

The Use of Alpha Brainwave in Developing Teacher Resilience to Manage Classroom Activities

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Abstract: *This study aims to explore the advantages of alpha brainwave in developing the resilience of teachers while managing activities in the classroom. The reason of conducted study is the fact that most teachers are still struggling and find it difficult to cope with students' misbehavior in the class as it impacts on overall classroom activities. This study employed a qualitative approach with the grounded theory method. The data are collected through directive observation and guided interview which are applied to the respondents. Stages which are developed to apply the alpha brainwave in developing teacher's resilience are, 1) Build and Maintain Rapport; 2) Calibration; 3) Map the Brain; 4) Assertiveness Installation; 5) Drop the Anchor; and 6) Provide Feedback. Through these stages, teacher's brainwave will be adjusted to alpha wave, and be explored the problems they have in order to solve. Since the problem has been solved, the emotion will relieve and it affected the resilience itself. In other words, resilience covers the ability to be confident in possessed abilities, skills in solving the problems, competencies in enacting a realistic plan and actualize them, and capabilities to have control over feelings and impulses. The result of the analysis showed that the proper use of alpha brainwave may give advantages in developing teacher's resilience as they manage the classroom activities.*

Keyword: *Alpha Brainwave, Teacher Resilience, Classroom Management.*

I. INTRODUCTION

The issue of school life that is most frequently discussed related to students, teachers, parents, and instructional supervisors is about students who are not able to comply the learning instructions that have been designed by the teacher or those who often made their classmates feel disturbed while carrying out the learning process. Not surprisingly, more than any other instructional variable, classroom observation instruments used in virtually every public school district for assessing teacher performance emphasize how teachers manage their students. Some teachers may blame student inattentiveness, lack of effort, disruptive behaviors, and general lack of cooperation on their students' own flaws or on the lack of support provided by society, families, and school administrators. However, many other teachers have managed such impossible situations and made their students willing to cooperate in dealing with student

misbehaviors and unfavorable school conditions. These teachers orchestrate safe, productive classroom communities where students cooperate and enjoy learning [1].

Some teachers are able to organize the learning process in classroom smoothly where students comply the learning instructions cooperatively with relatively few disruptions. Meanwhile, other teachers strive hard to overcome the students' misbehaviors as they attempt to elicit some control toward their own class. Teachers who still remain in the teaching profession and experienced the latter situation eventually give up the struggle, and deciding that today the students did not have sufficient learning motivation and were difficult to control, so any teaching strategy applied would be in vain and had no impact on the students, and the only thing that could be done at that time was to try to survive until school hours ended [2][3][1].

Classroom management strategies and how to apply them underlie the teachers' experiences whether they experienced satisfying teaching or being exhausted while trying to cope with student misbehaviors and to enforce them to cooperate effectively. By having the abilities to select and implement such strategies, teachers are expected to have capabilities in fulfilling one of their primary instructional responsibilities, that is, to provide students with a learning environment which is conducive for attaining the meaningful learning experiences and free from disturbance, distractions, and disruptions to their safety and serenity.

Teachers are seen as the main factors that determine the quality of education, because teachers who control the learning, determine the direction of achieving the goals of learning, and manage the learning of learners. Good and superior education is highly dependent on the professionalism, performance, and competence of the teacher. To produce quality students required qualified teachers, have the competence, and high dedication in carrying out its professional duties. The existence of qualified teachers is a necessary condition for the presence of quality education systems and practices.

Teachers are challenged to accelerate the development of information and communication. The progress of information technology has increased the flexibility in obtaining knowledge for every individual both teachers and students. Consequently, teachers are required to develop approaches and learning strategies that suit the development of the environment.

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The educational process has so far produced a generation that is less sensitive to social issues, whereas almost every curriculum used in education in Indonesia has always been subject to moral-based subjects or characters such as religious education, and Pancasila's moral education (now civic education). The ineffectiveness of the curriculum contents raises the morale of the nation because the learning process tends to plant the dogmas of ruling and learning just simply transfer theory about the moral of the teacher to the students without the accompaniment of habituation an exemplary teacher.

