ISSN: 1672 - 6553

JOURNAL OF DYNAMICS AND CONTROL

VOLUME 9 ISSUE 2: 95 - 150

NEURO - TRACING IN TRAINER – TRAINEE INTELLIGENCE BASED ABSORPTION AND RETENTION PREFERENCE

[1]Col. Prof. Dr. J Satpathy, Ph.D., D.Litt., [2]Prof. Dr. S. Sandhya, Ph.D., [3]Amena J Allouch, Ph.D. Candidate

[1,2]PDF Research Scholar, Poornaprajna Institute of Scientific Research, India
[3]Ph.D Scholar, Holy Spirit University of Kaslik, Beirut, Lebanon

JOURNAL OF DYNAMICS AND CONTROL
DOI: https://doi.org/10.71058/jodac.v9i2008

NEURO - TRACING IN TRAINER – TRAINEE INTELLIGENCE BASED ABSORPTION AND RETENTION PREFERENCE

[1]Col. Prof. Dr. J Satpathy, Ph.D., D.Litt., [2]Prof. Dr. S. Sandhya, Ph.D., [3]Amena J Allouch
[1,2]PDF Research Scholar, Poornaprajna Institute of Scientific Research, India
[3]Ph.D Scholar, Holy Spirit University of Kaslik, Beirut, Lebanon

Biology is the mental model for the modern business world.
….. Alix Ventures

Abstract: *The last decade and a half, have seen arrival of biology (Biological Sciences) into realm of management; particularly, biological foundations of management. Biology and management sciences have made noteworthy entrance into Management Studies. A broad spectrum of academic fields, including Cognitive Biological Science, Psychology, Organizational Studies, and Management, aim to explore incentive-based Trainer - Trainee oriented intelligence 'learning style enhances memory work'. This is coupled with rise of AI, Trainer - Trainee oriented intelligence accountability, new work paradigms, and crafting of 'learning style enhances memory work' amidst limited information regarding highly unstructured 'learning style enhances memory work' scenarios. The role of Biology in Management has introduced fresh interpretation of Management dynamics by integrating experiments and laboratory simulations. In a contemporary framework, absorption and retention preference making, data driven biological approaches to Trainer - Trainee oriented intelligence 'learning style enhances memory work' confront prevailing issues. There is a tendency to think in causal terms, favouring predictable results. In this context, sensory organs have been experimented to complement precise data and information. This raises a fundamental inquiry: what defines evidence in Trainer - Trainee oriented intelligence absorption and retention preference sciences? This necessitates comprehensive thinking and profound comprehension as a paradigm for managing absorption and retention preference control is evolving. In this framework, actions shift from being result-oriented to relationship-oriented. This paper addresses three questions: How does a Trainer - Trainee intelligence create biological basis absorption and retention preferences? What aspects support Trainer - Trainee oriented intelligence absorption and retention preference? What do eye-impressions illustrate in cycle of biological Trainer - Trainee oriented intelligence absorption and retention preferences?*

Key Words*: Neuro – Tracing, Intelligence Based Absorption and Retention Preference.*

Introduction

Education and training systems are multifaceted. This paper attempts to analyze and present new models of behavioural thinking in neuro-scientific philosophy of biology experiments. Study incorporates elements of 'gaze' and 'attention' during training sessions ultimately resulting in 'retention and absorption' quotient. In this paper, computational theory of mind has been addressed to explain neural basis of philosophy of training with unique but uncertain 'experiments and answers' in which no unique external cued answer could be considered correct. Both protocols investigate, develop and contribute by conveying research questions in philosophy of training into perspective of 'Trainer - Trainee - Instructional mode'

DOI: https://doi.org/10.71058/jodac.v9i2008

complexity in ‘retention and absorption’. Research focused on Trainer - Trainee oriented intelligence absorption and retention preference has not yet considered biological factors (Ahmed Maged Nofal, Nicos Nicolaou and Scott Shane; 2018). An emerging trend within the Social and Behavioural Sciences acknowledges Heredity, Hormones, Bodily Processes, and Biological Science as ‘Pillars of Biology’ that serve as contributing factors to the importance of Biology in Trainer - Trainee oriented intelligence absorption and retention preference. Quantitative genetics and molecular genetics are the two methods that investigate the effect of biology on Trainer - Trainee oriented intelligence absorption and retention preference (‘Nature versus Nurture’). There seem to be methodological, theoretical, and paradigm transformations related to Biology in Trainer - Trainee oriented intelligence absorption and retention preference (Alvarez S., Barney J. B.; 2020). This underscores the effect of genetic structure on the vision and biology of managers (de Holan P. M.; 2014). Research from the social sciences has variably associated the successes of these individuals with risk-taking, aggression, and sociability (David G. Rand; 2010). The essential question is: is there a genetic predisposition toward Trainer - Trainee oriented intelligence absorption and retention preference (Bönte W., Procher V. D., Urbig D.; 2016)?

An often-posed inquiry: Is Knowledge Management an Art or a Science? The discourse has now positioned 21st century as a arena in terms of preference perception. ‘Management (Economics) is a human science that examines human behaviour,’ stated Lionel Robbins. Robbins was accurate during his time. Over years, Management has transformed from human science to include animal sciences as well as natural (i.e., biological) sciences. Age of interdisciplinary Management has emerged, encompassing Biological Management, Cellular Management, Heterodox Management, Rational Management, Welfare Management, Irrational Management, Participatory Management, Complexity Management, Pluralistic Management, Thermo Management, Molecular Management, Humanistic Management, Institutional Management, Genetic Management, Evolutionary Management, Heredity Management, Anthropoid Management, Cognitive Management, and Behavioural Management, to name a few. Where do we find ourselves? Which of these do we choose to adopt? How to leverage and utilize these for benefit and well-being of organizations and individuals? At the core lies reality that there exists an array of absorption and retention preferences, alternatives, options, utility, and optimization. Moreover, humans and organizations face threats from VUCA (Vulnerability, Uncertainty, Complexity, and Ambiguity). ‘Human Beings,’ as ‘Central Agents’ adopt reasoned perspective with evolutionary outlook on behaviour. Some preferences are intricate yet significant despite introduction of new ‘preference tasks. This results in adoption of resolute frameworks, development of operational tools and establishment of precise procedures to address versatile and multidimensional landscape. Ultimately, Management is integrated with biological sciences.

How rational should a Trainer or Trainee be? How do affect and cognition interact within realm of Trainer - Trainee biology absorption and retention preference making? How do biases, affect and cognition interact within realm of Trainer - Trainee biology? Are perspectives of optimistic, hopeful, confident, and resilient Trainer or Trainee distinct? To

DOI: https://doi.org/10.71058/jodac.v9i2008

what extent can one envision compassion, thoughts and feelings of Trainer or Trainee? How emotionally affected are Trainer or Trainee during ‘learning style enhances memory work’ moment? The humanization sub - scale can evaluate effects produced by priming manipulation through following inquiries: To what extent can one perceive Trainer or Trainee as human being, rather than merely means to an end? How do eyes formulate cognitive code? How can scientific disciplines leverage digital 'inferential' data for logical inquiry? What are the essential geometric domains? What reciprocal relationships exist between cognitive and affective processes? What are the biological and behavioural foundations? In such a context, pertinent question is how Trainer or Trainee going to decide when immersed in a situation of observed and unobserved forces within environment of Artificial (Fabricated and/or Synthetic) Intelligence? What considerations surround signal detection challenges inherent in situations? Under what conditions is Trainer or Trainee judgment reliable? Why do some Trainer or Trainee endeavour to transform ideas and aspirations? Ultimately, why is some Trainer or Trainee successful while others are not?

Motivation

Grouped under one wide definition, cognition, eye is in charge of thinking by combining mental processes including sensory integration, perception, and working memory. Understanding how eye translates cognition combines several particular processes into a coherent intelligence. The complex nature of eye is a major fence in meeting this goal. Plastic and dynamic nature of eye, which is always changing and creating new synapses, information and practice, is irresistible. There are no two eyes alike, and same pair of eyes can produce different reactions to apparently indistinguishable incoming data. What prompted the undertaking of this exploration? It was the most fundamental of all inquiries, namely ‘who is rational? Issues such as; what accounts for the differing dynamics of ‘learning style enhances memory work’ among entities? How can one develop reasonable and explainable models that facilitate humanoid ‘learning style enhances memory work’? How can one ensure that models and explanations are resilient in confronting adversarial circumstances in business reasoning, intra-preneurship, and innovation, management, managerial biology capabilities, action philosophy, Trainer - Trainee oriented intelligence absorption and retention preference training, and the progression of Trainer - Trainee oriented intelligence absorption and retention preference? How can one train and evaluate replicas in the presence of lost counterfactuals? How can one identify and accurately measure fundamental biases in absorption and retention preferences and establish criteria for estimates? Which biological neurons or nerve cells are involved in attention and absorption during ‘learning style enhances memory work’ (including the classification of secreted psychological courses, exploring distinguishable and convergent rationality in Trainer - Trainee oriented intelligence absorption and retention preference processes, and examining qualifications and sequential aggregation of Trainer - Trainee oriented intelligence absorption and retention preference variables both quantitatively and qualitatively among various conjectural perspectives)? What are the physiological mechanisms (bio-chemical and physical processes), biological-anatomical, and practical structures involved? Will AI be capable of supporting ‘learning style enhances memory work’ independently? What are the

DOI: https://doi.org/10.71058/jodac.v9i2008

genetic foundations of ‘learning style enhances memory work’? Are genes responsible for absorption and retention preference algorithms? It is not a query of which biological neurons (Isai and Satpathy; 2022). Should research incorporate molecular genetics and data (utilizing molecular genetics techniques)? What challenges arise when analyzing genetically informative statistics? It is a matter of which region of the cranial cavity exhibits the greatest activity during focus and concentration (Isai and Satpathy; 2022). The answer is the eyes and brain co - adjuvancy (Isai and Satpathy; 2022). This is not a straightforward question, as there is a need to comprehend focus and concentration (Isai and Satpathy; 2022). The hypothalamus and thalamus play noteworthy roles in focus (regulating judgments) and markedly constrain or suppress activity that enables focus/concentration (Isai and Satpathy; 2022).

Objective

Objective is to monitor and screen (modeling human cognition mathematically) theoretic contexts and empirical methods in philosophy of training for perceptive heterogeneity of ‘Trainer - Trainee - Instructional mode’ circuit. Some specific questions addressed are; why a few Trainees absorb and retain more as compared to others? Why one falls asleep when power point presentation is presented? Why some are curious to learn in training sessions? Why few Trainees have output potential better than others? Purpose is to assess that eye movements (human visual perception) have stimulus on trainees and trainers absorption and retention preference. Is there a connect between the eyes and brain in assessing training quotient? If these are all predictions, then how are predictions arrived at? And, can these be empirically treated? How arithmetic mechanism in interior of brain interrelated with faculties through amalgamation and allied process.

Eye movements serve as a vital metric that is vaguely concomitant with ocular reflections, as both represent chromatic aspects of rational processing. Through computational methodologies, objective is to elucidate how neural soundings actualize 'mental sounding' in ‘learning style enhances memory work’ processes. This endeavours to investigate phenomena through individual actions, ‘learning style enhances memory work’ and reasoning processes concerning concept of cognitive models. Principal aim is to model bio-ophthalmic foundation of ‘learning style enhances memory work’ by utilizing tools to clarify principles and mechanisms in context of eye interactions. Focal point is to comprehend neural processes underlying mechanisms involved in integrating interdisciplinary research to bio-ophthalmic absorption and retention preference. Purpose is to reject traditional assumptions and evaluate cognitive to replicate philosophy of biology in research.

Hypothesis: Teaching with compatible ‘learning style enhances memory work’.

Research Issues

Emerging biological science evidence suggests that sound and rational biological - ophthalmic ‘learning style enhances memory work’ depends on prior accurate emotional processing. Somatic marker hypothesis provides systems level bio - anatomical and cognitive framework for ‘learning style enhances memory work’. Key idea is that ‘learning style

DOI: https://doi.org/10.71058/jodac.v9i2008

enhances memory work' is a process that influenced by marker signals. This influence occurs at multiple levels of operation, some of which occur consciously and some non-consciously. Emerging evidence suggests that sound and rational 'learning style enhances memory work' depends on prior accurate emotional processing.

Methodology

Perception and assumptions that underpin set of rubrics is substantial when fashioning and executing stratagems (Isai & Satpathy; 2022). Scientific comprehension of mind cannot be achieved solely through physical perceptive of cranial nook (Isai and Satpathy; 2022). The first step entails objective description and analysis of working of mind within indigenous context or within context and correlating this to functions of cranial opening (Isai and Satpathy; 2022). What actually is Trainer - Trainee oriented intelligence absorption and retention preference? And, how does biology play role in central apparatus of actions? Set of rubrics is critical for Trainers and Trainees (Isai & Satpathy; 2022). Trainers and Trainees must play with swapping data, reviewing data, churning out ideas, appraising substitutions, instigating directions and taking pulse of environment (Isai & Satpathy; 2022). Emerging field of biological management offers common language, theory and practice to better understand manager behaviour (Isai & Satpathy; 2022). No absorption and retention preference is an absorption and retention preference. Whether absorption and retention preference is best, favorable, or beneficial is consistently influenced by 'Triantaphyllou Effect'. Traditional models historically been essential in comprehending 'learning style enhances memory work'. These models presume that individuals act rationally, striving to optimize utility through ideal selections. Rational behaviour indicates that individuals make coherent and logical absorption and retention preferences based on complete and precise information. This has offered significant insights into Trainer - Trainee behaviour and has played crucial role in influencing digital transformation based absorption and retention preferences. Trainer - Trainees pursue absorption and retention preference that fulfills necessary and sufficient conditions of optimization through mathematical evaluation. Current evidence indicates that direction of eye movement itself may not be a fundamental element. Instead, it could result from an increase in exposure to stimuli as significant factor in formation of biology-based absorption and retention preferences. Analyzing transactions necessitates mechanistic insights into biological processes that facilitate value-dependent 'learning style enhances memory work'.

Instruments

An eye tracking experiment has been performed to assess eye positions (identifying fixations and saccades) and eye movement (geometry of stimulus) to indicate connections between fixations, gaze, and refractometry-based tectonic training shifts(s). Tobii software has been employed to extract primary data. Statistical tools have been applied to analyze and derive conclusions. Utilizing Kowlerian ideas, paper presents an inquiry that elucidates experimental methods and analysis with modern eye tracking expertise. Study employs multiple intelligences questionnaire to identify dominant intelligences for each subject; a

DOI: https://doi.org/10.71058/jodac.v9i2008

multiple intelligences-based teaching strategy and summative assessment for each teaching strategy.

Multiple Intelligences Questionnaire

Multiple Intelligences questionnaire used in this study was based on Multiple intelligences theory of Howard Gardner (1993), developed by Armstrong (1993). In this questionnaire 40 questions were asked which represents eight types of multiple intelligences divided into five sections. The eight sections of multiple intelligences are verbal / linguistic intelligence, logical / mathematical intelligence, bodily-kinesthetic intelligence, visual-spatial intelligence, interpersonal intelligence, intrapersonal intelligence, Musical intelligence and naturalistic intelligence. The participants were asked about different tasks to give 01 point for frequently done task and zero point for the rarely done tasks. Through this questionnaire the teacher gained some initial concepts on students' preferred intelligences and simultaneously an MI profile of the students could be established.

