



Overview of Semiotic Concept on Preschooler Comprehension in Behaviour Change

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Abstract

This study partially reviewed how the semiotic idea of preschooler comprehension influences changes in behaviour. The review of the semiotics concept was defined using recent and past eras, specifying the specific meaning and how the recent output had been discovered. The research objective of this study is to identify the semiotics concept in past and current scenarios that relate to preschooler comprehension of behaviour change based on describing their outputs. In conclusion, the review explores the semiotic concept of preschoolers' comprehension of behaviour change in contemporary and older studies' findings. Recent and previous research findings on how the semiotic concept affected preschoolers' ability to determine, analyse, and understand the communication process as it relates to behavioural changes were presented.

Keywords: Semiotics Concept, Preschooler Comprehension, Behaviour Change

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1.0 Introduction

This study dealt closely with specific literature searches carried out for this investigation, which aimed to discover how the semiotic idea of preschooler comprehension influences shifts in behaviour. The review of semiotics was detailed by using instances from the current and the more distant past, demonstrating the particular meaning and how the most recent production had been discovered. This review was done by utilising examples from both the recent and the more distant past. This study wanted to provide a clear discussion of the semiotic endeavour in the most recent situation connected to the concept of preschooler comprehension in the process of behaviour change based on the classification of their outputs. The study discussed preschoolers' determination, interpretation, and communication process comprehension concerning behavioural changes, as seen in the findings of both more recent studies and older studies.

2.0 Literature Review

2.1 Semiotic Concept

The past semiotic concept was established by the most famous philosophers, Charles Sanders Peirce and Ferdinand de Saussure. Peirce equated 'semiotic' with logic that studies human thought. The relativity of the three classes or taxonomies of signs (icon, index,

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and symbol), the mental process and constraints of signals, and the triadic/trichotomy system underpinned Peirce's theory. Semiosis (semeiosis) was coined by Peirce, who defined it as "activity or influence involving three subjects, such as a sign, its object, and its interpretant. Linguist Ferdinand de Saussure founded general linguistic theory. He is credited with pioneering modern linguistics. He developed the sign theory in linguistics because he thought linguistic signals should be situated in a broader ground theory. Ferdinand initially used "semiology" in a few sets of class notes his students made based on lectures from 1907 to 1911, which were published in a book called "Course in General Linguistics" and widely distributed. That idea motivated and grounded him. Structuralism was influenced by such masterpieces (Grenz, 2001).

Semiology—derived from the Greek word for sign, semeion—has promise. This research falls under social psychology and general psychology. Semiology shows what signs are and what laws govern them. Since this area of knowledge does not yet exist, it is difficult to speculate on its contents, yet it must live and have a reserved space. Semiology's laws apply to linguistics, which may confine a good portion of anthropological facts. But linguistics is just a part of semiology. Semiology will uncover language laws (Leeds-Hurwitz, 1993, p. 4). Saussure's theory emphasises language as a sign system, and other sign processes are utilised worldwide. He believes that language is the most advanced sign system since it shapes reality. He emphasises language above speech. The arbitrary system, networking relationship between signs, two-dimensional system, and conventional or consensus system make up Saussure's sign theory foundation. Saussure's theory of signs emphasises the intrinsic structure of human minds' cognition or action in shaping tangible (material) or ephemeral (abstract) signs of their surroundings. A discussion can function as existing and communicating according to language factors. Saussure's notion that "language does not represent reality but rather manufactures it" supports the idea that language gives meaning to both actual and non-real things (Chandler, 2002, p. 28). Saussure's structuralism has influenced famous researchers like Levi Strauss.

(Khoshsaligheh et al., 2020), page 84) elaborates on the notion that "readers' cognition and understating should additionally be considered as footnoting, assuming that it provides essential information." This is stated in the research that was published by the authors. This might lead to a stronger knowledge of the narrative and, as a consequence of that, a deeper immersion in the fictional setting of the story. A recent study (Shapoval et al., 2022) discovered literary translation involves certain subsequent stages (phases) and is based on a comparative analysis of source and target language text. She proposes a general semiotic model structured in three phases: pre-translational analysis, choosing equivalence, and adaptation of source and target language text. These two researchers explain "readers" cognition, understanding, translation process, appropriate target language, and retention of communicative function to form a systematic description.

The previous paper (Halina Sendera Mohd. Yakin, Andreas Totu, 2014) compares Saussure's semiology and Peirce's semiotics, showing the link between communication and semiotics. Semiotic theory focuses on constructing and operating symbol systems in communication. Wendy Leeds-Hurwitz (1993) defines communication as a meaningless human gesture, while semiotics refers to the study of sign systems that function as symbols or signals. Leeds-Hurwitz said the relationship between semiotics and non-verbal communication might be described as a "unique fit" to grasp signals, codes, and culture (1993, p. xvii). Her statement is standard since semiotics and communication form a continuum and sustain social culture. Umberto Eco combined semiotics, communication, and culture when he said, "To communicate is to use the world as a semiotic device. "I think culture is just that" (Leeds-Hurwitz, 1993, p. 17).

