

Piccolo (*Positive Psychology in Classroom*) Programme : Training for Increase Grit for Adolescent Community in Classroom Setting

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Abstract: One of the most difficult challenges faced as teachers or educators is developing the potential of mental health at school especially in classroom. Educators and researchers tend to research curriculum-focused and pedagogical. Some factors such as non-cognitive like how students judge themselves, how students do not stop giving up, how students have good relationships with peers and how they feel about school are being ignored. This method is applied in the classroom based on the theory of Perma (Positive Emotions, Engagement, Relationship, Meaningful, Accomplished) and grit that can make student strong motivation to achieve their respective goal. While positive emotions, engagement, relationship, meaningful, and accomplished function for the short-term success of students in interacting with themselves and the surrounding environment. This programme is applied to a freshman student learning group community around 17-18 years old. Experiment design used treatment by subject design which is chosen for this research. The result of this research explained that there was a significant increase of grit in students that study group community.

Keywords: Grit, adolescent, classroom

Introduction

When some parents are interviewed and asked about their imagination of their child's future and what they want most from their child's future, most of their response are being "happiness", "confidence", "beneficial for others", "health", and "sense of security". The thing they just mentioned above is part of subjective well-being that has rarely been applied concretely in the School these day (Seligman, 2008).

School nowadays no longer balances between cognitive factors and non-cognitive factors. This statement is similar with what Seligman (2008) said. Most psychological and educational research focus on curriculum and pedagogy, what materials are taught and how they are taught. However, curriculum and pedagogy are often defined narrowly as academic content and student learning. Research shows that curriculum and pedagogic alone are not enough to catch up in education.

Psychological factors often called motivational or non-cognitive factors - can be more important than cognitive factors for students (Zhao et al., 2018). The neglect of non-cognitive factors, making children are taught to compete without loving each other, they consider their peers are no longer friends but rivals they must defeat, technological advances that are often discussed today are no longer just helping students develop, it makes students from the social world build safe and comfortable zones with technological advancements and no longer care about their sad classmates. Students do not feel if school is fun, they

are not developed into individuals who have the power that comes from themselves and only believe that cognitive things will make their world enjoyable, without worrying about the existence of others.

Lack of motivation to do it well at school is a serious loss of human potential, and has implications for students' welfare. Non-cognitive actors commonly called motivations that are no longer taught in a concrete way in school, makes students only think about "achievement" "abilities thinking", "literacy", "counting", and "competing". The imbalance in the application of cognitive and non-cognitive factors was seen long time ago, a student in one of the favorite schools thieved the final exam question for the odd semester.

From the interview that the author got, the author's classmates said "yes, there was someone who thieved the question in the adjoining teacher's room with the student room yesterday". The other facts showed that the junior high school students' parents competed to train their kids to develop talents and hone cognitive skills with good learning outcome, so these will be an additional issue to the students' own problems.

Measuring students' abilities through IQ, boxing boxes with other students, and labeling one child to another is a fact that must be accepted by children in this age group, the fact that tutoring places are never quiet, as a means to develop children's talents and abilities occur where where. According to authors conducted interview, to some children in the field that 5 days a week children are required to take part in the

lesson and the remaining 2 days of the week are lessons related to their talents and excellent grades in school. Some children also claimed that they were not an expert in learning because of low IQ score and had no talent like their friends.

While others, thinking that they are stupid and no one understands it, the only thing they will choose is giving up or staying in school but not going to a certain lesson because they are exhausted at the tutoring place. A study conducted by Khan & Khan (2017) says that learning outcomes and academic achievement are not needed to be successful, happy and have a good life satisfaction in the future, is a benchmark for parents to the success of their children, always based on how smart he is and how much report card the child gets.

