Journal of Namibian Studies, 33 (2023): 772-788 ISSN: 2197-5523 (online)

Special Issue On Multidisciplinary Research

The Role Of Neuro-Linguistic Programming (NLP) In Sports Mindset For Enhancing Performance Capacity Of Pakistani Athletes

Kulsoom Najam[1] , Dr. Zafar Iqbal Bhatti[2] , Kashifa Khatoon[3]

[1]PhD Scholar, Sports Sciences Department, Punjab University, Lahore.
[2]Associate Professor, Minhaj University Lahore.
[3]PhD Scholar, Minhaj University Lahore.

Abstract

The purpose of this study is to highlight how crucial it is for Pakistani sports trainers and sports enthusiasts to communicate in order to improve sports efficiency among athletes. The role of neurolinguistic programming strategies is very much prevalent round the globe except Pakistani sports scenario. In the past, conversation was analogous, it has now transitioned into a digital realm due to advancements in communication channels. This shift can be compared to the transition from analog to digital transmission modes. The language employed in training sessions has become more vibrant, incorporating various sensory allusions and detailed descriptions of motor actions. The **goals are** to ascertain each athlete's preferred means of contact. Verbs of motion, movement, processes, etc., give a clearer picture of reality. With its vast array of efficient methods, neurolinguistic programming can quickly alter an athlete's performance and boost their potential. Ideomotor representations, when utilized in neurolinguistics programming, complement the sight, hearing, movement, touch, and smell perceptions experienced by the athlete, enabling them to articulate specific movements. A survey created by Bandler, Garner & Jacobson (2009) was given to the volley ball team UCP Lahore. The survey had questions about what they hear, see, and feel. The athletes' given responses enabled analysis of sub-modal distinctions in communication and the identification of each athlete's primary communication channel. When neurolinguistic programming techniques were applied, there were noticeable distinctions in how hearing sensations affected athletic performance ($p=0.652$). Additionally, there was a strong connection between what athletes see and how they feel when moving ($r=0.59$, $df = 23$, $p<0.01$). However, there wasn't a significant relationship found between how athletes feel when moving and their sense of taste or smell. In order for athletes to perform at their best in significant national and international contests, it is critical that technical staff members and sports coaches comprehend how to apply neurolinguistic programming approaches to each athlete in Pakistani sports perspective.

Key words: aural, visual, and kinesthetic perceptions; ideomotor representation; sports training; NLP.

Introduction

Numerous behavior-changing methods based on neurolinguistic programming (NLP) have been quickly tailored to the unique circumstances of sports participation. The goal of neurolinguistic programming (NLP) is to optimize cognitive-behavioral modalities, which are often short-term goals. According to Grosu (2012), neurolinguistic programming (NLP) possesses an impressive toolkit of efficient strategies that may quickly alter sports performance and foster positive behavior. Neuro is concerned with mental processes. Language encompasses not only the words you speak but also the way you utilize body language to communicate. Programming deals with ingrained behavioral patterns that you pick up and subsequently repeat. (Burton Kate & Romilla, Ready, 2010).

The researchers' goal in this work is to draw attention to a few particular volleyball training facets. This goal is to eventually increase the work ability elements of Romania's national judo squad by using NLP approaches. The researcher selected this subject since there hasn't been much use of these methods in Pakistani sports science perspective. Verbs, motions, acts, procedures, etc., provide a more exact and accurate picture of reality. "The NFL possesses a genuine toolkit of efficient methods that can quickly alter athletes' conduct by impacting their work" (Grosu, E. F., 2001, p. 33). If someone is bold enough to use NLP to build a certain task or problem, we can replicate the internal procedures to get comparable outcomes.

Neurolinguistic programming (NLP) categorizes these techniques as different ways we represent actions. They're named gustatory (taste), kinesthetic (movement), olfactory (smell), somatosensory (touch), visual (sight), and auditory (hearing). According to Halimi (2001), these methods serve as a connection between how we interact with others, how we perceive ourselves, and how we achieve personal fulfillment. This involves our consciousness, sub consciousness, willpower, desires, imagination, physical makeup, and relationships. Our language reflects our experiences, which begin with our senses and how we process information internally. According to some linguists, our ability to use simple language comes from past experiences that gave us experience. Other senses undoubtedly have an impact on these feelings. As people become aware, language reflects these linkages more than they typically do (Jacobs, S., 2009, p. 191). "Athletes' behavior can be rapidly changed by P.N.L. through performance-influencing techniques, which constitute a true arsenal" (Grosu, E. F., 2001, p. 33, quoting Nideffer).

