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Dismantling the Hype: A Systematic Review of NLP Coaching Limited Impact in Organizations¹

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Abstract

Neuro-Linguistic Programming (NLP) is an all-encompassing approach to communication and personal development, focusing on how individuals perceive their thoughts, feelings, and communications. While an increasing number of academic articles highlight the application of NLP in organizational settings and its proponents are directing more attention toward research, there remains a scarcity of studies addressing the methodological quality of research that draws such conclusions. The objectives of this paper were to examine the effectiveness of the NLP method according to research outcomes applied in an organizational context and the extent to which these methods are based on contemporary scientific methodology. PRISMA guidelines were used as the methodological approach for analyzing the studies. The focus was on research investigating the effects of applying NLP techniques on criteria related to personality variables or behavior in an organizational context. The search through research databases resulted in selecting only four articles from an initial pool of 720. Findings suggest that NLP can be effective for developing a wide range of psychological outcomes related to organizational behavior, but nearly all findings are questionable due to the poor quality of the methodology used in the research, unclear reporting, and the small number of studies that have acceptably examined these phenomena. Various shortcomings in the context of scientific theory criteria and research design are discussed, with recommendations for further research to explore the truthfulness/effectiveness of the promoted methods.

Keywords: NLP, research, methodology, organizational effectiveness, coaching

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Neuro-Linguistic Programming (NLP) is a discipline described by its creators and practitioners as a model of human experience and communication (Linder-Pelz & Hall, 2007). The practices implemented by this program are widespread and ubiquitous worldwide (Kang et al., 2020). In recent years, its influence has also been noticeable in Serbia, particularly in the fields of business consulting, personal development, and coaching. Despite its pseudoscientific foundation, NLP has gained popularity through various training programs, workshops, and seminars aimed at improving communication and leadership skills, often promoted as a method for achieving personal and professional success. This paper aims to provide an exhaustive overview of research studies that explored the effects of applying NLP methods within an organizational context. Claims about the positive effects of this methodology are often highlighted in advertising campaigns and used as arguments by practitioners (Alder, 2017). Therefore, this work critically examines the scientific rigor and evidence, or lack thereof, supporting these practices. Researchers in the field of applied psychology often need clarification on what principles NLP operates, although it sometimes intersects with certain psychotherapeutic schools inclined toward an integrative approach (Atzil-Slonim et al., 2024).

Neuro-Linguistic Programming originated in the United States in the early 1970s as a result of research conducted by John Grinder, a University of California assistant, and Richard Bandler, a psychology student at the same university (O'Connor & Seymour, 2009). Richard Bandler, a mathematician and scientist, spent forty years studying individuals with various psychological and behavioral issues, primarily through observation, interviews, and modeling their behavior, while devising techniques based on patterns of positive outcomes. He analyzed the work of therapists and other professionals who achieved significant results, thereby refining methods that help individuals change their lives (Bandler & Grinder, 1979). Grinder and Bandler examined the works of significant and influential psychotherapists, psychiatrists, and psychologists such as Perls, Erickson, and others. Their goal was to discover patterns successful therapists use and make them accessible to others (O'Connor & Seymour, 2009).

One of the fundamental concepts in NLP is the idea of a preferred representational system (PRS). This concept posits that people create internal representations of the world by processing external stimuli through five sensory channels: visual, auditory, kinaesthetic, olfactory, and gustatory (Bandler & Grinder, 1979). Notably, the term 'kinaesthetic' within NLP peculiarly encompasses general feelings. According to the founders of NLP, Grinder and Bandler (1976), individuals tend to rely predominantly on one of these sensory systems - especially visual, auditory, or kinaesthetic - during conscious activities. This preference is evident in their speech patterns; for instance, someone who thinks visually might frequently use phrases like "I see" or "It appears to me.". Bandler and Grinder (1979) also argued that one's current representational

system could be inferred from one's eye movements, such as associating a downward gaze to the right with kinaesthetic thinking.

NLP in an Organizational Context

Perhaps the most common application of NLP techniques is in coaching, whether in an organizational or individual setting. Practitioners and researchers of this methodology report numerous outcomes that have helped major organizations enhance employee performance, increased motivation, and increased employee engagement at work (Abrams, 2004). However, these conclusions are often derived more from case studies and online articles than through any form of empirical research.