According to Duckworth (2007) in field research, many children with intelligence are not above average flat that does not become successful compared to those who have high intelligence, IQ, learning outcomes and student achievement is not a guarantee of happiness and success in the future, therefore in the study Duckworth (2007) also mentioned intelligence, family income, even talent and interest are not predictors someone can be happy and be successful throughout his life. Determination, enthusiasm, and long-term goals are real predictors of success. It is clearly illustrated in the field of mathematics, some students do not enjoy the pleasure of learning mathematics, even some who label themselves with "math people" or "not mathematicians", study Recent fields of mathematics and educational science have studied the effects of non-cognitive factors on student achievement such as emotions, attitudes, values, beliefs, motivation, anxiety and grit. Research conducted by Al-Mutawah & Fateel (2017) which measures the influence of grit on attitudes or perceptions of science and mathematics lessons.

This is known through the results of the dissemination of instruments, which were given to a total of 646 secondary school students. The questionnaire 'Attitudes toward mathematics' was adapted from TIMSS (2011), and was administered to a total of 349 secondary school students. The 'Attitude to Science' questionnaire was adapted from TIMSS (2011), and was given to a total of 297 secondary school students. The results showed that grit was positive and significantly correlated with academic achievement in mathematics alone, while attitudes towards mathematics and science were positive and significantly correlated with academic achievement in both subjects.

There are many relationships between grit and the progress of the education system, but no one has actually applied in the classroom. This was revealed during preliminary research related to mathematics and its learning system in the classroom, the students when interviewed, admitted that what happened is during the mathematics class the teacher was only focused on smart students and ignored others who were less

interested in mathematics, so that mathematics became a bored subject for students.

The area of positive psychology is here, which is how to develop the strength that is in the individual so that he can be a successful person in society. a better life is more like an effort to demonstrate the positive potential of a student in a context school, through developing grit in students (O'Graddy, 2015) Seeing the importance of positive psychology and its application in the Classroom will make a new point of view in the world of basic education, not only related to curriculum or pedagogic alone, but student motivation and wrong views are related to intelligence and results Learning is a long-term goal of this study, the application of positive psychology in the classroom still tends to be abstract and cannot be applied easily, therefore through a research entitled Application of positive psychology through mathematics lessons to develop grit in students, students are expected to achieve success in life and time in front of him (Boeler & Dweck, 2016). This research is a research that will develop grit in students through a process that must be carried out by the teacher in the classroom. In the long run, if trained as early as possible about how to develop grit, it is expected that students will develop and interpret these things to adulthood and will be good for life throughout their age and can provide an overview of how to apply clearly to educators in the future expected to apply this in classrooms.

Grit

Grit is a new construct invented by Angela Duckworth which in her research describes the efforts and determination of students or students to achieve the expected results and survive for a long period of time despite being faced with challenges in the process. Duckworth saw grit on students viewed from two dimensions, namely consistency of interest and resilience in business.

In his research, Duckworth saw individual grit connected to the world of education, so researchers were interested in using this grit theory because it was in the realm of education and in accordance with the phenomena that occur in psychology students, because they not only want to see persistence but see what causes students to behave persistently seen from two dimensions, consistency of interest and endurance in trying.

Grit is a psychological variable based on a positive flow of psychology that is interested in the determination process as an indicator of achieving long-term success.). Dr. Angela Lee Duckworth is an assistant professor of psychology at the University of Pennsylvania who studies non-IQ competencies, self-control and grit, which predicts success both academically and professionally. While the definition of determination (grit) according to U.S. Department of Education as a resilience to achieve noble or long-term goals facing challenges and obstacles, using students'

psychological resources, such as academic mindset, effortful control, and strategy. Grit was shown by working hard to face challenges, maintaining business and interest for years despite being faced with failures, challenges, and difficulties in the process.

Grit in psychology is a positive, non-cognitive trait based on individual enthusiasm for long-term goals, coupled with strong motivation to achieve their respective goals. Resilience in trying to overcome obstacles or challenges to achieve the desired results and function as a driving force in achievement. The concepts are generally related in the field of psychology including determination, resilience, resilience, ambition, the need for achievement and awareness. The gritty person sees achievement as a marathon: its superiority is stamina. When other people feel disappointed and bored of something that changes direction and retreats, people with high grits keep trying on the things they have chosen (Duckworth, 2007). The success of mathematics learning cannot be separated from various factors that influence it. These factors include factors derived from students' self, student environmental factors, material factors, and teacher factors.

