Qualitative Sentiment Analysis with Implementation of Neuro-Linguistic Programming Techniques

Arun Kumar, Supriya P. Panda

Abstract: This Paper lights on Neuro-Linguistic Programming (NLP) Techniques, which is used to implement with the help of Qualitative Sentiment surveys. Neuro-Linguistic Programming techniques with Qualitative Sentiment Surveys helps in determining the behavior pattern of the human mind. Nowadays there is a huge amount of data available related to many social aspects. Participants' satisfaction is the key factor for Qualitative Surveys. In this paper, Neuro-Linguistic Programming techniques are used to change the behavior patterns of the human mind. Datasets of 81 participants are being used for analysis. NLP thinking, imagining and feeling techniques are used by the participants to make a change in their behavior pattern. Results are shown in tabular form. Participants' satisfactory results are shown with the help of python by using data visualization and matplotlib.

Keywords: Neuro-Linguistic Programming (NLP), Qualitative Sentiment Analysis (QSA), NLP Tools and Techniques, Data Visualization

I. INTRODUCTION

Neuro-linguistic programming is a technique as shown in Fig.1.This was founded earlier in 1970 by Richard Bandler and Dr John Grinder. They created a modeling process that allows them to study what makes hypnotherapists effective in their training methods. The study of neuro-linguistic programming is a powerful discipline given that it has an aspect of modern psychology that many people have found useful in most interpersonal and personal relations. Neuro integrated five senses visual, auditory, kinesthetic, olfactory, gustatory. Visual include sights, Auditory defines sounds we hear, Kinesthetic define external feelings like touch, Olfactory means smell and Gustatory means taste (Grinder and Pucelik, 2012).

Linguistic defines the language and another verbal communication system through which our neural representation is coded and includes pictures that sound feeling taste smell and words. Neuro-Linguistic Programming is an art to discover and utilize the instruction we run as our communication to ourselves and others to achieve expected outcomes. It is a tested and progressive model of how we communicate to ourselves and others.

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It was originally designed by Richard Banda and John Grinder. They develop neuro-linguistic programming in the 1970s as a tool of the mind to change its behavior and old patterns.

The productivity of an individual is exploded to the best to buy the incentives generated of experience at target vision in particular in many fields. NLP integrates and discovers the art of knowing in personal and professional behavior, the level of acceptance and learning the totality of excellence. It is art and science how people communicate, also influence and the effect that has on the other person. Neuro-linguistic programming can also provide quality and excellence in organizations and various social communities as well as in academic institutions (Y. Kotera and M. Sweet 2019).
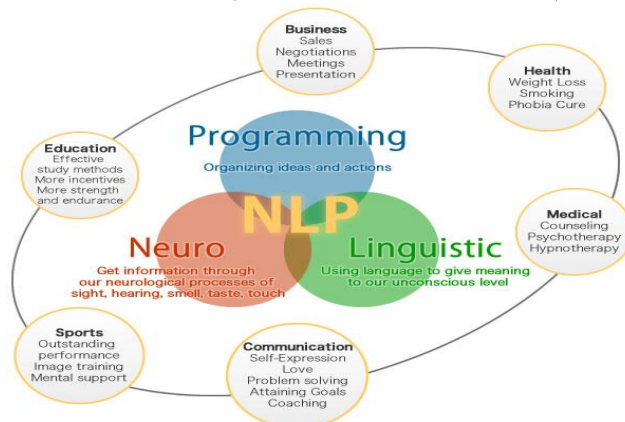

Fig. 1. Neuro Linguistic Programming: Internet Source

This paper is based on the many behavioral technologies of the last four decades. This model is designed to change behavior patterns. It can help people to make changes in their behavior patterns to avoid therapy and medicines. Dr. Richard Bandler discovers that people have stuck in problems very quickly. This research has used the concept of Qualitative Sentiment Surveys. Surveys include the face to face talk, NLP workshops and interviews. It is a way to process information from people's point of view. This can also help to find how they access the information in their mind and how they connect it to their past and how they process right now. Some of the common questions mentioned below:

How do they manifest their problem?

