

## Neuroleadership in Transforming Educational Leaders

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### ABSTRACT

The paper aimed to transform Filipino educational leaders by integrating neuroscience and leadership development. The paper examined and assessed 18 scientific research papers on Neuroleadership techniques and effectiveness, as well as 12 articles on the functions of the brain and its application to educational leadership. From the major results, it appears that social science and neuroscience may be used to comprehend and improve human behavior as an individual and as part of an organization. Neuroleadership also revolutionizes established leadership theories and practices since all of its principles and strategies are scientifically grounded.

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## INTRODUCTION

The success of any organization may depend on the leadership style of a leader. Understanding leadership becomes vital to researchers and leadership scholars since they want to solve the long-term problems of organizations and institutions like facing organizational changes, building trust and collaboration, holding and regulating emotions inside the working place, unfair and unjust treatment, and much more. Leadership is defined as a process by which a person influences others to accomplish or achieve an organization's objective and leads to a more organized organization (Sharma, M.J. & Jain, S., 2013). This definition is similar to Northouse (2007) who said that leadership is a process whereby a leader influences his/her subordinates to achieve a common goal. These two definitions showed that leadership is about building a strong and well relationship between the leader and the follower and empowering them both to achieve the common goal.

The concept of leadership can be used not only in the field of politics and business but also in the field of education. Educational leadership has become the priority of all educationists all over the world over the past decades. It plays an important role in developing and enhancing school outcomes by influencing teachers, students, and other school stakeholders (Pont, B. et.al., 2008). Thus, an effective educational leader is important in improving the efficiency of the school. However, not all educational institutions particularly in the Philippines have effective and efficient educational leadership skills. In fact, most of the school leaders are now facing various problems with handling their position and managing the school, teachers, and all its stakeholders. Some of the problems that the present educational leaders are facing are changes in the curriculum like the implementation of higher standards such as K to 12, new assessments, teacher-administrative relationships, and managing budgets and spending with unprecedented restrictions (Mulford, 2003). To solve these problems and issues, several theories of leadership could be used to explain and apply to these situations. Some of these theories are trait theory, behavioral theory, situational theory, transactional theory, transformational theory, political theory, and chaos theory, but like other theories, these theories have pros and cons.

To search for the effective ingredients on how to handle and manage leadership roles, researchers are now integrating soft science and hard science to come up with an effective approach to leadership, and through this method, they found that leadership can be explained biologically using neuroscience. According to Schaufenbuel (2014), neuroscience is a field that focuses on the structures, workings, and functions of the brain and the whole nervous system. Neuroscience as a discipline is formerly known as a sub-discipline of biology, but because of its interdisciplinary nature, it is now used to work together with other fields such as social sciences, management, linguistics, and much more. The development of technologies like functional magnetic resonance imaging (fMRI), position emission tomography (PET), and quantitative electroencephalography (QEEG), revealed the unseen and mysterious neural connections, functions, and works of the human brain and each neural

connection is associated with a particular behavior, mood, or attitude (Rock, D. & Schwartz, J., 2007). As an interdisciplinary science, the findings of this field are used to interpret and understand the soft nature of leadership. Neuroscientists are now collaborating with social scientists, psychologists, and leadership scholars to understand the works of the brain and how leaders and followers think and react (Alford, K. & Lafferty, C., 2010). Because of its nature of being hard science, neuroscience provides leadership scholars with a “hard-science” or “descriptive” explanation of the behavior of both the leader and the follower (Ringleb, A., et.al., 2015), and this can be used to create a theory about the nature of leadership.

From this field, a new approach to leadership has emerged and it was called Neuroleadership. The term neuroleadership, coined by David Rock, is a new leadership approach that combines the findings from neuroscience with leadership (Alford, K. & Lafferty, C., 2010). It also focuses on applying neuroscience to leadership development, mentoring, the administrative process, and organization management (Schaufenbuel, 2014). Furthermore, it provides scientific strategies and approaches to managing an organization and handling leadership roles (Heaps, 2016). What is unique to this new field is that it combines the social sciences and neuroscience to explore the world of leadership and organization and to give effective ways how to handle and manage an organization using scientific explanation.

