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Integrating Faith And Learning

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ABSTRACT

Good teachers should consider how mathematical ideas taught in the classroom and how should students learn in the classroom, as well as determining a goal or goals to be achieved. Teachers needs to realize that there is no single way to learn the most correct, there is no way to teach the best or superior, because peoples are differ in intellectual abilities, attitudes, and personality. Teachers are free to choose their own way and style in teaching and learning to achieve the goals that have been determined by considering the conditions of each student. Therefore teachers needs such effort and patience in providing the right motivation. Strong motivation in mathematics teaching is not just words, but stimulation through teaching techniques as the proper way to make students happy and more interested towards mathematics. This ways are expected to eliminate problems such as fear or mathematics anxiety, which is a common problem for many years. Thus, learning to approach; strategy; method; is faith-based model of learning into the limelight. Faith based learning correlates learning particular subject matter in mathematics with the Word of God, students are directed always willing accept wisdom and knowledge of God. Teaching that leads to the heavenly teaching method to love God.

Keywords: Integrating Faith in Learning, Mathematics teaching.

A. Introduction

1. Teaching Mathematics

Good teachers should consider how mathematical ideas taught in the classroom and how should students learn in the classroom, as well as determining a goal or goals to be achieved. To achieve these objectives the teacher must do careful planning to start in choosing a strategy, approach or method that is appropriate in order to obtain results oftimal, effective and appropriate (Soedjadi, 1999). Teachers choose, develop ways of learning in order to be taken in the implementation of the mathematical ideas presented can be adapted to the students, so that students are actively involved in the classroom and learning should be pursued centered on students. The success of an teacher is when students are able to receive and develop the knowledge provided, so that students become a generation that has a spiritual intelligence and intellectual, as an explanation of AI-Bayan, (Syamsul, 2013).

Teachers need to to realize that there is no single way to learn the most correct, there is no way to teach the most good or superior, because people differ in intellectual abilities, attitudes, and personality. As expressed by Nisbet (Suherman et al, 2001) "There can be no 'right' way to study or 'best' way to teach ...". This means that each teacher is free to choose his own way and style in learning and teaching to achieve predetermined goals.

To achieve the goals that have been determined a teacher can apply one of the strategies, approaches, methods suitable to consider the condition of the student. But there is a little message in the subject matter taught in the classroom, which create an impression of each student will leave the classroom, they are expected to discuss something unpleasant has happened to the new math course followed, and it is expected

they will continue to smolder spirit until the day by day, and they want to once again got the math to get the subject matter more. The teacher should attempt to provide the right motivation, a strong motivation in teaching mathematics not only by words, but by providing stimulation through tips (strategy), tricks, techniques and teaching the proper way to make students happy, or attracted to mathematics. It is expected that in this way teachers can bring up the interest of students towards mathematics and can eliminate problems such as anxiety towards mathematics, which is a common problem for many years.

Teachers will teach students to learn mathematics well, if they are really interested in math. However, it is difficult for most teachers to find ideas about delivering supplies in an interesting mathematical topics. Many teachers are involved in the routine of delivering course material, rarely take the time, think about or look for things that can motivate students to be interested in math. Teachers should take time to design an embed learning in mathematical concepts into something exciting and fun and the kids are expected students and teachers waiting math and the expectations will feel regret when the hour ended math.

As a teacher/lecturer needs to be responsive to the situation and conditions that require awareness in the next generation understand the moral gray. They all need to come out with a moral conscious of the puddle had shackled, without looking who is wrong, but need to do introspection with honest and determined and acted make improvements for the future generations of replacement, not the next generation keterbelengguan, but a replacement for the future generations. Thus, learning to approach; strategy; method; or faith-based model of learning into the limelight. Learning that turn a close relationship with God and understand His Word, directed proteges always willing to accept the wisdom and knowledge of God, and connects lessons.

