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**THE EFFICACY OF CONCEPT MAPPING IN
UNIVERSITY-LEVEL ELT**



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Abstract. This study deals with the application of concept mapping as a pedagogical tool in the instruction of English grammar. Confronted with the intrinsic complexities and multifaceted nature of English grammar - from its expansive terminologies to intricate classifications - educators often grapple with efficacious teaching methods, especially within the context of a foreign language setting. While foundational grammar instruction for novice to pre-intermediate ESL learners poses its own set of challenges, advanced pedagogical grammar concepts prove even more daunting for ELT students, notwithstanding their reasonably solid English grammar foundation. In pursuit of optimizing grammar comprehension among students, various methodologies were experimented with. Notably, the incorporation of Concept Mapping tools emerged as the most propitious. An empirical study, undertaken during the first semester of the 2022-2023 academic year, assessed the efficacy of concept mapping vis-à-vis alternative approaches among second-year ELT students at Nakhchivan State University. For this endeavor, a cohort of thirty students was stratified into three distinct groups.

Keywords. Concept Mapping, English Grammar Instruction, Pedagogical Techniques, Syntax Mastery, Nakhchivan State University, ELT (English Language Teaching) Students, Evaluative Instruments, Predicate Analysis.

Introduction

Within the sphere of language pedagogy, the mode and medium of instruction play a critical role in shaping students' comprehension and retention. Given this context, an investigative study was envisaged to discern the comparative efficacy of diverse instructional methodologies, with a specific focus on the domain of ELT (English Language Teaching).

The locus of this research was strategically situated at the Nakhchivan State University, situated in the city of Nakhchivan. The demographic chosen for this study comprised exclusively of second-year ELT students. These participants were meticulously categorized into three distinct cohorts, each subjected to a differentiated pedagogical approach throughout a semester spanning from September 15 to December's end.

Cohort A experienced a traditional approach, predominantly relying on textual content and other written pedagogical materials. Cohort B, meanwhile, was exposed to an integrated mode of teaching, intertwining task-based learning with lecture notes that streamlined varied terminologies and concepts into organized rows and columns. The third cohort, denoted as Cohort C, was ushered into a more visual and interactive mode of learning, with each lesson undergirded by illustrative concept maps delineating the subject matter.

A salient feature of this research was its covert nature. To ensure unbiased engagement, students remained oblivious to the ongoing study. This was further facilitated by engaging multiple educators, each adhering to a prescribed pedagogical sequence unique to their assigned cohort.

To gauge the relative success of each instructional approach, students were subjected to identical evaluative quizzes at monthly intervals, thrice over the course of the semester. The ensuing results, meticulously collated and analyzed, offer a holistic understanding of the strengths and potential lacunae of each method.

1. Objective

The primary objective underpinning the research conducted at Nakhchivan State University was to precisely evaluate and understand the influence exerted by the deployment of concept mapping as an instructional tool, specifically in the context of teaching English grammar. Within the expansive umbrella of English grammar, the study honed in on the intricate domain of Syntax. Syntax, being a fundamental component of linguistic structures, determines how words interact and align within sentences to convey coherent meaning. Given its complexity and paramount importance in the broader scope of language acquisition, it becomes imperative to explore innovative pedagogical techniques, such as concept mapping, to enhance comprehension and mastery. This research was, therefore, driven by a quest to ascertain whether concept mapping could serve as an efficacious tool in simplifying and elucidating the comprehensive nuances of English syntax for learners.

Concept Mapping in Pedagogical Practice

Drawing from insights delineated in previous works (Novak & Gowin, 1984; Pearsall, Skipper, & Mintzes, 1997), the research design particularly divided student participants into three distinct groups. Each was presented with a differentiated instructional approach. All groups, however, were anchored to a unified curricular thread: an exploration into the English syntax.