This paper is essential because it provides a comprehensive and scientific discussion on how to apply brain research in the context of leadership. It shows the effectiveness of neuroleadership skills in solving the above-stated issues faced by educational leaders and in response to the needs of the present Philippine educational system.

## **THEORETICAL REVIEW**

This paper assumes that neuroleadership skills can enhance and transform educational leaders by considering and enhancing the four domains of neuroleadership such as facilitating change, emotion regulation, collaboration, and influence, and decision-making and problem-solving (Rock, D. & Schwartz, J., 2007). It might also be the long-awaited solution of all educational leaders to the long-decade problem caused by the traditional approach to leading an organization, particularly in the Philippines. This argument is anchored on the statement of David Rock and Jeffrey Schwartz (2007) in their article when they said that the principles of neuroscience are now used in transforming leadership in all kinds of organizations or management. Furthermore, this is also anchored on the three studies conducted by Waters (2008), Badenhorst (2015), and Dürrbeck (2016). First, Waters (2008) after designing and implementing the brain-based approach to her organization said that the key to its success is neuroleadership. By having team diagnostics, psychological testing, workshops, group teamwork, and building new visions, her team members successfully changed their attitudes and behaviors and developed strong interpersonal skills among their colleagues. In the end, team

members found that the whole program is enjoyable and rewarding for them. Similarly, Badenhorst (2015) after doing his study about the neural basis and management practices of 12 organizations within New Zealand, said that neuroleadership should be used to improve staff and organizational performance. In addition, he said that organizational change has an impact on staff performance and the emotions relate to staff performance during organizational change. He also suggests that the managers of all organizations should learn how to manage their mental state and others to create more effective relationships, decision-making and problem-solving skills, and creativity. Lastly, Dürrbeck (2016) conducted a study that aims to explore the importance of neuroscience in leadership and its future potential. Also, he identified the awareness of leaders and human resource executives, the impact of neuroscience on organizational achievement, and the application of neuroscience findings in leadership. Using semi-structured expert interviews and analysis of secondary data, Dürrbeck found that leaders have less awareness about the application of neuroleadership, while the human resource executives are aware of the significance of this new leadership theory. After conducting the study, the researcher said that the principles of neuroscience are valuable in facing future challenges and problems of leaders of an organization. Therefore, the principles of neuroscience and its applicability to leadership are promising.

The cited literature on neuroleadership and its effectiveness in transforming the organization is essential to prove the main argument of the present author. The literature provides concrete evidence that the brain-based approach can truly transform and enhance an organization. The said literature also presented some insights and recommendations which served as a guide to the present author in proving the assumption that neuroleadership skills are truly needed to transform the present educational leaders and to solve the long-decade problem of educational organizations caused by the traditional leadership approach.

## **METHODOLOGY**

This review paper has analyzed eighteen (18) scientific research papers about the strategies and effectiveness of neuroleadership and twelve (12) articles about the functions and works of the brain and its application to educational leadership.

## **RESULTS AND DISCUSSION**

The goal of neuroleadership according to Whiting, J., et.al., (2016) is to help leaders to understand and manage their behavior and action as well as help their followers to be well motivated in facilitating changes and achieving the organization's goal. To understand better about this new leadership approach, it is essential to understand first the structures and functions of the human brain.

The human brain according to the Mayfield Brain and Spine (2016) is an organ that controls all functions of the human body from processing the idea, forming emotions, and doing an action. It directs the human way of thinking,

emotion, and physical body. It also receives information through the five senses of humans, including the sense of smell, sight, taste, touch, and hearing. It collects, organizes, and distributes messages in a way that has meaning. The brain also determines human response to stressful works and situations by reacting to the body and emotions.

There are three key areas of the brain that are responsible for the leadership role, and these are the prefrontal cortex (PFC), the limbic system, and the basal ganglia. The prefrontal cortex (PFC) is located at the frontal lobe which is responsible for higher-order thinking functions, reasoning, and controlling emotions (Dahlitz, 2017). The limbic system, on the other hand, is responsible for feelings and emotions (Rolls, 2017). This system can be found just beneath the cerebrum on both sides of the thalamus. It has four major structures: amygdala, hippocampus, thalamus, and hypothalamus. The amygdala is responsible for emotion and is known to be the brain's emotional center. The hippocampus is responsible for forming new information and knowledge. The thalamus and hypothalamus are both related to changes in emotional reactivity. The cingulate gyrus coordinates the five senses to emotional reaction and it also helps people to regulate behavior. The last important area is the basal ganglia, known to be the habit center of the brain, which functions include processing new ideas and activities to be habitual. All these structures are responsible for the four domains of neuroleadership such as 1) decision-making and solving problems; 2) emotion regulation; 3) collaboration and influence; and 4) facilitating change, to their leadership style (Badenhorst, 2015).