How do they process the information?

How do they make their thinking pattern?

Better yet, how did they get over their problem?

What were the steps that they took to overcome the problem?

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By the above sentiment surveys, there was some people process this information and make their thinking patterns. Due to these patterns, they become habitual. Habits become their activities.

Also, they create fear and phobias about persons and places and manifest that kind of life. Neuro-linguistic programming with qualitative surveys affects people's behavior patterns to know about the kind of information they process in their mind and access in an appropriate direction.

II. SUBMODALITIES

The mind is made up of conscious and unconscious parts. The unconscious mind is a portion of the mind to think and work logically. It is where an individual puts his attention. This part of the mind controls the functions of the body, heart, breathing patterns, etc. It is where memories are stored also the wisdom and creativity and problem-solving capabilities reside.

In the sleep state, the unconscious portion of the mind is dreaming wildly and continues its process. While the conscious portion of the mind is resting.

The unconscious mind can think in different perspectives. This is the part where most of the mental habits function. These mental functions are the source of feelings and sentiment through which a human mind can process the information with the help of five senses. Subconscious thinking becomes the manifestation of life. Neuro-linguistic programming helps people to train the pattern of the subconscious mind and change it whenever needed. The model of submodalities is an important tool that can make a change in the habits of the unconscious portion of the mind. Thinking pattern is always related to pictures, words, and feelings as shown in Fig. 2. NLP works on the feelings stored in mind and helps people to control over the quality of thoughts and manifests the kind of feelings they need. (Karunaratne M. 2010).

Fig. 2. NLP Submodalities: Internet Source

III. TOOLS & TECHNIQUES OF NLP

NLP activates positive behavior to encapsulate learning and bring excellence in real life. This may affect self or others or both in making life fun and innovative with every moment and activating times slot in totality.

It is expected to deliver results and unable to get the required outcome by providing constructive feedback on time and helping people to succeed in on the aspects of development aside from the techniques that include anchoring, mirroring and following neuro-linguistic programming methodology are now used locally in the

different learning environment to developing Rapid. Rapid is a relationship of Plus and mutual influence at the heart of managing people. People are the key aspect of an organization or relationships agreement does not guarantee Leopard having Rapid bits good relationships. NLP in organization provide different practical tools that will run force their social efficiency and delivery patterns (Passmore and Rawson 2019).

A. Pacing and Leading

Pacing is an important tool that is used to build strategies for changing behavior patterns and maintains good relationships with trainers. This will help practitioners to share their fears and problems with NLP trainers. It would help them In other words pacing is adapting to different situations. Leading allows changing the behavior so the other person follows. Mirroring is an important technique related to pacing which analyses the similarity between the beliefs of two persons (Carey et al. 2010).

B. Mirroring

This technique helps in developing people feels comfortable and in familiar surrounding NLP trainer need to provide a conducive environment for effective learning to take place. NLP trainer about to enter on the stage should create an internal movie of a lesson in which they feel all-powerful. Fig. 3 shows the NLP Tool # 1 uses the concept of mirroring.
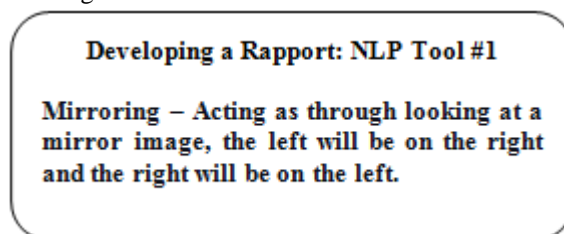

Fig. 3.NLP Tool #1

C. Modeling

NLP starts with an attitude, often of curiosity, of how things work, which leads to a methodology of modeling top performers. It is the process of recreating excellence. It is the core of NLP. Repeating the process of how someone does something is known as modeling (Neidhardt et al., 2017).

It is easy to model any behavior of modeling the belief. Modeling involves transferring what an expert thinks they know and what they unconsciously know. it is not confined to a genius it is not confined to well-known celebrities. Modeling focus on what the person does how he does why we do with supporting beliefs and assumptions. Here what people do at work, they turn back into techniques by observing following the steps towards perfection.