2. Based Learning Integrating Faith and Learning

In learning based on faith learning, emphasized that teachers / lecturers should be able to shape the character (nature) students with a foundation of love. In other words, the teacher has an important role in the character development of their students. "Building character (the character) is a very important work ever entrusted to human beings; and never before have so important to learn what it is today "(Education, hal.225). Faith based learning is learning how to create a fun learning environment, by providing stimulus through tips (strategy), tricks, learning techniques, and always connect the topic with the word of God, the nature of God's creation. In creating a fun learning environment necessary serenity, joy, and giving a strong motivation and true in the teaching of mathematics, not just with words, but by giving stimulation through tips (strategy), tricks, techniques and teaching the proper way to make students happy or interested in mathematics.

Faith-based learning drives student-centered learning, and emphasis on learning discerning. Giving responsibility to the students to construct their own knowledge as well as the opportunity to ask about the widest possible scope of teaching materials. Turning intimate relationship with God and understand His Word, and students are always willing to accept directed wisdom and knowledge of God. Thus learning is learning by faith, expected to form the character of students with a foundation in accordance with the faith of love, and will bring students to a high motivation to learn mathematics and satisfactory learning results, and able to be yourself.

By forming the character as a replacement generation, be agents of truth which is able to control himself, one day they become the leaders, thinkers, builders who have the kindness, courtesy, gentleness, and honesty. Train up a child in the way he should go and when he is old, he will not depart from it. (Proverbs 22: 6). Recite in the name of your Lord who created .Created man from a clinging substance. Recite, and your Lord is the most Generous . Who taught by the pen. Taught man that which he knew not (QS Al A'alaq 1-5). Oh you who believe! When you are told to make room in the assemblies, (spread out and) make room: (ample) room will Allah provide for you. And when you are told to rise up, rise up Allah will rise up, to (suitable) ranks (and degrees), those of you who believe and who have been granted (mystic) Knowledge. And Allah is well- acquainted with all you do. (QS. Al Mujaadalah 11). State of nature has three sides, and the training was followed by the king Solaiman include proper development of the forces of physical, mental and moral. To do this job right, the parents and the teachers must first understand "where the child will go." Furthermore, that there is no work done by every human, caring and demanding greater skills than to train and educate people young people-and children appropriately (White, 1882). As such they are the sons and daughters of the nation as the next generation to upholds moral, and they will make improvements for the nation.

As far as possible, every child should be trained to be independent, told him to hold the exercise in the many kinds of subjects, he will learn to recognize their own strengths and weaknesses. A wise teacher will give special attention to developing the weakest part, so that the child can form a balanced and harmonious nature. In every field of teaching, teachers should try to instill the light of the word of God, and show the importance of obedience to the Word of God. Because each of the sons and daughters (the students) should be called as children of God, thus education should lead to the teaching of God's love or heavenly.

Educating students is a very important job. Teachers/lecturers should feel the call of God is holy, and handed himself into the job with passion and dedication. So that would be acquired true education is the development of harmony and balance between the physical, mental and spiritual. Making students who are ready to be always be happy and ready to serve in the future. Capable of carrying the sacred wisdom and knowledge into useful job for life and for the future, which is eternal life. (Counsels to parents, teachers, students, p. 229). Therefore teachers need self-preparation before perform tasks glorious views with respect to the following matters: 1) Feeling the job is important. 2) Make a good preparation. 3) Eager to do so. 4) Devote his life to the occupation.

If the teacher/lecturer gave attention to the children of students, and show love in front of them, it may even become an example and a role model in front of them, the teacher / lecturer will be able to win the affection and raise confidence of the students. Thus a lesson about respect and obedience will be ready to be taught, because you are the best teacher. The teachers and faculty that trains students to feel the power that is in him to be a respectable and useful, feel embarrassed with dishonesty, would become the most successful coach. Their work might be considered providing less benefits and work considered not as a great coach who can master his students with completely, but keep in mind the future of the students will show the result of better education plan. According to Al Quran surah Ar-Rahman that the characteristic of the teachers is generous, kindly and gentle, polite and noble character to his/her students and anyone who showed Personal Competence on professionalisation. Learning connects learning

lessons faith with the word of God, and His hand of creation. Integrating Faith and Learning (IFL) has a learning criteria are based on the word of God as written in the book of Galatians 5: 22-23; namely: love, joy, peace, patience, kindness, goodness, faithfulness, gentleness, and self control.

