviors were still in given ZFM (within particular behavioral boundaries), the teacher	-
Unique	But, if their behavior exceeded the given boundaries, the teacher might lead them into	-
Unique	If they continuously perform such behavior exceeded the ZFM, the teacher would have an	-
Unique	Hence, there were possibilities for the students to behave either in accordance to the	-
Unique	the predetermined boundaries, or the teacher might reset the boundaries to make the students enable	-
Unique	Valsiner (1997) suggested that ZPA refered to a series of ProceedingofICERD2015 TheStateUniversityofSurabaya 149activities, things,	-
Unique	It showed that ZPA was an area announcing teacher actions toward her/his students in	-
Unique	Goos (2005) stated that ZPA constituted a series of activities promoted by adults and	-
Unique	that through such actions, the students enabled to learn a new knowledge, and thus would	-
Unique	Such promoted actions by teacher toward the students had a linkage to his/her teaching	-
Unique	It included the use of teaching method, teaching instrument, and teacher activities during the	-
Unique	It was in accordance to what Goos (2007) stated that ZPA was a strategy	-
Unique	As those were promoted by the teacher toward the students, Valsiner characterized ZPA in	-
Unique	Its mean that there is no obligation for students whether to reject or accept	-
Unique	As what Blanton (2005) stated that ZPA illustrated teacher's promoted actions toward the students	-

Unique	given by teacher ProceedingofICERD2015 150 TheStateUniversityofSurabayaResearch Method This study was conducted in one elementary school	-
Unique	and the serious concern related to teaching mathematics in elementary school, since it was the	-
Unique	The initial phase of this study was that the researcher had short interview with	-
Unique	The researcher observe the entire teaching activities and recorded the process in order to	-
Unique	Findings and Discussion In the initial phase of interview before conducting observation, the subject	-
Unique	The subject would initially explain this material in order to make the students have	-
Unique	Then, when they already enabled to find out the square roots of a number	-
Unique	In such discussion, they would receive some task to discuss in group for finding	-
Unique	In observation phase, the researcher recorded the teaching process in class that was conducted	-
Unique	by asking student one by one session in order to explore their prior knowledge related	-
Unique	The subject asked about what roots is, few students, especially who sat at the	-
Unique	and the number of those responding such questions was less than a half of whole	-
Unique	The subject reminded them the form of the square by having them mention	-
Unique	indicator by which the students felt enthusiastic with the teaching method that be applied by	-
Unique	When the subject gave a question about another term of square, all students could	-
Unique	The teaching process was continued by giving another example related to ProceedingofICERD2015 TheStateUniversityofSurabaya 151the	-
Unique	The subject wrote down the square form of number 1-10 on the board, and	-
Unique	subject in the notion of finding out the result of the square and the roots	-
Unique	The teaching process was continued by asking the students open up their textbook/LKS with	-
Unique	The subsequent process provided an example to find out the roots of a number,	-
Unique	and then asked them to read the steps of determining the value of the square	-
Unique	When the subject turned to the second question, she did another asking one by	-
Unique	She asked about implementing the steps in determining the value of the square roots	-

Unique	She, again, asked the student to read and to apply all the steps in	-
Unique	In this phase, the students were enthusiastic with the teaching method applied by the	-
Unique	They also understood the material given, for they could correctly answer the questions and	-
Unique	The subsequent phase of the subject was dividing the students into some groups and	-
Unique	They could not make groups by their own, thus they needed the subject’s assistance	-
Unique	The subject gave the first question to discuss, asked them to be cooperative for	-
Unique	Subject go around in the class to check in every group and help the	-
Unique	Although they were asked to be cooperative, but some of them tended to complete	-
Unique	In this first question, all groups had their same correct answer, thus, the subject	-
Unique	In this phase, the students did not follow the subject’s instruction, since they were	-
Unique	In this second question, the students began to work in group and discussed the	-
Unique	In this phase, there was student having trouble in completing the task directly asked	-
Unique	Because the subject focused on the assistance toward the single subject only, other students	-
Unique	Rather than obeying such instructions to complete the task, they were busy making noisy	-
Unique	When all students had already accomplished the task, the subject got them to answer	-
Unique	This phase showed that the students felt enthusiastic with the subject’s teaching method by	-
Unique	Still in group, each student individually accomplished the task, showing that they followed the	-
Unique	During the discussion process, there might be a student who was busy with their	-
