Brain Performances Between Process & Production

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Abstract

Brain performs based on how people set their mood. When they are optimistic, their brain acts and looks at things as normal, and easy to do, and vice versa. Brain handles tasks either as a process technique or as a production procedure. Process means brain forgets the time flow, and values the procedure. Production mean brain sizes the progression based on outcome even when the situation has the same outcome. Our study required participants to exercise in the gym to stimulate a change in mental state. We observed the outcome from weight scale, EEG, ECG, and EOG.

Figure 1: Brain Procedure

Introduction

Brain is an incredible organ. It has the center of commands controlling body parts, and the resources to effect mood (decision, and emotion). Researchers have proven that training brain focus will help to stay positive. People are usually trying to avoid uncomfortable task (routine, boring job) because their brain keeps procrastination when they should deal with it in different way.

Researchers found brain possibly acts differently when people allow themselves to concentrate on process of the flow of environment instead of product. In this study, two teams were asked to preform same activity with different training set to prove which techniques are more affective.

Methodology

Participants

There were 4 participants. Subjects voluntarily participated in experiment, and they were assigned to two teams. Team A was taught to preform process technique (to maintain their health), and Team B was trained to apply production technique (to lose weight) after they were informed about the study and the aim behind the project before the study took place.

Investigators asked both teams to go gym everyday except weekend for 60 minutes using treadmill. Treadmill sets with 3.5 speed, and incline for 2 inch for two weeks.

Measurement

Scale

Participants' weight were measured in first day, the fifth day of first week, and last day of second week of project.

EEG, ECG, EOG

BioRadio 150 device required 10 cables to read signals. 5 cables (2 for Ch1, 2 for Ch2, 1 for Ground) to read EEG signal place on cerebral cortex based on 10 – 20 system, 3 cables (2 for Ch3, 1 for Ground to read ECG signal on upper side of chest, and 2 cable (2 for Ch4) to read EOG on the chest.

Survey

Survey of participants were taken at the end of experiment to evaluate the project, and at the end, participants wrote a feedback.

Figure 2: Exercise Place

Evaluation & Analysis

Team A asked to go gym to maintain their health as enjoyment and appreciation for good life. Also, Team B asked to go gym with different inspiration message. They need to lose weight to gain good shape. None of either team met or shared the method with other. Both teams seemed enthusiastic. After a while, Team A kept same excitement and willing to give more. Team B started to lose the interest and their outcome stayed the same or less. The reason behind was that Team A brains ignored the procedure, and enjoyed the time at the gym but Team B did not.

Results

Table 1 show the difference between two teams. Team A who signed for process technique kept improving health life, and losing weight in average 5 lbs. a week. Team B who signed for production technique lost weight as Team A for first week, but they started to lose less in second week.

Table 1: Participants' weight

Team A	First Day	Fifth Day	Last Day
Subject 1	201 lbs.	197 lbs.	191 lbs.
Subject 2	193 lbs.	189 lbs.	182 lbs.
Team B	**First Day**	**Fifth Day**	**Last Day**
Subject 3	208 lbs.	204 lbs.	201 lbs.
Subject 4	189 lbs.	186 lbs.	182 lbs.

Figure 3 show the combination for signals (EEG, ECG, EOG). The scatter indicate the interaction different part of body during study.

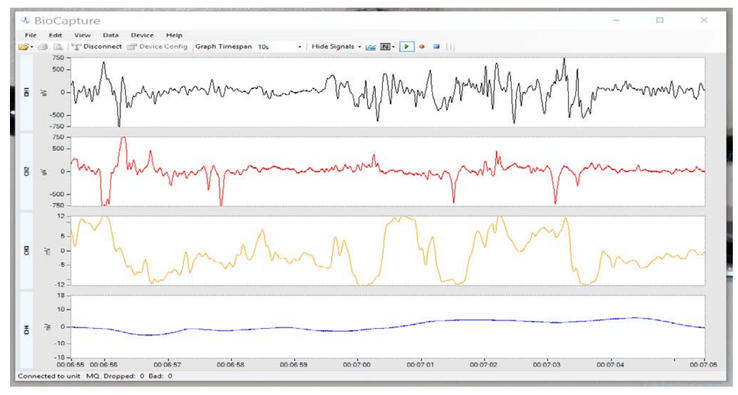

Figure 3: Exercise Place

Table 3 displays heart rate 100 BPM (beats per minutes), and respiration (breath per min). Both teams have improved and the result show their stamina has increased.

Table 3: Heart Rate

Team A	First Week		Second Week	
	H.R.	R.R.	H.R.	R.R.
Subject 1	71 – 83	~18	68 – 75	~15
Subject 2	71 – 79	~18	66 – 73	~14
Team B	**First Week**		**Second Week**	
	H.R.	R.R.	H.R.	R.R.
Subject 3	74 – 81	~18	67 – 73	~16
Subject 4	70 – 79	~18	67 - 72	~13

Conclusion

Brain is a capable to deal with any situation either way positively or negatively. However, people can train their brain to do a task as a process technique rather than a productive technique to prevent procrastination.

References

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