Love

If only the teachers or lecturers to show love on the activities of young students, perhaps even get involved in their activities, the teacher/faculty can win the affection and confidence raising students. Further lessons about respect and obedience will be ready to be taught, because you are the best teacher. Do not ever forget that the teacher should be the way he wanted for his students, but the principles and behavior should be rated much higher importance than the ability gained from books. Teachers and lecturers should be the one who fears God, and feel the responsibility on the job.

To win the affection of the children of students, teachers / lecturers should be able to demonstrate that his own heart was filled with compassion before them, through his eyes and his words and actions, good habits, and develop respectful behavior. This habit is a physical training should occupy a prominent place in the hearts of every educator. So if the teacher / lecturer in delivering course material filled compassion, will be able to build interest and motivation of students towards mathematics. And an important point is also that the teacher in delivering teaching materials strive membelajarkan discerning students through learning, giving special tricks to facilitate student understanding.

Furthermore, because they feel it is an important work, teachers make good preparation or careful planning and directing the students' understanding of meaningful learning, giving priority to sense, process and outcomes, particularly in mathematics, and students are able to link led to new knowledge through the old knowledge. So understanding the material not just know, but able to be yourself.

Joy and Gratitude

Teachers in delivering course material has a fun sense of friendship, so that the classroom atmosphere becomes conducive. Teachers always heartened background knowledge in addressing different from each student. Background knowledge different from each student not to complain, but as a challenge to be addressed with great joy, so that the teacher presents a teaching material which enables students interested, motivated and challenged to engage in learning. Teacher removes all the differences of the students, trying to treat students fairly, eliminate feelings of inferiority. Because every opinion of the students is always appreciated even the smallest. The students are directed to always be grateful, because in practice the gratitude we would tend to be more creative, bounce back more quickly from adversity, has an immune system that is more robust, and have a higher social relationships than those who do not practice gratitude. One obvious way to reflect that we are grateful for this life we have to live a positive insight.

Patience, Mercy and Goodness

With patience, a teacher trying to help students in eliciting curiosity or willingness to want to learn and engage actively in the classroom, is expected to dampen the students' boredom and exasperation heart. It is expected students sit in class, interested in the subject matter is acceptable, especially math. With good preparation, teachers can lead students to construct mathematical understanding, is able to find the ideas or concepts of mathematics, then after a concept or mathematical ideas are already

understood by the student, the teacher will be repeatedly reminded to the students, the teacher will always associate the material that has been studied with the next material. Teach your child repeatedly day and night (Deuteronomy 6: 7). Thus, students are able to understand the material not just know, but they are expected to truly understand and are able to construct their own understanding of mathematics, not rely on others, able to be yourself do not be tempted to dishonesty.

Teachers are always available to give help when needed (scaffolding) to anticipate bottlenecks in the process of learning, especially math. Encourage and invite to the occurrence of an interaction in the classroom, lead to a strain of ideas among students. With good preparation, with generous teacher divides science (not stingy science) to students. With patience to help students who are weak or less capable, and always remind the students who are good to have the humility to associate the subject matter with the Word of God.

Faithfulness

Teachers as educators should be aware that educational progress is dependent on the dedication and creativity of teachers. Teachers are aware that students are living in a period full of competition will experience a lot of changes that will occur in various places, so the teacher must hold a promise to always renew and learning lessons. Teachers must be loyal willing to improve themselves in the scientific field, both through formal and informal education, to have faith or have a strong desire to plan and implement learning mathematics well, in the sense that learners really understand math very well match the grade school. The teacher must be loyal to his profession, and appreciate any work he did as a call from God.

Gentleness

With gentleness inculcate students who help shape the character of the students, trying to direct the student-centered learning, by providing opportunities for students to actively learn. With gentleness lead students to be able to be yourself, learn to construct knowledge, is able to process towards results. With gentleness lead students in developing reasoning skills, problem solving skills, communication skills, ability to connect and mathematical representation of the student's ability in particular that will help students when later faced many problems and daily life. Be aware that it is not easy to be able to determine whether the value of students forming the character of the students have achieved, especially in a short period, it is necessary for the effort with patience in a planned and continuous and longer periods of time.