Pilot Data

Time to First Fixation %‡4.JPG_2_N	Time to First Fixation %‡4.JPG_2_Mean	Time to First Fixation %‡4.JPG_2_Sum	Time to First Fixation %‡4.JPG_3_N
Time to First Fixation %‡4.JPG_3_Mean	Time to First Fixation %‡4.JPG_3_Sum	Time to First Fixation %‡4.JPG_4_N	Time to First Fixation %‡4.JPG_4_Mean
Time to First Fixation %‡4.JPG_4_Sum	Time to First Fixation %‡5.JPG_5_N	Time to First Fixation %‡5.JPG_5_Mean	Time to First Fixation %‡5.JPG_5_Sum
Time to First Fixation %‡6.JPG_6_N	Time to First Fixation %‡6.JPG_6_Mean	Time to First Fixation %‡6.JPG_6_Sum	Time to First Fixation %‡6.JPG_7_N
Time to First Fixation %‡6.JPG_7_Mean	Time to First Fixation %‡6.JPG_7_Sum	Time to First Fixation %‡7.JPG_10_N	Time to First Fixation %‡7.JPG_10_Mean
Time to First Fixation %‡7.JPG_10_Sum	Time to First Fixation %‡7.JPG_8_N	Time to First Fixation %‡7.JPG_8_Mean	Time to First Fixation %‡7.JPG_8_Sum
Time to First Fixation %‡7.JPG_9_N	Time to First Fixation %‡7.JPG_9_Mean	Time to First Fixation %‡7.JPG_9_Sum	First Fixation Duration %‡4.JPG_1_N
First Fixation Duration %‡4.JPG_1_Mean	First Fixation Duration %‡4.JPG_1_Sum	First Fixation Duration %‡4.JPG_2_N	First Fixation Duration %‡4.JPG_2_Mean
First Fixation Duration %‡4.JPG_2_Sum	First Fixation Duration %‡4.JPG_3_N	First Fixation Duration %‡4.JPG_3_Mean	First Fixation Duration %‡4.JPG_3_Sum
First Fixation Duration %‡4.JPG_4_N	First Fixation Duration %‡4.JPG_4_Mean	First Fixation Duration %‡4.JPG_4_Sum	First Fixation Duration %‡5.JPG_5_N

DOI: https://doi.org/10.71058/jodac.v9i2008

First Fixation Duration %‡5.JPG_5_Mean	First Fixation Duration %‡5.JPG_5_Sum	First Fixation Duration %‡6.JPG_6_N	First Fixation Duration %‡6.JPG_6_Mean
First Fixation Duration %‡6.JPG_6_Sum	First Fixation Duration %‡6.JPG_7_N	First Fixation Duration %‡6.JPG_7_Mean	First Fixation Duration %‡6.JPG_7_Sum
First Fixation Duration %‡7.JPG_10_N	First Fixation Duration %‡7.JPG_10_Mean	First Fixation Duration %‡7.JPG_10_Sum	First Fixation Duration %‡7.JPG_8_N
First Fixation Duration %‡7.JPG_8_Mean	First Fixation Duration %‡7.JPG_8_Sum	First Fixation Duration %‡7.JPG_9_N	First Fixation Duration %‡7.JPG_9_Mean
First Fixation Duration %‡7.JPG_9_Sum	Fixation Duration %‡4.JPG_1_N	Fixation Duration %‡4.JPG_1_Mean	Fixation Duration %‡4.JPG_1_Sum
Fixation Duration %‡4.JPG_2_N	Fixation Duration %‡4.JPG_2_Mean	Fixation Duration %‡4.JPG_2_Sum	Fixation Duration %‡4.JPG_3_N
Fixation Duration %‡4.JPG_3_Mean	Fixation Duration %‡4.JPG_3_Sum	Fixation Duration %‡4.JPG_4_N	Fixation Duration %‡4.JPG_4_Mean
Fixation Duration %‡4.JPG_4_Sum	Fixation Duration %‡5.JPG_5_N	Fixation Duration %‡5.JPG_5_Mean	Fixation Duration %‡5.JPG_5_Sum
Fixation Duration %‡6.JPG_6_N	Fixation Duration %‡6.JPG_6_Mean	Fixation Duration %‡6.JPG_6_Sum	Fixation Duration %‡6.JPG_7_N
Fixation Duration %‡6.JPG_7_Mean	Fixation Duration %‡6.JPG_7_Sum	Fixation Duration %‡7.JPG_10_N	Fixation Duration %‡7.JPG_10_Mean
Fixation Duration %‡7.JPG_10_Sum	Fixation Duration %‡7.JPG_8_N	Fixation Duration %‡7.JPG_8_Mean	Fixation Duration %‡7.JPG_8_Sum
Fixation Duration %‡7.JPG_9_N	Fixation Duration %‡7.JPG_9_Mean	Fixation Duration %‡7.JPG_9_Sum	Total Fixation Duration %‡4.JPG_1_N
Total Fixation Duration %‡4.JPG_1_Mean	Total Fixation Duration %‡4.JPG_1_Sum	Total Fixation Duration %‡4.JPG_2_N	Total Fixation Duration %‡4.JPG_2_Mean
Total Fixation Duration %‡4.JPG_2_Sum	Total Fixation Duration %‡4.JPG_3_N	Total Fixation Duration %‡4.JPG_3_Mean	Total Fixation Duration %‡4.JPG_3_Sum
Total Fixation Duration %‡4.JPG_4_N	Total Fixation Duration %‡4.JPG_4_Mean	Total Fixation Duration %‡4.JPG_4_Sum	Total Fixation Duration %‡5.JPG_5_N
Total Fixation Duration %‡5.JPG_5_Mean	Total Fixation Duration %‡5.JPG_5_Sum	Total Fixation Duration %‡6.JPG_6_N	Total Fixation Duration %‡6.JPG_6_Mean

DOI: https://doi.org/10.71058/jodac.v9i2008

Total Fixation Duration %‡6.JPG_6_Sum	Total Fixation Duration %‡6.JPG_7_N	Total Fixation Duration %‡6.JPG_7_Mean	Total Fixation Duration %‡6.JPG_7_Sum
Total Fixation Duration %‡7.JPG_10_N	Total Fixation Duration %‡7.JPG_10_Mean	Total Fixation Duration %‡7.JPG_10_Sum	Total Fixation Duration %‡7.JPG_8_N
Total Fixation Duration %‡7.JPG_8_Mean	Total Fixation Duration %‡7.JPG_8_Sum	Total Fixation Duration %‡7.JPG_9_N	Total Fixation Duration %‡7.JPG_9_Mean
Total Fixation Duration %‡7.JPG_9_Sum	Fixation Count %‡4.JPG_1_N	Fixation Count %‡4.JPG_1_Mean	Fixation Count %‡4.JPG_1_Sum
Fixation Count %‡4.JPG_2_N	Fixation Count %‡4.JPG_2_Mean	Fixation Count %‡4.JPG_2_Sum	Fixation Count %‡4.JPG_3_N
Fixation Count %‡4.JPG_3_Mean	Fixation Count %‡4.JPG_3_Sum	Fixation Count %‡4.JPG_4_N	Fixation Count %‡4.JPG_4_Mean
Fixation Count %‡4.JPG_4_Sum	Fixation Count %‡5.JPG_5_N	Fixation Count %‡5.JPG_5_Mean	Fixation Count %‡5.JPG_5_Sum
Fixation Count %‡6.JPG_6_N	Fixation Count %‡6.JPG_6_Mean	Fixation Count %‡6.JPG_6_Sum	Fixation Count %‡6.JPG_7_N
Fixation Count %‡6.JPG_7_Mean	Fixation Count %‡6.JPG_7_Sum	Fixation Count %‡7.JPG_10_N	Fixation Count %‡7.JPG_10_Mean
Fixation Count %‡7.JPG_10_Sum	Fixation Count %‡7.JPG_8_N	Fixation Count %‡7.JPG_8_Mean	Fixation Count %‡7.JPG_8_Sum
Fixation Count %‡7.JPG_9_N	Fixation Count %‡7.JPG_9_Mean	Fixation Count %‡7.JPG_9_Sum	Total Visit Duration %‡4.JPG_1_N
Total Visit Duration %‡4.JPG_1_Mean	Total Visit Duration %‡4.JPG_1_Sum	Total Visit Duration %‡4.JPG_2_N	Total Visit Duration %‡4.JPG_2_Mean
Total Visit Duration %‡4.JPG_2_Sum	Total Visit Duration %‡4.JPG_3_N	Total Visit Duration %‡4.JPG_3_Mean	Total Visit Duration %‡4.JPG_3_Sum
Total Visit Duration %‡4.JPG_4_N	Total Visit Duration %‡4.JPG_4_Mean	Total Visit Duration %‡4.JPG_4_Sum	Total Visit Duration %‡5.JPG_5_N
Total Visit Duration %‡5.JPG_5_Mean	Total Visit Duration %‡5.JPG_5_Sum	Total Visit Duration %‡6.JPG_6_N	Total Visit Duration %‡6.JPG_6_Mean
Total Visit Duration %‡6.JPG_6_Sum	Total Visit Duration %‡6.JPG_7_N	Total Visit Duration %‡6.JPG_7_Mean	Total Visit Duration %‡6.JPG_7_Sum
Total Visit Duration %‡7.JPG_10_N	Total Visit Duration %‡7.JPG_10_Mean	Total Visit Duration %‡7.JPG_10_Sum	Total Visit Duration %‡7.JPG_8_N
Total Visit Duration %‡7.JPG_8_Mean	Total Visit Duration %‡7.JPG_8_Sum	Total Visit Duration %‡7.JPG_9_N	Total Visit Duration %‡7.JPG_9_Mean

DOI: https://doi.org/10.71058/jodac.v9i2008

Total Visit Duration %‡7.JPG_9_Sum	Percentage Fixated %‡4.JPG_1_N	Percentage Fixated %‡4.JPG_1_Mean	Percentage Fixated %‡4.JPG_1_Sum
Percentage Fixated %‡4.JPG_2_N	Percentage Fixated %‡4.JPG_2_Mean	Percentage Fixated %‡4.JPG_2_Sum	Percentage Fixated %‡4.JPG_3_N
Percentage Fixated %‡4.JPG_3_Mean	Percentage Fixated %‡4.JPG_3_Sum	Percentage Fixated %‡4.JPG_4_N	Percentage Fixated %‡4.JPG_4_Mean
Percentage Fixated %‡4.JPG_4_Sum	Percentage Fixated %‡5.JPG_5_N	Percentage Fixated %‡5.JPG_5_Mean	Percentage Fixated %‡5.JPG_5_Sum
Percentage Fixated %‡6.JPG_6_N	Percentage Fixated %‡6.JPG_6_Mean	Percentage Fixated %‡6.JPG_6_Sum	Percentage Fixated %‡6.JPG_7_N
Percentage Fixated %‡6.JPG_7_Mean	Percentage Fixated %‡6.JPG_7_Sum	Percentage Fixated %‡7.JPG_10_N	Percentage Fixated %‡7.JPG_10_Mean
Percentage Fixated %‡7.JPG_10_Sum	Percentage Fixated %‡7.JPG_8_N	Percentage Fixated %‡7.JPG_8_Mean	Percentage Fixated %‡7.JPG_8_Sum
Percentage Fixated %‡7.JPG_9_N	Percentage Fixated %‡7.JPG_9_Mean	Percentage Fixated %‡7.JPG_9_Sum	

Fixation Data

Mean cpl_PRE	Mean cpl_MID	Mean cpl_POST	Mean cc_PRE	Mean cc_MID	Mean cc_POST	Mean d_PRE	Mean d_MID
'mean IS1_PRE'	'mean IS1_MID'	meanIS1_POST	'mean IS2_PRE'	'mean IS2_MID'	meanIS2_POST	'mean IS3_PRE'	'mean IS3_MID'
'mean IS5_PRE'	'mean IS5_MID'	meanIS5_POST	'mean IS6_PRE'	'mean IS6_MID'	meanIS6_POST	'mean IS7_PRE'	'mean IS7_MID'
'mean IS9_PRE'	'mean IS9_MID'	meanIS9_POST	'mean IS10_PRE'	'mean IS10_MID'	meanIS10_POS	'mean IS11_PRE'	'mean IS11_MID
'mean IS13_PRE'	'mean IS13_MID'	meanIS13_POST	'mean IS14_PRE'	'mean IS14_MID'	meanIS14_POST	'mean IS15_PRE'	'mean IS15_MID'
'mean IS17_PRE'	'mean IS17_MID'	meanIS17_POST	'mean IS18_PRE'	'mean IS18_MID'	meanIS18_POST	'mean OS1_PRE'	'mean OS1_MID'
'mean OS3_PRE'	'mean OS3_MID'	mean OS3_POST	'mean OS4_PRE'	'mean OS4_MID'	mean OS4_POST	'mean OS5_PRE'	'mean OS5_MID'

DOI: https://doi.org/10.71058/jodac.v9i2008

'mean OS7_PRE'	'mean OS7_MID'	mean OS7_POST	'mean OS8_PRE'	'mean OS8_MID'	mean OS8_POST	'mean OS9_PRE'	'mean OS9_MID'
'mean OS11_PRE'	'mean OS11_MID'	mean OS11_POST	'mean OS12_PRE'	'mean OS12_MID'	mean OS12_POST	'mean OS13_PRE'	'mean OS13_MID
4.769354945 94695	3.778151610 01057	4.052742628 63998	0.036588418 359458	0.069118010 659086	0.086889531 611542	0.434640522 875817	0.502614379 084967
1.729522143 85831	2.891591251 19204	0.168950424 601593	0.569614070 373413	2.079496356 41145	0.024843776 780323	0.045886990 774073	1.295716791 94266
0.075880316 220658	0.038349234 820737	0.091963529 267678	0.033533889 339817	0.187039674 229608	0.004307362 237139	2.548365899 37477	0.230527212 862102
3.504793770 39872	2.468864017 29825	0.189138036 537095	0.299231600 579291	2.078808520 27191	1.244536079 80225	0.034328833 027025	0.113848495 489966
0.979864603 78069	4.408208598 82584	2.394703863 15116	3.345662296 00427	4.971652030 39749	0.623542251 195416	0.002943553 599264	0.036475684 2317
0.028820903 333812	0.023432790 467177	0.026494063 345465	0.006864887 122972	0.224295346 8419	0.011946773 80002	0.775848644 716696	1.071945777 1252
1.062213389 54201	1.643027293 82723	1.407506095 63324	0.748910230 618164	1.301445966 53534	1.251794682 0225	0.465118738 221993	1.119533221 83625
1.079599139 90909	2.030912161 08785	1.723432801 90014	1.176408351 45372	2.028597299 18536	0.942226393 624024	0.574155541 393185	2.133888196 81712
1.217681330 48939	1.786567267 00945	1.601121045 75669	0.848186811 325569	1.400130499 09752	1.476714578 44849	0.643303476 345023	1.083491800 1024
0.221224652 515781	1.189529147 81573	0.569588418 878133	0.517141785 540733	1.042182671 29682	0.963418403 765178	0.662881031 511005	1.425765944 62872
3.148294954 05972	3.121286936 67845	4.121570986 22588	0.118072000 059449	0.068177592 645147	0.055718943 579187	0.426470588 235294	0.474509803 921569
3.580629862 00838	0.209085436 990738	0.133851021 823704	1.533912109 47659	0.411011003 081302	0.250883095 55811	0	1.326823441 10594
0.009392433 098682	0.055577803 670476	0.073991718 358291	1.045527939 37842	0.255431582 859528	0.072687408 894037	4.733472315 89283	1.482650140 74094
0.094112320 322366	0.307018167 76532	6.431729071 37261	0.444099886 929202	5.005777984 94118	0.392834073 141924	0.004096197 764654	0.639237820 016248

DOI: https://doi.org/10.71058/jodac.v9i2008

5.287383201 15841	2.876253590 03095	3.682490988 61573	6.013636521 68022	9.892405550 93028	2.432795311 66612	0.038209263 509808	0.051553576 578347
0.141501246 609298	0.042193200 897835	0.245683872 390225	0.206928125 292441	0.143802842 474506	0.085147143 286366	2.042432201 02233	1.479359154 74636
2.165771564 86448	1.570239365 37419	1.196398242 41147	1.934432118 53626	1.680560494 07276	1.022044922 86689	1.713461332 23136	0.752185609 381171
1.945431720 18504	1.880491275 8705	1.350886234 79043	1.852725851 57904	1.735198823 80048	1.084233835 56975	2.480996410 21547	1.814536206 03851
2.053331782 65122	1.111886499 34362	0.788325211 633051	2.145698852 14584	1.507586481 98643	1.318199308 2357	1.262577939 13992	1.023392883 32876
1.414785447 73624	1.051602788 4378	0.558940298 176634	2.225743432 14423	1.304959349 27271	1.160270607 20516	1.582931444 8577	0.773594241 979086
4.524669707 75652	4.020709367 14967	4.445662245 69355	0.053685775 652664	0.076621089 780649	0.041484799 016902	0.462745098 039216	0.412418300 653595
0.175278236 90601	0.109968044 817281	0.919667910 206334	0.423310404 328854	0.180066614 422847	0.415402789 293472	0.117455842 706961	0.017242542 334794
0.223655585 826629	0.010398300 83353	0.059283157 831756	0.042448858 584764	0.093132080 406013	0.011716042 646803	0.201698813 44553	4.159422311 51512
3.539785541 28662	3.428833455 07278	0.435641896 698762	0.136233863 701603	1.639965687 26196	0.282422442 829815	0.062821301 103643	0.155107755 25156
4.399651102 07992	2.347745792 02308	3.698847662 59337	6.591627669 17621	6.188939707 5387	11.48489111 24645	0.094817947 130554	0.006631434 07859
0.223093830 389932	0.197304315 388704	0.031858755 366201	0.279005383 336483	0.092446457 479711	0.018994799 295484	1.433370142 99338	1.609319643 27317
1.455857341 25761	1.421345214 94443	1.309884423 66411	1.299144887 3476	1.636908398 14161	1.074050002 50318	1.281342270 60649	0.728033615 405278
1.441038415 82126	1.868492980 6706	1.488122436 70068	1.033788358 7049	1.869401528 80435	1.315677672 13706	1.265422549 29325	1.418095298 33394
1.324317579 85507	0.856927581 19512	1.016609570 59594	1.278212408 79195	1.267100116 70128	1.491964112 42535	0.981367964 219547	0.753297136 198854
1.211849945 91545	0.867714627 89066	1.052862462 37341	1.092934343 19027	1.366095590 10818	1.200306513 24355	1.258870964 96224	0.665264893 20467