Unique	subject, showing from the way of the students who followed the instructions and the way	-
Unique	In such way of discussion process, it seemed that some students started getting bored	-
Unique	Then the subject closed the teaching process by giving a task to them for	-
Unique	In this phase, they rejected the ZPA of the subject, for they did not	-
Unique	Rather, they were busy by their own and did not focus on the given	-
Unique	After finishing the learning process, the researcher conducted a bit interview with the subject	-

Unique	Teacher argued that it was well-conducted, and most of the students successfully comprehended the	-
Unique	All groups were supposed to initially accomplished the task, represented it, and then the	-
Unique	In fact, however, when some of the students had accomplished the task, they immediately	-
Unique	were accepted by the students in such way of teaching the square roots of	-
Unique	enthusiastic ProceedingofICERD2015 TheStateUniversityofSurabaya 153toward the teaching method of the subject by responding the instructions, and	-
Unique	The acceptance of the subject's actions by the students (accepted ZPA) was also found	-
Unique	which made them do not follow the given instructions, get busy by their own, and	-
Unique	It was also shown when the subject asked questions, but only less students could	-
Unique	and when the subject got them to have a discussion, they rather got busy	-
Unique	Difficulties in recording the learning process experienced by the researchers, because the researchers only	-
Unique	Also affect the number of students in this study, if the student is too	-
Unique	Sometimes only a few students who show different attitudes so that researchers difficult to	-
Unique	indicators to be used as descriptors so it will be easier to categorize the student	-
Unique	wider observations and determine the focus of the students that will be observed when the	-
Unique	Journal of mathematics teacher education(2005) 8:5–33 Boyd, M., & Maloof, V: How teachers build	-
Unique	Proceedings of the 29th Conference of the International Group for the Psychology of Mathematics	-
Unique	Melbourne: PME(2005) ProceedingofICERD2015 154 TheStateUniversityofSurabayaGoos, Merrilyn, dkk: Designing Professional Development to Support Teachers' Learning	-
Unique	8, 23–47(2007) Goos, Merrilyn: Sociocultural Perspectives on Research With Mathematics teachers: A Zone Theory	-
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2 results	An introduction to working within the zone of proximal development (ZPD) to drive effectiveearly	iosrjournals.org academia.edu
Unique	(2000) Valsiner, Jaan: Variability of adult-child interaction and instability of behavior settings in children's	-
Unique	Final report of the research grant, awarded for 1982/83 by the foundation for child	-
Unique	(1983) Valsiner, J: Culture and the development of children's action: A theory for human	-

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Zone of Promoted Action (ZPA) of Elementary School Teacher in Mathematics Learning Jauhara Dian Nurul Iffah 1 , Akbar Sutawidjaja 2 , Cholis Sa'dijah 2 , Subanji 2 1 STKIP PGRI JOMBANG ifa_jw@yahoo.com 2 UNIVERSITAS NEGERI MALANG akbar.sutawidjaja@gmail.com, (iis_sadijah, subanjimat) @yahoo.co.id Abstract: Starting from Vygotsky's social development theory, that is Zone of Proximal Development (ZPD), Valsiner develop the theory by generating a new theory, that is Zone of Promoted Action (ZPA). ZPA discuss about the action taken by the teacher during the learning process so that students gain new knowledge and skills. The character of the ZPA is not binding, so that it can be accepted or rejected by the students. Several studies have been done related to the ZPA, but has not led to the formulation of the indicator. This study tries to apply the formulation of indicators which summarized from the results of several previous studies, in which the goal is to classify the teacher actions which accepted or rejected by students. Subject is Mathematics teacher on fifth grade elementary school. This qualitative research collect the data using interviews and observation. Results from this study is accepted ZPA teacher appears when the student is enthusiastic about the way teachers teach, students follow teachers instructions and students are able to achieve the goal and understand what the teacher said. Rejected ZPA apparent when students are not enthusiastic about the way teachers teach, students do not follow the instruction of the teacher. Key Words: ZPA, Elementary School Teacher, Learning Mathematics Introduction The basic educational objectives was to guide students in taking their behaviour, including moral, spiritual, and social, into better human being both individually and sosially. One subject material taught in educational institution was Mathematics. According to Soedjadi (2000), Mathematics was a knowledge related to making sense and numeric accounts. Mathematics thaught in primary school and secondary school was called as school mathematics. It often refered to elements or parts of mathematics selected based on and oriented to the interests of development and Technological science. The objective of mathematics teaching in elementary and secondary school is to prepare students implementing mathematics in their daily life and in