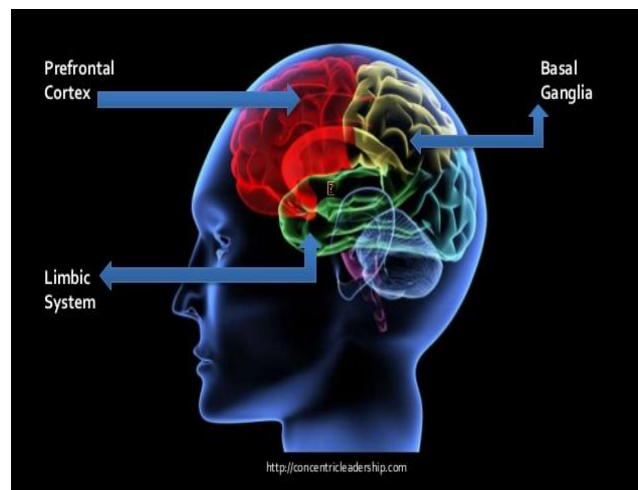


Figure 1: The Three Key Areas of the Brain  
for Leadership Roles

### ***Decision Making and Problem-Solving***

In facing several issues and problems, a leader should have highly developed problem-solving and decision-making skills. It is not easy to decide especially when considering the individual needs and interests of personnel inside of an organization (P.B. Zimmerman & R.M. Kanter, 2012). With this

regard, a leader should have proper knowledge of how the brain processes and makes decisions, and solves problems. Thus, the neuroscience findings on how a brain decides and solves problems are essential for it explains the neural basis of the processes and procedures of decision-making and problem-solving of the leaders (Ringleb, A., et.al., 2015).

There are three areas to be discussed in explaining how neuroscience be applied in the study of decision-making and problem-solving, and these are stress, focus, and insight (Alford, K. & Lafferty, C., 2010). The human brain hates stress and anything that can result in stress is a threat to the brain like an unexpected situation, overload work, stressful environment, and unfamiliarity. When a leader is under threat, the limbic system is also under threat and it will cause less processing of information from the stimuli (Whiting, J., et.al., 2016). When a leader is under stressful work and environment, his adrenal glands release catecholamine hormones that kill neurons in the hippocampus (Alford, K. & Lafferty, C., 2010). Neuroscientists using fMRI found that when a person is in a low-stress environment, all learnings and activities are resided in the PFC, while when a person is in a high-stress environment, the learnings and activities shift from PFC to the amygdala which results in the flood of catecholamines to the brain. In this regard, the reflexive brain becomes activated while the reflective brain becomes deactivated since the PFC is not working. Furthermore, Ringleb, A., et.al. (2015) found that participants with higher levels of the stress hormone cortisol after the Trier Social Stress Test performed less well on a decision-making task. In addition to the impact of stress, factors such as sleep, exercise, diet, and mindfulness can also affect decision-making efficacy. Coplan et. al. (2014), found that being overweight appears to be related to reduce levels of a molecule that reflects brain cell health in the hippocampus.

The next area is the focus. In facing problems concerning organization and management, the focus is power. The brain is plastic, and it can easily alter and reshape. The best way to change the brain is to make its wire connections stronger by using focus and attention. According to Waters (2008), the focus makes the brain connection stronger, and the more brain connection the more learning. In this sense, the focus can continually reshape the patterns of the brain and leaders should use it to decide effectively and just (Alford, K. & Lafferty, C., 2010).

