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Which Technique Is Better in Leading Coachee to Achieve His/Her Goal on the Basis of Neuroscience: Wisdom of Hindsight vs. Shaping Future through Pictures?

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Abstract:

The ultimate objective of this study is to evaluate the effectiveness of coaching techniques used in determining the coachee's goal and leading them to achieve this goal through using neuroscience tool (EPOC Emotiv). Results of the EEG showed that wisdom of hindsight is a better way to coach people who aim to get a success in the near future. It is because the coachees' excitement and engagement results were highest compared to other group of coachees who got training by using shaping future through pictures.

1. Introduction

The ultimate objective of this study is to evaluate the effectiveness of coaching techniques used in determining the coachee's goal and leading them to achieve this goal through using neuroscience tool (EPOC Emotiv).

For this study, all coaching sessions were carried out based on TGROW coaching model however, two different techniques (wisdom of hindsight and shaping future through pictures) were used to compare the results.

2. Literature Review

The literature defines coaching as a method through which an individual can develop and enhance their skills, knowledge and business insight, as well as attitudes (Philippon et al., 2011). There are several models which can be used in coaching however; among them the most popular one is called as TGROW model. TGROW is the abbreviation of Topic, Goal, Reality, Options and Will.



Figure 1: TGROW

The objective of the TGROW model is the creation of framework within which effective and structured discussions around coaching and development are initiated (Downey, 2003). In TGROW model, some open questions were asked to coachees to increase his/her awareness and get more responsibility about his/her attitude and behaviour (Downey, 2003).

Topic

- This covers the wider environment that impacts on the specific issue to be addressed through coaching. It will reflect the level of importance the issue has within that wider area and the impact it may have on the coachee's future desires.

Goal

- The setting of goals provides guidelines regarding where the focus is to lie and what is to be achieved and can be set to include the outcome of a particular meeting to a performance goal to be achieved in the work environment for example, improvement to SET scores.

Reality

- Developing insight into the current situation in which the employee is in with regards to achievement of the set goal.
- Identification of whether the employee has what is required and the means available through which to achieve the set goal.
- The identification of barriers and obstacles that will prevent achievement of the set goal.
- Clarification of deliverables, expectations and assumptions concerning achievement of the set goal, or in other words a precise definition of what achievement of the set goal looks like.

Options

- Encouraging staff to consider alternative or different ways of achieving set goals and encouraging the identification of multiple solutions.

Will (wrap-up)

- Commitment to undertake action required for resolutions, approaches or actions identified (refer to guidelines for setting SMART objectives to facilitate clarification of goals and/or objective parameters).
- Contribute to development of insight into obstacles or barriers that may stand in the way of achievement of the set goal.
- Agree on future scheduled meetings and interaction between manager/coach and employee to facilitate monitoring progress of development and information/knowledge sharing.

There are two important coaching techniques in coaching which are namely shaping future through pictures and wisdom of hindsight. **Shaping future through pictures** is one of the mostly used Gestalt techniques in coaching sessions. In this technique coachee is expected to increase his/her awareness on four aspects (body-mind-heart-sin) through pictures in order to shape his/her future (Dawdy, 2004). In this technique current situation and expected situation are represented by two different pictures and coachee creates options and takes actions to go to picture that represents future. In other words, coachee creates a logical map which takes him/her from current situation to expected future situation.

On the other hand in the technique of **wisdom of hindsight** coachee defines his/her expected his/her future point and makes time-travelling to that point from the current situation. Following to this, he/she explains the actions he/she took during this session and then in order to go to expected future point he/she comes back to current point step by step and forms his/her actions (Dawdy, 2004). In this study TGROW model was used. In deblurring the goals of coachees' two different Gestalt coaching techniques were used: wisdom of hindsight and shaping future through pictures.

3. Methodology

3.1. Used Method - EEG

EEG: EEG (Electroencephalography) measures the electrical surge between neurons (Nelson, 1980). EEG is one of the most widely used neuro-scientific instruments. Our emotions, thoughts, and responses cause various electrical currents in our brains and the parts of our brains, where an electrical surge or an activity occurred regarding any issue can easily be detected by using EEG method. Thus, EEG is the method of processing and analyzing data which is obtained from the brain. Such a technology allows professionals reach the highest spot in minds (Popescu and Iosim, 2007). Therefore, subconscious mental and emotional responses of people can be analyzed in real time and in detail.