learning various disciplines. It was necessary to concern mathematics learning in elementary grade as it was the starting point for the students to have the construct that was subsequently applied as a base for learning further concept. In addition, the basic concept of Mathematics in elementary school provided the students supplies for advancing their educational level and for mastering future insight. Thus, teaching Mathematics in elementary school needed to be considered by many dimensions, including teachers, parents, society, and government. ProceedingofICERD2015 TheStateUniversityofSurabaya 147Current teaching process has already applied various strategies in order to make it interactive for both teacher and students. The teaching process was no longer merely about 'teacher explained, and students listened' activity, rather it has been designed to make the students more active during the teaching process. Interaction both student and teacher during learning process was considered by the teacher to build interaction between teacher and students particularly for making social environment conducive. Accordingly, Walle (2002) suggested that teacher had to transform her/his teaching approach from teacher centered-oriented to students centered-oriented. Goos (2012) stated that social perspective could be useful both to comprehend the teaching and to enhance teacher's capability in teaching mathematics. In this perspective, learning was seen as individual participation within social environment that interaction among people surrounding such teaching needed to occur, including teacher and students. Boyd, M., & Maloof, V.(2000) also mentioned that students learned through speaking, thus made them able to express their capability. The most important thing was that teacher should give opportunities toward the students to be active in speaking during learning process. Therefore, social interaction between teacher and her/his students needed to be enhanced. Mathematics learning might become more meaningful if both students and teacher understood the characteristics of what they learned and taught. Various characteristics of mathematics course should be comprehended by the teacher. He/she also needed to consider the characteristics of his/her students to make the teaching process effective. Accordingly, Lui (2012) stated that teaching process in class followed the characteristics of teacher, students, and the material taught. The distinctive characters of the students had also linkage to their capability in receiving the material, thus they needed assistance in material received process. Vygotsky generated a theory of ZPD (Zone of Proximal Development), a theory facilitating students to learn. Then Valsiner had extended the theory by generating ZPA (Zone of Promoted Action), related to the interaction between teacher and students. Different conditions of the students in class needed a significant consideration by the teacher to set certain phases of teaching process. The phases or actions might no exceede the students' capability, that they could join the process. Hence, study was needed to observe the teaching implementation and try to classify which manner of teacher actions could be accepted (accepted ZPA) or rejected(rejected ZPA) by the students. Thus, it was expected that teacher would find out which condition his/her actions could be either accepted or rejected by the students, so that he/she could prepare particular subsequential alternatives for achieving the teaching-learning objectives. ProceedingofICERD2015 148 TheStateUniversityofSurabayaTheoritical Review Vygotsky was born in Uni Soviet 1896. He concerned on a theory of teaching-learning social development. He believed that this lifetime development process was depend on social interaction, and social teaching actually led to the cognitive development (Riddle, 2008). Such phenomenon was called as Zone of Proximal Development(ZPD). Vygotsky emphasized it as "the gap between level of actual development determined by independent problem solving and level of potential development determined by problem-solving under the guidance of adults or by the cooperation of experienced colleague" (Vygotsky, 1978). In other words, students were able to do the task they had whether with guidance from teacher or cooperation from some more capable friends. ZPD was seen by Vygotsky to draw on students current and subsequent development achieved by applying mediation of semiotic, environment, and adults capability or peers. The idea was that the most appropriate time for individual to learn was when he/she collaborated with others. Such collaborative afford might be with some more creative people, thus made individual could learn and internalize the novel construct and skill. Lui (2012) mentioned that the easiest condition to make students achieve the course was when the material given was inside students' ZPD. It could be quite difficult to determine whoever needing help in teaching process when the course was outside the ZPD. ZPD theory was, then, extended by Valsiner by generating a new theory. Valniser proposed two futher zones of the relationship between children and environment. Those two zones were Zone of Free Movement(ZFM), emphasizing a zone of childrens' freedom to act during the teaching process, and Zone of Promoted