Mastery of Self

It is good in character development of students, when they are constantly faced with the teacher or educator who always seeks affection, sympathy and tenderness, is expected to avoid roughness or violence in the classroom. With kindness courtesy, gentleness, and honesty is very valuable to have the ability to imitate, or exemplary students. The teachers / lecturers should be responsible for controlling themselves, teachers must master in all things in the presence of students, for teachers/lecturers who they believe to be true to become role models in front of them. Teachers should not hurt students; they should let them work with courtesy, respect, patience and kindness.

We work to direct their knowledge into human character, directing them to be thinkers, but we should be able to control ourselves first, so that they will be agents of truth which is able to control himself, one day they become thinkers, leaders, builders are have the goodness courtesy, gentleness, and honesty. They will stand on the truth someday, they will work with full attention to be fair and good, temperament will grow

similar to the divine nature. One day they will be able to be responsible, able to give wise correction warning to the guilty, with love and gentleness, to remind each other equally grow in love, together grow in truth. They would upholds morals of our nation, they will be determined and acted make improvements in our beloved motherland this.

B. Ing Ngarsa Sung Tulada, Ing Madya Mangun Karsa, Tut Wuri Handayani

The concept of learning in line with the idea of faith learning education leaders Ki Hajar Dewantara " "Ing Ngarsa Sung Tulada, Ing Madya Mangun Karsa, Tut Wuri Handayani." Giving meaning if they are in front to give an example, in the middle of building good will, and when in the back to give support or encouragement to achieve good purpose.

An educator (teacher/lecturer) should be placed wherever perform noble tasks. A teacher is a leader. As a leader, a teacher should be able to give a good example to the led. Set a good example to imitate and emulate, trying to demonstrate and instill the light of the word of God, and show obedience to God's word. In the middle as a facilitator capable of building good will show love, and with patience in achieving goals, and as a dynamic factor stimulating, easy to adjust to the situation, was able to give encouragement to the group vigorously to achieve a common goal.

When a teacher conveys information or a concept through lecture method, it can be said he was said to be functioning " Ing Ngarsa Sung Tulada ". He must be thoroughly prepared and know very well that the examples given concept is good and true and always tried to associate with the word of God. When a teacher is implementing a learning model with a small group, or student discussion, and see the direction of the discussion does not match the learning objectives, and with patience and gentleness teachers ask questions to straighten it. Then the teacher/lecturer said to serve as an " Ing Madya Mangun Karsa ". But if during the discussion went well and that talking is a particular student, the teacher can give a boost to other students also present their views, lovingly tried to evoke the spirit of the other students to join and participate. Teachers/lecturers steer, drive and shape the nature of the student with a foundation of love, the teacher serves as a Tut Wuri Handayani.

Love radiating from the heart, because it keep that love in the heart. Open wide the doors of my heart to your love, O God. Let your steadfast love my master, because it would make my heart gentle. Psalm (123: 23) Search me, O God, and know my heart. Test me and know my thoughts.

C. Examples of Faith Learning Based Learning

In a school activity, the initiative starts from the teacher. By way of asking questions by giving an illustration, students are directed to gather information, to enable the old knowledge, so that students are actively involved. With great gentleness teacher / lecturer appreciate answers, questions, complaints, or act however bad quality students. In a situation joy, understanding the student is directed to accept new things with discerning, meaningful, not just to know, but can actually understand and use mathematical concepts in their daily lives. Student is able to find the ideas or concepts, theorems, formulas, patterns or rules, and the like. The teacher/lecturer gives freedom to the students to be able to guess, guess, dabble, estimates, and other business using unprepared knowledge by means of induction, deduction, observation, and the like. By asking for wisdom and knowledge of God, a teacher thinks of a real application, of the material being studied, or to motivate, lead at least understanding math. Finding the appropriate application of mathematics is not a simple task, and sometimes the

application of a topic is sometimes hard to find on the other topic, it is necessary to perseverance, and wisdom of God.