The third area is insight. Insight according to Christina L. Lafferty and Kenneth L. Alford (2010) is an important component in building a creative mind. It is also significant in solving problems and making decisions. The brain loves anything novel, different, or potentially challenging (Kussrow, 2001). The human brain by nature is creative in solving problems and in doing tasks, but it can only be seen if a person knows how to make it real. The best way to uncover this brain potential is through direct experience. Whiting, et.al. (2016) said, when the direct experience network of the human brain is activated, the processing of ideas is more accurate and effective. It is essential to let people experience things and solve problems because it releases a rush of neurotransmitters like adrenaline that can help them to achieve their goals.

When it comes to innovation, Shaufenbuel (2014) said that innovation is tied to the default network of the brain. This network is distinctive to humans, and it is more effective when frequently use and engage. Aha moments are mostly occurred when a person activates this default network. After all, people need to increase internal awareness which can lead to smoother decisions and actions and this is what insight is all about.

Knowing how the brain works in making decisions and solving problems is important for the present leaders especially in educational institutions for there are many things that need to be decided and solved. To apply this learning from the neuroscience perspective, the following researchers and scholars recommended some strategies on how a leader decides properly and solve problems. Rock (2009) said that to be able to improve conscious mental performance and help followers to create better decisions, a leader should overcome the six limits of the prefrontal cortex. First, the prefrontal cortex needs a lot of energy. Thus, leaders should prioritize first the most important works before the less important and it is also suggested to be careful on how to use their energy. Second, PFC can only hold and manipulate a small amount of information at one time, so complex ideas should be simplified, and all information should be grouped into a few smaller parts. Third, the human brain, particularly the PFC can perform only one conscious process at a time and do it accurately, therefore, overwork should be avoided in an organization. Fourth, the brain's attention can easily be distracted, so it is wise to avoid distractions by when performing important operations. Fifth, high-stress levels can affect the performance of the brain, thus, leaders should avoid stress by limiting their work and collaborating with colleagues. Sixth, to overcome the limitation in creative situations, people should switch from conscious processes to activate the subconscious brain through insights and reflection. Similarly, Rock, D. and Schwartz, J. (2007) suggested some points to consider in developing decision-making and problem-solving skills for leaders with the brain-based approach. First, a leader should welcome every single idea even the negative one from their followers because accepting and welcoming ideas may help the organization to think wisely. Leaders should ask questions of the people and support the people in working out solutions made by them. In this sense, decision-making and problems solving roles become shared by everyone. Second, leaders should recognize and be sensitive to the gut feelings of subordinates. Gut feelings for neuroscience are real and recognizing these are essential for leaders. In facing risky situations, negative gut feelings can be used to limit the over-optimistic thinking and decision of the leader. Third, leaders should encourage followers to think and work to achieve the organization's goal. This will be done through a solution-focused questioning approach rather than through giving advice. Here, the only role of the leader is facilitator and everyone is free to give their suggestions and ideas. This strategy is perfect to strengthen the follower's sense of belongingness and ownership.

### ***Regulating Emotion***

According to Ringleb, A., et.al, (2015), emotion regulation refers to the utilization of an individual's cognitive strategies to control or regulate the power of emotion. Emotion regulation becomes one of the most important domains of leadership, especially in facing stressful environments and work, and wide-scale organizational change (Whiting, J., et.al, 2016). Because of the stressful work, environment, and even colleagues' attitudes and behavior, leaders need to control and regulate his/her own emotion. In this sense, effective leaders should harness and direct the power of emotion. According to Lafferty & Alford (2010), understanding and applying emotion regulation is an important component of leadership, and as presented above, emotion is a product of the brain.

There are many strategies on how to regulate emotions amid stressful situations and these are: 1) Strategy selection, people can put themselves in the situation or take themselves out of it; 2) Modifying situation, if people can't avoid an emotional situation, they can attempt to change it; 3) Attention deployment, when people chose to change their focus of attention; 4) Reappraisal, when people reinterpreting the situation to lessen the impact of emotion; and 5) Response modulation when people try to conquer or enrich an emotion. Among these five strategies, attention deployment and reappraisal are the most effective strategies in regulating emotion. Using attention deployment, the blood flow in the amygdala which is the emotion center of the brain, and the insula, which is the seat of instinctual reaction, increased, while the control system activity decreased. However, with the reappraisal strategy, blood flow to the amygdala and insula decreased from the original emotional state, while the control system's blood flow increased (Ochsner, 2008). By this fact, one may say that in regulating emotions, certain strategies appear to be more effective and those are attention deployment and reappraisal.