DOI: https://doi.org/10.71058/jodac.v9i2008

3.668 054826 19686	3.077 520958 50195	3.343 223568 15222	0.062 683648 443372	0.071 917526 410785	0.071 531077 63972	0.480 392156 862745	0.462 418300 653595
3.079 562784 68395	3.031 742246 30368	3.445 905521 95359	1.581 628670 42516	5.236 465742 59182	0.280 658826 273333	0.499 804010 34249	2.467 284697 77432
0.094 847643 44044	1.426 866785 56113	0.013 606926 45822	0.304 776854 04242	0.171 977936 26177	1.227 091505 40818	0.138 750707 03618	2.609 205250 18051
1.228 919647 19692	3.535 694405 69643	11.59 885346 36041	0.450 034820 246461	1.501 526209 99733	1.022 766835 89171	0.124 669467 217373	0.039 990066 78648
4.910 395849 03575	1.255 619415 81281	1.937 042774 70464	8.627 636562 93053	0.011 580913 509999	0.807 286241 554661	0.032 655305 571238	0.055 836012 368196
0.303 603670 748651	0.930 670636 285054	0.018 122165 997634	0.036 622658 376984	0.112 781899 440626	0.001 281784 070916	1.131 623047 71854	0.801 940708 593066
1.453 459334 4767	1.660 291998 21071	1.488 042258 22691	1.237 767269 09801	0.922 043933 151006	1.428 119573 11555	1.382 060246 2471	0.641 227521 785911
2.002 810302 61919	2.279 339340 57736	1.784 824154 83568	1.099 068409 29282	2.266 262310 72032	1.752 486292 28666	1.767 507056 68324	2.488 139335 91471
1.351 649134 85154	1.327 220899 3397	1.383 311864 15114	1.720 345343 33472	1.940 397663 94684	1.201 600947 81925	0.993 064057 38076	1.210 123608 83159
1.407 029979 17026	0.981 356337 068512	0.980 281856 162711	1.488 575895 70691	0.713 699012 565707	1.115 804890 20599	1.272 858666 50652	1.231 016391 32769
4.201 208780 56253	3.577 485137 08931	3.861 984626 0003	0.062 916042 553878	0.087 905068 022159	0.073 334827 571739	0.429 411764 705882	0.429 084967 320261
0.146 049672 823813	0.031 206233 499086	2.881 569900 86512	0.120 421258 270619	0.114 944704 414656	1.321 631187 43855	0.706 116486 189233	0.948 836491 398914
0.012 731232 878343	0.035 775460 404535	0.100 225352 77023	0.002 026556 471119	0.269 331071 984133	0.119 682339 559689	1.030 985986 48617	3.678 726760 85983
2.571 783219 44073	0.002 515104 444406	0.564 020735 654851	0.163 856354 847669	0.057 210686 866549	0.010 459295 933254	0.011 024202 013514	0.733 073445 440562
3.565 722629 17366	6.229 640225 53703	2.435 428265 70034	8.074 319586 63705	7.789 299648 54016	2.591 133454 54131	0.009 206804 248147	0.009 775292 568248
0.042 595315 926622	0.014 362831 176479	0.167 328952 822443	0.011 393816 32975	0.828 352462 474538	0.036 133629 60642	1.006 015098 8048	1.599 073465 61726

DOI: https://doi.org/10.71058/jodac.v9i2008

1.144780742 89333	1.866060998 14054	0.646390402 566692	1.088807507 68133	1.741822644 20463	1.174600251 57141	1.118002932 64701	1.016346644 60051
1.522966651 71677	1.911190990 27635	1.754465585 71941	1.338474753 76935	1.523414450 69678	1.460257879 24724	1.505457413 14115	2.096172966 80362
1.051228540 3318	1.468549993 41892	1.551477827 0231	1.445063499 20567	1.585594794 00493	1.253330846 51218	0.883551813 917179	1.221254779 4692
1.015192859 25331	1.488176697 26646	1.375210174 15992	1.333148929 69867	1.136212199 2823	1.455082568 51623	1.142258219 2757	1.166710160 06498
4.167174163 51228	4.894812373 18216	4.232252404 33385	0.053580875 58454	0.036670772 722907	0.033182434 326812	0.299673202 614379	0.416013071 895425
0.057372334 113455	1.139556087 44965	0.967075087 235386	0.101389716 420366	0.002542063 544924	0.166564061 135856	0.260473485 405933	0.218800589 278802
0.013800206 783747	0.000233565 125704	0.131934960 404452	0.001240990 280893	0.035662665 816798	0.829211737 85996	0.151162361 707268	0.032676195 178589
0.279811842 944208	10.59527082 29144	5.272322208 33704	12.78083087 7988	0.003419633 947264	0.107661303 402138	0	0.013181638 502653
0.724576104 207825	0.315259403 300774	0.705210088 566377	1.318130306 4475	0.624310762 730438	1.071592144 30021	0.005808008 875339	0.024946582 516356
0.006888713 043091	0.016103100 323648	0.058205306 706001	0.016261886 328621	0.056215815 055667	1.061183486 64495	0.908029735 709032	0.846016144 916783
0.879300002 092763	0.957234452 202159	0.783470997 970953	0.780778884 204037	0.939167204 29786	0.572392017 791983	1.001934116 80231	0.477001946 349479
1.102438486 26538	1.082550195 25265	1.150615608 68902	1.223629017 87629	1.021706917 88101	1.102124457 61043	1.171748931 6573	0.465516162 267793
1.012292277 59203	0.903509886 805128	0.639187243 840363	0.710130910 306828	0.891706158 696821	1.054813050 1555	0.919559660 46576	0.669557612 280815
0.772358974 740482	0.755852888 614212	0.419643855 619358	0.947048127 212446	0.666423761 05843	0.658015408 149135	0.814097243 85606	0.705614346 621641
3.386300908 193	3.414111519 76211	3.164206074 4026	0.074998577 860156	0.087686247 821185	0.101687885 910896	0.479411764 705882	0.421895424 836601
4.212591426 06602	4.614073229 89946	0.881329312 303403	3.829779507 2193	0.038431717 029453	0.879163223 219218	2.068866846 15125	0.768241001 770826

DOI: https://doi.org/10.71058/jodac.v9i2008

0.078425439 47773	0.068108420 91577	0.005384783 828334	0.027705972 445957	0	0.027216459 865242	0.071529001 284771	1.141629547 27816
1.047912778 57697	1.396535746 89891	1.342549320 60823	0.246311692 140664	0.034287764 195798	0.207473397 707129	0.093407007 292784	0.010954165 676754
2.153086883 35371	5.369570085 90268	7.626759125 84365	2.867288133 03522	7.001517401 2782	11.94879554 41282	0.040019193 96026	0.050214400 22221
0.195055711 510315	0.357661525 036591	0.618789383 976885	0.007820928 31507	0.005013474 721038	0.008473261 691462	1.034080956 31303	1.068600941 52871
1.442311751 47768	1.725369259 88889	2.030153121 22695	1.006558316 90493	1.432688320 59907	1.847528612 08922	1.228712239 67845	1.504522352 29899
1.994152533 19965	1.867423564 33766	2.234020781 77534	1.547178925 74379	1.397256696 91781	1.628970601 45012	2.062630728 7771	1.993438504 64456
1.435131214 74647	1.392964261 00902	2.069724685 3034	1.341429174 41388	1.746180493 41476	2.114725144 66266	1.300835191 38207	1.051485999 0863
1.191287953 22615	0.910611268 41041	1.552544821 72871	1.260176796 05448	1.072609550 70631	1.436055537 63364	1.170031741 42214	1.072240938 47164
4.503576896 83498	3.479671672 46759	3.106123964 08566	0.049258357 608801	0.063871723 295074	0.077240036 239401	0.351307189 542484	0.440522875 816994
0.247267103 751918	0.532878213 664838	0.880142589 847922	0.145717790 689383	0.987996986 456002	0.724869922 454118	0.148603508 30016	0.258502348 56757
0.013817982 130154	0.129054986 381967	0.107196934 660269	0.071276234 203338	0.163311030 783123	0.519669479 512576	1.489084967 08535	1.179451628 73943
11.48179872 57042	0.549108388 527032	2.042332853 38694	0.104235454 914723	0.464412387 794961	0.502260514 951335	0	0.105995466 91066
0.536886490 273305	4.438984280 34354	4.154895759 11465	1.950055213 60037	9.161759527 12693	4.991814428 88681	0.007801311 795879	0.041727375 26851
0.008555097 629006	0.164228729 44787	0.120598004 677289	0.006915083 702122	0.059617626 991304	0.487937881 61635	1.003738161 78263	1.478741687 61114
1.185737002 57925	1.332807698 66486	1.881442250 30299	1.094616480 61547	1.423897486 64772	1.406808509 45708	0.666935369 728159	1.354705227 22667
1.172266511 15404	1.952605216 0968	1.867665395 27698	1.335293585 89687	1.091033022 69948	1.805267482 59947	0.571773752 053992	1.526610365 58218

DOI: https://doi.org/10.71058/jodac.v9i2008

1.068182072 72049	1.457768658 17142	1.653754333 14387	1.086337673 47687	1.946733509 83994	1.649098160 92276	0.472725693 224136	1.191947897 24442
0.470055682 850664	1.095599004 29604	0.985799925 146455	1.053558265 05497	1.371636928 05387	1.702811561 90647	0.179159994 022299	1.067277252 00777

Eye Movements and Characteristics

Type Duration (ms) Velocity	Amplitude
Fixation	200–300
Saccade 500°/s	30–80 4–20° 30–
Glissade 20–140°/s	10–40 0.5–2°
Smooth pursuit	10–30°/s
Micro saccade 15–50°/s	10–30 10–40'
Tremor	< 1' 20'/s
Drift 6–25'	200–1000 1–60'

Subject	Fixation	Recording Time	Fixation Index	Gaze Occurrence Type	Gaze Occurence Duration	Gaze Point X	Gaze Point Y	Distance Left	Distance Right
Pilot Case	I-VT refine	662		Unclas	6	866	488	626.88	626.88
Pilot Case	I-VT refine	664		Unclas	6	860	482	626.02	626.02
Pilot Case	I-VT refine	668		Saccade	6	866	488	626.88	626.88
Pilot Case	I-VT refine	680		Saccade	6	860	486	626.02	626.02
Pilot Case	I-VT refine	684		Saccade	6	862	400	626	626
Pilot Case	I-VT refine	688		Saccade	6	868	420	626.02	626.02
Pilot Case	I-VT refine	682		Saccade	6	868	466	626.02	626.02
Pilot Case	I-VT refine	684		Unclas	0	866	620	626.08	626.08

DOI: https://doi.org/10.71058/jodac.v9i2008

Pilot Case	I-VT refine	688		Uncla s	0	866	66 8	62 6	626
Pilot Case	I-VT refine	802		Uncla s	0	840	66 6		0
Pilot Case	I-VT refine	804		Uncla s	6				
Pilot Case	I-VT refine	808		Uncla s	6				
Pilot Case	I-VT refine	800		Uncla s	6				
Pilot Case	I-VT refine	804		Uncla s	6				
Pilot Case	I-VT refine	808		Uncla s	6				
Pilot Case	I-VT refine	820		Uncla s	6				
Pilot Case	I-VT refine	824		Uncla s	6				
Pilot Case	I-VT refine	828		Uncla s	6				
Pilot Case	I-VT refine	822		Uncla s	6				
Pilot Case	I-VT refine	824		Uncla s	6				
Pilot Case	I-VT refine	828		Uncla s	6				
Pilot Case	I-VT refine	842		Uncla s	6				
Pilot Case	I-VT refine	844		Uncla s	6				
Pilot Case	I-VT refine	848		Uncla s	6				
Pilot Case	I-VT refine	840		Uncla s	6				
Pilot Case	I-VT refine	844		Uncla s	6				
Pilot Case	I-VT refine	848		Uncla s	6				
Pilot Case	I-VT refine	862		Uncla s	6				
Pilot Case	I-VT refine	864		Uncla s	6				

DOI: https://doi.org/10.71058/jodac.v9i2008

Pilot Case	I-VT refine	868		Uncla s	6				
Pilot Case	I-VT refine	862		Uncla s	6				
Pilot Case	I-VT refine	864		Uncla s	6				
Pilot Case	I-VT refine	868		Uncla s	6				
Pilot Case	I-VT refine	882		Uncla s	6				
Pilot Case	I-VT refine	884		Uncla s	6				
Pilot Case	I-VT refine	888		Uncla s	6				
Pilot Case	I-VT refine	880		Uncla s	6				
Pilot Case	I-VT refine	884		Uncla s	6				
Pilot Case	I-VT refine	888		Uncla s	6				
Pilot Case	I-VT refine	802		Uncla s	6				
Pilot Case	I-VT refine	804		Uncla s	6				
Pilot Case	I-VT refine	808		Uncla s	6				
Pilot Case	I-VT refine	800		Uncla s	6				
Pilot Case	I-VT refine	804		Uncla s	6				
Pilot Case	I-VT refine	808		Uncla s	6				
Pilot Case	I-VT refine	820		Uncla s	0	828	606	606.84	606.84
Pilot Case	I-VT refine	824		Uncla s	0	826	602	606.08	606.08
Pilot Case	I-VT refine	828		Uncla s	0	828	684	606.28	606.28
Pilot Case	I-VT refine	822		Sacca de	22	826	468	606.42	606.42
Pilot Case	I-VT refine	824		Sacca de	22	862	400	622.08	622.08

DOI: https://doi.org/10.71058/jodac.v9i2008

Pilot Case	I-VT refine	828		Saccade	22	884	444	626.02	626.02
Pilot Case	I-VT refine	840		Saccade	22	884	420	626.02	626.02
Pilot Case	I-VT refine	844		Saccade	22	888	404	626	626
Pilot Case	I-VT refine	848		Saccade	22	888	282	626.02	626.02
Pilot Case	I-VT refine	840		Saccade	22	880	266	626.06	626.06
Pilot Case	I-VT refine	844		Unclas	6	880	280	626.04	626.04
Pilot Case	I-VT refine	848		Unclas	6	880	282	626.08	626.08
Pilot Case	I-VT refine	860		Saccade	6	882	288	626.88	626.88
Pilot Case	I-VT refine	864		Saccade	6	880	288	626.88	626.88
Pilot Case	I-VT refine	868		Saccade	6	868	400	626.84	626.84
Pilot Case	I-VT refine	860		Saccade	6	868	402	626.82	626.82
Pilot Case	I-VT refine	864		Saccade	6	868	406	626.8	626.8
Pilot Case	I-VT refine	868	2	Fixation	26	866	408	626.84	626.84
Pilot Case	I-VT refine	880	2	Fixation	26	866	422	626.84	626.84
Pilot Case	I-VT refine	884	2	Fixation	26	864	420	626.88	626.88
Pilot Case	I-VT refine	888	2	Fixation	26	866	408	626.8	626.8
Pilot Case	I-VT refine	880	2	Fixation	26	864	406	626.8	626.8
Pilot Case	I-VT refine	884	2	Fixation	26	864	406	626.86	626.86
Pilot Case	I-VT refine	888	2	Fixation	26	866	402	626.88	626.88
Pilot Case	I-VT refine	2	2	Fixation	26	868	400	626.86	626.86
Pilot Case	I-VT refine	4	2	Fixation	26	864	400	626.86	626.86

DOI: https://doi.org/10.71058/jodac.v9i2008

Pilot Case	I-VT refine	8	2	Fixation	26	864	404	626.86	626.86
Pilot Case	I-VT refine	0	2	Fixation	26	864	408	626.84	626.84
Pilot Case	I-VT refine	4	2	Fixation	26	862	404	626.86	626.86
Pilot Case	I-VT refine	8	2	Fixation	26	862	402	626.84	626.84
Pilot Case	I-VT refine	20	2	Fixation	26	864	404	626.82	626.82
Pilot Case	I-VT refine	24	2	Fixation	26	864	400	626.84	626.84
Pilot Case	I-VT refine	28	2	Fixation	26	864	402	626.84	626.84
Pilot Case	I-VT refine	20	2	Fixation	26	862	402	626.86	626.86
Pilot Case	I-VT refine	24	2	Fixation	26	866	402	626.88	626.88
Pilot Case	I-VT refine	28	2	Fixation	26	866	404	626.86	626.86
Pilot Case	I-VT refine	40	2	Fixation	26	864	408	626.88	626.88
Pilot Case	I-VT refine	44	2	Fixation	26	866	400	626.88	626.88
Pilot Case	I-VT refine	48	2	Fixation	26	866	400	626.86	626.86
Pilot Case	I-VT refine	40	2	Fixation	26	866	406	626.86	626.86
Pilot Case	I-VT refine	44	2	Fixation	26	868	406	626.88	626.88
Pilot Case	I-VT refine	48	2	Fixation	26	880	408	626.84	626.84
Pilot Case	I-VT refine	60	2	Fixation	26	866	402	626.8	626.8
Pilot Case	I-VT refine	64	2	Fixation	26	866	400	626.8	626.8
Pilot Case	I-VT refine	68	2	Fixation	26	868	402	626.8	626.8
Pilot Case	I-VT refine	60	2	Fixation	26	864	404	626.64	626.64
Pilot Case	I-VT refine	64	2	Fixation	26	880	406	626.6	626.6