I. Learning the Faith Learning Multiplication in Algebra Shape

To learn the multiplication of two digits or more, may show several different formats for the same process. Discover patterns, rules or formulas, and can understand its application in everyday life. The teacher presents the form of multiplication in several different formats with the process leading to the result: Step by step are presented as follows:

1. With love and patience introduce multiplication ways.

1.1. Introducing Multiplication between 78 to 63 by way of long multiplication as follows:

The obtained result 4914

1.2. Then introduce multiplication between 78 and 63 by way of using tables or by using the broad concept as follows:

Then
$$78 \times 63 = (70 \times 60) + (70 \times 3) + (8 \times 60) + (8 \times 3)$$

= $4200 + 210 + 480 + 24$
= 4914

- 2. With joy the teacher/lecturer always heartened background knowledge in addressing different from each of the students, repeat step by step. (Deuteronomy 6: 7 reminding, teach it over and over again).
 - 2.1. Repeat step 1 with a different example, introducing multiplication between 72 to 79 by way of long multiplication as follows:

	70	9	
70	4900	630	
2	140	18	

2.2. Then introduce multiplication between 72 and 79 by way of using tables or by using a broad concept as follows:

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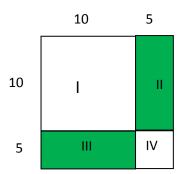
Then the product between
$$72 \times 79 = (70 \times 70) + (70 \times 9) + (2 \times 70) + (2 \times 9)$$

= $4900 + 630 + 140 + 18$
= 5688

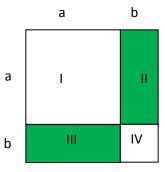
The obtained result 5688

3. With the full fidelity of teachers/lecturers herding mathematical capabilities of students to be able to discover mathematical concepts.

Students are directed to follow step 1 and step 2, students calculate the area I, II, III, IV, and the whole of the area following the model geometry.



- 4. With the gentleness of teachers/lecturers lead students in developing reasoning skills, problem solving skills, communication skills, ability to connect and mathematical representation of the student's ability in particular that will help students when later faced many problems and daily life. Student is directed to apply mathematical problems in everyday life.
 - 4.1. Student is able to see that the multiplication between 15×15 is: 100 + 50 + 50 + 25 = 225
- 4.2. With great patience directed students to understand the application, to develop a broader, and able to find concepts of mathematics, as follows: Protege is able to find the area of the I, II, III, IV, and the total area of the model geometry of the following:



The area I = a^2 Broad region II = abWide area III = ab

Broad area IV =
$$b^2$$

Overall width = $(a+b)^2 = a^2 + ab + ab + b^2$
= $a^2 + 2ab + b^2$

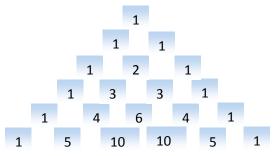
4.3. Student herded see the relationship between the total area and the wider region I, II, III, IV. Then the students capable of finding the formula and the concept of two-digit multiplication.

$$(a+b)^2 = (a+b)(a+b) = a^2 + ab + ab + b^2 = a^2 + 2ab + b^2$$

- 5. With gentleness teachers/ lecturers engage students in building and developing reasoning skills, problem solving skills, communication skills, and the ability to connect mathematical representation ability of students in other situations.
 - 5.1. It is expected that students are able to develop their abilities in other situations, such as: $47 \times 89 = (40 \times 80) + (40 \times 9) + (7 \times 80) + (7 \times 9)$

$$= 3200 + 360 + 560 + 63 = 4183$$

- 5.2. Student is directed to find the concept of a two-digit multiplication or multiplication between tens to tens as follows: the result of the multiplication of tens multiplied by tens summed with the result of the multiplication unit multiplied tens summed with the result of the multiplication units multiplied by the unit multiplied by tens of aggregated units.
- 5.3 Student is able to understand the concept led to the multiplication of two digits or more in the form of algebra in daily life, is able to understand the multiplication coefficient in algebraic form, and is directed is able to expand its mathematical abilities to understand the coefficients with Pascal Triangle pattern.



5.4. Teachers/lecturers by providing scaffolding herding students, to be able to construct understanding, connect, expand their understanding of other subjects. Teachers/lecturers familiarize students understanding not separated or fragmented by other topics or subjects another discussion. For example, as early as possible to discuss the topic of multiplication in the algebra is expected to introduce the concept of the pascal triangle pattern with a subset of topics and topic opportunities.