A significant focus of this methodology is on goal setting, as it is promoted as particularly effective for high-productivity goal-setting (McDermott & Jago, 2006). It advocates that well-set goals should maximize achievement by being outcomeoriented. Unlike 'SMART' goals with their advanced deliberations, this approach focuses on the five sensory domains and body movements during the execution of the goal. By doing so, individuals will be more motivated and better focused on their objectives (Kotera & Sheffield, 2017; O'Connor & Seymour, 2009; Squire, 2018).

NLP is not limited to goal-setting alone; it also encompasses other key areas such as self-management, presentation skills, negotiation techniques, interviewing tactics, team-building tools, and leadership (Grimley, 2016). For example, soliciting feedback involves adhering to one of the principles of this method: "The meaning of communication is the response you get" (O'Connor & McDermott, 2013, p. 35).

As a result, the authors of the NLP methodology published a substantial number of textbook-like books, written in a way that made them easily accessible to everyone. However, no part of the available literature explains the process of theory construction or whether it was followed by any empirical verification (Roderique-Davies, 2009). This creates an impression that the methodology is built on the subjective experiences of its authors.

Methodology of NLP Research

Although a significant number of articles and posts in journals and on various websites discuss the application of NLP in organizational contexts, there is a stark scarcity of rigorous scientific studies exploring this topic. Practitioners often reference these non-peer-reviewed sources to support their claims. For instance, Kang et al. (2020), highlighted that although NLP has been widely developed and has influenced management theories significantly, the research lacks a comprehensive review or detailed guidance on its application as an analytical technique in management research. Authors noted that by the end of 2019, 72 articles employing NLP as a focal technique were published in the UT Dallas List of 24 Leading Business

Journals. These studies failed to thoroughly explain how NLP can be utilized to enhance management theories or provide a clear, step-by-step tutorial for using NLP in data analysis.

It is important to note in a review of NLP methodology that within this field, there exists a particular school—direction—dedicated to research (Cambria & White, 2014). NLP has evolved in multiple directions, one of which is the research branch known as NLPsy (NLPsych). It is referred to as the fourth wave, where scientific research of NLP began. This started in 2006 with the "Research & Recognition Project". In 2012, the name NLPsy was coined for this variation of NLP by the International Association of NLP Institutes (IN-NLP) (e.g., Johannßen & Biemann, 2018). It is mentioned that the research, or NLPsy, requires the highest standard of qualification. An NLPsy Master Trainer must hold a master's degree in psychology, qualifications in psychotherapy at the level of the World Council for Psychotherapy, and the title of NLP Master Trainer with an IN-NLP certificate. The effectiveness of NLPsy training is scientifically assessed before and after each training session.

Despite its undeniable popularity and widespread adoption, NLP has often faced serious criticisms from researchers due to its insufficient development (Grimley, 2016; Sturt et al., 2012; Thompson et al., 2002; Zaharia et al., 2015). These criticisms are not solely about poor communication between practitioners and researchers in the field but are largely directed at the quality of the methodology implemented within NLP research (Sturt et al., 2012). Some systematic reviews (Grimley, 2016) have reported a complete absence of studies meeting scientific criteria, such as those examining the effects of its application in the healthcare system, where this methodology is also frequently used. Another type of criticism relates to the difficulty of separating the effects of the method itself from skills that might have been developed through other means (Pensieri, 2013; Witkowski, 2010), suggesting a significant deficiency in the research methodology upon which conclusions have been based.

The Pseudoscientific Nature of NLP

The forthcoming analysis will employ a set of demarcation criteria to distinguish between scientific rigor and pseudoscientific approaches, as outlined by Hedrih and Hedrih (2022). These demarcation criteria encompass several key areas: First, the mode of publication, where scientific research is initially subjected to peer review and thorough expert scrutiny before being made available to the public, in contrast to pseudoscience, which often bypasses such processes to target the general audience directly. Second, the replicability of results, a cornerstone of scientific integrity, demands that methods be described with enough precision to allow independent verification, whereas pseudoscientific claims tend to obscure or omit replicable details. Third, the treatment of errors, where legitimate science acknowledges and corrects its mistakes as part of its progression, while pseudoscience tends to ignore or conceal errors, maintaining fixed beliefs. Fourth, the advancement of knowledge,

in which scientific endeavors demonstrate a clear trajectory of cumulative understanding, unlike pseudoscience, which stagnates over time. Fifth, the reliance on evidence-based arguments, distinguishing science by its use of data to support claims, whereas pseudoscience often persists despite contradictory evidence. Lastly, the rigor of testing before practical application, where scientific innovations undergo exhaustive evaluation before entering the market, unlike pseudoscientific products, which often evade such scrutiny.