D. Matching

Matching body language is one of the observatory ways to build rapport as shown in Fig. 4.

It is one of the early techniques of NLP, ever develop. It is not like doing the exact hand or body movement as other the person. It maybe matching the tone, rhythm, and body language in particular.

Take a look at our body posture and we do it unconsciously through the same thing we want other people at places, malls, notice their body posture and people do the match their habits consciously or unconsciously. (Gibson B. 2011).
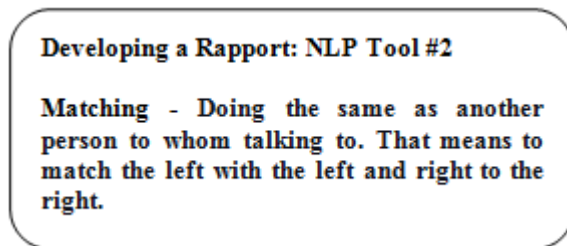
Developing a Rapport: NLP Tool #2

Matching - Doing the same as another person to whom talking to. That means to match the left with the left and right to the right.

Fig. 4. NLP Tool #2

E. Calibration

It is one of the NLP techniques which offer must how about the other person in view. The concept lies in simply noticing the change. It is like fine-tuning the senses to pick up change or observations. It is within the skill of sensory acuity. It is an ability to observe other people's physiology and changes in breathing, change in voice ton or more. It is to calibrate our state and another state with the change stages. It is done at some times unconsciously. It acts as one of the powerful rapport builders to put a lot of attention on the person. NLP Trainer, for instance, read the people's minds by reading non-verbal signals. Particularly, the calibration refers to the usage of sensory acuity to gauge the mental and emotional state or mood of a person or audience (Ahmad et al. 2017).

It is conclude here that, NLP treats the inner workings of the human mind and Guides us make a revolution in:

- How to think.
- How to develop goals towards desire, overcome fears and actions.
- How to get motivated and develop connections.
- How to explore meaning out of experiences.
- How to change the sentiments and feelings.

This method can be used to calculate the sentiment of the participants struggling with fear and phobia. The above questions can be used to change the pattern of their mind. It can also affect their behavior pattern that how they think, how they feel about their fears and what type of actions one can take to overcome these habits. NLP trainers always check the behavior pattern of the participants before and after the workshop. NLP workshops play an important role to make a change in the social communities, changing behavior patterns and training the mind.

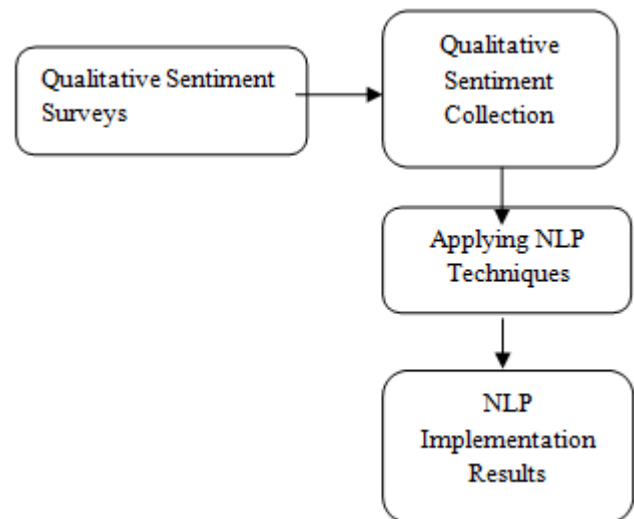## IV. NEURO LINGUISTIC PROGRAMMING METHODOLOGY

Fig. 5. Methodology

Process of Neuro linguistic programming is depicted above in Fig.5. There are few steps, which need to follow for better results. Methodology of defined by using qualitative sentiment surveys and NLP techniques. After that sentiments are analyzed on the basis of participant's views. These views are based on the expressions and feelings of theses participants.