Overall view PNL is the process of creating a model that generates the sensation of reality by utilizing the nervous system, which includes the brain and neurology. The brain in our nervous system uses the senses to gather information about the outside world. This is how we create "thoughts" (sensor data) and store them. To relate to various methods of representation of activities, NLP categorizes the approaches as sight, hearing, and movement, touch, and smell perceptions. A kind of interface exists between our relationships with others, our ideal selves, and the means by which we can ultimately attain self-fulfillment. This interface can be represented by our subconscious, conscious, want, imagination, physical structure, and relationship dynamics (Hall, M., 1996). The senses undoubtedly have an impact on these feelings. When people articulate these ties, language naturally reflects them (Jacobson, 2009).

In essence, neurolinguistic programming (NLP) involves harnessing the neural system to generate a model that generates fact in response. Through the senses, the brain, which is part of our nervous system, gathers information about the outside world. These modes of comprehension enable us to generate sensor data and store it. These approaches to work with others, known as ideomotor representations or systems of actions, are defined by NLP and are based on sensory experiences, including kinesthetic, tactile, olfactory, visual, and auditory. Every system comes with its own specific sensory characteristics (Bodenhamer BG, Hall M, 2012). Modeled training is built on the idea of training tailored to a particular sport (Epuran, 2008).

Rationale

The goal of the research is to improve the UCP volleyball female athletes' performance capability through the use of neurolinguistic programming techniques. The field of Pakistani sports science has hardly used these methods at all. In addition to providing instruction, teaching in schools and sports involves a lot of engagement with influencing and occasionally guiding students (Isidori, Emanuele, 2009). Determining each athlete's preferred method of interaction. Verbs of motion, movement, processes, etc., give a clearer picture of reality. Cognitive processes such as attributions and self-efficacy may have particularly significant effects on psychological well-being in the early stages of beginning exercise (Biddle). Boutcher, Stephen H.; Fox, Kenneth R.; Stuart J.H.

(2000)). With its vast array of efficient methods, neurolinguistic programming (NLP) can quickly improve sports performance and boost performance capacity. To explain specific movements, neurolinguistic programming (NLP) combines ideomotor representations with kinesthetic, tactile, olfactory, visual, and auditory stimuli experienced by athletes.

Methodology and Data Collection Techniques

This study is a part of a broader research project aimed at enhancing volleyball teaching. It was conducted in UCP, Lahore between October and December 2022, involving twenty-five female athletes from the UCP volleyball team. These athletes were divided into four groups based on their age: juniors (17–19 years old), seniors (20 years and above), students (14–16 years old), and youngsters (12–13 years old). During the study, athletes were asked to imagine themselves performing various back techniques, such as unbalancing, entering the technique, and throwing. They were instructed to focus on different aspects of these skills, including throwing, unbalancing, and entering the technique. To conduct this study, the researchers used a questionnaire called "The Secret of Being Happy" in English, along with statistical analysis (Bandler & Thomson, 2011; Garner & Jacobson, 2009).

It is crucial that the sensations experienced during the performance of the aforementioned motor acts correspond with the ideomotor representations of those motor acts. Dilts et al. (2011) divided the elements into three types: seeing, aural, and kinesthetic (VAK). The answers written by athletes' made it possible to examine submodal communication differences and identify the primary channel of communication between the coach and the athletes (each athlete separately). It can now be concluded that changes made to one communication submodality may have a significant impact on another, either increasing or decreasing it. For instance, when an image gets brighter, our minds may interpret it as causing more intense sensations.

The study employed statistical software, SPSS 15.0, to process data. The ANOVA test was used to compare means across subject groups, and the post-hoc Bonferroni test was used for multiple comparisons. The Pearson correlation coefficient (r) was used to establish correlation between variables.The box plot method was used to create diagrams showing the minimum and maximum values, the middle value (median), and the scores at the 75th and 25th percentiles, as well as highest scores, as detailed by Vlad Teodor Grosu et al. The Olympic Judo Team Ethics Board approved the research, and all participants gave their consent to take part.