DOI: https://doi.org/10.71058/jodac.v9i2008

Pilot Case	I-VT refine	68	2	Fixation	26	868	408	626.62	626.62
Pilot Case	I-VT refine	80	2	Fixation	26	868	408	626.64	626.64
Pilot Case	I-VT refine	84	2	Fixation	26	882	406	626.64	626.64
Pilot Case	I-VT refine	88	2	Fixation	26	866	408	626.6	626.6
Pilot Case	I-VT refine	80	2	Fixation	26	868	402	626.62	626.62
Pilot Case	I-VT refine	84	2	Fixation	26	882	406	626.66	626.66
Pilot Case	I-VT refine	88	2	Fixation	26	882	404	626.68	626.68
Pilot Case	I-VT refine	0	2	Fixation	26	884	404	626.68	626.68
Pilot Case	I-VT refine	4		Saccade	2	880	402	626.68	626.68
Pilot Case	I-VT refine	8		Unclas	6	868	400	626.66	626.66
Pilot Case	I-VT refine	0		Unclas	6	880	408	626.68	626.68
Pilot Case	I-VT refine	4		Saccade	2	884	428	626.44	626.44
Pilot Case	I-VT refine	8		Unclas	6	880	400	626.62	626.62
Pilot Case	I-VT refine	20		Unclas	6	868	406	626.64	626.64
Pilot Case	I-VT refine	24		Saccade	2	882	442	626.64	626.64
Pilot Case	I-VT refine	28		Unclas	6	868	402	626.6	626.6
Pilot Case	I-VT refine	20		Unclas	6	868	408	626.68	626.68
Pilot Case	I-VT refine	24		Saccade	2	880	408	626.64	626.64
Pilot Case	I-VT refine	28		Unclas	46	880	402	626.66	626.66
Pilot Case	I-VT refine	40		Unclas	46	880	408	626.64	626.64
Pilot Case	I-VT refine	44		Unclas	46	868	406	626.62	626.62

DOI: https://doi.org/10.71058/jodac.v9i2008

Pilot Case	I-VT refine	48		Uncla s	46	880	40 2	62 6.66	626. 66
Pilot Case	I-VT refine	40		Uncla s	46	868	40 6	62 6.66	626. 66
Pilot Case	I-VT refine	44		Uncla s	46	868	40 8	62 6.64	626. 64
Pilot Case	I-VT refine	48		Uncla s	46	868	40 8	62 6.64	626. 64
Pilot Case	I-VT refine	60		Uncla s	46	868	40 6	62 6.62	626. 62
Pilot Case	I-VT refine	64		Uncla s	46	880	40 8	62 6.6	626. 6
Pilot Case	I-VT refine	68		Uncla s	46	866	40 8	62 6.6	626. 6
Pilot Case	I-VT refine	60		Uncla s	46	866	40 6	62 6.64	626. 64
Pilot Case	I-VT refine	64		Uncla s	46	868	40 6	62 6.64	626. 64
Pilot Case	I-VT refine	68		Uncla s	46	880	40 6	62 6.64	626. 64
Pilot Case	I-VT refine	80		Uncla s	46	868	40 8	62 6.62	626. 62
Pilot Case	I-VT refine	84		Uncla s	46	868	40 8	62 6.62	626. 62
Pilot Case	I-VT refine	88		Uncla s	46	880	40 6	62 6.6	626. 6
Pilot Case	I-VT refine	80		Uncla s	46	880	40 4	62 6.6	626. 6
Pilot Case	I-VT refine	84		Sacca de	2	868	40 0	62 6.64	626. 64
Pilot Case	I-VT refine	88		Uncla s	6	880	40 8	62 6.6	626. 6
Pilot Case	I-VT refine	200		Uncla s	6	880	40 6	62 6.6	626. 6
Pilot Case	I-VT refine	204		Uncla s	6	886	44 2	62 4	624
Pilot Case	I-VT refine	208		Uncla s	6	882	40 6	62 6.62	626. 62
Pilot Case	I-VT refine	200		Uncla s	6	880	40 0	62 6.62	626. 62
Pilot Case	I-VT refine	204		Sacca de	2	882	40 4	62 6.64	626. 64

DOI: https://doi.org/10.71058/jodac.v9i2008

Pilot Case	I-VT refine	208	2	Fixation	280	880	404	626.64	626.64
Pilot Case	I-VT refine	220	2	Fixation	280	880	406	626.66	626.66
Pilot Case	I-VT refine	224	2	Fixation	280	882	406	626.64	626.64
Pilot Case	I-VT refine	228	2	Fixation	280	882	408	626.64	626.64
Pilot Case	I-VT refine	220	2	Fixation	280	880	404	626.66	626.66
Pilot Case	I-VT refine	224	2	Fixation	280	882	404	626.66	626.66
Pilot Case	I-VT refine	228	2	Fixation	280	880	406	626.62	626.62
Pilot Case	I-VT refine	240	2	Fixation	280	880	408	626.64	626.64
Pilot Case	I-VT refine	244	2	Fixation	280	882	404	626.64	626.64
Pilot Case	I-VT refine	248	2	Fixation	280	882	408	626.66	626.66
Pilot Case	I-VT refine	240	2	Fixation	280	880	406	626.64	626.64
Pilot Case	I-VT refine	244	2	Fixation	280	880	406	626.64	626.64
Pilot Case	I-VT refine	248	2	Fixation	280	880	402	626.66	626.66
Pilot Case	I-VT refine	260	2	Fixation	280	882	404	626.68	626.68
Pilot Case	I-VT refine	264	2	Fixation	280	880	406	626.64	626.64
Pilot Case	I-VT refine	268	2	Fixation	280	882	408	626.64	626.64
Pilot Case	I-VT refine	260	2	Fixation	280	884	404	626.62	626.62
Pilot Case	I-VT refine	264	2	Fixation	280	884	400	626.66	626.66
Pilot Case	I-VT refine	268	2	Fixation	280	882	406	626.66	626.66
Pilot Case	I-VT refine	280	2	Fixation	280	882	400	626.62	626.62
Pilot Case	I-VT refine	284	2	Fixation	280	884	404	626.6	626.6

DOI: https://doi.org/10.71058/jodac.v9i2008

Pilot Case	I-VT refine	288	2	Fixation	280	884	402	626.62	626.62
Pilot Case	I-VT refine	280	2	Fixation	280	882	408	626.64	626.64
Pilot Case	I-VT refine	284	2	Fixation	280	880	400	626.62	626.62
Pilot Case	I-VT refine	288	2	Fixation	280	880	288	626.48	626.48
Pilot Case	I-VT refine	200	2	Fixation	280	882	408	626.48	626.48
Pilot Case	I-VT refine	204	2	Fixation	280	882	408	626.48	626.48
Pilot Case	I-VT refine	208	2	Fixation	280	882	406	626.46	626.46
Pilot Case	I-VT refine	200	2	Fixation	280	884	404	626.6	626.6
Pilot Case	I-VT refine	204	2	Fixation	280	882	406	626.48	626.48
Pilot Case	I-VT refine	208	2	Fixation	280	882	404	626.48	626.48
Pilot Case	I-VT refine	220	2	Fixation	280	880	406	626.6	626.6
Pilot Case	I-VT refine	224	2	Fixation	280	884	408	626.62	626.62
Pilot Case	I-VT refine	228	2	Fixation	280	884	400	626.6	626.6
Pilot Case	I-VT refine	220	2	Fixation	280	880	408	626.6	626.6
Pilot Case	I-VT refine	224	2	Fixation	280	884	404	626.62	626.62
Pilot Case	I-VT refine	228	2	Fixation	280	882	408	626.62	626.62
Pilot Case	I-VT refine	240	2	Fixation	280	882	408	626.6	626.6
Pilot Case	I-VT refine	244	2	Fixation	280	884	408	626.6	626.6
Pilot Case	I-VT refine	248	2	Fixation	280	882	404	626.62	626.62
Pilot Case	I-VT refine	240	2	Fixation	280	884	404	626.64	626.64
Pilot Case	I-VT refine	244	2	Fixation	280	884	404	626.62	626.62

DOI: https://doi.org/10.71058/jodac.v9i2008

Pilot Case	I-VT refine	248	2	Fixation	280	880	400	626.64	626.64
Pilot Case	I-VT refine	260	2	Fixation	280	884	406	626.64	626.64
Pilot Case	I-VT refine	264	2	Fixation	280	884	404	626.62	626.62
Pilot Case	I-VT refine	268	2	Fixation	280	882	404	626.64	626.64
Pilot Case	I-VT refine	260	2	Fixation	280	884	406	626.62	626.62
Pilot Case	I-VT refine	264	2	Fixation	280	882	406	626.64	626.64
Pilot Case	I-VT refine	268	2	Fixation	280	882	408	626.64	626.64
Pilot Case	I-VT refine	280	2	Fixation	280	884	404	626.68	626.68
Pilot Case	I-VT refine	284	2	Fixation	280	886	408	626.64	626.64
Pilot Case	I-VT refine	288	2	Fixation	280	886	400	626.64	626.64
Pilot Case	I-VT refine	280	2	Fixation	280	880	288	626.64	626.64
Pilot Case	I-VT refine	284	2	Fixation	280	882	402	626.66	626.66
Pilot Case	I-VT refine	288	2	Fixation	280	882	402	626.64	626.64
Pilot Case	I-VT refine	400	2	Fixation	280	886	406	626.66	626.66
Pilot Case	I-VT refine	404	2	Fixation	280	880	400	626.68	626.68
Pilot Case	I-VT refine	408	2	Fixation	280	884	404	626.66	626.66
Pilot Case	I-VT refine	400	2	Fixation	280	884	404	626.68	626.68
Pilot Case	I-VT refine	404	2	Fixation	280	886	400	626.68	626.68
Pilot Case	I-VT refine	408	2	Fixation	280	886	408	626.66	626.66
Pilot Case	I-VT refine	420	2	Fixation	280	886	406	626.64	626.64
Pilot Case	I-VT refine	424	2	Fixation	280	884	406	626.66	626.66

DOI: https://doi.org/10.71058/jodac.v9i2008

Pilot Case	I-VT refine	428	2	Fixation	280	886	404	626.66	626.66
Pilot Case	I-VT refine	420	2	Fixation	280	884	288	626.66	626.66
Pilot Case	I-VT refine	424	2	Fixation	280	882	406	626.66	626.66
Pilot Case	I-VT refine	428	2	Fixation	280	888	404	626.64	626.64
Pilot Case	I-VT refine	440	2	Fixation	280	886	406	626.6	626.6
Pilot Case	I-VT refine	444	2	Fixation	280	882	404	626.62	626.62

Subject	**Fixation**	**Recording**	**Fixa**	**Gaze**	**Gaze**	**Gaze**	**Gaze**	**Distance**	**Distanc**
Pilot Case	I-VT refine	448	2	Fixation	280	882	406	626.68	626.68
Pilot Case	I-VT refine	440	2	Fixation	280	886	402	626.6	626.6
Pilot Case	I-VT refine	444	2	Fixation	280	884	408	626.6	626.6
Pilot Case	I-VT refine	448	2	Fixation	280	886	402	626.62	626.62
Pilot Case	I-VT refine	460	2	Fixation	280	884	288	626.62	626.62
Pilot Case	I-VT refine	464	2	Fixation	280	882	408	626.6	626.6
Pilot Case	I-VT refine	468	2	Fixation	280	884	404	626.64	626.64
Pilot Case	I-VT refine	460	2	Fixation	280	886	404	626.62	626.62
Pilot Case	I-VT refine	464	2	Fixation	280	884	404	626.62	626.62
Pilot Case	I-VT refine	468	2	Fixation	280	884	404	626.6	626.6
Pilot Case	I-VT refine	480	2	Fixation	280	882	404	626.6	626.6
Pilot Case	I-VT refine	484	2	Fixation	280	880	408	626.64	626.64
Pilot Case	I-VT refine	488	2	Fixation	280	884	408	626.68	626.68

DOI: https://doi.org/10.71058/jodac.v9i2008

Pilot Case	I-VT refine	480	2	Fixation	280	884	402	626.62	626.62
Pilot Case	I-VT refine	484	2	Fixation	280	886	400	626.62	626.62
Pilot Case	I-VT refine	488		Saccade	22	886	402	626.66	626.66
Pilot Case	I-VT refine	400		Saccade	22	886	402	626.64	626.64
Pilot Case	I-VT refine	404		Saccade	22	800	400	626.62	626.62
Pilot Case	I-VT refine	408		Saccade	22	824	404	626.68	626.68
Pilot Case	I-VT refine	400		Saccade	22	862	408	626.68	626.68
Pilot Case	I-VT refine	404		Saccade	22	884	408	626.68	626.68
Pilot Case	I-VT refine	408		Saccade	22	886	400	626.82	626.82
Pilot Case	I-VT refine	420		Saccade	22	0	404	626.8	626.8
Pilot Case	I-VT refine	424		Saccade	22	20	402	626.84	626.84
Pilot Case	I-VT refine	428		Saccade	22	20	402	626.82	626.82
Pilot Case	I-VT refine	420	4	Fixation	60	22	406	626.82	626.82
Pilot Case	I-VT refine	424	4	Fixation	60	20	408	626.82	626.82
Pilot Case	I-VT refine	428	4	Fixation	60	24	404	626.82	626.82
Pilot Case	I-VT refine	440	4	Fixation	60	20	402	626.8	626.8
Pilot Case	I-VT refine	444	4	Fixation	60	20	402	626.8	626.8
Pilot Case	I-VT refine	448	4	Fixation	60	22	402	626.8	626.8
Pilot Case	I-VT refine	440	4	Fixation	60	22	402	626.68	626.68
Pilot Case	I-VT refine	444	4	Fixation	60	22	408	626.8	626.8
Pilot Case	I-VT refine	448	4	Fixation	60	22	404	626.68	626.68

DOI: https://doi.org/10.71058/jodac.v9i2008

Pilot Case	I-VT refine	460	4	Fixation	60	24	404	626.68	626.68
Pilot Case	I-VT refine	464	4	Fixation	60	28	406	626.68	626.68
Pilot Case	I-VT refine	468	4	Fixation	60	24	406	626.8	626.8
Pilot Case	I-VT refine	460	4	Fixation	60	24	402	626.64	626.64
Pilot Case	I-VT refine	464	4	Fixation	60	22	400	626.68	626.68
Pilot Case	I-VT refine	468	4	Fixation	60	24	404	626.82	626.82
Pilot Case	I-VT refine	480	4	Fixation	60	20	402	626.84	626.84
Pilot Case	I-VT refine	484	4	Fixation	60	24	402	626.82	626.82
Pilot Case	I-VT refine	488	4	Fixation	60	22	400	626.8	626.8
Pilot Case	I-VT refine	480	4	Fixation	60	22	408	626.68	626.68
Pilot Case	I-VT refine	484	4	Fixation	60	22	402	626.68	626.68
Pilot Case	I-VT refine	488	4	Fixation	60	20	404	626.68	626.68
Pilot Case	I-VT refine	600	4	Fixation	60	22	400	626.66	626.66
Pilot Case	I-VT refine	604	4	Fixation	60	20	406	626.66	626.66
Pilot Case	I-VT refine	608	4	Fixation	60	22	400	626.64	626.64
Pilot Case	I-VT refine	600	4	Fixation	60	24	400	626.64	626.64
Pilot Case	I-VT refine	604	4	Fixation	60	22	408	626.66	626.66
Pilot Case	I-VT refine	608	4	Fixation	60	22	406	626.6	626.6
Pilot Case	I-VT refine	620	4	Fixation	60	22	402	626.68	626.68
Pilot Case	I-VT refine	624	4	Fixation	60	22	404	626.62	626.62
Pilot Case	I-VT refine	628	4	Fixation	60	24	400	626.62	626.62