By knowing this fact about the human brain in regulating emotion, the following suggestions were made for organizational leaders could utilize in facing situations that require emotion regulation. The study conducted by Jamieson, et.al (2013), suggested that the stress levels of leaders could be better managed by looking to the positive side of the stressful task and taking it as natural and helpful. On the other hand, Townsend, et.al (2014) found that a person may be able to regulate stress and emotion by sharing their feelings with the person who is having and suffering the same situation and the same feelings. Utilizing these strategies on how to regulate emotions based on a brain-based approach is essential since it may help the leader and the followers to build trust and improve both satisfaction and motivation, thus enhancing the general organizational effectiveness.

### ***Collaboration and Influence***

Along with decision-making and emotion regulation, another domain of neuroleadership that is also important to transform the present educational leadership is collaboration and influence with a brain-based approach. This domain is also related to Maslow's Theory of Hierarchy of Needs which states that to achieve self-actualization, which is the final stage of needs human, a

person needs to fulfill his/her social needs and be accepted by the people surrounding him/her. From this theory, one might say that collaboration and influence are important not only for an individual but also for an organization.

The human brain is social and has regions related to the social world (Lieberman, 2008). This idea is supported by the experiment conducted by neuroscientists in 2003. They experimented with the social nature of the brain. Using the fMRI, they found that individuals who experienced exclusion and rejection demonstrated brain reactions in the same regions that showed activity when experiencing physical pain (Eisenberg, et.al, 2003). It happened because of the mirror neuron system. According to Ringleb, et.al (2015), the mirror neuron system is activated during both the execution and the observation of motor actions. When a person sees happiness from his/her colleagues, he/she will also absorb that kind of happiness because the brain feels the same emotion or reaction to the people who are considered him/her as his/her alike. This situation is natural because the brain perceived this to survive. For the brain, survival means acceptance by the social group, and to be accepted, he/she needs to feel the same feelings, react the same reaction, and act the same action. If the brain does not perform those feelings, reactions, and actions, he/she feels dead which leads to the feeling of exclusion from the group. Exclusion from the group may be avoided if a person knows how to release his/her oxytocin. Meacham (2013) said that the human brain easily builds trust and good relationships within milliseconds by talking and having personal contact with other people. This is because of the releasing of the chemical from the brain which is known as oxytocin which can make a person feel trust toward another person. It would be released fast by talking with the person personally, having body contact like shaking hands, and frequently seeing each other.

After knowing this fact about the human brain and collaboration and influence, educational leaders should align their strategies in collaborating with their colleagues in a brain-based collaborative approach. Several researchers and scholars suggested how to build a good collaboration and influence using a brain-based approach and one of them is Kussrow (2001). According to him, the leader should allow his/her subordinates great flexibility to uphold, bond, connect, and relate to each other on the organization's topic, vision, or goal. He also suggested increasing communication, networking, and bonding through emotional and social interaction opportunities like group dynamics and activities to create new patterns of thoughts, and neural connections, and increase oxytocin. Lastly, he suggested having frequent and repeated social bonding among the group to strengthen patterns of thoughts and relationships as a group. Moreover, Schaufenbuel (2014) suggested to all leaders become resonant leaders by avoiding dissonant leaders. From the study he conducted, he found the impact of resonant and dissonant leaders on middle managers' brains. Using fMRI, he found that when the middle managers were interviewed about their experiences with their previous resonant leaders, the 14 regions of their brain were activated and these regions were associated with trust, happy moments, and excitement. On the other hand, when they were asked to tell something about their previous dissonant leaders, there are only 6 regions of

their brain were activated and these were associated with distrust, negative emotions, and low attention, while 11 regions were deactivated, and these regions were associated with good social relationship. To be a resonant leader, one should do the following three characteristics: 1) Make people feel safe. Since survival is the priority of the brain, unthreatened leaders are seen to be trustworthy. 2) Be fair. The brain loves fair treatment and becomes angry and frustrated when there is an injustice treatment. And 3) Be genuine and show trust with followers. The brain is social and loves to mingle and socialize.