Results and Discussion

Many different factors are included in the content of sub-modal distinctions. The primary sub-modalities of vision are as follows: form, how bright it is, how clear it looks, and its color. These are all linked to each other. For example, if something is bright, you can see it better, or if something is a certain color, it might stand out against another color; and three-dimensional depth. For every sub-modality, there's a synopsis and directions for adjustments. Most of the time, the limitations of language we use cause more difficulty in recognizing these kinds of distinctions than the boundaries of our sensory awareness (Jacobson, 2009). The color designates how many colors are visible, whether the picture is colored, black/white, or a mix of these. Certain hues stand out, appearing to be more prominent or significant. The athletes were given the following indications: an image may have certain diffuse regions, be very accurately exposed, or be focused but unclear. In addition to defining an image's arrangement, a shape can also indicate possible shapes that could be observed inside the image. It's a mental game, sort of, and the same might apply to size, distance, and position (Bandler & Fitzpatrick, 2011).

The following information was given to the athletes: When someone is linked to a picture, that person view it with their eyes exactly as that person was present there (typically a panoramic image). Put differently, that person don't recognize themselves in the picture. The converse occurs when you detach yourself from the vision; you perceive yourself in it as though it were seen by someone else, as though you were watching a movie. The examination of sub-modal differences in the volleyball athletes' sight, hearing, and movement in the sports enthusiastic of the volleyball team can be viewed in the picture.

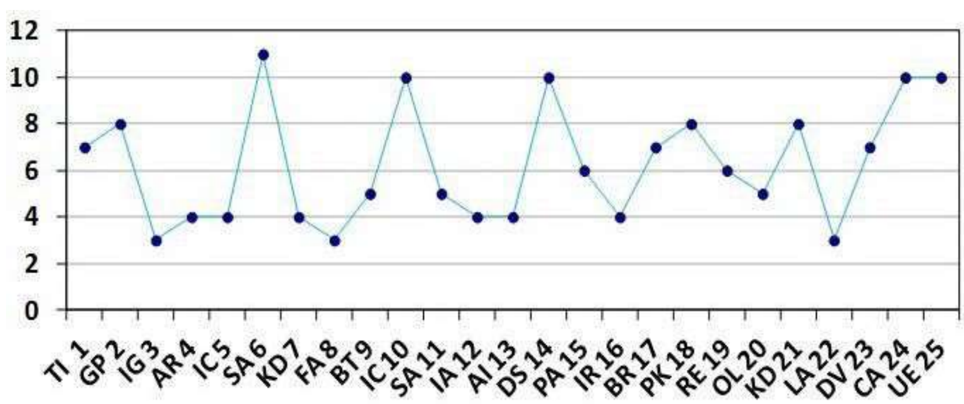


Fig. 1 – Evaluation of visual sub modalities.

Twenty-five individuals are depicted on the x-axis, while the visual component values are illustrated on the y-axis. Figure 2 presents the distinctions in visual submodality values. Within the children's division, there is an athlete with a visual preference score of 8. In the cadet group, the largest segment, three athletes have visual component values exceeding 10. The junior group has only one athlete with a preference for visual communication during training, with a maximum value of 8. In the senior group, three out of five athletes favor visual submodalities, all having values surpassing eight.

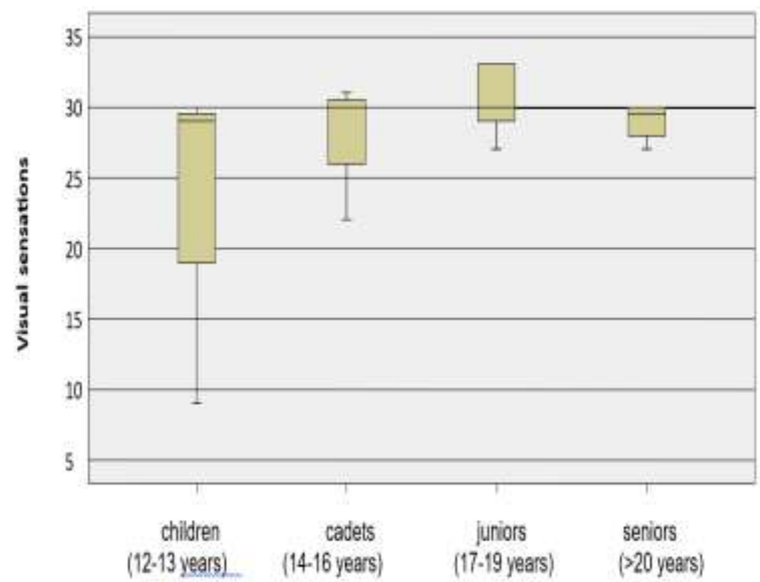


Fig. 2 – Box plot diagrams – visual sensations.