Action(ZPA), emphasizing all across action promoted by teacher toward the students during the teaching process. ZFM refered to an area with boundaries of which students' behavior could be accepted by adults or teacher. If their behaviors were still in given ZFM (within particular behavioral boundaries), the teacher needed not to intervene in order to turn their behavior into distinctive direction. But, if their behavior exceeded the given boundaries, the teacher might lead them into predetermined direction. If they continuously perform such behavior exceeded the ZFM, the teacher would have an authority to transform the ZFM boundaries so that the students remained on the ZFM area. Hence, there were possibilities for the students to behave either in accordance to the given boundaries or not. If they did exceed the expected boundaries, the teacher could lead them back to the predetermined boundaries, or the teacher might reset the boundaries to make the students enable to join the teaching process (Valsiner, 1983). The second construct was Zone of Promoted Action(ZPA). It emphasized on action promoted by teacher toward the students. Valsiner (1997) suggested that ZPA refered to a series of ProceedingofICERD2015 TheStateUniversityofSurabaya 149activities, things, or areas in an environment, in which one promoted particular actions. It showed that ZPA was an area announcing teacher actions toward her/his students in the teaching process. Goos (2005) stated that ZPA constituted a series of activities promoted by adults and oriented to certain new skill. Action conducted by either adults or teacher during the teaching process had particular objective that through such actions, the students enabled to learn a new knowledge, and thus would achieve a new skill. Such promoted actions by teacher toward the students had a linkage to his/her teaching strategies. It included the use of teaching method, teaching instrument, and teacher activities during the process. It was in accordance to what Goos (2007) stated that ZPA was a strategy of teachers' professional development reflected from those particularly promoted actions toward their students. As those were promoted by the teacher toward the students, Valsiner characterized ZPA in a term of unbounded. Its mean that there is no obligation for students whether to reject or accept their teacher's actions. As what Blanton (2005) stated that ZPA illustrated teacher's promoted actions toward the students with no obligation for them to accept or reject those actions. Hence, the students were free to respond those promoted actions. When the ZPA was accepted by the students, it became accepted ZPA. Whereas, when it was rejected by the students, it became rejected ZPA. Some studies related to ZPA had already been conducted by teachers (Blanton,2005;Hussain,2011;Goos,2007). Accordingly, the researcher took some indicators of teacher's ZPA as follows. Table 1. Indicators of ZPA No Accepted Rejected Method/Model/ Strategy 1 Students felt enthusiastic with teaching model their teacher applied Students felt no enthusiastic with teaching model their teacher applied 2 Students followed the instruction by teacher and reach the objectives Students not followed the instruction 3 Students could not comprehend what was taught by teacher Students could not comprehend what was taught by teacher Media or instrument 4 Students were assisted with the media applied by teacher Students did not follow teacher explanation through media applied 5 Students felt interested in the media and instruments applied by teacher Students felt no interested in the media and instruments applied by teacher 6 Students could apply the media for learning tool Students could not apply the media for learning tool Topic 7 Students were interested in the topic given by teacher Students were not interested in the topic given by teacher 8 Students could understand the topic given by teacher Students were difficult to receive the topic given by teacher ProceedingofICERD2015 150 TheStateUniversityofSurabayaResearch Method This study was conducted in one elementary school of Jombang, with Mathematics teacher of the fifth grade as the subject. The selection of elementary school teacher as the subject was due to the necessity and the serious concern related to teaching mathematics in elementary school, since it was the critical point in which the students achieved the very basic constructs of mathematics. The selection was randomly conducted. The initial phase of this study was that the researcher had short interview with the subject, related to the teaching plan that will be implemented. The researcher, then, observed the teaching process in class. The researcher observe the entire teaching activities and recorded the process in order to avoid any missing data. Hence, observation and interview were both applied for data collection method. Findings and Discussion In the initial phase of interview before conducting observation, the subject stated that teaching material to be given was varying square roots of a number. The subject would initially explain this material in order to make the students have initial knowledge in common. Then, when they already enabled to find out the square roots of a number based on what teacher had explained, they would form some discussion group. In such discussion, they