### *Facilitating Change*

The last domain of neuroleadership is change. We cannot deny the fact that change is inevitable, and change may happen in every second, minute, hour, day, month, or year of our life. It may occur gradually or rapidly. In the changing process, the leaders play an important role in managing change. They should act as a facilitator and look for any opportunities in which all their followers be involved in the change process. But the change process cannot be done easily especially in educational institutions since change may challenge by the school culture, resistance of the stakeholders like teachers, parents, and students, and absence of support from the outside. However, change is undoubtedly important for an organization to move forward. Change can be defined as a process of improving the system or practice. As defined by Carlopio (1998), change is an adoption of innovation where the ultimate objective is to improve the outcomes through changing the practices. Like Carlopio (1998), Shen (2008) also defined change as a process of growth, and people need change to improve their work. Aside from a process of improvement, change may also be described as knowing and learning new ideas and things. Fullan (1992) described the change as a process of learning to understand and learning to do new ideas and skills. From all these definitions of change, we can say that the goal of change is for betterment, however, the process of change is painful for the human brain. According to Schaufenbuel (2014), change creates fear and negative feelings because the human brain perceives it as a danger. This is the cause of negative emotions and reactions that cause to brain and body to respond in a threat-response mode. In addition, Waters (2008) described the change from the point of view of neuroscience as difficult and disturbing and requires so much effort. Because change is difficult and disturbing to the brain, it is normal that people under the circumstance of change feel resistance. So, the question here is, how the brain responds to change? And how does a leader facilitate change through a brain-based approach?

As mentioned above, change in the brain is a threat and stressful which results in resistance and negative response of both brain and body. But what is the explanation behind this fact? The human brain can easily detect the differences between new to old ideas, and when the brain detects that the new idea is not like the old idea, it reacts and triggers a negative response. Row (2015) said that the anterior cingulate cortex (ACC) and the amygdala are responsible for this. The anterior cingulate cortex (ACC) is regularly alert for

errors. "Errors" are anything that is not parallel to either experience or expectations. When an error is spotted, the ACC sends the message to other brain systems to respond and in this case, ACC refers to the amygdala. The amygdala is hypersensitive to threats and decides if the error is a threat or not. If so, the amygdala initiates a reaction that causes a person to feel angry, uncomfortable, stressed, worried, or fearful. Whether a change is about the organization, attitude, procedure, or giving new roles and responsibilities, the ACC interprets the difference between the old and new way as uncertainty, and the amygdala may view that uncertainty as a threat. If the amygdala perceived change as a threat, it causes a negative emotional response. That is why, a workplace experiencing change is more likely to experience tension, short anger, and in-fighting. Rock & Schwartz (2007) also gave their explanation of the process of change in the human brain and it is something to do with the nature of human memory and its relationship to conscious attention. When a person encounters new information or idea, the working memory of that person examines this new information by comparing it to the previous information. This memory works actively when a person meets something new, and this information will reside in the PFC. This working memory cannot accommodate or hold a big amount of information at one time. When the idea or activity is repetitively conducted through frequent exercise and practice, that idea or activity will become habitual and will go to the basal ganglia's memory, which is the habit center of the brain and where the routine and familiar activity is located. The study of Row (2015) proves that change is not easy to be done inside an organization because it creates negative feelings in the brain and it requires high effort to make the change accepted by the brain. On the other hand, the study of Rock & Schwartz (2007) provides us with an idea of how to change be accepted by the brain and it is by frequent practice and exercise to make it a habit.

Knowing this brain's reaction to change and the ways how the brain accepts the change are important for educational leaders since various changes are happening to the present Philippine educational system like the implementation of K to 12, new assessment tools, teaching strategies and approaches, and many more. To apply this information, Langley (2012) gave strategies on how a leader effectively changes the behavior and behavior of their followers. First is focused attention. People in the organization need to pay attention repeatedly to new actions or ideas and make insights over a period until it becomes part of the organization's operation and process. The second is practice. Practicing and exercising the new idea or process will help the brain calm and familiar with the process. The third is reinforcing and rewarding. A leader should use the reward system for any positive behavior or work done by the people in the new process, in this sense, they will find exciting and interesting the new process. Last is support and feedback. Leaders should support their followers in facing new challenges in the organization and should give positive feedback. Moreover, Dimovski, et.al (2016) said that to overcome the brain's resistance to change, repeated attention and practices, and insight generation from the people, is needed. It is not worthwhile for a leader to ask