Table 1

Analysis of visual submodality distinctions in the volleyball group.

Indicator				Age
Group	12-13 years Children	14-16 yea	17-19 yea	Over 20 years Seni

				rs Cadets											rs Juniors					ors					
Subjects	TI1	GP2	IG3	AR4	IC5	SA6	KD7	FA8	BT9	IC10	SA11	IA12	AI13	DS14	PA15	IR16	BR17	PK18	RE19	OL20	KD21	LA22	DV23	CA24	UE25
	7	8	3																						
Visual channel				4	4	11	4	3	5	11	5	4	4	10	6	4	7	8	6	5	8	3	7		10	10

Table 2

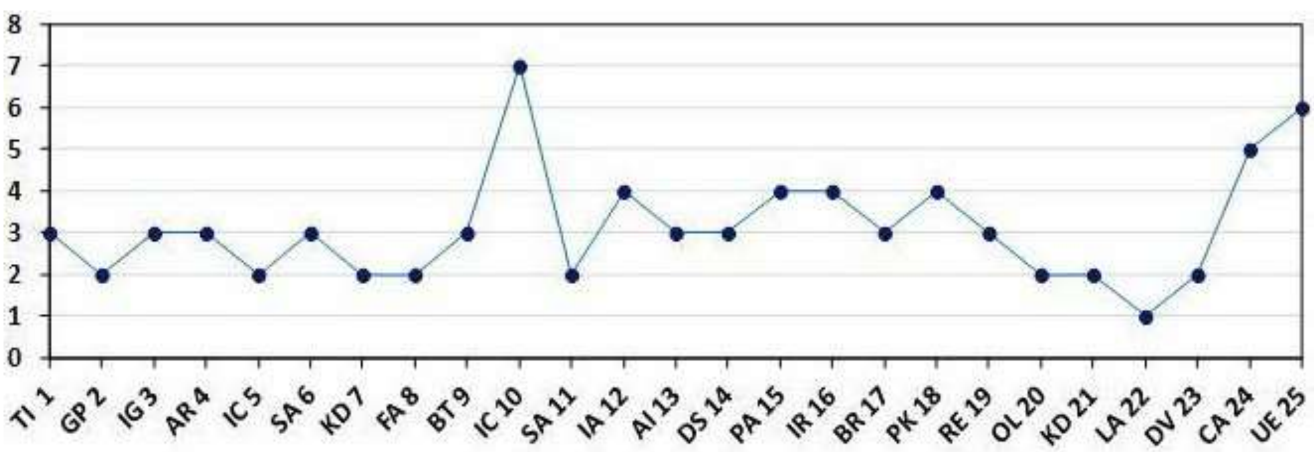
Analysis of auditory sub-modalities in the UCP volleyball group.

Indicator		Age		
Group	12-13 years Children	14-16 years Cadets	17-19 years Juniors	Over 20 years Seniors

Subjects	TI1	GP2	IG3	AR4	IC5	SA6	KD7	FA8	BT9	IC10	SA11	IA12	AI13	DS14	PA15	IR16	BR17	PK18	RE19	OL20	KD21	LA22	DV23	CA24	UE25
Acoustic channel	3	2	3	3	2	3	2	2	3	7	2	4	3	3	4	4	3	4	3	2	2	1	2	5	6

The way sounds are perceived, particularly voices, matters more to us than their volume. Vocal timbre is a unique feature of a person's voice that has the power to influence us even more than other factors (Jacobson, 2009). Bandler and Thomson (2011) talked about different parts of how people sense things, like hearing sounds, the way voices sound, words, how speech sounds, how high or low sounds are, how often they happen, where they're coming from, how strong they are, how far away they are, how long they last, and the pattern they follow (see Table 2 for details).

The sport enthusiastic received cues, like either it's more important to notice if the voice produce from within or outside of oneself to pinpoint their exact location. The direction and distance from which the sounds come can affect how loud they seem; generally, sounds seem louder when they are close together and quieter when they are farther away (Jacobson, 2009). Other important aspects of sounds include things like frequency, which is whether a piano plays higher or lower notes, rhythm, and pace. To understand these aspects better, it helps to think of them in terms of music. Sometimes, how long a sound lasts, called duration, can



matter. Sound quality and texture describe the various pitches and how the sound travels.

Fig. 3 – Analysis of auditory submodalities.