NLP is widely criticized within the scientific community, with many experts dismissing it as pseudoscience. A primary argument against NLP is its marginal presence in academic psychology. It is rarely taught in universities and is notably absent from standard psychology textbooks (Heap, 2008). Critics argue that this exclusion reflects a broader consensus that NLP lacks empirical support and theoretical clarity (Witkowski, 2010). Ethical concerns compound these criticisms, with allegations that some NLP practitioners engage in manipulative behaviors and promote a guru-like culture (Grant, 2019). Additionally, NLP certifications are often criticized for their dubious credibility and commercial focus, with courses sometimes available at suspiciously low prices and completed quickly (Consoul Coaching, 2023).

The theoretical foundations of NLP are also contentious. Critics claim that its concepts, such as representational systems, are vaguely defined and not coherently integrated (Greif, 2022; Witkowski, 2010). Furthermore, NLP is accused of misinterpreting psychological and linguistic theories, including Pavlovian conditioning and Chomsky's transformational grammar (Greif, 2018). Empirical evidence does not support the effectiveness of NLP, and some studies suggest that it is no more effective than a placebo (Sharpley, 1987). The quality of supportive research is often questioned, with many studies deemed methodologically flawed (Kotera et al., 2018).

Critics label NLP as pseudoscientific due to its imprecise concepts, reliance on anecdotal evidence, and lack of rigorous empirical testing (Greif, 2022). There are also allegations that some NLP proponents exaggerate the scientific validity of their methods without sufficient evidence. These factors contribute to the perception of NLP as lacking scientific credibility and being more akin to pseudoscience than a legitimate psychological discipline. Thus, while some practitioners may genuinely seek to apply scientific principles, the broader practices and claims associated with NLP often fall short of established scientific standards.

Methodological Analysis of Studies

This paper is written as a systematic review, a type of research that serves many important functions. Systematic reviews can help synthesize knowledge in a field, identify future research priorities, address questions that individual studies cannot answer, pinpoint issues in primary research phases that need correction in

future studies, and generate or evaluate theories about the reasons for the occurrence and development of phenomena of interest to researchers. The PRISMA method, established in 2009, aids researchers in transparently reporting the reasons for the review, what the authors analyzed, and the conclusions drawn from such studies (Rethlefsen et al., 2021).

The objectives of this paper are to examine:

- a) the effectiveness of the application of NLP methods in organizational context research:
- b) the extent to which the methods used in these studies were based on contemporary scientific methodology.

Study Inclusion Criteria

To proceed with analyses and address the study objectives, criteria were established for pre-searching articles and including relevant studies in further analysis. Table 1 displays the criteria set for this study.

Table 1Study inclusion and exclusion criteria

Criteria Category	Inclusion Criteria	Exclusion Criteria
Journal	Peer-reviewed studies in journals with an Impact Factor (IF) / peer-reviewed conference proceedings; articles written in English	Journals without an IF; studies written in languages other than English; studies with no information about the editorial process and peer review
Study Design	Experimental and quantitative studies	Qualitative studies, case studies, review articles, meta-analyses
Dependent Variable	Variables relevant to an organizational context (performance, management, interpersonal relations, etc.)	Variables not related to an organizational context
Independent Variable	Application of coaching and similar forms of advisory work with clients/interventions, which are part of NLP methodology	Studies not involving NLP methods or interventions closely related to coaching or other advisory methods and NLP techniques
Sample	Employed participants, regardless of the form and duration of engagement or the type of position they hold	Unemployed participants

Literature Search

The literature search was conducted during January and February 2023, utilizing readily accessible online databases for scientific publications that do not require special access permissions, primarily through Google Scholar and ResearchGate. Additionally, results from the ScienceDirect database were included.

During the search, various combinations of terms related to NLP such as "neuro-linguistic programming," "neurolinguistic programming," and "neuro linguistic programming," along with the abbreviation "NLP," were used. Keywords also included in the search were: "research," "coaching," "intervention," along with "work," "employees," "managers," "business," "organisation," and "occupation."