would receive some task to discuss in group for finding out the result of square roots. After all, the representative of each group would present the answer to the subject. In observation phase, the researcher recorded the teaching process in class that was conducted by the subject. Teacher opened the teaching learning process by giving a greeting, then stimulated the students by asking student one by one session in order to explore their prior knowledge related to roots of a number. The subject asked about what roots is, few students, especially who sat at the front line, answered that roots are the opposite of the square. It showed that they rejected the teacher's ZPA, for only few of them responded, and the number of those responding such questions was less than a half of whole students. The subject reminded them the form of the square by having them mention 2 x 2 x 2 in the form of square. All students gave a correct respond. It showed that the subject's ZPA was accepted by the students. They had a new knowledge, and all students accepted the subject's ZPA fulfilling such indicator by which the students felt enthusiastic with the teaching method that be applied by the subject and they followed the instruction of the subject. It could be seen when the students correctly answer the question dealing with square. When the subject gave a question about another term of square, all students could answer, by teacher assistance, that another term of square was recurring multiplication. The teaching process was continued by giving another example related to ProceedingofICERD2015 TheStateUniversityofSurabaya 151the form of square, then asking about the square form linked to the roots. The subject wrote down the square form of number 1-10 on the board, and then asked the students to find out the roots of those numbers. All students joined the overall teaching process well and answered questions given by the subject in the notion of finding out the result of the square and the roots of numbers from 1 up to 10. It also showed that the ZPA of the subject was accepted (accepted ZPA). The teaching process was continued by asking the students open up their textbook/LKS with a given page. The subsequent process provided an example to find out the roots of a number, in which the number consisted of minimally 3 digits. They needed to follow some steps written in their textbook/LKS to complete the task. The subject applied a technique that she wrote down a number on the board, and then asked them to read the steps of determining the value of the square roots of a number based on their textbook/LKS. While the students were reading the steps, the subject completed the task. The students understand all the steps practiced by the subject. Subject gave two exercises to find the square root. All students focused on the subject's explanation while a bit responding it. When the subject turned to the second question, she did another asking one by one session again. She asked about implementing the steps in determining the value of the square roots of a number. The subject pointed out one student, but he could not answer. The subject, then, threw the question to another student. She, again, asked the student to read and to apply all the steps in their textbook/LKS. In this phase, the students were enthusiastic with the teaching method applied by the subject. They followed all the instructions asked by the subject. They also understood the material given, for they could correctly answer the questions and felt enthusiastic during the teaching process. In this phase, ZPA of the subject was accepted by the students (accepted ZPA). The subsequent phase of the subject was dividing the students into some groups and asked the to gather based on their own groups. In groups, the students received a task and were asked to discussed the task. They could not make groups by their own, thus they needed the subject's assistance to be gathered in groups. The subject gave the first question to discuss, asked them to be cooperative for each other, and help their friends who found difficulty. Subject go around in the class to check in every group and help the students who get difficulties. Although they were asked to be cooperative, but some of them tended to complete the task by their own. After finishing the task, each group presented and revised their answer. In this first question, all groups had their same correct answer, thus, the subject did not described the answer on the board. In this phase, the students did not follow the subject's instruction, since they were not cooperative within their group. Hence, it showed that the ZPA of the subject was rejected (rejected ZPA). The subject gave the second question to discuss in group. In this second question, the students began to work in group and discussed the question, showing that they followed the subjec's instructions. In this phase, there was student having trouble in completing the task directly asked ProceedingofICERD2015 152 TheStateUniversityofSurabayaassistance from the subject. She responded the needs and guided the student. Because the subject focused on the assistance toward the single subject only, other students might make such noisy in class. This showed that the students did not follow the subject's instructions. Rather than obeying such instructions