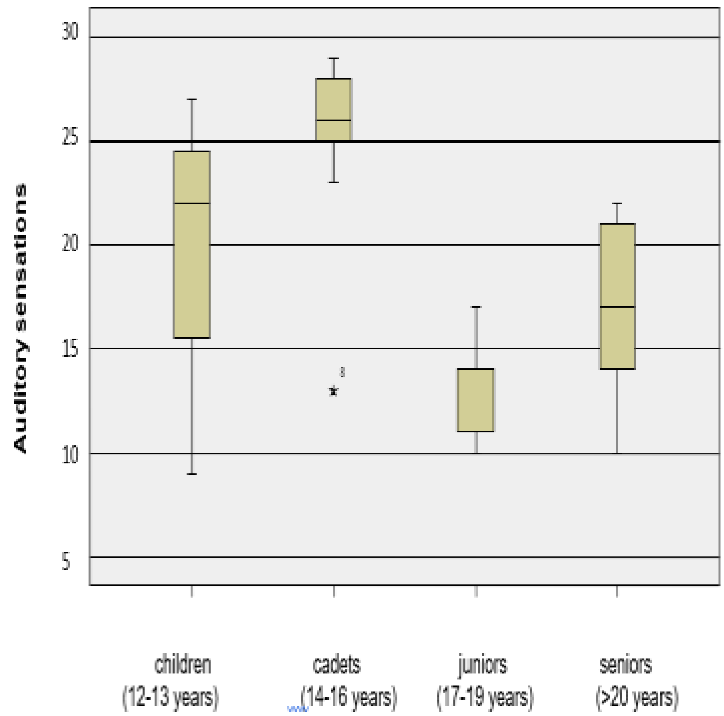


Fig. 4 – Box plot diagrams – auditory sensations.

The auditory component values are shown on the vertical axis, while the 25 subjects are displayed on the horizontal axis (refer to Fig. 3). Currently, in the study, athletes are not utilizing differences in auditory sub-modalities during training. In the cadet division (14–16 years old), only one athlete employs auditory sub-modalities with a value of 7. This area needs more attention in future attempts to create mental representations of movements for technical skills during instructions (refer to Figure 4).

After studying different types of bodily sensations, two sports enthusiastic from the senior group and another from the children's group show different bodily sensations, with scores of 9 and 10, specifically in the area of mental representations (refer to Table III, Figure 5). Different types of bodily sensations include internal feelings, awareness of body position, outside sensations, shape, where it's located, temperature, weight, movement, how long it lasts, how strong it is, size, wetness, pressure, how solid it is, how often it happens, pattern, how it feels to touch, and staying steady.

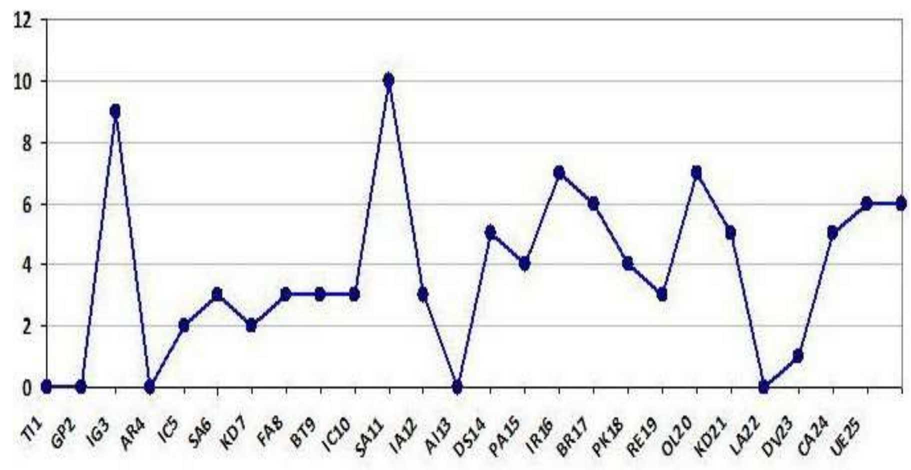


Fig. 5 – Evaluation of kinesthetic submodalities.

The kinesthetic component values are illustrated on the vertical axis, and the 25 subjects are displayed on the horizontal axis. Further efforts are required in training to enhance athletes' capacity to sense any movement (motor act) by focusing on these submodal distinctions (refer to Figs. 5 and 6).