3.2. Used Tool – EPOC Emotiv

EPOC Emotiv: The EPOC neuroheadset (Emotiv, USA) is a commercially available device that allows a computer to be controlled wirelessly using facial expressions or thoughts. the Emotiv EPOC headset and its Software Development Kit for research mainly includes 14 channels (plus CMS/DRL references, P3/P4 locations) each based on saline sensors. Available channels (also based on the International 10–20 locations) are depicted in Figure 2.

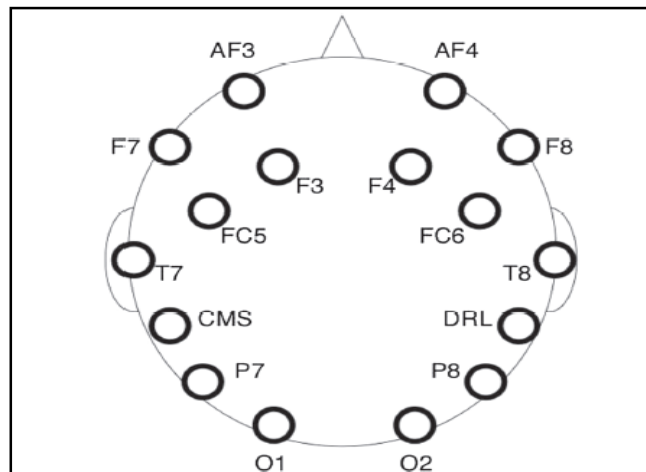


Figure 2: Channels

As shown in Figure 3, the headset is completely wireless and has large Lithium-based battery autonomy of 12 hours. The sampling rate can reach 128 Hz. Additionally; gyroscope generates optimal positional information for cursor and camera controls.



Figure 3: EPOC Emotiv Headset

EPOC Emotiv has 4 aspects which analyses human behaviour. These are:

Excitement: Excitement aspect creates both good and bad behaviour. However, in general it is good to get high results from this aspect since it may lead positive behaviour through force of excitement.

Engagement: In this aspect people get engage with the situation since he/she finds something from them within the faced situation. Therefore, it is good to get high results from the engagement.

Meditation: This aspect shows how a person's mind is got complex by the issue. Having high meditation results indicates highest complexity.

Frustration: This aspect shows whether the person feel frustrated about the faced issue. Therefore it is expected to get low results from this aspect.

3.3. Analysis Type

In the analysis, the "rating average" method was used. This method is basically calculating the average rate of the brain waves' during the coaching session for each metric. In this study, 4 metrics were used which are namely: *Excitement, Engagement, Meditation, and Frustration*.

The study took around 6 months. For the study, 8 people, who have future aims, were chosen. 4 coaching sessions were provided for all participants. 4 participants were given coaching sessions by using shaping future through pictures and 4 participants were subject to wisdom of hindsight. In the first coaching session topics were determined and coach and coachee relationship was established. In the

second session deblurring the goal was determined. Within the third and fourth coaching sessions actions to be taken were detailed and the development process of the coachees was monitored.

4. Results

| Metrics | Excitement | Engagement | Meditation | Frustration |
|---------------------------------|--------------|--------------|--------------|--------------|
| Technique | | | | |
| Wisdom Of Hindsight | 46.28 | 61.30 | 52.47 | 38.56 |
| Shaping Future Through Pictures | 41.94 | 59.95 | 53.81 | 39.70 |

Table 1

Results of the EEG showed that wisdom of hindsight is a better way to coach people who aim to get a success in the near future. It is because the coachees' excitement and engagement results were highest compared to other group of coachees who got training by using shaping future through pictures. These findings were consistent with the monitoring results. In fact, 4 out of 3 people (who got coaching session with wisdom of hindsight method) achieved or came to the achievement point of their goals, however; only one person who got a coaching session with "shaping future through pictures" achieved his goal.

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