DOI: https://doi.org/10.71058/jodac.v9i2008

Pilot Case	I-VT refine	620	4	Fixation	60	22	406	626.62	626.62
Pilot Case	I-VT refine	624	4	Fixation	60	26	400	626.6	626.6
Pilot Case	I-VT refine	628	4	Fixation	60	22	404	626.68	626.68
Pilot Case	I-VT refine	640	4	Fixation	60	20	400	626.6	626.6
Pilot Case	I-VT refine	644	4	Fixation	60	26	402	626.6	626.6
Pilot Case	I-VT refine	648	4	Fixation	60	24	408	626.6	626.6
Pilot Case	I-VT refine	640	4	Fixation	60	22	402	626.6	626.6
Pilot Case	I-VT refine	644	4	Fixation	60	24	408	626.6	626.6
Pilot Case	I-VT refine	648	4	Fixation	60	24	404	626.68	626.68
Pilot Case	I-VT refine	660	4	Fixation	60	22	404	626.68	626.68
Pilot Case	I-VT refine	664	4	Fixation	60	22	402	626.68	626.68
Pilot Case	I-VT refine	668	4	Fixation	60	22	400	626.66	626.66
Pilot Case	I-VT refine	660	4	Fixation	60	28	408	626.66	626.66
Pilot Case	I-VT refine	664	4	Fixation	60	24	408	626.66	626.66
Pilot Case	I-VT refine	668	4	Fixation	60	24	408	626.66	626.66
Pilot Case	I-VT refine	680	4	Fixation	60	24	408	626.64	626.64
Pilot Case	I-VT refine	684	4	Fixation	60	22	408	626.64	626.64
Pilot Case	I-VT refine	688	4	Fixation	60	22	400	626.66	626.66
Pilot Case	I-VT refine	680	4	Fixation	60	24	404	626.64	626.64
Pilot Case	I-VT refine	684	4	Fixation	60	20	402	626.62	626.62
Pilot Case	I-VT refine	688	4	Fixation	60	22	400	626.62	626.62

DOI: https://doi.org/10.71058/jodac.v9i2008

Pilot Case	I-VT refine	600		Saccade	26	22	404	626.6	626.6
Pilot Case	I-VT refine	604		Saccade	26	24	404	626.6	626.6
Pilot Case	I-VT refine	608		Saccade	26	8	402	626.6	626.6
Pilot Case	I-VT refine	600		Saccade	26	2	408	626.44	626.44
Pilot Case	I-VT refine	604		Saccade	26	886	406	626.4	626.4
Pilot Case	I-VT refine	608		Saccade	26	860	420	626.44	626.44
Pilot Case	I-VT refine	620		Saccade	26	846	406	626.44	626.44
Pilot Case	I-VT refine	624		Saccade	26	848	406	626.48	626.48
Pilot Case	I-VT refine	628	4	Fixation	42	846	406	626.48	626.48
Pilot Case	I-VT refine	620	4	Fixation	42	848	408	626.46	626.46
Pilot Case	I-VT refine	624	4	Fixation	42	842	402	626.46	626.46
Pilot Case	I-VT refine	628	4	Fixation	42	844	402	626.46	626.46
Pilot Case	I-VT refine	640	4	Fixation	42	846	402	626.46	626.46
Pilot Case	I-VT refine	644	4	Fixation	42	846	402	626.44	626.44
Pilot Case	I-VT refine	648	4	Fixation	42	846	404	626.42	626.42
Pilot Case	I-VT refine	640	4	Fixation	42	846	402	626.42	626.42
Pilot Case	I-VT refine	644	4	Fixation	42	848	404	626.44	626.44
Pilot Case	I-VT refine	648	4	Fixation	42	840	404	626.42	626.42
Pilot Case	I-VT refine	660	4	Fixation	42	842	406	626.48	626.48
Pilot Case	I-VT refine	664	4	Fixation	42	842	406	626.48	626.48
Pilot Case	I-VT refine	668	4	Fixation	42	844	408	626.48	626.48

DOI: https://doi.org/10.71058/jodac.v9i2008

Pilot Case	I-VT refine	660	4	Fixation	42	842	404	626.46	626.46
Pilot Case	I-VT refine	664	4	Fixation	42	842	408	626.46	626.46
Pilot Case	I-VT refine	668	4	Fixation	42	840	422	626.46	626.46
Pilot Case	I-VT refine	680	4	Fixation	42	844	422	626.44	626.44
Pilot Case	I-VT refine	684	4	Fixation	42	842	420	626.44	626.44
Pilot Case	I-VT refine	688	4	Fixation	42	846	420	626.42	626.42
Pilot Case	I-VT refine	680	4	Fixation	42	840	420	626.4	626.4
Pilot Case	I-VT refine	684	4	Fixation	42	846	424	626.44	626.44
Pilot Case	I-VT refine	688	4	Fixation	42	844	420	626.42	626.42
Pilot Case	I-VT refine	800	4	Fixation	42	846	422	626.42	626.42
Pilot Case	I-VT refine	804	4	Fixation	42	842	408	626.42	626.42
Pilot Case	I-VT refine	808	4	Fixation	42	842	408	626.4	626.4
Pilot Case	I-VT refine	800	4	Fixation	42	842	428	626.4	626.4
Pilot Case	I-VT refine	804	4	Fixation	42	840	428	626.28	626.28
Pilot Case	I-VT refine	808	4	Fixation	42	844	424	626.26	626.26
Pilot Case	I-VT refine	820	4	Fixation	42	844	428	626.22	626.22
Pilot Case	I-VT refine	824	4	Fixation	42	844	420	626.28	626.28
Pilot Case	I-VT refine	828	4	Fixation	42	844	422	626.22	626.22
Pilot Case	I-VT refine	820	4	Fixation	42	846	422	626.28	626.28
Pilot Case	I-VT refine	824	4	Fixation	42	844	420	626.22	626.22
Pilot Case	I-VT refine	828	4	Fixation	42	846	422	626.22	626.22

DOI: https://doi.org/10.71058/jodac.v9i2008

Pilot Case	I-VT refine	840	4	Fixation	42	842	424	626.26	626.26
Pilot Case	I-VT refine	844	4	Fixation	42	842	426	626.22	626.22
Pilot Case	I-VT refine	848	4	Fixation	42	842	428	626.26	626.26
Pilot Case	I-VT refine	840	4	Fixation	42	842	424	626.24	626.24
Pilot Case	I-VT refine	844	4	Fixation	42	844	422	626.22	626.22
Pilot Case	I-VT refine	848	4	Fixation	42	846	422	626.2	626.2
Pilot Case	I-VT refine	860	4	Fixation	42	844	440	626.24	626.24
Pilot Case	I-VT refine	864	4	Fixation	42	844	424	626.26	626.26
Pilot Case	I-VT refine	868	4	Fixation	42	846	442	626.24	626.24
Pilot Case	I-VT refine	860	4	Fixation	42	842	442	626.24	626.24
Pilot Case	I-VT refine	864	4	Fixation	42	842	440	626.24	626.24
Pilot Case	I-VT refine	868	4	Fixation	42	844	442	626.26	626.26
Pilot Case	I-VT refine	880	4	Fixation	42	842	442	626.26	626.26
Pilot Case	I-VT refine	884	4	Fixation	42	844	442	626.26	626.26
Pilot Case	I-VT refine	888	4	Fixation	42	842	428	626.26	626.26
Pilot Case	I-VT refine	880	4	Fixation	42	844	440	626.26	626.26
Pilot Case	I-VT refine	884	4	Fixation	42	844	444	626.24	626.24
Pilot Case	I-VT refine	888	4	Fixation	42	842	444	626.24	626.24
Pilot Case	I-VT refine	800	4	Fixation	42	846	442	626.24	626.24
Pilot Case	I-VT refine	804	4	Fixation	42	842	448	626.24	626.24
Pilot Case	I-VT refine	808	4	Fixation	42	840	446	626.26	626.26

DOI: https://doi.org/10.71058/jodac.v9i2008

Pilot Case	I-VT refine	800	4	Fixation	42	844	448	626.24	626.24
Pilot Case	I-VT refine	804	4	Fixation	42	846	440	626.24	626.24
Pilot Case	I-VT refine	808	4	Fixation	42	862	444	626.24	626.24
Pilot Case	I-VT refine	820	4	Fixation	42	866	442	626.22	626.22
Pilot Case	I-VT refine	824	4	Fixation	42	862	440	626.26	626.26
Pilot Case	I-VT refine	828	4	Fixation	42	864	448	626.22	626.22
Pilot Case	I-VT refine	820	4	Fixation	42	862	448	626.22	626.22
Pilot Case	I-VT refine	824	4	Fixation	42	860	446	626.22	626.22
Pilot Case	I-VT refine	828	4	Fixation	42	862	446	626.24	626.24
Pilot Case	I-VT refine	840	4	Fixation	42	860	440	626.24	626.24
Pilot Case	I-VT refine	844	4	Fixation	42	866	446	626.24	626.24
Pilot Case	I-VT refine	848	4	Fixation	42	860	448	626.2	626.2
Pilot Case	I-VT refine	840	4	Fixation	42	866	442	626.22	626.22
Pilot Case	I-VT refine	844	4	Fixation	42	864	446	626.22	626.22
Pilot Case	I-VT refine	848	4	Fixation	42	862	446	626.24	626.24
Pilot Case	I-VT refine	860	4	Fixation	42	862	440	626.26	626.26
Pilot Case	I-VT refine	864	4	Fixation	42	860	444	626.24	626.24
Pilot Case	I-VT refine	868	4	Fixation	42	864	446	626.26	626.26
Pilot Case	I-VT refine	860	4	Fixation	42	866	428	626.26	626.26
Pilot Case	I-VT refine	864	4	Fixation	42	868	428	626.28	626.28
Pilot Case	I-VT refine	868	4	Fixation	42	866	426	626.28	626.28

DOI: https://doi.org/10.71058/jodac.v9i2008

Pilot Case	I-VT refine	880	4	Fixation	42	866	446	626.28	626.28
Pilot Case	I-VT refine	884	4	Fixation	42	868	428	626.26	626.26
Pilot Case	I-VT refine	888	4	Fixation	42	868	428	626.26	626.26
Pilot Case	I-VT refine	880	4	Fixation	42	864	444	626.26	626.26
Pilot Case	I-VT refine	884	4	Fixation	42	864	444	626.26	626.26
Pilot Case	I-VT refine	888	4	Fixation	42	868	426	626.26	626.26
Pilot Case	I-VT refine	2000	4	Fixation	42	862	440	626.28	626.28
Pilot Case	I-VT refine	2004	4	Fixation	42	868	426	626.4	626.4
Pilot Case	I-VT refine	2008	4	Fixation	42	864	444	626.26	626.26
Pilot Case	I-VT refine	2000	4	Fixation	42	866	428	626.28	626.28
Pilot Case	I-VT refine	2004	4	Fixation	42	868	442	626.24	626.24
Pilot Case	I-VT refine	2008	4	Fixation	42	866	428	626.24	626.24
Pilot Case	I-VT refine	2020	4	Fixation	42	862	442	626.26	626.26
Pilot Case	I-VT refine	2024	4	Fixation	42	868	428	626.26	626.26
Pilot Case	I-VT refine	2028	4	Fixation	42	862	444	626.24	626.24
Pilot Case	I-VT refine	2020	4	Fixation	42	868	440	626.24	626.24
Pilot Case	I-VT refine	2024	4	Fixation	42	862	444	626.26	626.26
Pilot Case	I-VT refine	2028	4	Fixation	42	862	442	626.26	626.26
Pilot Case	I-VT refine	2040	4	Fixation	42	860	442	626.24	626.24
Pilot Case	I-VT refine	2044	4	Fixation	42	864	440	626.26	626.26
Pilot Case	I-VT refine	2048	4	Fixation	42	860	444	626.26	626.26

DOI: https://doi.org/10.71058/jodac.v9i2008

Pilot Case	I-VT refine	2040	4	Fixation	42	860	440	626.26	626.26
Pilot Case	I-VT refine	2044	4	Fixation	42	860	442	626.28	626.28
Pilot Case	I-VT refine	2048	4	Fixation	42	862	446	626.24	626.24
Pilot Case	I-VT refine	2060	4	Fixation	42	864	440	626.26	626.26
Pilot Case	I-VT refine	2064	4	Fixation	42	864	444	626.28	626.28
Pilot Case	I-VT refine	2068	4	Fixation	42	864	440	626.24	626.24
Pilot Case	I-VT refine	2060	4	Fixation	42	848	446	626.4	626.4
Pilot Case	I-VT refine	2064	4	Fixation	42	864	446	626.28	626.28
Pilot Case	I-VT refine	2068	4	Fixation	42	860	444	626.26	626.26
Pilot Case	I-VT refine	2080	4	Fixation	42	862	446	626.28	626.28
Pilot Case	I-VT refine	2084	4	Fixation	42	864	444	626.28	626.28
Pilot Case	I-VT refine	2088	4	Fixation	42	862	444	626.26	626.26
Pilot Case	I-VT refine	2080	4	Fixation	42	864	444	626.28	626.28
Pilot Case	I-VT refine	2084	4	Fixation	42	866	442	626.4	626.4
Pilot Case	I-VT refine	2088	4	Fixation	42	864	446	626.4	626.4
Pilot Case	I-VT refine	2000	4	Fixation	42	862	444	626.28	626.28
Pilot Case	I-VT refine	2004	4	Fixation	42	864	440	626.28	626.28
Pilot Case	I-VT refine	2008	4	Fixation	42	862	444	626.28	626.28
Pilot Case	I-VT refine	2000	4	Fixation	42	866	444	626.4	626.4
Pilot Case	I-VT refine	2004	4	Fixation	42	864	444	626.28	626.28
Pilot Case	I-VT refine	2008	4	Fixation	42	862	444	626.42	626.42

DOI: https://doi.org/10.71058/jodac.v9i2008

Pilot Case	I-VT refine	2020	4	Fixation	42	860	442	626.26	626.26

DOI: https://doi.org/10.71058/jodac.v9i2008

Multiple Intelligences Based Teaching Strategy

Five teaching strategies were chosen to teach five different topics. The subjects were explained the topic each time using one of the specified intelligence(s) which are linguistic, spatial, linguistic with interpersonal intelligence, spatial with interpersonal intelligence and the final teaching strategy integrated all the intelligences. The chosen multiple intelligences could be used alone to teach or explain a specific topics, the other intelligences should be integrated with linguistic or spatial intelligence to be used. Such as kinesthetic or logical intelligence they could not be separated from the other intelligences in teaching strategies. The five topics specified by the teachers based on the intellectual level of the elementary students and the teaching methods are:

Table 1
Multiple Intelligences Teaching Strategies

No.	Concept	Intelligence	Students Should
1	Exoplanet	Linguistic	1. isten to a story 2. nswer Questions (QA) 3. rite a descriptive paragraph 4. iscussion
2	Mantis Shrimp	Spatial	1. atch a Video 2. olor and label 3. bserve pictures
3	Water	Linguistic + Interpersonal	1. isten to Story 2. nswer Questions (QA) 3. rite a descriptive paragraph 4. ntegrate in linguistic Circle story
4	Assassian Bug	Spatial + Interpersonal	1. atch a Video 2. olor and label 3. bserve pictures 4. ntegrate in spatial Circle story

DOI: https://doi.org/10.71058/jodac.v9i2008

5	Igneous Rocks	All the eight Intelligences	1. atch a video 2. ead a story and make discussion 3. atch the ball and answer a question 4. hrow the ball and ask a question 5. ocate volcanic eruptions on the map 6. lapp when you see the right Igneous rock 7. rite a gratitude letter for the rock

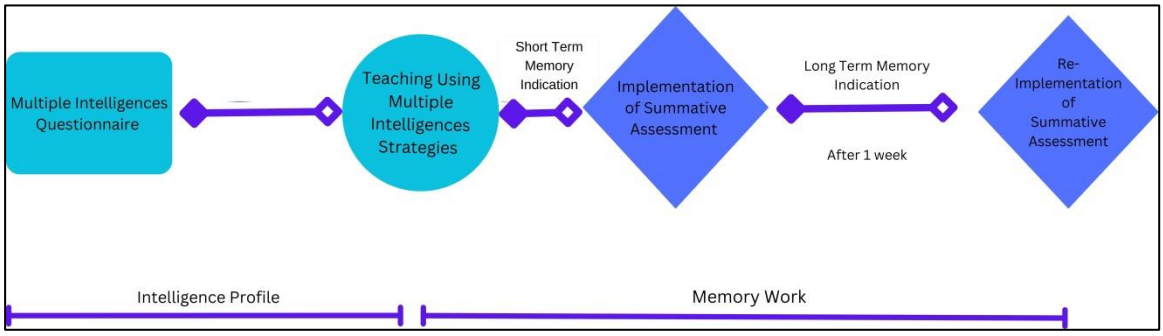
Summative Assessment

Five summative assessments contain 10 direct questions related to the topic explained by the teacher. Each student was subjected to summative assessment based on the topic explained. The same summative assessment was done directly after the explained topic which can be used as an indication for the short term memory work and the same summative assessment was repeated after one week which can be used as an indication for the long term memory work (Čepukaitytė, G. et al, 2023).

Procedure

The study consisted of three stages. The students of grade 4, 5 and 6 were subjected to multiple intelligences questionnaire in the first stage. In the second stage the same teacher explained 5 topics; one topic each week using one of the intelligence (s) in the teaching strategy. After each explained topic the students applied a summative test consists of 10 memorable questions based on the topic explained. The third stage was to apply the same summative test after one week of applying stage two.