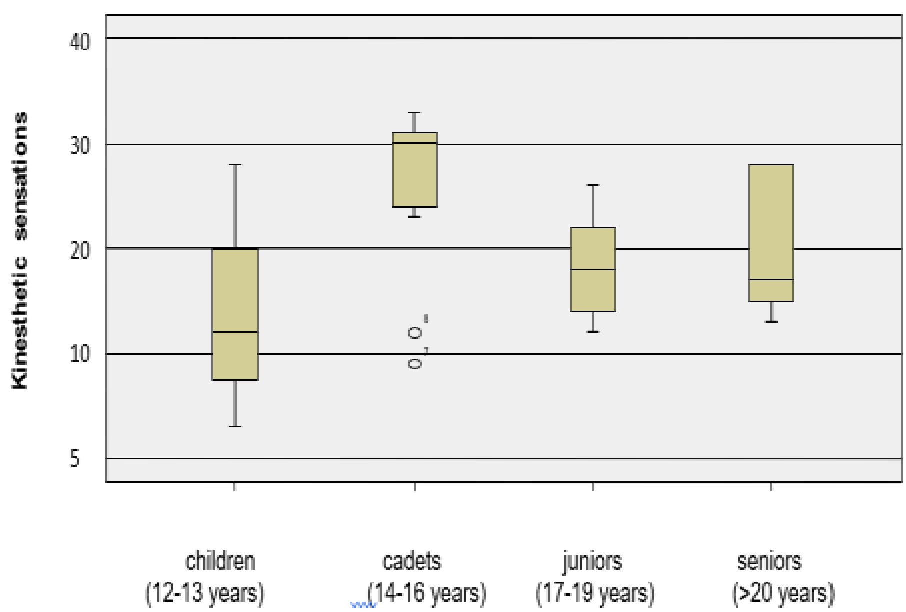


Fig. 6 – Box plot diagrams – kinesthetic sensations.

Table III

Analysis of kinesthetic submodalities in the UCP volleyball group.

Indicator	Age																								
Group	12-13 years Children			14-16 years Cadets											17-19 years Juniors					Over 20 years Seniors					
Subjects	TI1	GP2	IG3	AR4	IC5	SA6	KD7	FA8	BT9	IC10	SA11	IA12	AI13	DS14	PA15	IR16	BR17	PK18	RE19	OL20	KD21	LA22	DV23	CA24	UE25
Kinesthetic channel	0	9	0	2	3	2	3	3	3	10	3	0	5	4	7	6	4	3	7	5	0	1	5	6	6

Table IV below displays the partial means for each perception submodality—visual, auditory, kinesthetic, olfactory, and gustatory—within the context of neurolinguistic programming, categorized by age group. The exploration of interrelationships among variables is a central focus in educational research (Cohen Luis; Manion Lawrence; Morrison Keithe, Research Methods in Education, 2007).

Table IV

Indicator	Category			
Submodalities	12-13 years Children	14-16 years Cadets	17-19 years Juniors	Over 20 years Seniors
Subjects	3	11	5	6
Visual	22.6	28	30.4	29
Auditory	19.3	25.3	13.2	16.8
Kinesthetic	14.3	25.5	18.4	19.6
Olfactory-gustatory	5	1.54	9.6	4.8

Analysis of NLP submodalities

(means by age categories) in UCP volleyball group.

When it comes to bodily sensations, athletes may or may not notice the following feelings. Athletes were told to think about the feelings they experience on their skin, how their body feels inside, and their sense of balance when imagining doing different moves:

- Feeling on the skin: How things feel when they touch the skin (like hot or cold, how thick or thin, wet or dry, and if there's contact).
- Internal feelings: Sensations inside the body, like pressure, tightness, weight, and where the body and limbs are.
- Balance feeling: How steady someone feels, including how they are positioned and how gravity affects them.
- Intense emotions: This involves all these kinds of feelings and more.

Similar physical sensations may occur in varied circumstances, and individuals may assign various titles to them. Our liking or disliking of a sensation determines how we interpret it. The same physiological sensation can be perceived differently depending on the context.