The adult teacher will display independence in acting and has a high work ethic. Meanwhile, wise teachers will be able to see the benefits of learning for learners, schools, and communities, showing an open attitude in thinking and acting. The essence of the teacher's personality competencies all boils down to the teacher's personal internals. The pedagogic, professional and social competence that a teacher possesses in carrying out the lesson, will ultimately be determined more by the personality competence it has. The teacher's personal appearance will more affect the child's interest and enthusiasm in following the learning activities. Personal teachers who are polite, respectful to students, honest, sincere and exemplary, have a significant influence on success in learning, regardless of the type of subject matter.

Therefore, in some cases, it is not uncommon for a teacher who has the ability to qualify pedagogically and professionally in the subjects he teaches, but its implementation in less than optimal learning. This may be due to the inability to build a bridge of heart between the teachers themselves as educators and students, both in class and outside the classroom. Government efforts to improve pedagogical and professional skills of teachers are mostly done, either through training, workshops, and empowerment of subject teachers. However, it does not touch the increased competence of teacher's personality.

Learners are often confronted with contradictory values, on the one hand students are taught to behave in a good, honest, respectful, frugal, diligent, disciplined, polite manner and so on, but at the same time they are shown (by parents, even by the teachers themselves), things that are contrary to what they learn, e.g. punishment or sanctions for school rules only apply to students while teachers are immune / sanctioned, students are prohibited from violence but many teachers engage in violence against students, teachers smokers forbid their students to smoke and still many events that damage the image of the teacher profession. It is these opposites that cause learners to find difficulties in finding good role models in their environment, including schools.

One of the causes of the low moral/moral of today's generation is the low morale of teachers and parents. The tendency of teacher's duty is to transfer knowledge without regard to the moral values contained in the science, let alone the current learning condition is very oriented to get the numbers as the standardization of the quality of education. There are several factors that lead to the current "underdeveloped" teacher personality, among others: the recruitment process of teachers who put technical skills (hard skills) without regard to non-technical capabilities

(soft skills) such as self-management skills and others, not even a few educational institutions recruit teachers with no attention to both skills, teacher education and training that emphasize the ability of teachers to master the curriculum, and not understood the profession as a vocational profession, meaning the teacher is a job that helps develop others and develop the teacher as a person.

The profession of teachers is deemed necessary to be developed as a dignified profession as mandated in the Law on Teachers and Lecturers number 14 of 2005. One of the consequences of the law is that teachers need continuous coaching and development. One of the sustainable professional development programs established by the Government [4] is self-development, which includes: (1) following the functional training; and (2) carry out teacher collective activities. Increased teacher competence has been taken by the government in various ways, including through education and training.

However, these government efforts have had a little significant impact on teacher quality improvement. There are two reasons why training for teachers has not affected teacher quality improvement: (1) training is not based on real issues in the classroom, the same training materials are delivered to all educators without knowing the origin, and (2) the training outcome only into knowledge only, not applied to learning in the classroom [5].

In addition, the development of teacher professions such as training, workshops, seminars, and the like, in practice actually causes problems in schools because teachers leave their primary duty, namely teaching. Noer [6] argues that the education culture in Indonesia still involves the role of the left-domain brain and driving high-frequency brainwave that can trigger feelings of anxiety, stress, worry, and anger on high school students. Many students are able to memorize many learning materials quickly but sometimes cannot understand it contextually. This is not in accordance with the four pillars of universal education established by UNESCO.

Adversity Quotient is the science of human resilience and a tool to measure how an individual responds to adversity. It is designed to measure an individual style of responding to adverse situations[7],[8],[9]. It is used as a measure of determining as what it takes to get things done in highly demanding situations and based on scientifically grounded theory. Adversity Quotient has four dimensions that describe the pattern of response to adversity [10]. These are Control, Ownership, Reach and Endurance (CORE).