(Martin Muderspach Thellefsen, 2017), Peirce's semiotics offers a holistic perspective that not only takes into account ontological conditions but also makes room for epistemological repercussions; this is one of the most compelling arguments in favour of basing our theoretical approach on Peirce's semiotics. As a consequence of this, an extensive comprehension of knowledge would, from the viewpoint of semiotics, be the process of obtaining information as signs that retain objective (ontological) characteristics, getting inferential (epistemological) features as well. This case will appear because signs hold both objective and interpretive features. Peirce's triadic structure of the sign, most often defined as the triadic interaction between "representamen," "object," and "interpretant," produces an understanding of signs that is tied both to reality and interpretation. Peirce's triadic structure of the sign The interpretation of an item involves a merging of that object with the representation of it; nevertheless, whether the interpretation is accurate or not is a subject of "inquiry" and "critique. Let us suppose that the "thing" in a sign-relation is a certain type of information. It could be an actual occurrence, or it could be a physical phenomenon. So, the thing is real, as that is a property it contains. The perception of an object can be thought of as the materialisation of a latent potential since it is motivated by the thing itself and because different people experience the same object in various ways. Take, for example, a footprint left at a crime scene; it may provide clues as to the offender's height, weight, gender, etc. This sort of data is based on characteristics that may be determined through careful and systematic observation; nevertheless, some of the observations are based on a supposition; for instance, one might infer a person's weight and gender from the hardness of the ground and their size. The object's information is genuine and driven by the item itself; nevertheless, the investigator's experience and background knowledge, or collateral experience, may cause him to interpret the information differently. This case also shows that investigators might develop more elaborate hypotheses by putting together pieces of information (or "clues") that have previously been pieced together. Once again, these speculations may be confirmed or refuted, but they are made feasible by the subject under scrutiny. The object is a symbol of possibility, according to semiotic theory. Semiosis encompasses semiotic qualities, semiotic activities and products, and semiotic products. Semiotics examines the connotation of semiotics and semiosis and the "subject"-defining the difficulty of semiotics and semiotics.

2.2 Preschooler Comprehension

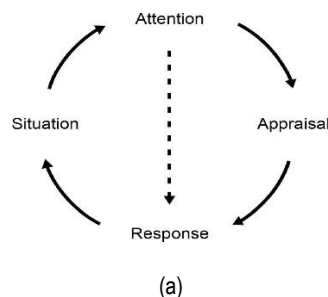
Comprehension can be improved by employing the approach of visualising the material being read. It is necessary to stimulate children's imaginations so that they can form an image in their heads based on what they read in the text. Children can form mental images of

what they are reading about. Children are better able to comprehend the material they read, remember the specifics of what they experienced, and draw meaningful conclusions from the information they took in. Helping children with challenging behaviour, motivation, and understanding, as well as functioning as a tool to assist with transitions, are some of the additional benefits of using pictures with children. Reducing anxiety, resistance to change, and social isolation are also among the benefits of using visuals with children. There are a few opinions from different perspectives on improving children's comprehension besides using a static visual. Visuals that move, such as animations and movies, are essential for attracting the viewer's attention. On the other hand, static sights, such as photographs, are better at remaining in the mind of the spectator since they are not always shifting. The amount of text included in visuals should be kept to a minimum, except for when statistics are being presented, as including an excessive amount of text will dilute the effectiveness of the message.

Superior image attention may not necessarily lead to better understanding because it is only one kind of focus among many that can predict learning. To better comprehend the conditions in which a helpful approach might improve comprehension, we focus on another tactile source of input, aural input, and examine the contribution of the child's attribute of baseline vocabulary. The capability of young children to successfully absorb and use the additional auditory feedback provided by a viewer to strengthen their comprehension may be correlated explicitly to their level of linguistic skills. (Preeti G. Samudraa, Kevin M. Wong, and Susan B. Neuman, 2020) Viewing improved attentiveness to the programme, but neither variable independently predicted understanding. Further investigation found that only youngsters with excellent resources, vocabulary, and visual skills profited from watching as opposed to watching solo.