the people what to do. Instead, it is more helpful if a leader welcomes and encourages his/her followers' ideas to generate insights and help them to think critically and creatively. Lastly, Row (2015) gave five points to be considered by all leaders in utilizing a brain-based approach inside an organization. First, be realistic. Expectations and objectives create a negative reaction in the brain especially if these are impossible to meet that is why, it is better to have realistic expectations and produce a track record of success. Second, set and reward new goals. The brain loves a positive and exciting goal. Setting a goal releases dopamine, which causes happiness and enjoyment. Achieving a goal and being rewarded also creates positive feelings and raises confidence. A leader can help people by setting and rewarding goals consistently over time. Third, give choices. A neuroleader is the one who provides choices and options to his/her subordinates. This is essential, especially in the process of change. Staff can be engaged to help set new goals and develop new procedures. Giving choices make followers develop critical thinking skills and creativity. Fourth, acknowledge the stress of change. Acknowledging emotional reactions like stress calms the amygdala. As a leader, pay attention to how change influences staff emotionally. A simple acknowledgment of feelings can make the brain calm so that it can move on to productive thinking. Last is fostering a satisfying workplace. Research reveals that a good work atmosphere can enhance the work performance of the workers. If the followers and workers feel better in the workplace, they will perform and aim for the betterment of the organization.

## **CONCLUSIONS AND RECOMMENDATIONS**

Leading in an educational institution is one of the stressful tasks for there are several problems and concerns that may be encountered like frequent changes in the curriculum, exhausted works and responsibilities, administrators' and teachers' conflict, students' interests and needs, and many more. These problems and concerns can only be resolved and managed if an educational leader knows how to change one's behavior and others. Neuroleadership, as a new approach to leadership, provides a scientific explanation of why the brain is important in leadership and how it can be utilized. Its principles and ideas are truly believable since it has hard evidence to prove that the ideas and principles will work and apply in all situations. Because of the significant evidence of Neuroleadership, it is becoming increasingly evident that social science may be worked together with neuroscience to explain and transform not only human behavior as an individual but also human behavior as part of an organization even in the context of leadership. Neuroleadership also revolutionizes the traditional theories and approaches of leadership where a leader is the supreme person in an organization and controls the behavior and works of the people. After knowing how the brain reacts and functions to different situations or domains, we can say that what has been discovered and learned from the four domains of neuroleadership can help leaders create well organizational atmosphere and develop more effective leadership skills, like regulating emotions, strengthening collaboration, facilitating and managing changes, making good decisions and solving problems, engaging people in the leadership

role, and enhancing creativity and improved innovation. If we can better understand the functions of the brain and its application to leadership, we can transform the way leaders think, behave, and perform.

“Employee-centered” is the simplest term to describe the neuroleadership style. From planning to reporting, leaders, in this kind of leadership style, always consult their people on what to do by welcoming different ideas and suggestions, encouraging followers to think creatively and work effectively to achieve the organization’s goal, enhancing social and emotional connection, and securing fairness, safety, and trust among others. These styles of neuroleaders are related to the educational philosophy of progressivism and existentialism. Under progressivism, the learners, like followers, are the problem-solver who creates meaning using their experience in the physical world. Progressivism in leadership believes that leader should encourage their followers to create ideas and take action to achieve the organization’s goal. On the other hand, under existentialism, the focus is the individuality of learners, like followers, and individual choices and decisions. Existentialism in leadership encourages followers to think and work without any interference from the outside. It enhances insights which leads to creativity and innovation.

From these findings, it is highly recommended that Filipino educational leaders should know and incorporate the contemporary, scientifically grounded, and promising concepts of neuroleadership into their leadership attitude and style. Lastly, the DEPED, TESDA, and CHED should conduct seminars, series of training, and discussions about neuroleadership with their educational leaders to disseminate its ideas, principles, and strategies.

#### **FURTHER STUDY**

Since this paper is just a review of what has been discovered by numerous experts in the field of neuroscience and leadership, it is suggested to conduct a further and more rigid study on how neuroleadership works in Filipino leaders’ minds. It is also highly recommended to test its effectiveness in changing leadership skills and behavior.

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