Control is the extent to which someone apprehends they can affect whatever happens next. It indicates how much control a person apprehends to overcome the adverse event. Ownership is the potential that someone will actually do anything to improve the situation, regardless of their formal responsibilities. It is who or what the origin of the adversity is or the degree the individual possesses the outcomes. Reach is the extent to which someone apprehends an adversity will "reach into" and affect other aspects of the situation or how far it will go beyond. It indicates how far



the outcome will affect the other areas of the person's life. Endurance is the length of time the individual apprehends the adversity will last. It is how long the adversity will last and how long the causes of adversity will last [7].

NLP is at the heart of many communication and change approaches, animating every aspect of human life [11]. NLP techniques and strategies are used for therapeutic, management, education, health, and sales purposes. NLP's greatest role is to help people communicate well with themselves, reduce fear for no reason, control negative emotions and anxiety. In line with that statement, NLP is a model of treatment related to the processing or programming of language in the brain whose purpose is to influence the outside world and to give a better impact on personal behavior in terms of emotional and behavioral language.

Therefore, for the world of education and learning, some experts suggest that NLP can be used as one of the appropriate methods in the process of optimizing learning outcomes and optimize the results of communication between educators and learners. The expected results are positive views, motivation, and the power of thinking to create a space of behavior that is empowered in everyday life. NLP itself can be done by any teacher in any learning.

II. METHOD

The study employed grounded theory design which is applied to generate a theory that explains, at a broad conceptual level, a process, an action, or an interaction about a substantive topic [12]. In this study, the researchers attempt to generate the theory which is derived from the use of Alpha brainwave in order to develop teachers resilience. It explains an NLP training process of activities, interactions, and events that occur over time. Through the application of constructivist approach, the researchers will focus on the meaning ascribed by respondents which consist of their views, values, beliefs, feelings, assumptions, and ideologies related to their profession as the dedicated teacher and their primary instructional responsibilities in managing the classroom.

To collect the information and data which are sufficient for drawing conclusion, the researchers employ questionnaire of Adversity Response Profile (ARP), directive observation, and guided interview. Each instrument will provide specific information and data according to the purposes of the study. The questionnaire of ARP will be used to gather data about the score of AQ from each respondent. Directive observation and guided interview will be used to describe views, values, beliefs, feelings, assumptions, and ideologies of respondents.

The respondents in this study are teachers of a junior high school in the administrative area of West Java province, Indonesia. Respondent selection is based on the purposive sampling which must comply with the objective of the study. Respondents are representatives of each city and district in the province of West Java. They were invited to take part in NLP-based training held for some time according to the need for research data collection. The characteristics of the respondent are based on age and length of service.

III. RESULT

Table 1: Demographic Profile of Respondents

| Variables | Frequency (f) | Percentage (%) |
|--------------------|---------------|----------------|
| Age | | |
| 35 years and below | 32 | 64 |
| Above 35 years old | 18 | 36 |
| Length of Service | | |
| 10 years and below | 29 | 58 |
| More than 10 years | 21 | 42 |

Results from interviews with respondents based on age group 32 or 64% of respondents were in the age group 35 years and below, 18 or 36% of respondents were in the category above 35 years old. Length of service, 29 or 58% of respondents category 10 years and below, 21 or 42% of respondents are in the category for more than 10 years.

Demography theory suggests that attributes such as age, tenure, occupation, gender, and level of experience are compositional characteristics that influence interpersonal and group dynamics. Support for this theory comes from studies that find that the personal characteristics of leaders exerted an influence on the outcomes and successes of an organization.

Based on the data shown in the table above, it can be concluded that the Adversity Quotient level of teachers has a different tendency according to their age and length of service. Teachers over the age of 35 tend to have high Adversity Response Profile (ARP) scores. However, teachers aged 35 years and under tend to have moderate ARP scores.

Table 2: Adversity Response Profile based on Age

| Age | N | Mean | Description |
|--------------------|----|---------|-------------|
| 35 years and below | 32 | 143.852 | Moderate |
| Above 35 years old | 18 | 148.279 | High |
| Total | 50 | 146.066 | |

It can be seen that the respondents of 35 years old and below have an average of 143,852 with a total of 32 respondents, and those who are above 35 years old have an average of 148,279 with a total of 18 respondents. According to table 2, it can be inferred that teachers who are above 35 years old have better ARP score than those who are 35 years old and below.