One of the factors that play an important role is the factor that comes from the student's self which is usually called student characteristics. Characteristics of students in learning include: motivation, attitudes, interests, talents, level of intelligence, etc. Each student's characteristic factors have their respective roles and are interconnected which then becomes one of the determinants of student learning achievement. Students' attitudes toward mathematics are one part of student characteristics that cannot be ignored in mathematics learning.

Theoretically students attitudes toward mathematics can affect mathematics learning achievement. Which states that conception, sithe cap, and students' expectations about mathematics and teaching mathematics are considered as factors that underlie school experience and achievement. The results of the TIMSS evaluation (NCES, 2000) revealed that the average mathematics score of students in Indonesia was 403 and Indonesia ranked 34th out of the 38 countries sampled. Based on the results of the TIMSS evaluation (NCES, 2003) of the 46 countries sampled it was said that the average mathematics scale score for grade 8 students in Indonesia was 411 and ranked 34th. While the average score of students' ability at the international level of mathematics was 467 from 46 participating countries. It was found that the average level of mastery of mathematics in mathematics subjects was 19.4% with a standard deviation of 9.8%. Teacher quality is one of the causes of students' inability to mathematics according to certain parties. Others argue that the curriculum must be addressed, in addition there are those who claim that the design of evaluation instruments is the cause of the low quality of students' mathematical mastery (Zhao et al., 2018)

The weakness of low mastery of mathematics is likely due to human resource factors namely students and teachers or students and lecturers (Bakosh, Tobias Mortlock, Querstret, & Morison, 2018). states that if the teacher does not master the various ways of delivery, then he will only pursue the completion of the material taught without regard to the abilities and readiness of students. Things like that can cause difficulties for students in understanding mathematics teaching so that it creates reluctance, and may even lead to frustration in students. Most mathematics teachers present mathematical material only algorithmically and do not explore students' ability to reason. 'The grit questionnaire' adapted from Duckworth et al. (2007), and was given to a total of 646 secondary school students.

The questionnaire 'Attitudes toward mathematics' was adapted from TIMSS (2011), and was administered to a total of 349 secondary school students. The 'Attitude to Science' questionnaire was adapted from TIMSS (2011), and was given to a total of 297 secondary school students. The results showed that grit was positively correlated and significantly correlated with academic achievement in mathematics alone, while attitudes toward mathematics and science were positively and significantly correlated with academic achievement in both subjects. By developing grit on mathematics lessons, it can also directly develop students' mathematics learning outcomes.

Positive psychology intervention

Positive Psychology Positive Psychology Training is a scientific study of optimal functions related to physical, mental, social, and emotional well-being. With the emergence of positive psychology, psychologists change it. the focus of helping people with emotional deficits to lead functional lives to help ordinary people improve their lives. Positive psychology makes goodness better

Positive psychology considers how everyone can foster a positive attitude, build their personal strengths, and find deeper happiness in their lives and communities. However, the ability to develop and develop depends on the unique emotional strength of individuals who support positive psychological and personal adjustment in all areas of learning and life. In basic education, integrating positive psychology into the academic curriculum has the power to dramatically improve children's academic performance by helping them remain optimistic, delay satisfaction, strengthen willingness, improve resilience, build meaningful social relationships, and find more meaning and satisfaction big.

There are no more academic or life lessons that are important for children to learn and there is no important lesson for teachers to teach them. Children who develop these qualities are more likely to succeed in their lifelong endeavors, big and small, because they are equipped to overcome the inevitable difficulties,

failures, and difficulties in life. What's more, they develop lasting happiness, have a deeper appreciation for life, get better grades, and lead a better life.