Figure 1 *Graphic representation of the selection of works through the PRISMA*

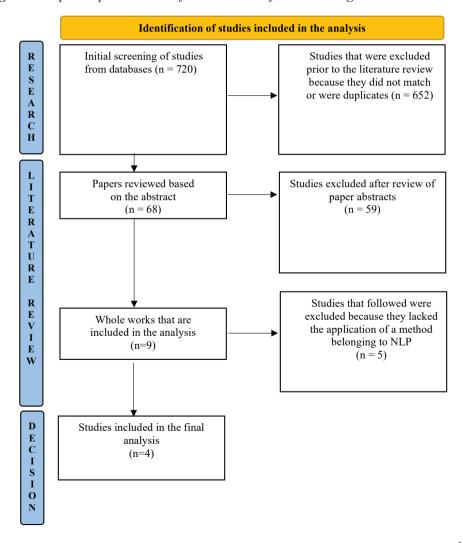


Figure 1 illustrates the process of the literature search, from the discovery of significant works to the decision on the final inclusion of studies for further methodological quality analysis.

Results

Included Studies

 Table 2

 Details of the Studies Included in the Final Analysis

Authors / Title	Method	Sample	Criterion	Intervention	Results
HemmatiMaslakpak et al., 2016. The effect of neuro-linguistic programming on occupational stress in critical care nurses	Quantitative study. Quasi-experimental study with experimental and control groups.	60 nurses divided into two groups	Job stress among medical workers	Three-hour NLP sessions, without a regular schedule. Total of 18 sessions over 6 months. NLP training on various topics.	Reduction in stress observed in the experimental group, not in the control group.
Thompson et al., 2002. The effect of neurolinguistic programming on organisational and individual performance	Quantitative study. Longitudinal.	67 hospitality workers	Self-esteem, self-efficacy, adaptive selling, organizational commitment, social desirability	Five NLP training sessions and two measurements after 6 weeks and 6 months of training.	Improvements noted in all dependent variables except self-efficacy.
Rao & Kulkarni, 2010. NLP for Stress Mitigation in Employees	Quantitative study. Experimental and control group study, non-randomized	36 employees divided into control and exposed to NLP treatment group	Stress, fear of being late to meetings and responsibilities	One-on-one work with employees to reduce stress levels.	NLP group exhibited less fear after intervention
Ashok & Santhakumar, 2002. NLP to promote TQM for effective implementation of ISO 9000	Quantitative study. Study with experimental and control groups, non-randomized	49 workers sorted into 3 different groups	Behavior in accordance with Kaizen methodology (continuous job improvement)	Communication training, no details on method.	NLP groups exhibited more Kaizen behaviors

After the review, a total of 4 studies were included in the final analysis, as shown in Table 2.

Characteristics of Studies Included in the Analysis

All studies included in the analysis are quantitative. Three of the studies used a quasi-experimental design, where pre-test and post-test measurements were taken on groups exposed to NLP training (Ashok & Santhakumar, 2002; Rao & Kulkarni, 2010; HemmatiMaslakpak et al., 2016). In contrast, one study employed a longitudinal design (Thompson et al., 2002), focusing solely on the group exposed to the treatment without tracking a separate control group. The sample in all four studies included employees from various industries: manufacturing workers (Ashok & Santhakumar, 2002), medical workers (HemmatiMaslakpak et al., 2016), hospitality (Thompson et al., 2002), and education workers (Rao & Kulkarni, 2010). Beyond the titles, only two studies provided more detailed information about the participants. One study included comprehensive socio-demographic data, such as gender and educational status (HemmatiMaslakpak et al., 2016). In contrast, the information provided by the other studies was limited and, in some parts, unclear (Thompson et al., 2002). The number of participants in the samples ranged from 36 to 67, and the number of participants in the groups was generally balanced. There was no information on using any method of controlling assignment to groups.

Experimental Treatment

All studies included in the analysis applied methods related to some treatment associated with NLP methodology. In three studies (Ashok & Santhakumar, 2002; HemmatiMaslakpak et al., 2016; Thompson et al., 2002), the treatment involved group education on skills and possibilities of applying certain methods, while one study applied the method of individual "one-on-one" work (Rao & Kulkarni, 2010). The duration of exposure to treatment varied across studies and included single-day training (Ashok & Santhakumar, 2002), multi-day training (Thompson et al., 2002), or training spread over several months (HemmatiMaslakpak et al., 2016). Only one study (Thompson et al., 2002) provided details about the experimental treatment curriculum, with most elements described as "usual approach," "standard," or "well-known method." A common aspect of all studies is that they did not separate the effects of different training but examined the effect of treatments on various topics collectively.