Table 3: Adversity Response Profile based on Length of Service

| Length of Service | N | Mean | Description |
|--------------------|----|---------|-------------|
| 10 years and below | 29 | 144.641 | Moderate |
| More than 10 years | 21 | 147.242 | High |
| Total | 50 | 145.942 | |

It can be seen that the variable 10 years and below of length of service has an average of 144.641 with a total of 29 respondents, and for more than 10 years have an average of 147.242 with a total of 21 respondents. This shows that



teachers over 35 years tend to have High Adversity Response Profile (ARP) score. The results imply that they have the ability to handle and overcome difficult circumstances that they encountered while teaching.

In an effort to generate a theory about the use of alpha brainwave to improve teachers' resilience in classroom management, researchers first compile a proposition. The proposition consists of systematic steps that need to be taken so that the teacher is able to access the subconscious through alpha brainwave. This is necessary to be done in an effort to overcome various problems which are faced by the teacher so that it has an impact on increasing the resilience of the teacher. The formulation of the theory refers to the four pillars of Neuro-Linguistic Programming, namely Outcome, Sensory Acuity, Behavioral Flexibility, and Building Rapport. Thus, the use of alpha brainwave will be adjusted to the NLP mechanism in exploring the subconscious and optimizing the teacher's potential. The results of the subconscious exploration are intended to explore information that specifically relates to the teacher's beliefs in enacting various realistic plans that can be used to solve the problems they face [13].

Planning Phase - This NLP-based training for teachers is specifically designed to develop teacher resilience that will be applied when they manage classroom learning activities. The technique of delivering material in this training has been adjusted to the strategy of using alpha brainwave in its delivery. So that the training participants, both consciously and unconsciously, will be conditioned to receive material in conditions of brainwave at the alpha level. In addition to material delivery techniques, room arrangement is also another factor which is prepared. The layout of tables, chairs, projector, and audio devices are specifically arranged to provide a sense of tranquility, where comfortable conditions will also influence the decrease in brainwave from the beta level to alpha level effectively. The allocation of time used for delivering material is another factor that is considered during the planning process of training activities.

Implementation Phase - At this stage, the researcher carries out direct observation of the interaction process between the participants and the trainer. The researcher observed the gestures, expression, and diction used by the participants during the training. This is performed as an effort to extract information related to the physical condition of the participants whether they can be categorized as comfortable and understand the training material or not.

Evaluation Stage - After the implementation phase is complete, the researcher then digs up information related to the participants' experience during the training. This is performed to ascribed meanings of participant views, values, beliefs, feelings, assumptions, and ideologies related to their profession as a dedicated teacher and their primary instructional responsibilities in managing the classroom.

Fear of disruptive behaviors is a major source of teacher stress [14]. Teachers who are recognized by their supervisors and others to have poor classroom management and discipline problems are teachers whose students come up with high levels of disruptive behaviors. Teachers have not so many choices but to deal one way or another with student misbehaviors. Unless teachers are also able to deal effectively with nondisruptive off-task behaviors, transition

times will be inefficient, thus robbing them of allocated time, disengaged students will fail to achieve teacher learning goals, and no disruptive off-task behaviors are likely to escalate into disruptions.

In the course of life, no one is left out of problems or difficulties including a teacher, to avoid or overcome problems or difficulties, mental endurance is important. Teachers generally refer to professional educators with the main task of educating, teaching, guiding, directing, training, evaluating, and evaluating students. Teachers hold an important role in creating communicative classes. The role of the teacher as a facilitator in a communicative process, acting as a participant, and acting as an observer is not easy to conduct apparently. The importance of Neuro-linguistic programming (NLP) is to determine how you think, speak, strategy, act, to achieve the desired results. In the field of NLP education can improve learning motivation by making learning as a fun activity, understanding learning styles, so as to ensure each student enjoys the process of transfer of knowledge in the classroom [2][13].