Figure 1. Stages of Procedure Process



Statistical Analysis

A total of 179 students participated in the multiple intelligences questionnaires and the summative assessments. After filtering the data, 116 students completed the most assessment process. Descriptive analysis was conducted to examine the various types of multiple intelligences represented within the sample. Subsequently, a Friedman Test was employed to assess whether there are noteworthy

DOI: https://doi.org/10.71058/jodac.v9i2008

differences among the teaching strategies implemented. Following this, the Wilcoxon Signed-Rank Test was applied to evaluate the differences between the two related assessments—Short-Term Memory (STM) and Long-Term Memory (LTM).

Table 2: Intelligences Averages and Assessments Averages

Students	lass	Linguistic	Kinesthetic	Logical	Musical	Intrapersonal	Interpersonal	Spatial	Naturalistic	STM.LI	LTM.LI	STM.SI	LTMSI	STML&II	LTM.L&II	STM.S&II	LTM.S&II	STM.MI	TM.MI
1		5	3	3	2	3	1	2	3	9	9			7	8			4	.5
2		4	3	2	2	5	1	3	5	9	9			9	8	4	7	6.5	
3		3	4	3	4	4	4	3	3	3	8								
4		4	5	5	5	4	5	4	5	7	8	9	5			2	3	2.5	.5
5		4	4	5	5	5	4	3	5	3	3	3	3	9	4	5	4		
6		4	4	4	1	5	4	4	3	5	5	2	3	7	4	4	3	0	
7		4	5	5	5	4	5	3	4	8	8			6	6	4	3	4	
8		4	4	4	2	5	2	1	4	1	5	2	6	4	4	5	4		
9		4	5	4	3	4	3	4	5	7	8	4	3	8	5			5	
10		4	5	5	4	5	5	4	2	5	5	3	3	8	4	5	3	3	.5
11		3	3	3	4	5	5	3	4	9	9	4	4	9	9	8	6	5	
12		4	4	3	4	5	2	5	4	9	10	5	6	8	8	8	6	6	.5
13		4	4	2	3	5	4	3	4	8	8	4	5	8	5	5	5	3.5	.5
14		4	4	4	3	4	4	3	4	9	10	5	4			6	8	4	.5

DOI: https://doi.org/10.71058/jodac.v9i2008

15		3	3	4	5	5	1	4	5	5	3	5	5	6	5	6	5	6	
16		5	5	5	4	5	5	5	3	6	6	5	3	8	5	4	2	3	.5
17		4	4	5	3	4	3	2	5	10	10	6	6	9	10	7	8	8	
18		4	2	3	5	5	3	4	4	10	9	7	6	10	10	8	8	6	
19		4	4	4	2	5	4	5	3	9	10	6	6	5	8	3	5	4.5	
20		4	4	5	5	5	4	5	5	5	3	6	6	6	3	7	5	8.5	.5
21		3	4	4	3	4	5	4	4	8	10	7	6			7	5	6.5	
22		3	4	4	2	5	5	5	4	9	8			4	3	7	9	6	
23		4	2	5	3	4	4	4	4	10	10	5	5	7	5	5	4	7.5	.5
24		4	3	2	2	4	3	3	3	6	6			3	4	4	6	4.5	.5
25		4	5	4	4	4	5	4	4	9	9	5	4	3	5	5	5	5.5	.5
26		4	5	4	5	4	5	4	4	9	8	7	6	6	7	8	7	8	
27		3	2	3	2	5	1	4	3	9	8	5	6	4	3	6	7	5	.5
28		4	4	4	3	3	3	3	5	2	3	6	6	5	3	1	4	5.5	
29		4	3	5	3	3	4	2	4	8	7	6	4	4	3	5	4	4	
30		3	3	4	3	5	4	4	4	9	9			4	2			3.5	
31		2	2	2	2	4	3	3	0	6	6								
32		5	3	1	4	5	5	4	5	10	10	5	5	6	5	6	4	4.5	
33		4	4	3	4	4	4	4	4	9	9	5	5	8	7	4	4		

DOI: https://doi.org/10.71058/jodac.v9i2008

34		5	5	5	5	5	5	5	4	7	4	6	6	9	5	5	6	4.5	
35		5	3	5	2	5	4	5	3	3	3	3	3	9	4	5	4		
36		4	4	3	2	3	2	4	4	8	8	6	7	6	8	5	5	6.5	
37		4	4	5	2	3	3	4	3	5	6	7	6	4	4			4.5	.5
38		4	3	4	5	2	3	3	4	5	6	4	3	5	4	4	6	2.5	.5
39		3	5	3	5	4	3	4	5	7	4	6	6	9	5	5	6	4.5	
40		5	4	5	5	5	5	5	4	3	6	4	3	4	3	6	4	1	.5
41		3	4	4	3	3	3	3	3					3	1	5	3	2	.5
42		5	4	4	4	5	5	4	5	5	8			6	6	5	3	3.5	
43		3	4	4	1	3	4	3	2	7	6	7	6			6	4	2	.5
44		4	5	3	3	5	3	5	5	7	9			6	7	5	4		
45		5	5	5	4	5	4	5	4	5	5	5	4			4	4	4	.5
46		3	3	4	3	3	2	2	3	6	6	1	0	8	2	5	3	2	
47		3	4	3	4	4	4	3	3	5	8			5	4			2	.5
48		3	4	2	4	4	4	3	3	8	4			4	2	4	6	2	.5
49		4	4	4	1	3	4	3	4	9	9	8	7	9	6	7	6	6	
50		5	5	4	2	5	4	5	4			7	4			6	8	1.5	.5

DOI: https://doi.org/10.71058/jodac.v9i2008

51		1	3	3	2	5	2	2	3	9	8							3.5	.5
52		4	3	5	2	3	4	4	4	10	10	9	6			4	6		
53		5	5	3	4	5	5	4	5			7	3					5	
54		3	2	5	2	3	2	3	2	8	8	7	8	10	9	6	6	7	.5
55		5	5	4	5	5	5	5	4	7	9					5	6		
56		3	4	2	5	5	1	1	4	7	8			7	5	7	6	2	
57		5	5	3	5	4	4	3	5	8	7					6	7	4.5	
58		5	4	3	4	5	5	5	5	5	7	8	7	2	3	2	3	1.5	
59		4	5	5	4	5	5	5	4	9	9	7	6	9	9	5	6	6	
60		5	4	4	4	5	4	5	3			6	7	9	7	7	6	7	
61		4	2	5	5	5	2	5	5	10	10	8	5	9	8	4	4	6	
62		5	3	4	5	3	4	4	4	9	10	6	7	8	8	7	8	8	
63		4	5	4	4	4	5	3	3	4	6	5	6	5	5	4	5	5.5	.5
64		5	3	5	4	4	4	4	4	8	10			9	8			6	
65		3	4	3	3	5	5	3	5							8	6		
66		4	4	4	3	4	5	2	5	9	7			7	6	6	6	3	
67		4	5	2	3	5	5	3	4	7	7			4	5	5	3	3	.5
68		5	4	4	3	4	4	4	5	8	9	5	6	8	9	7	6		
69		3	4	5	4	5	5	4	3	7	7			3	3				
70		5	3	4	4	5	4	4	3	10	10					5	7		
71		3	2	4	2	4	4	4	2	7	10			9	9				
72		2	4	3	4	3	3	3	2	6	6			7	4	6	7	4	
73		3	3	5	2	5	2	5	2	4	5	5	5	6	5	6	7	6.5	.5
74		5	4	5	2	3	1	3	4	9	7	6	7			7	7		
75		3	4	4	4	3	2	4	4	1	2	4	5	4	2	5	3		

DOI: https://doi.org/10.71058/jodac.v9i2008

76		4	2	4	4	5	5	5	3	9	8	5	7	7	7	3	3	6.5
77		2	2	4	4	5	5	5	3	8	8	6	4	9	4			
78		4	3	5	4	4	4	4	5	10	10	6	7	6	8	7	7	8.5
79		4	5	5	3	5	4	5	5			8	8	8	8	9	7	7
80		4	3	3	4	4	4	4	5	7	7	5	4	6	6	4	3	4.5
81		4	3	5	4	5	3	5	3	5	7	4	2	7	9	5	6	7
82		4	5	5	5	5	5	5	4	7	6	4	5			5	5	
83		4	5	4	5	5	5	4	4			4	4	4	6	3	5	5.5
84		5	5	5	3	5	4	4	4	10	9	5	6	7	6	6	4	4.5
85		5	4	4	4	5	5	4	3	10	10	8	7	9	10	8	9	8
86		1	3	2	0	2	0	1	0	8	7	4	3			6	8	
87		3	5	5	4	5	5	5	4	5	7	2	2	4	3	3	5	5.5
88		5	5	5	4	5	5	3	4	4	4	4	3	3	2	3	3	4.5
89		4	5	3	4	4	3	4	4	3	6	3	5	5	3	2	5	2.5
90		5	5	5	5	5	5	5	4	6	3	3	3			2	1	4.5
91		5	5	5	4	5	3	4	5			7	5	8	5	2	4	3.5
92		4	3	3	4	5	3	4	3	5	6	4	4	6	5	5	5	3.5
93		4	4	5	5	5	5	3	5	7	9	8	7	7	7	8	7	6
94		1	4	3	3	5	3	4	2	7	5	2	3	4	6	6	3	5
95		4	5	5	3	5	4	5	3	3	5	3	3	6	7			3.5

DOI: https://doi.org/10.71058/jodac.v9i2008

96		4	5	5	3	5	4	5	3	8	7	4	4	9	7	4	3	5.5
97		4	5	4	2	5	3	5	3	8	8	4	4	8	7	6	4		
98		2	4	2	3	4	3	2	2					6	5	7	6	4.5	
99		0	5	4	3	4	0	3	1					4	3	7	5		
100		3	3	2	4	5	5	4	5	6	7	4	4						
101		3	4	4	1	3	3	5	5	8	8	2	2	7	6	6	6	3.5	.5
102		3	3	4	4	3	2	5	4	5	7	5	6			2	4	4.5	.5
103		5	5	5	5	4	4	4	3	9	6	3	4	5	7	5	3		
104		3	4	2	4	4	5	4	4	8	8	7	6	10	10	7	7		
105		4	5	4	4	3	4	5	3	4	2	2	2			4	4		
106		5	5	4	5	4	5	4	4	5	7	1	4	7	8	5	4	2.5	
107		2	3	2	3	5	1	3	0	9	7	5	4	7	4	3	5	7	.5
108		4	4	4	3	3	3	5	3	3	7	3	2	2	5	3	5	6.5	
109		3	4	2	5	5	5	3	4	8	7			6	7	8	7	8	
110		4	5	2	4	4	3	4	4	3	3	1	2	7	6	4	5	5	.5
111		5	4	3	5	3	5	3	4	3	5	5	4					5.5	
112		3	4	5	5	3	5	5	4	3	6	3	5	5	2	5	1	3.5	
113		5	5	2	4	5	5	4	4	6	5	5	5	4	0	6	5	3.5	
114		3	4	5	4	5	5	5	4	8	7	7	6	8	8	7	5	7	
115		5	5	4	5	4	5	4	5	5	3	3	2	7	6	2	4	3	
116		4	2	3	4	3	3	4	2	7	6	6	6	7	6	7	3		

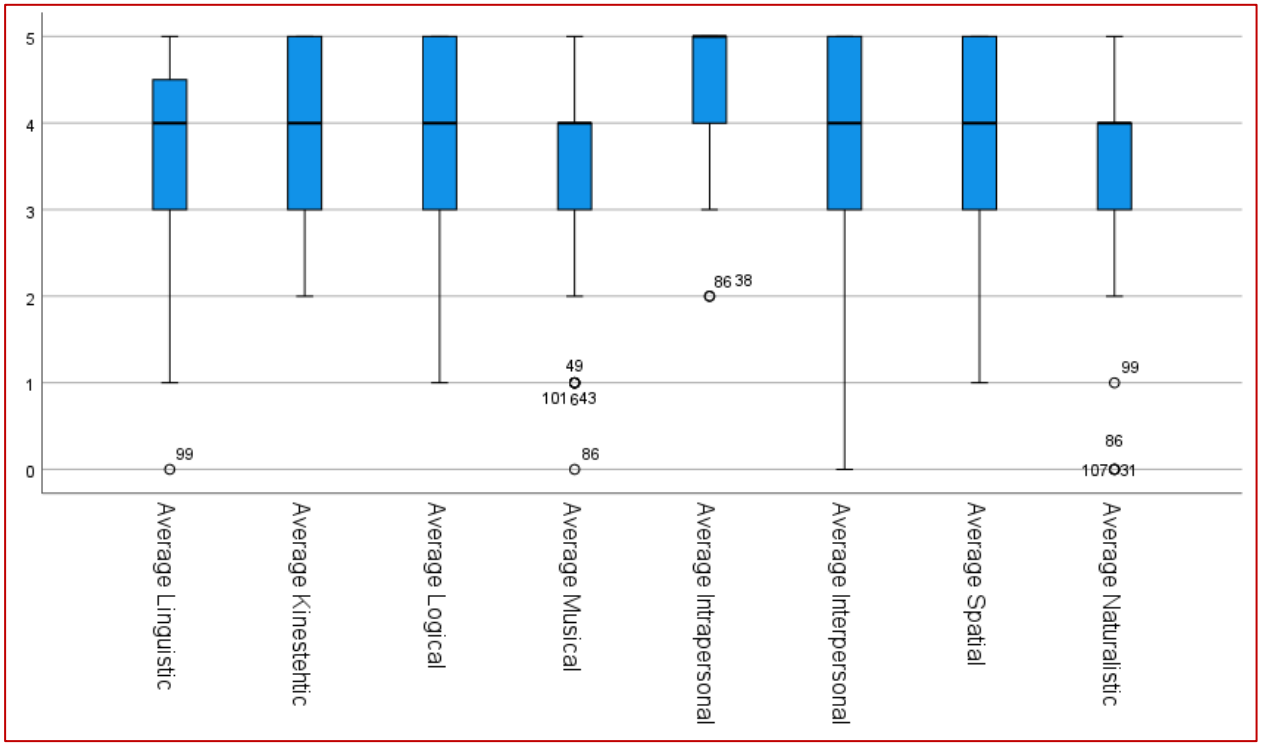
DOI: https://doi.org/10.71058/jodac.v9i2008

Descriptive Analysis and Boxplot for the Student's Multiple Intelligences

Table 3. Descriptive Analysis for MI

	N	Minimum	Maximum	Mean	Std. Deviation
Linguistic	116	0	5	3.81	1.004
Kinesthetic	116	2	5	3.93	.939
Logical	116	1	5	3.84	1.046
Musical	116	0	5	3.54	1.160
Intrapersonal	116	2	5	4.29	.834
Interpersonal	116	0	5	3.72	1.283
Spatial	116	1	5	3.84	.995
Naturalistic	116	0	5	3.70	1.097
Valid N (listwise)	116				

Figure 2.
BoxPlot for students MI



Statistical Analysis for the Summative Assessments

STM summative assessment Friedman Test:

Table 4. STM Summative Assessment Friedman Test

	Mean Rank
STM Linguistic Intelligence	3.97

DOI: https://doi.org/10.71058/jodac.v9i2008

STM Spatial Intelligence	2.31
STM Linguistic and Interpersonal Intelligences	3.64
STM Spatial and Interpersonal Intelligences	2.54
STM Multiple Intelligences	2.54

N	54
Chi-Square	51.494
Df	4
Asymp. Sig.	<.001

LTM summative assessment Friedman Test:

Table 5. LTM summative assessment Friedman Test

N	54
Chi-Square	62.782
Df	4
Asymp. Sig.	<.001

STM and LTM summative assessment Wilcoxon Signed Ranks Test:

Table 6. STM and LTM summative assessment Wilcoxon Signed Ranks Test

		N	Mean Rank	Sum of Ranks
LTM Linguistic Intelligence - STM Linguistic Intelligence	Negative Ranks	30[a]	30.78	923.50
	Positive Ranks	37[b]	36.61	1354.50
	Ties	39[c]		
	Total	106		
LTM Spatial Intelligence - STM Spatial Intelligence	Negative Ranks	36[d]	31.39	1130.00
	Positive Ranks	24[e]	29.17	700.00
	Ties	28[f]		
	Total	88		
LTM Linguistic and Interpersonal Intelligence - STM Linguistic and Interpersonal Intelligence	Negative Ranks	54[g]	40.07	2164.00
	Positive Ranks	21[h]	32.67	686.00
	Ties	18[i]		
	Total	93		
LTM Spatial and Interpersonal Intelligence - STM Spatial and Interpersonal Intelligence	Negative Ranks	46[j]	40.83	1878.00
	Positive Ranks	36[k]	42.36	1525.00
	Ties	18[l]		
	Total	100		
	Negative Ranks	50[m]	44.13	2206.50

DOI: https://doi.org/10.71058/jodac.v9i2008

LTM Multiple Intelligences - STM Multiple Intelligences	Positive Ranks	32[n]	37.39	1196.50
	Ties	8[o]		
	Total	90		

a. LTM Linguistic Intelligence < STM Linguistic Intelligence
b. LTM Linguistic Intelligence > STM Linguistic Intelligence
c. LTM Linguistic Intelligence = STM Linguistic Intelligence
d. LTM Spatial Intelligence < STM Spatial Intelligence
e. LTM Spatial Intelligence > STM Spatial Intelligence
f. LTM Spatial Intelligence = STM Spatial Intelligence
g. LTM Linguistic and Interpersonal Intelligence < STM Linguistic and Interpersonal Intelligence
h. LTM Linguistic and Interpersonal Intelligence > STM Linguistic and Interpersonal Intelligence
i. LTM Linguistic and Interpersonal Intelligence = STM Linguistic and Interpersonal Intelligence
j. LTM Spatial and Interpersonal Intelligence < STM Spatial and Interpersonal Intelligence
k. LTM Spatial and Interpersonal Intelligence > STM Spatial and Interpersonal Intelligence
l. LTM Spatial and Interpersonal Intelligence = STM Spatial and Interpersonal Intelligence
m. LTM Multiple Intelligences < STM Multiple Intelligences
n. LTM Multiple Intelligences > STM Multiple Intelligences
o. LTM Multiple Intelligences = STM Multiple Intelligences

	LTM Linguistic Intelligence - STM Linguistic Intelligence	LTM Spatial Intelligence - STM Spatial Intelligence	LTM Linguistic and Interpersonal Intelligence - STM Linguistic and Interpersonal Intelligence	LTM Spatial and Interpersonal Intelligence - STM Spatial and Interpersonal Intelligence	LTM Multiple Intelligences - STM Multiple Intelligences
Z	-1.370[b]	-1.672[c]	-3.974[c]	-.837[c]	-2.345[c]
Asymp. Sig. (2-tailed)	.171	.095	.000	.403	.019

a. Wilcoxon Signed Ranks Test
b. Based on negative ranks.