Dependent Variable

The outcomes measured in the studies vary, with two studies encompassing more than one criterion (Rao & Kulkarni, 2010; Thompson et al., 2002). One study

focused on employee performance as the outcome, measuring the application of a specific methodology at work (Ashok & Santhakumar, 2002). The other studies examined various psychological variables, including stress, fear of being late to meetings, and responsibilities (Rao & Kulkarni, 2010). Additional outcomes included self-esteem, self-efficacy, sales skills, organizational commitment, social desirability (Thompson et al., 2002), and job stress (HemmatiMaslakpak et al., 2016). One of the studies (Thompson et al., 2002) lists the psychological instruments used to measure trait levels, but aside from the scale name and its author, it did not provide further details about the scale. Only one study (HemmatiMaslakpak et al., 2016) properly cited data on the measurement instruments used and the psychometric characteristics of the scale.

Conclusions on Treatment Effects

Positive effects of the treatments conducted were present in all four studies, with only one study stating that there was no effect in increasing one of the measured criteria (Thompson et al., 2002). In this case, it was one of several variables measured. Additionally, in one study (Thompson et al., 2002) it was reported that the effects of the applied method weakened after six months, relative to the previously demonstrated significant positive effects of the treatment.

In three studies (Ashok & Santhakumar, 2002; Thompson et al., 2002; Rao & Kulkarni, 2010), there was no clear information on how data were processed, nor were the necessary statistics for drawing conclusions presented. However, one study (HemmatiMaslakpak et al., 2016) provided a detailed overview of its statistical data processing. The researchers applied descriptive statistics, along with inferential statistics including the Chi-square test, t-test, and Mann–Whitney test. These are standard and appropriate methods for analyzing the types of data collected in that study. Unfortunately, similar details were not provided in the other studies, making it difficult to assess the adequacy of their data processing methods.

The conclusions about the effects of the treatment were not correctly derived in any of the studies. Although the studies were quasi-experimental, the conclusions unequivocally suggested the existence of an effect of the treatments, often using terminology that implies causality. No study mentioned potential confounding variables. Three studies did not list any limitations of the research. In the study (Thompson et al., 2002) examining longitudinal effects, limitations were mentioned to justify results that indicated the weak durability of the NLP method treatment after 6 months, yet still without clear implications about what was inadequate and the serious flaws in the applied methodological approach.

Discussion

This systematic review, conducted using the PRISMA method and guidelines, aimed to assess the methodological quality of studies investigating the application of educational programs that fall under the neuro-linguistic programming (NLP) approach in a business context. This paper aimed to examine the effectiveness of NLP applications according to research conducted in an organizational setting and to determine how much these methods are based on contemporary scientific methodology.

The number of works available on this topic, especially those published in a manner that meets scientific publication criteria, is very small. While there are some studies mentioned in this paper that examine the effects of NLP on various aspects of workplace behavior and business performance, the data are insufficient to draw conclusions about any effects. Studies generally report positive effects and significant changes, but the methodological approach of these studies did not support such conclusions.

The findings of our study are consistent with a systematic review published several years ago by Kotera and colleagues (2019). Their review, which covered outcomes like self-esteem, trustworthiness, organizational commitment, and occupational stress, involved 952 articles screened; only seven articles met all inclusion criteria. The findings suggested that NLP could potentially enhance various work-related psychological outcomes, such as self-esteem and occupational stress. However, the studies generally lacked methodological rigor, leading to conclusions that the benefits of NLP were often overstated and not well-supported by robust evidence. Notably, no new studies have emerged since 2019, indicating that little progress has been made in improving the scientific rigor of research on NLP in recent years. Although the scope and criteria used by Kotera et al. (2019) were somewhat broader, this did not substantially alter the outcomes; they identified only three more studies than we did. This persistence underscores that despite the widespread expansion of the method and suggestions from NLP practitioners about the development of studies, the majority of publications on NLP are not in the domain of good scientific production or practice. This situation underscores a significant deficiency in empirical research within the field of NLP, especially in its application to organizational contexts, where there is a stark lack of rigorously validated scientific studies. Despite the focus of this work on coaching and measures of learning and development, such studies are notably absent, highlighting the gap between NLP's purported benefits and the empirical evidence available to support these claims.