2.3. Behaviour Change

(A.L. Duckworth, T.S. Gendler, and J.J. Gross, 2016) The first thing to understand is how to form behaviour in the first place and how to modify it; we should understand how behaviour can change. Following the procedure of behavioural changes, all emotions respond, believe, or perceive in a particular situation whether they will be great for us in the big scheme of things or satisfy fleeting moment aspirations reply inclinations that establish throughout instances to minutes in quantifiably distinct stages. This model postulates that all impulses act, think, or feel in a certain way, regardless of whether they are suitable for us in the long run or merely satisfy momentary desires (Duckworth et al., 2016). Specifically, as shown in Figure 1, impulses develop in a recursive cycle that only goes in one direction. This cycle may or may not include the functional evaluation of our available choices. When the urges reach a particular tipping point, we give in to them and act on them. These behavioural responses, in turn, may alter our circumstances, which, in turn, may cause a shift in our attention, and so on.



(a)
Fig. 1. The Process Models of Self-Control

Some of the researchers found that emotional appraisal may affect some of the reactions. According to Fernando et al. (2017) and Parsafar and Davis (2018), an emotional appraisal is a process by which a variety of reactions are generated as a result of the event's subjective judgements. The term "emotional appraisal" refers to the processes by which individuals' cognitions about events anticipate their emotional reactions to those experiences. These processes can be observed in both individuals and groups. The term "reappraisal" refers to shifting one's way of thinking about past occurrences and how those occurrences relate to oneself. This shift in thinking can subsequently cause one's emotional responses to change.

This activity leads to information that gives personal meaning to perceived events that have been extracted from environmental stimuli. It is the outcome of the interaction between the features of the environmental stimuli and the individual's sensitivity to those properties (Yih et al., 2018). The nature of the stimuli that are presented in the activity is one of the elements that play a role in the evaluation of emotions that are experienced. Within the realm of static visual stimuli, several studies make use of photographs or images. These studies have been conducted on both adults and children (Coutinho et al., 2018; Ramirez et al., 2021; Stenson et al., 2019). Concerning the application of variable visual stimulation, there is also a bibliography in the adult population (Steiger et al., 2019) and youngsters (Guo & Wu, 2020), albeit one that is significantly less extensive in comparison to the utilisation of static visual stimuli. This methodology is also applied in several regional studies in which movies are utilised in the role of emotional state modulators in young adults (Michellini et al., 2019). When compared to static visual stimuli, dynamic ones allow for a higher degree of ecological validity, an optimal level of realism, and the ability to trigger a wider variety of emotions, which in turn produces major changes in both the behavioural and physiological aspects of the subject's experience (Schaefer et al., 2010).

3.0 Methodology

A conceptual approach and a review of the relevant prior research are both included in the scope of this paper (LR) of the vital literature from leading scholars' perspectives on semiotic theory concerning the evolution process of the semiotic endeavour in the most recent situation connected to the concept of preschooler comprehension in the process of behaviour transformation based on the classification of their outputs. As a consequence, and to establish which resources are already available, the researchers carried out a targeted literature study from selected articles about semiotics concepts and preschoolers' comprehension to locate recent and current publications in the research. Relevant database searches have also been used in this study. As a result, the findings of the preceding years make for better grounds for exploring prospective semiotic notions presented in this article about preschooler comprehension in the process of behaviour transformation based on the classification of their outputs. Utilising Google Scholar, a comprehensive literature review covering the past year's papers was carried out to identify recent publications. A detailed study of the semiotic concept of preschoolers' comprehension of behaviour change was defined by researchers. The descriptive and structured model was established to incorporate semiotic concepts' fundamental ideas and functions. The understanding of an object and sign determination, interpretation, and communication in the process of comprehension establishment of preschoolers concerning behavioural changes, as seen in the findings of more recent studies and older studies.

4.0 Findings

The previous study investigated the connections between semiotic concepts with epistemological, ontological, signifiers, referents, communication, culture, the universality of language, and information. This study specifically looked at i) preschoolers' comprehension and ii) the potential of preschoolers' comprehension, including determination, interpretation, and communication processes, using the semiotic concept that provokes preschoolers' behaviour change. The practical ramifications of the study's findings are relevant to graphic designers since they offer valuable insights into the strategic use of semiotic concepts to achieve optimal design outcomes. Graphic designers may create visual content that effectively communicates messages and encourages preschoolers to actively respond and form beliefs by utilising an optimally visualised approach tailored to their cognitive abilities. The consideration of thinking and comprehension level of the receiver has to take part in any semiotic concept in the idea design field.