Adopting a worldview of positive psychology, the teacher leaves the model of lack in education and his attention shifts from what is wrong in education to what is right in education, and how to imitate it. Positive psychology in the classroom serves as a medium for teachers to form lessons to be consistent with the principles of learning neuroscience, so as to facilitate the achievement of learning outcomes and achievements.

Characteristics of positive psychology are emotional strengths that actualize themselves well. Experience positive psychology, whether the experience is a field trip, sharing food with a friend, cursing out garbage around, or manifest emotions in school games, enrich life and teach important life lessons.

The PERMA model is the five basic components of positive psychology that are developed to teach positive psychology at school, an important component is positive emotions, involvement uses strength, relationships, meaning, and achievement. Martin Seligman, a founder of positive psychology, reengineered his model, describing emotional attention as a starting point and personal control of emotions as an endpoint. Among other things, children learn a repertoire of positive psychology strategies, through carefully crafted positive learning that increases self-awareness, self-knowledge, self-regulation, self-motivation, self-direction, and self-mastery.

Positive lessons utilize positive emotions for positive goals and results. Children understand how emotional flows — both positive and negative — can increase or inhibit learning. They learn to organize themselves so that life can not only be controlled but also more enjoyable.

When children acquire positive psychology knowledge and skills, teachers hear them speak differently about their experiences in school: their feelings, level of comfort, ownership, contribution, and success are experienced as joy. "I love being here. This is a fun place to learn." "I returned the money I found on the playground. Honesty made me feel good." I am very happy that you are my friend. I can't do this without you. "I am very happy to be able to help clean the beach. This is an important job." I am very glad I learned to name the planets. I keep trying. "I love reading the book. The book is long but worth a try." I am very happy because I have finished so many today. "Does a teacher have" five minutes, five hours, five days, or five weeks "3 to invest in positive psychology in the classroom, every formal and informal effort guided by the principles of positive psychology provides considerable value to academics, social, and emotional learning processes.

Teachers who are experienced in positive psychology serve children well. children identify their own virtues and rank three best virtues, or "the strength of their signatures. Not only forming grit on students,

this training will immediately require positive emotions and attitudes in the classroom, which will be a separate stimulation for brain neurons in students, as explained earlier. Following the stages of Positive Psychology Intervention:

First step, Students are given a pretest before starting the programs. The program will begin with training or training for students and teachers. In the seminar students will be asked to write down the goals and ideals that they think about and the teacher is trained in how to develop the potential of students in class. Changes to the assessment system will be carried out in the classroom. From quantitative values to descriptive or qualitative, such as "not yet" or not for students who are very far from the standard and "congratulation for your hardwork" or congratulations for your hard work and a description of the advantages and disadvantages found in student learning outcomes.

In the classroom, students will be arranged and seating according to personality, such as children who tend to be quiet will be limited to be praised, and children who are hyperactive are allowed to "spend" energy by not sitting still, playing and doing things far apart from their friends. Students will be analyzed according to their strengths and weaknesses through the type of personality and lack they have. Here are the Description and Design Drafts on the Program in Positive Psychology Training: 1. IQ Seminar - Growth Mindset-Grit Holding trainings and seminars related to new perspectives on education and the standard of intelligence itself, as well as how to determine long-term goals with long-term endurance

Step two, making changed in the Assessment System Primary school-aged children are mostly in concrete operational phase. The characteristics of children at this age are seeing things in a concrete and actual way. The current grading system in primary schools that tends to assess the actual meaning is to assess by giving a quantitative score on students' abilities and hard work, such as C, 80, 85, 7, 10 or even one, two-star or three-star stars. Students' hard work, effort and understanding are valued quantitatively which can make students box their mindset about themselves and their abilities, they believe their abilities will not develop and will only be that big, no matter how hard they try, when the child does not stop trying, the neurons are in the child's brain will make a stronger relationship and it can make the brain work more often which will ultimately affect its ability (Dweck, 2007). It will be different if the hard work of student learning outcomes is valued with qualitative values, by no longer using 70, 80 or A, B and the like, by using "not yet", "try again", or "you've worked hard". Children will believe that if they get the perfect score they can go through several stages and their abilities will continue to develop if they don't stop trying