D. Recommendations

Recommendations that can be delivered on the above description is as follows:

- 1. With the IFL will shape the character of their students as early as possible, as a replacement generation as agents of truth which is able to control themselves, in one day they become the leaders, thinkers, builders who have kindness, courtesy, gentleness, and honesty to homeland.
- 2. In creating a fun learning environment necessary serenity, joy, and giving a strong motivation and true in the teaching of mathematics, not just with words, but with giving stimulation through tips (strategy), tricks, techniques and teaching the proper way to students happy, or attracted to mathematics, so as to eliminate feelings of anxiety toward math.
- 3. Learning by Integrating Faith and Learning was implemented to allow the material to the field of study or other courses, to develop each of the competencies

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of each field of study or any course that has been written in the Indonesian National Curriculum in 2013.

4. Integrating Faith in Learning by Teaching and Learning mathematics is also very applicable, other mathematics to develop mathematical competence of the other students, such as problem solving skills, reasoning ability, critical and creative thinking skills and other capabilities that are already required by the National Curriculum Indonesia, 2013.

Bibliography

Bhudi, W. S. (2005). Early Steps Toward Math Olympics. Jakarta. Ricardo.

Departemen Pendidikan Nasional (2002). Big Indonesian Dictionary, Jakarta. Balai Pustaka.

Helmaheri. (2004). Developing Communication Skills and Mathematical Problem Solving Students Junior High School through Strategy *Think-Talk-Write* in Small Groups. Bandung. UPI Thesis. Not Published.

Hutagaol, K. (2007). Contextual Learning for Improving Representation of Mathematical Ability Students Junior High School. Bandung. UPI Thesis. Not Published.

2010). Representation of Multi Strategies for Improving Mathematical Problem Solving Ability and Communication Ability Mathematically Students Junior High School. Bandung. UPI Dissertation. Not Published.

Kuntaraf, J. Dan Kathleen, K. (2007). Wisdom of God. Jakarta. Talenta Mulia Aksara. Kusdinar, A. dan Arifin, Z. (1992). Approach in Teaching and Learning. Bandung. Rosdakarya.

Lembaga Alkitab Indonesia. (2006). Bible Supplements. Jakarta.

Sagala, M. (2008). Worship, learning every day with God. Jakarta. For personal entertainment.

Soedjadi, R. (1999). Tip Mathematics Education in Indonesia, Jakarta. Directorate of Higher Education Ministry of National Education.

Subanji, H. (2013). Creative and Innovative Learning Mathematics. Malang. Universitas Negeri Malang.

Suherman dkk. (2001). Contemporary Mathematics Learning Strategies. Bandung. Universitas Pendidikan Indonesia.

Ruseffendi, E. T. (1991). Introduction to Helping Teachers Develop the Competition in Teaching Mathematics to Improve Active Student Learning. Bandung. Tarsito.

Sihotang, P. Integritas Faith Learning, Jakarta. For personal entertainment.

Sitorus, J. (1990). Introduction to the History of Mathematics and Teaching Updates Matematka in Schools. Bandung. Tarsito.

Sobel, M. A., Maletsky, E. M., Polla, G., Suyono., Muji, D. (2002). Teaching Mathematics. A Source Book Viewer tool, Activities, and Strategies, for Teachers of Mathematics Elementary, Junior, High School. Jakarta. Erlangga.

Sumarmo, U. (2003). Model Development to Enhance Learning Mathematics Higher Level of Intellectual Ability Students Elementary School. Research Report. Research Institute of UPI.

Supriatna, A. dkk (2012). Implementation Lesson Study. Bandung. Rizqi Press.

Suryadi, D., Turmudi. (2008). Instructional Materials Mathematics Education and Teacher Professional Training. Bandung. Universitas Pendidikan Indonesia.

Syamsul, (2013). http://syamsul14.wordpress.com/2013/03/29/dalil-al-quan-tentang-pendidikan-2/

White, E. Christian Leadership. Copyright 1996, Bandung, Indonesia Publishing House.

___ Education. Bandung, Indonesia Publishing House.

Zain, A. dan Djamarah, B. (1995). Learning Teaching Strategies. Banjarmasin. Rineka Cipta.