to complete the task, they were busy making noisy by their own. When all students had already accomplished the task, the subject got them to answer the question. The representatives of each group, then, presented their answers. This phase showed that the students felt enthusiastic with the subject's teaching method by responding the instructions of the subject. Next, the subject gave an individual task. Still in group, each student individually accomplished the task, showing that they followed the subject's instructions to achieve the objectives. After finishing the task, both the subject and the students discussed the task. The subject asked for the answer toward the students, and they correctly responded it. During the discussion process, there might be a student who was busy with their own. Recognizinng such sircumstance, the subject immediately pointed out the student to answer the question. In this phase, it constantly stated that the students accepted the ZPA of the subject, showing from the way of the students who followed the instructions and the way they felt enthusiastic due to the subject's teaching method with its exclusive concern. In such way of discussion process, it seemed that some students started getting bored with the teaching process. They were busy by their own, falling a sleepy, and less focus. Then the subject closed the teaching process by giving a task to them for homework. In this phase, they rejected the ZPA of the subject, for they did not feel enthusiastic in their learning and did not follow the instructions given by the subject. Rather, they were busy by their own and did not focus on the given instruction. After finishing the learning process, the researcher conducted a bit interview with the subject for confirming the teaching-learning process that teacher had just done. Teacher argued that it was well-conducted, and most of the students successfully comprehended the given concept. In addition, teacher gave them homework to deepen their understanding related to the concept. There was little alteration between teaching and implementation. It occurred when the students accomplished the task in group. All groups were supposed to initially accomplished the task, represented it, and then the subject latterly asked for the result. In fact, however, when some of the students had accomplished the task, they immediately announced their answer to the subject. Conclusion According to the conducted interview and observation, it found that not all actions were accepted by the students in such way of teaching the square roots of a number by the subject. The acceptance for the subject's action (accepted ZPA) was found when the students felt enthusiastic ProceedingofICERD2015 TheStateUniversityofSurabaya 153toward the teaching method of the subject by responding the instructions, and answering the given questions. The acceptance of the subject's actions by the students (accepted ZPA) was also found from another circumstance, when the students followed the instructions and achieved the teaching objectives. It seemed when they correctly answered the questions. Additionally, it was also found when they could understand the given construct. However, there were still some rejected actions or rejected ZPA by the students. Those were when they felt no enthusiastic with the teaching method of the subject, which made them do not follow the given instructions, get busy by their own, and get bored. Rejected ZPA also arose when the students did not follow the given instructions. Rather than following the given instructions for particular task, they precisely did another action. It was also shown when the subject asked questions, but only less students could correctly answer those; and when the subject got them to have a discussion, they rather got busy by their own or individually completed the task, not in group. There are limitations to this study. Difficulties in recording the learning process experienced by the researchers, because the researchers only use one camera so that sometimes there are some events that are not recorded. Also affect the number of students in this study, if the student is too much then it will be difficult to observe all students. Sometimes only a few students who show different attitudes so that researchers difficult to determine the actions of these students fall into which category. Suggestions are given for further research are determined sub categories of each of the indicators to be used as descriptors so it will be easier to categorize the student action. In addition, use of more than one recording device in order to cover a wider observations and determine the focus of the students that will be observed when the learning process. References Blanton, m. L:Using valsiner's zone theory to interpret Teaching practices in mathematics and science Classrooms. Journal of mathematics teacher education(2005) 8:5–33 Boyd, M., & Maloof, V: How teachers build upon student-proposal intertextual links to facilitate student talk in the ESL classroom. In J. Hall, & L. Verplaetse (Eds.), The development of second and foreign language learning through classroom interaction(pp.163-182). NJ: Lawrence Erlbaum Associates, Inc. (2000) Goos, Merrilyn: a sociocultural analysis of learning to teach. 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