The evaluation of NLP's scientific validity can be assessed using the demarcation criteria proposed by Hedrih and Hedrih (2022), based on a review of existing studies. First, NLP primarily targets the general public rather than undergoing rigorous peer review, as evidenced by the fact that none of the studies included in the analysis were published in high-impact, peer-reviewed journals.

Second, the methodologies described in these studies often lacked sufficient detail for replication, with vague descriptions of the experimental treatments and a lack of clarity on data processing in key studies (Ashok & Santhakumar, 2002; Thompson et al., 2002). Third, the treatment of errors was inadequate, as none of the studies sufficiently addressed methodological flaws or confounding variables, and most failed to list any limitations to their conclusions. This is particularly evident in the absence of critical reflections on the design and limitations of the quasi-experimental methods employed. Furthermore, there was little to no progression in NLP research over time, as indicated by the lack of improvements or advances in the reported results, and the reliance on minimal statistical reporting, limiting the development of cumulative knowledge. Finally, the studies frequently relied on anecdotal or vague evidence, with few providing detailed psychometric properties for the instruments used (Thompson et al., 2002; HemmatiMaslakpak et al., 2016), thereby undermining the empirical robustness expected in scientific research. These findings collectively highlight the pseudoscientific nature of NLP, as it consistently fails to meet the criteria for scientific rigor. However, considering the limited number of studies that met the criteria for inclusion in this analysis, it may still be premature to offer a definitive conclusion regarding the overall scientific validity of NLP. Nonetheless, this analysis underscores the urgent need for methodological improvements in future research seeking to evaluate the effects of NLP. The methodological flaws identified in existing studies, such as vague descriptions of procedures, lack of control over variables, and incomplete reporting of statistical methods, have already raised doubts about the validity of the reported results, as confirmed in this review.

Poor methodological quality jeopardizes the possibility of verification, namely the lack of replicability and thus, falsifiability. Consequently, other desirable characteristics such as simplicity, consistency, predictability, and comprehensiveness still need to be improved. Significant effort in this field will be required from researchers (as well as theorists and practitioners) in this field to overcome these deficiencies and bring NLP closer to scientifically grounded approaches. None of the included studies directly addressed the mechanisms of action necessary to more deeply understand the effect this method can have on experiential processes expected to lead to change and the positive effects that NLP promotes, even though such reports exist.

Although the analysis was detailed and extensive, the total number of four articles is insufficient to draw reliable conclusions about a pervasive methodology. As only studies published in journals meeting specific criteria were included, there may be valid and quality studies in other journals that were not considered. Additionally, only studies available in English were included, which implies that some studies may have been overlooked due to this criterion.

Conclusion

In line with conclusions from similar systematic reviews on the application of NLP methodology (Kotera et al., 2019; Pensieri, 2013; Sturt et al., 2012), additional research is needed that is more methodologically sound in order to conclude the effectiveness of NLP on the working population. This includes choosing an appropriate methodological design, sample, treatments, and a detailed description of the procedures carried out, which would primarily allow for understanding and replicability of findings by future researchers.

From all the data presented, findings on the application of NLP methodology and its effectiveness are under-researched. The results that promote this method are unfounded, not based on scientific methodology and cannot be attributed to the application of NLP. Given the widespread presence of this approach in the world and decades of use, the existence of positive effects on work efficiency cannot be dismissed, but further research is needed to confirm or refute such a hypothesis.

References

(analyzed papers are marked with an asterisk)

- Abrams, F. (2004). Learning? It's all in the mind. TES Friday, 8–10.
- Alder, H. (2017). *Handbook of NLP: A manual for professional communicators*. Routledge. https://doi.org/10.4324/9781315586120
- *Ashok, S., & Santhakumar, A. R. (2002). NLP to promote TQM for effective implementation of ISO 9000. *Managerial Auditing Journal*, 17(5), 261–265. https://doi.org/10.1108/02686900210429687
- Atzil-Slonim, D., Eliassaf, A., Warikoo, N., Paz, A., Haimovitz, S., Mayer, T., & Gurevych, I. (2024). Leveraging natural language processing to study emotional coherence in psychotherapy. *Psychotherapy*, *61*(1), 82–92. https://doi.org/10.1037/pst0000517
- Bandler, R., & Grinder, J. (1979). Frogs into princes (1st ed.). Real People Press.
- Cambria, E., & White, B. (2014). Jumping NLP curves: A review of natural language processing research. *IEEE Computational Intelligence Magazine*, 9(2), 48-57. https://doi.org/10.1109/MCI.2014.2307227
- Consoul coaching. (2023). *Course dates*. Retrieved July 31, 2024, from https://consoulcoaching.com/course-dates/
- Grant, A. M. (2019). A personal perspective on neuro-linguistic programming: Reflecting on the tension between personal experience and evidence-based practice. *International Coaching Psychology Review, 14*(1), 45–56. https://doi.org/10.53841/bpsicpr.2019.14.1.45
- Greif, S. (2018). How to recognize pseudo-scientific theories and why they are problematic in coaching—for example NLP. *Organisationsberatung, Supervision, Coaching,* 25(3), 371–387. https://doi.org/10.1007/s11613-018-0568-y