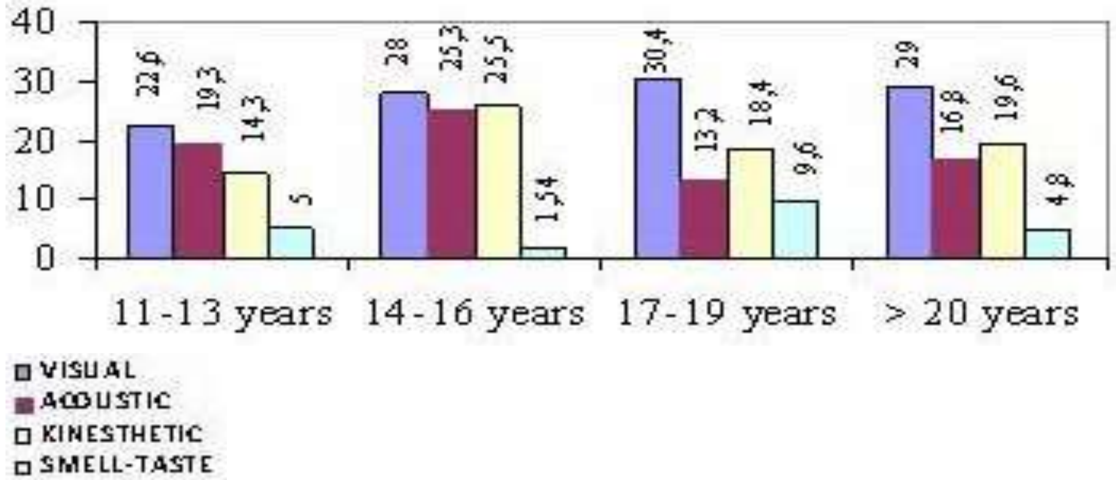


Fig. 7 – Analysis of perception sub-modalities.

The constituents of the sub-modalities pertaining to vision, hearing, touch, smell, and taste were chosen based on an operational framework put forward by Jacobson (2009). As demonstrated in the first section of the study, up until recently, people only considered whether or not there were clear feelings during doing actions in the old-fashioned way. Values for each category of feelings by age groups are shown in Fig. 7. It is evident that in accordance to achieve perceptual experiences, kinesthetic feelings must be developed at all age groups.

In contemporary analysis, the diverse digital submodalities of each sensation are considered when examining the sensations encountered during ideo-motor representations. For example, brightness and its varying value, depending on the athlete, hold significance. Each of our athletes can see and understand magnitude, form, range, and all other visual details in their own way. Similarly, the different parts of hearing, feeling, smelling, and tasting also work in a similar way.

The SPSS program was used for statistical processing. The researcher used the ANOVA test to correlate the means across the subject groups and the post hoc Bonferroni test for multiple comparisons, with a significance threshold of $p \leq 0.05$. The Pearson correlation coefficient (r) was used to determine the correlation between the variables, with $p \leq 0.01$ serving as the significance level. The box plot approach was used to generate the diagrams, which show the extreme scores, median, percentiles 75 and 25, and lowest and greatest values.

Table V

Evaluation of the outcomes from the ANOVA analysis

Indicator	Mean square	F	p

Visual perceptions	39.991	1.918	.158
Hearing perceptions	202.838	8.306	.001
Movement experiences	133.944	2.106	.130
Smell and taste perceptions	40.991	2.466	.090

* The primary distinction is noteworthy with a significance level of .05.

Statistical outcomes from ANOVA analysis (see Table V)

The training approach (NLP) makes a big difference only in how well people hear things (F=8.30, p=0.001). After checking many times using the Bonferroni correction, we found big differences in how well cadets hear compared to juniors (MD=12.164, p=0.001) and compared to seniors (MD=8.53, p=0.016). Cadets hear things a lot better on average (M=25.36, SD=4.5) than juniors (M=13.3, SD=2.77) and seniors (M=16.83, SD=4.62). There weren't any big differences found in how well people heard things in other cases (see Table VI).

Table VI Analysis of the results of post hoc tests - multiple comparisons - Bonferroni.

Dependent variable	(I) Subjects	(J) Subjects	Mean difference (I-J)	Std. error	Sig.
Auditory sensations	Children (12-13 years)	Cadets (14-16 years)	-6.030	3.219	.450
		Juniors (17-19 years)	6.133	3.609	.624
		Seniors (>20 years)	2.500	3.494	1.000
	Cadets (14-16 years)	Children (12-13 years)	6.030	3.219	.450
		Juniors (17-19 years)	12.164 (*)	2.665	.001
		Senior	8.530 (*	2.508	.016
	Juniors (17-19 years)	Children (12-13 years)	-6.133	3.609	.624
		Cadets	-12.164	2.665	.001