Observations

The role of eye movements during construction of absorption and retention preferences remains somewhat ambiguous. In neural computational simulations of ‘learning style enhances memory work’, the preference in judgment tasks is represented by a corresponding emergence of neural activity. This phenomenon encompasses two distinctive mechanisms: the enhancesment of action and the initiation

DOI: https://doi.org/10.71058/jodac.v9i2008

of absorption and retention preferences regarding actions to be undertaken in order for a absorption and retention preference to be rendered. One method to evaluate this is to analyze the behavioural orientation leading up to the absorption and retention preference point. Investigating eye movements is advantageous in providing evidence for the positioning of behaviour in 'learning style enhances memory work' that replicates computational complexity. Eye movements illustrate the escalating significance of absorption and retention preferences, culminating in a gaze trajectory in which these movements dynamically contribute to the valuation of individual opportunities. The intention of this proposal is to support the prior hypotheses that eye movements exert a causal influence on the formation of absorption and retention preferences. In the organizational sciences, the examination of 'learning style enhances memory work' represents an essential preliminary step in establishing a robust foundation for the analysis of equilibrium within organizational systems. Biological-ophthalmic analysis has proven to be a productive advancement in this regard. Recently, a novel avenue of research has emerged, focusing on the interaction between the 'learning style enhances memory work' of an individual and the sustainable development environment that surrounds them. The primary objective of the proposed study is to model the computational and biological foundations of value-based 'learning style enhances memory work' by employing methodologies from biological-ophthalmic and cognitive biological sciences. This proposal seeks to explore two specific avenues in which biological-ophthalmic modeling can contribute to 'learning style enhances memory work': firstly, by integrating biological science with organizational psychology through a formal, rigorous approach to ophthalmic modeling, and secondly, by highlighting evidence for the multiple systems engaged in 'learning style enhances memory work'.

1. Eye movements steady images on retina.
2. Eye movements are behaviours (pattern).
3. Eye movements depict a pattern – image.
4. Eye movements depict the flow of information (inwards) through the iris, pupil and retina to the eye.
5. Eye movements can be calibrated in lab conditions to process data input and information output.
6. Question is how much information can be obtained from single fixation?
7. Question is about perceptual span varies as function of difficulty of distractor agent?
8. Eye movements determine what one sees, attends to, and remembers about surroundings.
9. Results suggest scientific and practitioner perspectives, and explain how deep noteworthy managerial biology absorption and retention preference tectonic shifts(s) influence absorption and retention preference plates.

DOI: https://doi.org/10.71058/jodac.v9i2008

Future Directions

Is there a problem with absorption and retention preference making? Are Trainer - Trainees being threatened by forces of globalisation? Is there an 'alarm'? Mankind, in general, and managers in (digitalised) managerial world, in specific, assumes that (digitalised) absorption and retention preferences they take are rational, optimal and based on best available data. They presume that they are in total command of absorption and retention preferenceal behaviours and satisfy that the end - absorption and retention preference is in fact the best absorption and retention preference. Such propositions are now being examined under lens of cellular and molecular genetics. Issues like how absorption and retention preferenceal processes transgress in eye pathways, how eye considers sources of information before absorption and retention preference, what are the intrinsic processes by which entities reach absorption and retention preferences have that often embody conflicting values have been investigated to design 'rational' absorption and retention preferences. In a setting of incomprehensible (digitalised) absorption and retention preference, how characters engross in tactical explanations of absorption and retention preference problems are being answered in a managerial absorption and retention preference platform of biological -underpinnings. In spite of biological - absorption and retention preferenceal hybrid attempts, there are unaddressed issues in managerial absorption and retention preference perception. The study of OR based 'learning style enhances memory work' and problem solving has attracted attention. Expanded research proposal requires (model - based empirical) study of behaviour and provide setting for basic research proposal on how ill-structured problems are, and can be, solved. Clinician biological - OR based 'learning style enhances memory work', which is much less well understood than individual OR based absorption and retention preference- making and problem solving, can be studied with great profit using already established methods of inquiry, especially through intensive studies.

References

- Algumaei, M., Hettiarachchi, I. T., Farghaly, M., & Bhatti, A. (2023). The Neuroscience of Team Dynamics Exploring Neurophysiological Measures for Assessing Team Performance. IEEE Access, 11, 129173-129194. Google Scholar↗
- Algumaei, M., Hettiarachchi, I. T., Farghaly, M., & Bhatti, A. (2023). The Neuroscience of Team Dynamics Exploring Neurophysiological Measures for Assessing Team Performance. IEEE Access, 11, 129173-129194. Google Scholar
- Barker, G., 2015. Beyond Biofatalism: Human Nature for an Evolving World, New York: Columbia University Press.
- Beatty, J., & Finsen, S., 1989. 'Rethinking the propensity interpretation: A peek inside Pandora's box,' In What the Philosophy of Biology is, Dordrecht: Springer, 17–30.
- Beatty, J., 1980. 'Optimality-design and the strategy of model-building in evolutionary biology,' Philosophy of Science, 47: 532–61.
- Beatty, J., 1995. 'The Evolutionary Contingency Thesis,' in G. Wolters and J. Lennox (eds.), Concepts, Theories, and Rationality in the Biological Sciences, University of Pittsburgh Press.
- Bechtel, W., and Richardson, R., 1993. Discovering Complexity, Princeton: Princeton University Press.
- Bechtel, W., Mandik, P. et al. (eds.), 2001. Philosophy and the Neurosciences: A Reader, Oxford: Blackwell.
- Beckner, M., 1959. The biological way of thought, New York: Columbia University Press.

DOI: https://doi.org/10.71058/jodac.v9i2008

- Beurton, P., Falk, R., and Rheinberger, H.-J. (eds.), 2000. The Concept of the Gene in Development and Evolution, Cambridge: Cambridge University Press.
- Birch, J., 2017. The Philosophy of Social Evolution, Oxford University Press.
- Boorse, C., 1976. 'Wright on functions,' Philosophical Review, 85(1): 70–86.
- Boyatzis, R., & McKee, A. (2011). Neuroscience and leadership The promise of insights. Ivey Business Journal, 75(1), 1-3. Google Scholar↗
- Boyatzis, R., & McKee, A. (2011). Neuroscience and leadership The promise of insights. Ivey Business Journal, 75(1), 1-3. Google Scholar
- Boyd, R., 1999. 'Homeostasis, species, and higher taxa,' in Species: New interdisciplinary essays, edited by R. Wilson, Cambridge, MA: Bradford/MIT Press.
- Brandon, R. N. (ed.), 1996. Concepts and Methods in Evolutionary Biology, Cambridge: Cambridge University Press.
- Brandon, R. N. and Burian, R. M. (eds.), 1984. Genes, Organisms, and Populations, Cambridge, MA: MIT Press.
- Brandon, R. N. and Sansom, R. (eds.), 2007. Integrating Evolution and Development, Cambridge: Cambridge University Press.
- Brandon, R., and M. D. Rausher, 1996. 'Testing adaptationism: A comment on Orzack and Sober,' The American Naturalist, 148: 189–201.
- Brennan, A., 2014. Thinking about Nature (Routledge Revivals): An Investigation of Nature, Value and Ecology, London: Routledge.
- Buller, D. J., 2006. Adapting Minds: Evolutionary Psychology and the Persistent Quest for Human Nature, Cambridge, MA: MIT press.
- Callebaut, W., 1993. Taking the Naturalistic Turn, or How Real Philosophy of Science is Done, Chicago: University of Chicago Press.
- Camerer, C., Loewenstein, G., &Prelec, D. (2005). Neuroeconomics How neuroscience can inform economics. Journal of economic Literature, 43(1), 9-64. Google Scholar↗
- Camerer, C., Loewenstein, G., &Prelec, D. (2005). Neuroeconomics How neuroscience can inform economics. Journal of economic Literature, 43(1), 9-64. Google Scholar
- Ceschi, A., Costantini, A., Sartori, R., Weller, J., & Di Fabio, A. (2019). Dimensions of decision-making An evidence-based classification of heuristics and biases. Personality and Individual Differences, 146, 188-200. Google Scholar↗
- Ceschi, A., Costantini, A., Sartori, R., Weller, J., & Di Fabio, A. (2019). Dimensions of decision-making An evidence-based classification of heuristics and biases. Personality and Individual Differences, 146, 188-200. Google Scholar□
- Colyvan, M., Linquist, S., Grey, W., Griffiths, P. E., Odenbaugh, J., & Possingham, H. P., 2009. 'Philosophical Issues in Ecology: Recent Trends and Future Directions,' Ecology and Society, 14(2): 22; online publication.
- Cooper, G., 2003. The Science of the Struggle for Existence: On the foundations of ecology, Cambridge: Cambridge University Press.
- Coyne, J. A. and Orr, H. A., 2004. Speciation, Sunderland, MA: Sinauer Associates, Inc.
- Craver, C. F., & Darden, L., 2013. In Search of Mechanisms: Discoveries Across the Life Sciences, Chicago: University of Chicago Press.
- Craver, C. F., 2007. Explaining the Eye: Mechanisms and the Mosaic Unity of Neuroscience, Oxford: Oxford University Press.
- Currie, A., 2018. Rock, bone, and ruin: An optimist's guide to the historical sciences, Cambridge, MA: MIT Press.

DOI: https://doi.org/10.71058/jodac.v9i2008

- Daniel Kahneman, Amos Tversky, (1972). Subjective probability A judgment of representativeness. Cognitive Psychology, 3(3), 430-454. Google Scholar↗
- Daniel Kahneman, Amos Tversky, (1972). Subjective probability A judgment of representativeness. Cognitive Psychology, 3(3), 430-454. Google Scholar
- Darden, L. and Maull, N., 1977. 'Interfield theories,' Philosophy of Science, 44(1): 43–64.
- Dawkins, R., 1976. The Selfish Gene, Oxford: Oxford University Press.
- Dimov, C., Khader, P. H., Marewski, J. N., &Pachur, T. (2020). How to model the neurocognitive dynamics of decision making A methodological primer with ACT-R. Behavior research methods, 52, 857-880. Google Scholar↗
- Dimov, C., Khader, P. H., Marewski, J. N., &Pachur, T. (2020). How to model the neurocognitive dynamics of decision making A methodological primer with ACT-R. Behavior research methods, 52, 857-880. Google Scholar
- Dretske, F., 1991. Explaining Behavior: Reasons in a World of Causes, Cambridge, MA: MIT Press.
- Dupré, J. (ed.), 1987. The Latest on the Best: Essays on Optimality and Evolution, Cambridge, MA: MIT Press.
- Dussault, A. C. and F. Bouchard, 2017. {special-character:ldquo)A persistence enhancing propensity account of ecological function to explain ecosystem evolution,' Synthese, 194(4): 1115–1145.
- Ehrlich, P. and Raven, P., 1969. 'Differentiation of Populations,' Science, 165(3899): 1228–1232.
- Eliot, C., 2011a. 'The Legend of Order and Chaos: Communities and Early Community Ecology,' in Handbook of the Philosophy of Ecology, K. de Laplante, B. Brown, and K. Peacocke (eds.), Haarlem: Elsevier, 49–108.
- Eliot, C., 2011b. 'Competition Theory and Channeling Explanation,' Philosophy and Theory in Biology, 3: 1–16.
- Ereshefsky, M., 1992a. 'Eliminative pluralism,' Philosophy of Science, 59(4): 671–690.
- Fodor, J. A., 1974. 'Special sciences. ' Synthese, 28: 77–115.
- Forber, P., 2009. 'Spandrels and a Pervasive Problem of Evidence,' Biology and Philosophy, 24: 247–266.
- Garson, J., 2019. What Biological Functions Are and Why They Matter, Cambridge: Cambridge University Press.
- Garvey, B., 2007. Philosophy of Biology, Stocksfield: Acumen.
- Ghiselin, M. T., 1974. 'A radical solution to the species problem,' Systematic Zoology, 23: 536–44.
- Ginzburg, L., and Colyvan, M., 2004. Ecological Orbits: How planets Move and Populations Grow, Oxford and New York: Oxford University Press.
- Godfrey-Smith, P., 2001a. 'Three kinds of adaptationism,' in Adaptationism and Optimality, S. H. Orzack, and E. Sober (eds.), New York: Cambridge University Press, pp. 335–357.
- Godfrey-Smith, Peter & Benjamin Kerr, 2002. 'Group Fitness and Multi-Level Selection: Replies to Commentaries,' Biology and Philosophy, 17(4): 539–549.
- Godfrey-Smith, Peter & R.C. Lewontin, 1993. 'The Dimensions of Selection,' Philosophy of Science, 60(3): 373–395.
- Gould, S. J., and R. C. Lewontin, 1979. 'The spandrels of San Marco and the Panglossian paradigm: a critique of the adaptationist programme', Proceedings of the Royal Society London, Series B, 205: 581–598.
- Gray, R., 1992. 'Death of the Gene: Developmental Systems Strike Back' in P. Griffiths (ed.), Trees of Life: Essays in the Philosophy of Biology, Dordrecht: Kluwer.
- Grene, Marjorie G., and David Depew, 2004. The Philosophy of Biology: An Episodic History, Cambridge: Cambridge University Press.