F. Qualitative Sentiment Surveys

The first step is the survey data collection related to the behavior pattern from various Qualitative Sentiment surveys of social communities. The below Fig.6 contains various sentiment responses, which are expressed by different participants related to sentiment survey.
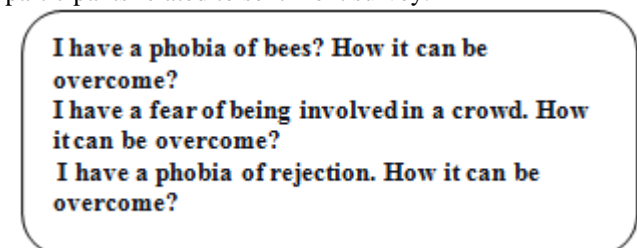
I have a phobia of bees? How it can be overcome?
I have a fear of being involved in a crowd. How it can be overcome?
I have a phobia of rejection. How it can be overcome?

Fig. 6. Qualitative Surveys

There are various techniques of NLP that have applied to the facts of the above surveys. Eighty-one numbers of participants have trained with NLP techniques like thinking, imagination, and visualization. The below table concludes the results of these neuro-linguistic techniques.

G. NLP Techniques and Qualitative Sentiment Surveys Implementation Results

Neuro linguistic programming and Qualitative survey data results are depicted in Table 1, Table 2 and Table 3.

NLP techniques are used calculate sentiment of the participants of the workshop.

Table. 1: Results of NLP feeling technique.

S.No.	Upfront appreciation of NLP	Result NLP feeling technique as reported by subject	Negative Sentiment correction by NLP coach/trainer
1	80%	99%	20%
2	70%	35%	40%
3	40%	80%	10%
4	99%	100%	10%
5	50%	70%	17%

Table. 2: Results of NLP thinking technique.

| S.No.	Upfront app reciation of NLP	Result NLP thinking technique as reported by subject	Negative Sentiment correction by NLP coach/traine r
1	80%	90%	5%
2	70%	90%	1%
3	40%	90%	10%
4	99%	95%	15%
5	50%	85%	13%

Table.3: Results of NLP Imagination technique.

S.No.	Result NLP imagination technique as reported by subject	Negative Sentiment correction by NLP coach/trainer	Result NLP thinking technique as reported by subject
1	99%	10%	90%
2	80%	20%	90%
3	90%	10%	90%
4	100%	5%	95%
5	50%	15%	85%

The above dataset contains a sample of five participants. The workshop is conducted for a total of eighty-one participants. Out of which seventy -seven got the results from the NLP workshop. As negative correction of the sentiments is shown in the above tables with each technique.

V. DATA VISUALIZATION

The below chart calculates the participant's satisfactory results according to their views on each NLP technique. For this Data Frame with matplotlib is imported in Python Jupyter notebook.
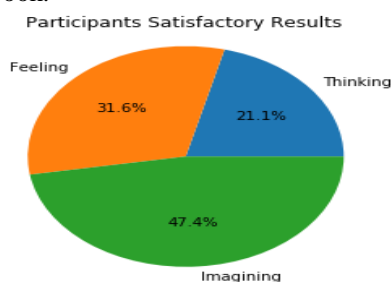
Fig.7. Participants Satisfaction Results

VI. CONCLUSION AND FUTURE SCOPE

Nowadays Neuro-Linguistic Programming plays an important role in the training of the human mind. In this paper, various qualitative sentiment surveys are used to make a change in the behavior pattern by applying Neuro-Linguistic Programming techniques. NLP workshop, qualitative surveys are the main source of result analysis. In results, the Pie chart and tabular methods represent the data visualization of the overall participant's satisfactory results as shown in Fig.7. Results are based on the views of the workshop participants. They have expressed their views based on feelings, thinking and imagining techniques of NLP. Imagine technique performed and get better results as compared to thinking and feeling technique. So, Visual Kinesthetic Dissociation (v/kd) technique came into light based on the NLP workshop results. Future work will be based on the visual kinesthetic dissociation and swish patterns of NLP. Swish patterns and v/kd technique can be the main source to impact on the behavior patterns of various social communities. For this qualitative surveys and case studies will be the implementation portion to extend the future research work.

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