Education carried out at school automatically requires a learning process. To actualize the learning process in order to succeed in accordance with the desired goals, of course, the learning process is not only limited to aspects of knowledge (cognitive) and skills (psychomotor), but also moral aspects (effective) in living and realizing an ever-changing life and developing [15]. In addition, to adequate mastery of the material, in teaching activities the teacher must be able to foster and develop the interests of students, creating an atmosphere of harmonious interactive education, accuracy in the use of methods, understanding students' development and characteristics, and the use of media/teaching aids are factors that can be determinants the success of the learning process which can later be proven by increasing learning outcome [16][17]. Learning outcomes are used to measure the level of achievement of students' competence.

Challenges to the teaching profession have increased in the modern era today. The teacher is faced with the changing times that are very fast both in terms of technology and the behavior of the surrounding community. Changes like this require a teacher to make adjustments or strategies in educating students. When difficulties arise, the teacher feels tired and becomes irritable. Difficulties in dealing with students with character, attitude, behavior, interests, talents, absorptive capacity, a discipline that is diverse and not calm in the classroom, affect the teacher's relationship with students. The relationship between teachers and students in the teaching and learning process is a very decisive factor. Teachers must manage feelings in such a way that they are expressed precisely and effectively [18].

Uncertain information will be processed and transformed cognitively. The cognitive representation component (belief system) will build false expectations about the outcome of its response to an event. Individuals will feel that a good response will produce good results. In fact, a good response is not always accompanied by good results. Wrong

expectations will cause individuals to have no control over an event where the response and results are two things that are free. Individuals who do not have control of an event will experience decreased motivation, cognitive, and emotional [19][20][21].

Our emotions infuse life with a rich texture and transform our conscious experience into a meaningful living experience. Emotions determine what we care about and what motivates us. They connect us to others and give us the courage to do what needs to be done, to appreciate our successes, to protect and support the people we love and have compassion and kindness for those who are in need of our help. Emotions are also what allow us to experience the pain and grief of loss. Without emotions, life would lack meaning and purpose [22][23][21].

Resilience is not an inborn trait and being resilient does not mean that you will not experience difficulty or distress but it simply means that adversity will not have an extreme effect which is likely to make one dysfunctional[24]. Resilience covers the ability to be confident in possessed abilities, skills in solving the problems, competencies in enacting a realistic plan and actualize them, and capabilities to have control over feelings and impulses[25].

By using alpha resilience technique that allows us to turn our physiology into a more coherent state, increasing efficiency and mental and emotional systems, an individual will be able to accumulate resilience (energy) in all four energetic domains. Having a high level of freedom not only to rise but also to overcome unnecessary pressure (frustration, impatience, mistakes), which often leads to further energy and eliminates time and drains our physical and psychological resources. Everyone will agree that it is the ability to adjust and evaluate the people who are most important in building and maintaining a supportive and effective relationship.

IV. CONCLUSION

Resilience is one of the major elements which may be manifested by teachers through their personal competence. Teachers resilience can be developed through the use of alpha brainwave in the specific training program that is designed for such necessity. Stages which are developed to apply the alpha brainwave in developing teacher's resilience are, 1) Build and Maintain Rapport; 2) Calibration; 3) Map the Brain; 4) Assertiveness Installation; 5) Drop the Anchor; and 6) Provide Feedback. The use of alpha brainwave that is adjusted to the NLP mechanism is intended to explore the subconscious and optimizing the teacher's potential. The results of the subconscious exploration are intended to explore information that specifically relates to the teacher's beliefs in enacting various realistic plans that can be used to solve the problems they face. In other words, resilience covers the ability to be confident in possessed abilities, skills in solving the problems, competencies in enacting a realistic plan and actualize them, and capabilities to have control over feelings and impulses.

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V. AUTHORS PROFILE

Author-1
Photo

First Author personal profile which contains their education details, their publications, research work, membership, achievements, with photo that will be maximum 200-400 words.

Author-2
Photo

Second Author personal profile which contains their education details, their publications, research work, membership, achievements, with photo that will be maximum 200-400 words.

Author-3
Photo

Third Author personal profile which contains their education details, their publications, research work, membership, achievements, with photo that will be maximum 200-400 words.