- Greif, S. (2022). Pseudoscience and charlatanry in coaching. In S. Greif, H. Möller, W. Scholl, J. Passmore, & F. Müller (Eds.), *International Handbook of Evidence-Based Coaching: Theory, Research and Practice* (pp. 755–772). Springer Nature Switzerland AG. https://doi.org/10.1007/978-3-030-81938-5 62
- Grimley, B. N. (2016). What is NLP? The development of a grounded theory of neuro linguistic programming, (NLP), within an action research journey. Implications for the use of NLP in coaching psychology. *International Coaching Psychology Review*, 11(2), 166–178.
- Heap, M. (1989). Neurolinguistic programming: What is the evidence? In D. Waxman, D. Pedersen, I. Wilkie, & P. Mellett (Eds.), *Hypnosis: The Fourth European Congress at Oxford* (pp. 118–124). Whurr Publishers.
- Hedrih, V., & Hedrih, A. (2022). *Interpreting statistics for beginners: A guide for behavioural and social scientists*. Routledge, Taylor & Francis Group. https://doi.org/10.4324/9781003107712
- *HemmatiMaslakpak, M., Farhadi, M., & Fereidoni, J. (2016). The effect of neurolinguistic programming on occupational stress in critical care nurses. *Iranian Journal* of Nursing and Midwifery Research, 21(1), 38–44. https://doi.org/10.4103/1735-9066.174754
- Johannßen, D., & Biemann, C. (2018). Between the lines: Machine learning for prediction of psychological traits—a survey. In A. Holzinger, P. Kieseberg, A. M. Tjoa, & E. Weippl (Eds.), *Machine learning and knowledge extraction* (pp. 192-211). Springer. https://doi.org/10.1007/978-3-319-99740-7 13
- Kang, Y., Cai, Z., Tan, C. W., Huang, Q., & Liu, H. (2020). Natural language processing (NLP) in management research: A literature review. *Journal of Management Analytics*, 7(2), 139-172. https://doi.org/10.1080/23270012.2020.1756939
- Kotera, Y., & Sheffield, D. (2017). Disney strategy for Japanese university students' career guidance: A mixed methods pilot study. *Journal of the National Institute for Career Education and Counselling*, *38*, 52–61. https://doi.org/10.20856/jnicec.3808
- Kotera, Y., Sheffield, D., & Van Gordon, W. (2018). The applications of neuro-linguistic programming in organisational settings: A systematic review of psychological outcomes. *Human Resource Development Quarterly*, 30(1), 101–116. https://doi.org/10.1002/hrdq.21334
- Kotera, Y., Sheffield, D., & Van Gordon, W. (2019). The applications of neuro-linguistic programming in organizational settings: A systematic review of psychological outcomes. *Human Resource Development Quarterly*, 30(1), 101-116. https://doi.org/10.1002/hrdq.21334
- Linder-Pelz, S., & Hall, L. M. (2007). The theoretical roots of NLP-based coaching. *The Coaching Psychologist*, *3*(1), 12-17.
- McDermott, I., & Jago, W. (2006). The coaching bible: The essential handbook. Piatkus.
- O'Connor, J., & McDermott, I. (2013). *Principles of NLP: What it is, how it works*. Singing Dragon.
- O'Connor, J., & Seymour, J. (2009). NLP-uvod u NLP. Kontrast.
- Pensieri, C. (2013). Neurolinguistic programming in health: An analysis of the literature. *Methodology and Education for Clinical Innovation*, 21(2), 97–105.