	(14-16 years)	(*)		
	Seniors (>20 years)	-3.633	2.992	1.000
Seniors (>20 years)	Children (12-13 years)	-2.500	3.494	1.000
	Cadets (14-16 years)	-8.530(*)	2.508	.016
	Juniors (17-19 years)	3.633	2.992	1.000

*The most important difference is significant at a value of .05

Table VII Analysis of results – Correlations

Indicator	Significance	Visual sensations	Auditory sensations	Kinesthetic sensations	Olfactory and gustatory sensations
Visual sensations	r	1	.270	.593 (*)	-.037
	p		.192	.002	.861
Auditory sensations	r	.270	1	.652 (*)	-.293
	p	.192		.000	.156
Kinesthetic sensations	r	.593(*)	.652(*)	1	-.300
	p	.002	.000		.145
Olfactory and gustatory Sensations	r	-.037	-.293	-.300	1
	p	.861	.156	.145	

* The relationship is significant at a value of 0.01.

Correlations

Table VII shows that there's a strong positive connection between hearing and physical sensations (r=0.65, df=23, p<0.01) and between seeing and physical sensations ($r=0.59$, $df=23$, $p<0.01$). However, the senses of smell and taste don't show a significant relationship with physical feelings. People who have experiences that stimulate their sight and hearing will also benefit in how they feel physically. As Ian, Iones, and Chris Gratton (2004) suggest, sports are complex social activities, and their concepts are rarely simple, meaning they can't be understood with just one question.

Conclusion

Distinction values of visual sub-modalities. One athlete in the children's division had a visual preference score of eight. Three athletes in the cadet group, who make up the largest group, have visual component values greater than 10. The junior group's upper limit is 8. There were also distinctions in auditory sub-modalities during training. One athlete, aged 14 to 16, belongs to the cadet category and uses auditory sub-modalities with a value of 7. This area needs further attention in the future in respect to build ideomotor presentation of physical acts, or the skilled teaching parts.

The data analysis shows that two athletes, one from the senior team and another from the children's team, use certain physical feelings with values of 9 and 10 when imagining doing movements. We consider different types of these feelings—like digital ones—when looking at the feelings they have during these movements. The necessity of having clear thoughts about action and all of the NLP's sub-modal distinctions. The athletes also need to concentrate on the here and now (Vittoz & Godefroy, 2001). For the athletes to perform at their best in key national and international competitions, it is crucial that the technical team knows the outstanding method to talk with each particular sport enthusiastic.

There are only notable variations in the training approach (NLP) when it comes to auditory perceptions. Cadets' average auditory perception is noticeably higher than that of juniors' and seniors. Visual and kinesthetic sensations, as well as auditory and kinesthetic sensations, significantly positively correlate with one another. Kinesthetic perceptions are not significantly correlated with gustatory or olfactory perceptions.

The goal of NLP is to empower individuals to take charge of the cognitive behavior mechanisms that govern their subjectivity by teaching them how to "do your own brain work." These activities, along with how our body works and our nervous system functions, can be more detailed than just imagining movements and understanding their different aspects. To demonstrate this process, NLP developed and discovered a wide range of strategies (human technology) and procedures offering certain schemes (programs) that enable us to effectively and easily regulate our subjectivity while also improving our capacity for self-evaluation.

References

Biddle Stuart JH, Fox KR, Boutcher SH. Psysical Activity and Psychological Well – Being, Routledge, Taylor and Francis Group, London and New York, 2000; 164.

Bodenhamer BG, Hall M. The time-line della NLP/Come Roberti, Urgnano (BG), Italy, 2012; 29, 31, 46-47, 50.

Bandler R, Fitzpatrick O. NLP and Freedom, Ed. Alessio Roberti, Roma, Italy, 2011; 89.

Cohen L, Manion L, Morrison K. Research Methods in Education USA and Canada, 2007; 528.

Grosu EF. Applications of mental training in sport, Vol III, GMI Publishing House, Cluj-Napoca, 2012; 32, 33.

Hall LM. The Spirit of NLP: The process, meaning and criteria for mastering NLP, Anglo American Books, Carmarthen, Wales, U.K., 1996; 14.Iones

Ready R, Burton K. Neuro-Linguistic Programming for Dummies, 2nd Edition, Published by John Wiley&Sons, Ltd.West Sussex, England, 1.

Vittoz R, Godefroy CH. How to control your brain at will, Published by Christian H Godefroy USA, 2001; 50. Websites(1) www.pnl. info, Italy NLP Coaching School visited on 25.11.2012