DOI: https://doi.org/10.71058/jodac.v9i2008

- Griffiths, P. and R. Gray, 1994. 'Developmental Systems and Evolutionary Explanation' Journal of Philosophy, 91: 277–304.
- Griffiths, P. E. and Stotz, K., 2007. 'Gene,' in M. Ruse and D. Hull, (eds.): Cambridge Companion to Philosophy of Biology, Cambridge: Cambridge University Press, 85–102.
- Griffiths, P. E., 2001. 'Genetic Information: A Metaphor in Search of a Theory,' Philosophy of Science, 68(3): 394–412.
- Griffiths, P., 2002. 'What is Innateness?,' Monist, 85: 70–85.
- Griffiths, Paul E., 1999. 'Squaring the circle: Natural kinds with historical essences,' in Species, New interdisciplinary essays, edited by R. A. Wilson, Cambridge, MA: Bradford/MIT Press:209–228.
- Haber, M.H., 2008. 'Phylogenetic Inference,' in A. Tucker (ed.), A Companion to Philosophy of History and Historiography, Malden, MA: Blackwell Publishing.
- Havstad, J. C., 2011. 'Problems for natural selection as a mechanism,' Philosophy of Science, 78(3): 512–523.
- Hempel, Carl, 1965. Aspects of Scientific Explanation and Other Essays in the Philosophy of Science, New York: The Free Press.
- Hennig, W., 1966. Phylogenetic Systematics, Urbana, IL: University of Illinois Press.
- Hull, D. L. and Ruse, M. (eds.), 1998. The Philosophy of Biology, Oxford: Oxford University Press.
- Hull, D. L. and Ruse, M., 2007. The Cambridge Companion to the Philosophy of Biology, New York, Cambridge University Press.
- Hull, D. L., 1965. 'The Effects of Essentialism on Taxonomy: 2,000 Years of Stasis,' British Journal for the Philosophy of Science, 15: 314–326 and 16: 1–18.
- Jablonka, E., 2002. 'Information Interpretation, Inheritance, and Sharing,' Philosophy of Science, 69(4): 578–605.
- Jax, K., 2005. 'Function and 'functioning' in ecology: what does it mean?' Oikos, 111(3): 641–648.
- Justus, J., 2008. 'Ecological and Lyapunov stability,' Philosophy of Science, 75: 421–436.
- Kitcher, P., 1982. Abusing science: The case against creationism, Cambridge, MA: MIT Press.
- Krajbich, I., Oud, B., & Fehr, E. (2014). Benefits of neuroeconomic modeling New policy interventions and predictors of preference. American Economic Review, 104(5), 501-506. Google Scholar↗
- Krajbich, I., Oud, B., & Fehr, E. (2014). Benefits of neuroeconomic modeling New policy interventions and predictors of preference. American Economic Review, 104(5), 501-506. Google Scholar
- Kronfeldner, M., 2018. What's left of human nature?: A post-essentialist, pluralist, and interactive account of a contested concept, Cambridge, MA: MIT Press.
- Lebiere, C., Pirolli, P., Thomson, R., Paik, J., Rutledge-Taylor, M., Staszewski, J., & Anderson, J. R. (2013). A Functional Model of Sense making in a Neurocognitive Architecture. 2013(1), 01-29. Google Scholar↗
- Lebiere, C., Pirolli, P., Thomson, R., Paik, J., Rutledge-Taylor, M., Staszewski, J., & Anderson, J. R. (2013). A Functional Model of Sense making in a Neurocognitive Architecture. 2013(1), 01-29. Google Scholar
- Lee, D. (2013). Decision making from neuroscience to psychiatry. Neuron, 78(2), 233-248. Google Scholar↗
- Lee, D. (2013). Decision making from neuroscience to psychiatry. Neuron, 78(2), 233-248. Google Scholar
- Levy, A., 2011. 'Information in biology: A fictionalist account,' Noûs, 45(4): 640–657.
- Lewens, T., 2015. Cultural evolution: conceptual challenges, Oxford: Oxford University Press.
- Lieberman, M. D. (2010). Social cognitive neuroscience. Handbook of social psychology, 5, 143-193. Google Scholar↗

DOI: https://doi.org/10.71058/jodac.v9i2008

- Linquist, S., 2008. 'But is it progress? On the alleged advances of conservation biology over ecology,' Biology and Philosophy, 23: 529–544.
- Linquist, S., Gregory, T. R., Elliott, T. A., Saylor, B., Kremer, S. C., & Cottenie, K., 2016. 'Yes! There are resilient generalizations (or 'laws') in ecology,' The Quarterly Review of Biology, 91(2): 119–131.
- Lloyd, E. A., 1988. The Structure and Confirmation of Evolutionary Theory, Westport: Greenwood Press.
- Machamer, P., Darden, L. et al., 2000. 'Thinking about Mechanisms,' Philosophy of Science, 67(1): 1–25.
- Machery, E., 2008. 'A plea for human nature,' Philosophical Psychology, 21(3): 321–329.
- MacLaurin, J. and Sterelny, K., 2008. What is Biodiversity? Chicago: University of Chicago Press.
- Maienschein, J. and Laubichler, M. L., 2004. From Embryology to Evo-Devo, Cambridge: Cambridge University Press.
- Mameli, M. and Bateson, P., 2006. 'Innateness and the Sciences,' Biology and Philosophy, 21: 155–188.
- Matthen, M., & Ariew, A., 2002. 'Two ways of thinking about fitness and natural selection,' The Journal of Philosophy, 99(2): 55–83.
- Maynard Smith, J., 2000. 'The concept of information in biology,' Philosophy of Science, 67(2): 177–194.
- Maynard Smith, J., Burian, R. et al., 1985. 'Developmental Constraints and Evolution,' Quarterly Review of Biology, 60(3): 265–287.
- Mayr, E., 1963. Animal species and evolution, Cambridge, MA: Harvard University Press.
- Millikan, R. G., 1984. Language, Thought and Other Biological Categories, Cambridge, MA: MIT Press.
- Mills, S. and Beatty, J., 1979. 'The propensity interpretation of fitness,' Philosophy of Science, 46: 263–286.
- Millstein, Roberta L., 2002. 'Are Random Drift and Natural Selection Conceptually Distinct?' Biology & Philosophy, 17(1): 33–53.
- Mishler, B. D., & Brandon, R. N., 1987. 'Individuality, pluralism, and the phylogenetic species concept,' Biology and Philosophy, 2(4): 397–414.
- Mitchell, S. D., 1997. 'Pragmatic laws,' Philosophy of Science, 64: S468–S479.
- Nagel, Ernest, 1961. The Structure of Science: Problems in the Logic of Scientific Explanation, New York: Harcourt, Brace & World.
- Neander, K., 1991. 'Functions as selected effects: the conceptual analyst's defense,' Philosophy of Science, 58: 168–184.
- Nunes-Neto, N., A. Moreno, and C. N. El-Hani, 2014. 'Function in ecology: an organizational approach,' Biology & Philosophy, 29(1): 123–141.
- O'Connor, C., 2019. The Origins of Unfairness: Social Categories and Cultural Evolution, Oxford: Oxford University Press.
- O'Malley, M., 2014. Philosophy of microbiology, Cambridge: Cambridge University Press.
- Odenbaugh, J., 2001. 'Ecology, stability, model building and environmental policy: a reply to some of the pessimism,' Philosophy of Science, 68: S493–S505.
- Okasha, S., 2002. 'Darwinian metaphysics: Species and the question of essentialism,' Synthese, 131(2): 191–213.
- Oliver, M. (2011). Towards an understanding of neuroscience for science educators. Studies in Science Education, 47(2), 211-235. Google Scholar↗

DOI: https://doi.org/10.71058/jodac.v9i2008

- Opris, I., Ionescu, S. C., Lebedev, M. A., Boy, F., Lewinski, P., & Ballerini, L. (2020). Application of neural technology to neuro-management and neuro-marketing. Frontiers in neuroscience, 14, 53. Google Scholar↗
- Orzack, S. H., and E. Sober, 1994. 'Optimality models and the test of adaptationism,' The American Naturalist, 143: 361–380.
- Oyama, S., 2000. The Ontogeny of Information, 2nd Edition, Duke University Press.
- Oyama, S., P. Griffiths and R. Gray (eds.), 2001. Cycles of Contingency, Cambridge, MA: MIT Press.
- Papineau, David, 1987. Reality and Representation, Blackwell.
- Parincu, A. M. T., Capatina, A., Varon, D. J., Bennet, P. F., &Recuerda, A. M. (2020). Neuromanagement the scientific approach to contemporary management. In Proceedings of the International Conference on Business Excellence (Vol. 14, No. 1, pp. 1046-1056). Google Scholar↗
- Parincu, A. M. T., Capatina, A., Varon, D. J., Bennet, P. F., &Recuerda, A. M. (2020). Neuromanagement the scientific approach to contemporary management. In Proceedings of the International Conference on Business Excellence (Vol. 14, No. 1, pp. 1046-1056). Google Scholar↗
- Pence, C. H., & Ramsey, G., 2013. 'A new foundation for the propensity interpretation of fitness,' The British Journal for the Philosophy of Science, 64(4): 851–881.
- Pigliucci, M. and Kaplan, J. M., 2006. Making Sense of Evolution: The Conceptual Foundations of Evolutionary Theory, Chicago: University of Chicago Press.
- Pittendrigh, C. S., 1958. 'Adaptation, natural selection and behavior,' Behavior and Evolution, in A. Roe and G. G. Simpson (eds.), New Haven: Yale University Press, 390–416.
- Plutynski, A., 2018. Explaining cancer: Finding order in disorder, Oxford: Oxford University Press.
- Polger, T. W., & Shapiro, L. A., 2016. The multiple realization book, Oxford: Oxford University Press.
- Potochnik, A., 2009. 'Optimality modeling in a suboptimal world,' Biology and Philosophy, 24: 183–197.
- Rabenu, E., Yaniv, E., & Elizur, D. (2017). The relationship between psychological capital, coping with stress, well-being, and performance. Current Psychology, 36, 875-887. Google Scholar↗
- Rajab, S., & Sharma, V. (2018). A review on the applications of neuro-fuzzy systems in business. Artificial Intelligence Review, 49, 481-510. Google Scholar↗
- Ramsey, G., 2013. 'Human nature in a post-essentialist world,' Philosophy of Science, 80(5): 983–993. Chicago
- Richardson, R. C., 2010. Evolutionary psychology as maladapted psychology, Cambridge, MA: MIT Press.
- Robert, J. S., 2004. Embryology, Epigenesis and Evolution: Taking Development Seriously, Cambridge and New York: Cambridge University Press.
- Rock, D., & Cox, C. (2012). SCARF in 2012 Updating the social neuroscience of collaborating with others. NeuroLeadership journal, 4(4), 1-16.Google Scholar↗
- Rosenberg, A. and McShea, D. W., 2008. Philosophy of Biology: A contemporary introduction, New York and London: Routledge.
- Rosenberg, A., 1978. 'The supervenience of biological concepts,' Philosophy of Science, 45: 368–386.
- Ruse, M., 1982. Darwinism Defended, Addison-Wesley.
- Sanfey, A. G. (2007). Decision neuroscience New directions in studies of judgment and decision making. Current Directions in Psychological Science, 16(3), 151-155. Google Scholar↗
- Santana, C.,, 2014. 'Save the planet: Eliminate biodiversity,' Biology & Philosophy, 29(6): 761–780.
- Sarkar, S. and Plutynski, A., 2008. A Companion to the Philosophy of Biology, Oxford: Blackwell.
- Sarkar, S., 1992. 'Models of reduction and categories of reductionism,' Synthese, 91: 167–94.

DOI: https://doi.org/10.71058/jodac.v9i2008

- Satpathy, C. P. D. J. (2014). Dynamics of neuroeconomics decision-making. Available at SSRN 2509585, 01-25. Google Scholar↗
- Satpathy, C. P. D. J., & Banerji, J. S. (2019). Neuro–Economic 'Agent' In Business Transformation. IUJ Journal of Management, 7(2), 93-110. Google Scholar↗
- Satpathy, C. P. D. J., & Neena, P. C. (2019). Neuro-Trajectories in Entrepreneurial Decisions. Journal of Xi'an University of Architecture & Technology, 01-08. Google Scholar↗
- Satpathy, C. P. D. J., Malhotra, S., Hejmadi, A., Pradhan, S., Sahoo, K., & Wadhwa, C. (2019). Endoscopic View of Neuro-Preference Connectionism. European Journal of Business & Social Sciences. 01-21.Google Scholar↗
- Satpathy, C. P. D. J., Mallik, B., & Gorg, S. (2019). Skin Conductance in 'Smart'Entrepreneurial Judgement. Available at SSRN 3485507.Google Scholar↗
- Satpathy, C. P. D. J., Okeyo, W., Isa, S. M., Lockhart, J., Larsen, T. B., Rolle, J. A., ... & Aithal, P. S. (2023). Neuro-Signatures in C-3 Economic Decisions. Available at SSRN 4352320. pp. 01-26.Google Scholar↗
- Satpathy, J. (2012). Issues in neuro-management decision making. International Journal of Business Management, 2(2), 23-36. Google Scholar↗
- Schaffner, K. F., 1967a. Antireductionism and Molecular Biology, in Munson, R. (ed.) Man and Nature: Philosophical Issues in Biology, New York: Dell, 44–54.
- Schwartz, J., Thomson, J., & Kleiner, A. (2017). The neuroscience of strategic leadership. Organization and People, 87(1), 01-10. Google Scholar↗
- Segerstråle, U. C. O., 2000. Defenders of the truth: The battle for science in the sociology debate and beyond, Oxford: Oxford University Press.
- Serra, D. (2021). Decision-making from neuroscience to neuroeconomics—an overview. Theory and Decision, 91(1), 1-80. Google Scholar↗
- Serra, D. (2021). Decision-making from neuroscience to neuroeconomics—an overview. Theory and Decision, 91(1), 1-80. Google Scholar□
- Shea, N., 2007. 'Representation in the genome and in other inheritance systems', Biology and Philosophy, 22(3): 313–331.
- Shrader-Frechette, K. S. and McCoy, E. D., 1993. Method in Ecology: Strategies for Conservation, Cambridge and New York: Cambridge University Press.
- Skipper Jr, R. A., & Millstein, R. L., 2005. 'Thinking about evolutionary mechanisms: Natural selection,' Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences, 36(2): 327–347.
- Smart, J. J. C., 1959. 'Can biology be an exact science?' Synthese, 11(4): 359–368.
- Sober, E. and Wilson, D. S., 1998. Unto Others: The Evolution and Psychology of Unselfish Behavior, Cambridge, MA: Harvard University Press.
- Sober, E., (ed.), 2006. Conceptual Issues in Evolutionary Biology, Cambridge, MA: MIT Press.
- Sober, E., 1984a. 'Fact, fiction and fitness: a reply to Rosenberg,' Journal of Philosophy, 81: 372–383.
- Sokal, R. R. and T. J. Crovello, 1970. 'The biological species concept: a critical evaluation,' The American Naturalist, 104 (936): 127–153.
- Sterelny, K. and Griffiths, P. E., 1999. Sex and Death: An Introduction to the Philosophy of Biology, Chicago: University of Chicago Press.
- Sterelny, K., & Kitcher, P., 1988. 'The return of the gene,' The Journal of Philosophy, 85(7): 339–361.
- Sterelny, K., 2006. 'Local ecological communities,' Philosophy of Science, 73: 215–231.
- Sterelny, K., K. Smith, and M. Dickison, 1996. 'The extended replicator,' Biology and Philosophy, 11: 377–403.

DOI: https://doi.org/10.71058/jodac.v9i2008

- Stotz, K. and Griffiths, P. E., 2008. 'Biohumanities: Rethinking the relationship between biosciences, philosophy and history of science, and society,' Quarterly Review of Biology, 83(1): 37–45.
- Thompson, P., 1988. The structure of biological theories, Albany, NY: SUNY Press.
- Turner, D., 2011. Paleontology: a philosophical introduction, Cambridge: Cambridge University Press.
- Van Valen, L., 1976. 'Ecological species, multispecies, and oaks,' Taxon, 25(2–3): 233–239.
- Vartanian, O., & Mandel, D. R. (Eds.). (2011). Neuroscience of decision making. Psychology Press. Google Scholar↗
- Waldman, D. A., Wang, D., Stikic, M., Berka, C., &Korszen, S. (2015). Neuroscience and team processes. In Organizational neuroscience (Vol. 7, pp. 277-294). Emerald Group Publishing Limited. Google Scholar↗
- Walsh, D. M., Lewens, T., & Ariew, A., 2002. 'The trials of life: Natural selection and random drift,' Philosophy of Science, 69(3): 429–446.
- Walsh, Denis, 2006. 'Evolutionary Essentialism,' British Journal for the Philosophy of Science, 57(2): 425–448.
- Waters, C. K., 1990. Why the Antireductionist Consensus Won't Survive the Case of Classical Mendelian Genetics, in A. Fine, M. Forbes and L. Wessells (eds.), Proceedings of the Biennial Meeting of the Philosophy of Science Association (Volume 1: Contributed Papers), Chicago: University of Chicago Press, 125–139.
- Weisberg, M., & Reisman, K., 2008. 'The robust Volterra principle,' Philosophy of science, 75(1): 106–131.
- Weisberg, M., 2012. Simulation and similarity: Using models to understand the world, Oxford: Oxford University Press.
- Wiley, E. O., 1978. 'The evolutionary species concept reconsidered,' Systematic Biology, 27(1): 17–26.
- Wilkins, J. S., 2009. Species: a history of the idea, Volume 1, Berkeley: University of California Press.
- Williams, George C., 1966. Adaptation and Natural Selection: A Critique of Some Current Evolutionary Thought, Princeton, NJ: Princeton University Press.
- Williams, M. B. and Rosenberg, A., 1985. ''Fitness' in fact and fiction: a rejoinder to Sober,' Journal of Philosophy, 82: 738–749.
- Wilson, E. O., 1975. Sociobiology: The New Synthesis, Cambridge, MA: Harvard University Press.
- Wilson, R. A. (ed.), 1999. Species: New Interdisciplinary Essays, Cambridge, MA: MIT Press.
- Wilson, R. A., 2005. Genes and the agents of life: the individual in the fragile sciences biology, Cambridge: Cambridge University Press.
- Wilson, R. A., Barker, M. J., & Brigandt, I., 2007. 'When traditional essentialism fails: biological natural kinds.' Philosophical Topics, 35(1/2): 189–215.
- Wimsatt, W. C., 1972. 'Teleology and the Logical Structure of Function Statements,' Studies in History and Philosophy of Science, 3: 1–80.
- Woodger, J. H., 1952. Biology and Language: An Introduction to the Methodology of the Biological Sciences including Medicine, Cambridge: Cambridge University Press.
- Wright, L., 1973. 'Functions,' Philosophical Review, 82: 139–168.

Yoon, Carolyn, Richard Gonzalez, Antoine Bechara, Gregory S. Berns, Alain A. Dagher, Laurette Dubé, Scott A. Huettel et al. "Decision neuroscience and consumer decision.

DOI: https://doi.org/10.71058/jodac.v9i2008