- *Rao, D. H., & Kulkarni, D. G. (2010). NLP for stress mitigation in employees. In 2010 International Conference on Education and Management Technology (ICEMT) (pp. 600-603). IEEE. https://doi.org/10.1109/ICEMT.2010.5657585
- Rethlefsen, M. L., Kirtley, S., Waffenschmidt, S., Ayala, A. P., Moher, D., Page, M. J., & Koffel, J. B. (2021). PRISMA-S: an extension to the PRISMA statement for reporting literature searches in systematic reviews. *Systematic reviews*, *10*, 1-19. https://doi.org/10.1186/s13643-020-01542-z
- Roderique-Davies, G. (2009). Neuro-linguistic programming: cargo cult psychology?. *Journal of applied research in higher education*, *1*(2), 58-63. https://doi.org/10.1108/17581184200900014
- Sharpley, C. F. (1987). Research findings on neurolinguistic programming: Nonsupportive data or an untestable theory? *Journal of Counseling Psychology, 14*(1), 103–107. https://doi.org/10.1037/0022-0167.34.1.103
- Squire, S. (2018). *NLP u svakom uspehu mirođija* [NLP The secret ingredient in every success]. MINDSTYLE DOO.
- Sturt, J., Ali, S., Robertson, W., Metcalfe, D., Grove, A., Bourne, C., & Bridle, C. (2012). Neurolinguistic programming: a systematic review of the effects on health outcomes. *The British journal of general practice: the journal of the Royal College of General Practitioners*, 62(604), e757–e764. https://doi.org/10.3399/bjgp12X658287
- *Thompson, J., Courtney, L., & Dickson, D. (2002). The effect of neurolinguistic programming on organisational and individual performance: A case study. *Journal of European Industrial Training*, 26(6), 292–298. https://doi.org/10.1108/03090590210431265
- Tosey, P., & Mathison, J. (2010). Neuro-linguistic programming as an innovation in education and teaching. *Innovations in education and teaching international*, 47(3), 317-326. https://doi.org/10.1080/14703297.2010.498183
- Witkowski, T. (2010). Thirty-five years of research on neuro-linguistic programming. NLP Research Database. State of the art or pseudoscientific decoration? *Polish Psychological Bulletin*, 41(2), 58–66. https://doi.org/10.2478/v10059-010-0008-0
- Zaharia, C., Reiner, M., & Schutz, P. (2015). Evidence-based neuro-linguistic psychotherapy: A meta-analysis. *Psychiatria Danubina*, *27*(4), 355–363.

Razotkrivanje preterane pomame: sistematski pregled ograničenog efekta NLP koučing metode u organizacionom kontekstu

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Apstrakt

Neurolingvističko programiranje (NLP) definiše se kao sveobuhvatan pristup komunikaciji i ličnom razvoju, sa fokusom na to kako pojedinci percipiraju svoje misli, osećanja i komunikaciju. Iako sve veći broj radova ističe primenu NLP-a u organizacionom okruženju i njegovi zagovornici usmeravaju sve više pažnje ka

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istraživanjima, i dalje postoji nedostatak studija koje se bave metodološkim kvalitetom istraživanja koja donose takve zaključke. Ciljevi ovog rada bili su da se ispita efikasnost NLP metode prema rezultatima dobijenim u organizacionom kontekstu i u kojoj meri je ova metoda zasnovana na savremenoj naučnoj metodologiji. PRISMA smernice korišćene su kao metodološki pristup za analizu studija. Fokus je bio na istraživanjima koja ispituju efekte primene NLP tehnika na kriterijume vezane za ponašanje u organizacionom kontekstu. Pretraga istraživačkih baza podataka rezultirala je finalnom selekcijom samo četiri članka iz početnog uzorka od 720. Nalazi sugerišu da NLP može biti efikasan za razvijanje širokog spektra psiholoških ishoda povezanih sa organizacionim ponašanjem, ali gotovo svi nalazi su upitni zbog loše metodologije korišćene u istraživanjima, nejasnog izveštavanja i malog broja studija koje su ispitivale ove fenomene. U radu se razmatraju različiti nedostaci u kontekstu kriterijuma naučne teorije i dizajna istraživanja, sa preporukama za dalja istraživanja, kako bi se istražila istinitost/efikasnost promovisanih metoda.

Ključne reči: NLP, istraživanje, metodologija, organizaciona efikasnost, koučing

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