Grouping Students have been given a previous explanation about some rules in groups, first are not allowed to continue to choose groups with the same

person, second rule, students are asked to learn a material sub-chapter that he likes from home, for example in the number chapter of FPB and KPK, the class was divided into integer groups for students who like integer material, high numbers for students who are willing and like integer material and FPB and KPK for students who want to learn more about FPB and KPK. The four groups have been determined at the end of the lesson on the previous day or week, so that students have the opportunity to study individually and in groups at home, some groups of students will be very mastered in the numbers, others will master the fractions, rank numbers and the final group students will be very master the sub-chapter of FPB and KPK.

All students will merge in the classroom and form groups according to their expertise, work in groups and start walking and discuss other sub-themes outside their group. After discussing and working on some group exercises, the practice questions will be given individually. After students finished their material, the group members would give a descriptive study of the other members, the authors here were only allowed to write articles with positive sentences that built other group members. Grow Positive Psychology in the Classroom It starts from greeting and positive affirmations in the classroom. foster positive traits, build personal strengths, and find happiness that is more profound in their lives and communities. Primary school, integrating positive psychology into the academic curriculum will have very dramatic strength, positive psychology in the classroom can also improve children's academic achievement by helping them remain optimistic, delay satisfaction, strengthen security, increase resilience, build social relationships that named attention to in depth about the strengths and weaknesses of students, learn more about how the background, and make students write thanksgiving journals every day about 3 things that make it a day, and give appreciation related to it, students can describe why it can make him grateful and happy.

Students will also be asked to write down ideals and how to develop them early on. Writing a Sensibility Journal Students will be directed to understand themselves and their strengths, to be grateful for the 3 things that they have done and appreciate their hard work all day, before the class starts, also the daily goals that students expect from themselves and promise to respect the results he will get that day.

Method

This research method used quantitative method research and analyzed by using paired sample t –test SPSS 21. This research recruiter 32 student from senior high school in 1 grade. Student recruited and chosen by their grade in school, they had grit pre-test before beginning interventions which is all of student have deficit grit score.

Result and Conclusion

Based on the results of the comparison of the pre-test and post-test scores shows that there is an increase in the average score . This shows that the participants experienced a significant increase in happiness through intervention because the differences before and after were very significant.

This analysis is used to find out the difference between the pres-test and post-test scores using a paired sample t-test with SPSS for Windows 21.

Tabel 1. Hasil Uji *Paired Sample T-Test* Data *Pre Test* dan *Post-Test*

| Kelompok | N | Rerata Nilai | | Sig. (p) |
|------------|----|-----------------|------------------|----------|
| | | <i>Pre-test</i> | <i>Post-test</i> | |
| Intervensi | 32 | 38,1 | 24,2 | 0,004 |

Based on the analysis of Paired Sample T-Test, the value of $p = 0.004$ ($p < 0.05$) with a significance level (α) is 5%. This shows the difference in the average score of a happy feeling that is significant between before and after the intervention. The average post-test score was 24.2 lower than the average post-test score of 38.1. This means that the intervention provided can increase students' happiness in the classroom setting.

The PERMA model is the five basic components of positive psychology that are developed to teach positive psychology at school, an important component is positive emotions, involvement uses strength, relationships, meaning, and achievement (Zhao et al., 2018) This program is designed so that it can be applied in the classroom well to increase students' happiness. In addition to increasing happiness, students also indirectly develop a repertoire of positive psychology strategies, through carefully arranged positive learning learning that increases self-awareness, self-knowledge, self-regulation, self-motivation, self-direction, and self-mastery (Rigobon et al., n.d.). Positive lessons utilize positive emotions for positive goals and results. Children understand how emotional flows — both positive and negative — can increase or inhibit learning. In addition to quantitative evaluations, evaluations are also carried out qualitatively through interview methods relating to the running of the program in the classroom, students really like this program and hope to continue to be applied in the classroom.

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