5.0 Discussion

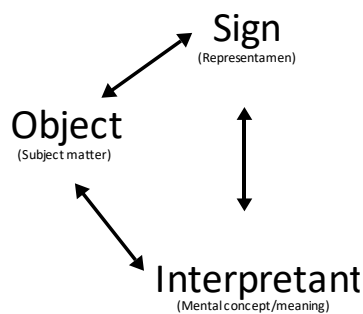


Fig.2 Charles Sanders Peirce semiotic concept

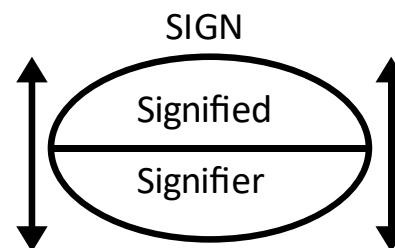


Fig.3 Ferdinand de Saussure semiotic concept

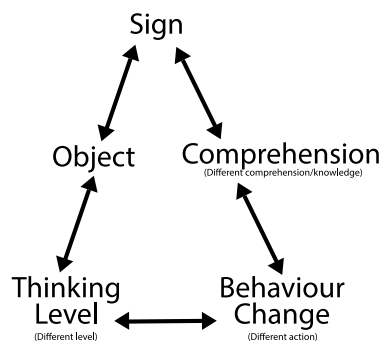


Fig.4 Preschoolers semiotic concept

Figures 2 and 3 present a review of the current body of the main research on the subject of semiotic concepts from the leading scholars' perspectives of Charles Sanders Peirce and Ferdinand de Saussure. Many researchers use this semiotic approach to understand sign concepts. The clear picture in Fig. 2 of how Peirce's semiotic concepts deliberate ideas provides a fundamental outline of the communication process. A sign is one of three roles: object, sign, and interpretant sign. In an essential triadic relation, the functions

are distinct even when the items that fill them are not. Three roles: a sign of an object leads to interpretants, which lead to other interpretants. Figure 3 illustrates Saussure's difference between a sign's two inseparable parts. A sequence of speech sounds or marks on a page is a signifier, and the thought or idea behind the sign is the signified. The Peircean triadic sign system concept proposes the existence of three fundamental components: an object, a representamen, and an interpretant. An object refers to an item that is recognised and categorised based on a commonly known and shared characteristic. The representamen is a distinctive attribute that serves as a signifier within a specific context. The interpretant refers to the conceptual understanding or implied meaning of the sign. The Saussurean dyadic sign model, often known as "signification," The sign system can be understood as a construction of meaning that arises from the interplay between a "signifier" and a corresponding "signified concept." The term "signifier" refers to the perceptible form that a sign assumes, which may be apprehended through our sensory faculties. The term "signified" refers to the cognitive understanding of the meaning conveyed by a sign. The communication process in preschoolers' comprehension perspective based on the semiotic concept applied in Figures 2 and 3 shows in the sign study is supposed to be easily recognised and categorised to grow their meaning. Figure 4 shows preschoolers' semiotic concepts at a common level of comprehension. Different growths in meaning may lead to different types of understanding. Different types of meaning and understanding may lead to different types of knowledge. Different types of knowledge may lead to different types of actions. This discussion found that signs may help to develop preschoolers' comprehension and their behaviour changes through the level of thinking of each receiver. The receiver's level of thinking determines their behaviour.

6.0 Conclusion & Recommendations

This review found semiotic's critical sign and symbol concepts. To apply the semiotic concept to preschoolers and help them grasp the sign, symbol, and picture, designers must understand its function. Designers must learn how preschoolers perceive signs and symbols. Designers should align semiotics with preschoolers' thinking and learning to improve understanding and behaviour change. These suggest that a semiotic approach to sign, symbol, and image study is more about learning concepts that influence preschoolers' behaviour than content-oriented determination, interpretation, and communication. Exposing children to sign and symbol designs that match their thinking helps them critically understand and act on them. This can help preschoolers learn to sign and symbol meanings and adjust their behaviour. Future studies should measure meaning based on sign, symbol, and picture determination, interpretation, communication, comprehension, people's thinking, and learning. Semiotics can help scholars grasp the arbitrariness and indeterminacy of signalling and the ambiguous and unexpected links between acting, learning, and meaning (Li, 2017). The prior study's paper evaluation suggests restudying, reharmonizing, and rethinking meaning, message, and action. Semiotic leaks may explain the opposition to certain conduct. Several case studies should examine the relationship between "instruction" as a communication and "do it" as a behavioural action.

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Paper Contribution to Related Field of Study

This research can be used not only in designing areas of meaning-making of objects, symbols, and icons but also in preparing specific sign and symbol design guidelines that match people's level of thinking and comprehension, especially for preschoolers. This study contributes something new to the field of research on meaning formation and translation by making use of a semiotic notion that focuses on the comprehension of preschoolers. The findings of this research show that the semiotics concept perspective advises that a sign in the concept of (signified) will not be universal because different people have different levels of comprehension and understanding. It is also to encourage a shift in behaviour and to improve people's comprehension as part of the meaning-making process, the notion of semiotics should refer to people's comprehension.

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