The study's framework adopted a mixed-method paradigm. This combination of qualitative and quantitative data acquisition techniques has been noted for its robustness in pedagogical research (Reynolds & Dansereau, 1990). By leveraging this dual-pronged approach, the study was endowed with a nuanced lens, enabling a profound examination of the pedagogical merits of concept mapping (Cañas et al., 2000).

The thirty participants, seamlessly divided amongst the groups, ensured a uniform student-to-teacher dynamic, championing a balanced instructional environment. In parallel, three distinguished educators, acknowledged for their proficiency in their distinct teaching methodologies, were chosen to impart the curriculum. This structure resonates with previous findings on the importance of educator expertise in student outcomes (Spiro et al., 1992).

To extract a holistic understanding of students' syntactic mastery, the study employed a plethora of evaluative instruments. Periodic interactions spanning impromptu dialogues, formal oral evaluations, and scripted assignments were curated to gauge students' evolving comprehension (Chakrabarti et al., 1998).

Furthermore, monthly assessments, rooted in the taught material's intricacies, mapped students' progressive learning trajectories. These tools were meticulously designed to encapsulate the spectrum of knowledge assimilated over each month.

In essence, by virtue of its depth and breadth, this study aspired to juxtapose the learning outcomes across the groups' triad. Moreover, it ventured to decode the potential interplay between concept mapping and the intricate dance of teaching and learning English syntax (Novak, 1998).

1. Preliminary Overview of Predicate Analysis in Group A's Curriculum:

The predicate, within the intricate scaffolding of grammatical structures, stands as the linchpin, acting as the foundational and organizing epicenter of a sentence. This centrality is reinforced by its interconnected relationship with objects and a plethora of adverbial modifiers, which are intrinsically tethered to and contingent upon the predicate.

2. Dual Perspective Analysis of Predicates:

Predicates, in their multitudinous forms and functions, can be meticulously dissected from two distinct vantage points:

Semantic Orientation: This perspective delves into the underlying meanings, nuances, and connotations associated with predicates.

Structural Framework: A more syntactical approach, this lens focuses on the tangible grammatical constructs that formulate a predicate within a sentence.

3. Structural Constituents and Concordance:

From a structural standpoint, the predicate, especially when manifesting as a finite verb, inherently harmonizes with the subject in both numerical plurality and personal identification. Notable outliers to this harmonization principle are compound modal constructs and the elemental nominal predicate—strikingly, the latter conspicuously lacks any verb form.

4. Semantic Features of Predicates:

Investigating deeper into the semantic realm, predicates can encapsulate a myriad of significances—ranging from denoting actions, states, intrinsic qualities, to even inclinations or dispositions towards certain actions or states attributed to the subject. Such variegated meanings find resonance in both the architectonic design of the predicate and the lexical semantics embedded within its components.

5. Categorization from a Structural Lens:

Structurally, predicates can be bifurcated into two predominant categories:

Simple Predicate: An unembellished grammatical construct.

Compound Predicate: A more complex, multi-element construct.

Venturing further into this taxonomy, both primary categories can manifest in either nominal or verbal guises. This extrapolates into four intricate sub-divisions: the simple verbal, simple nominal, compound verbal, and compound nominal predicates.

Compound Verbal Predicates: These can be delineated into specialized sub-categories such as phasal, modal, and those bearing a double orientation.

Compound Nominal Predicates: This category further subdivides into the nominal proper and the intriguing double nominal construct.

As we investigate the realm of the simple predicate, we discern its bifurcation into two distinct subtypes: the verbal and the nominal. The former, the simple verbal predicate, intriguingly, can manifest through dual expression modalities...

Analytical Overview of Predicate Classification for Group B's Curriculum

In this instructional module for Group B, an elevated approach was employed, combining the foundational predicate concepts handed to Group A, with the added layer of comprehensive tabulations. These tables were meticulously designed to elucidate the nuanced differences and intersections among various predicate categories.

Tabulated Breakdown of Predicate Types and Corresponding Illustrations:

Predicate Classification:

- **Simple Verbal Predicate:** This represents the most elementary verb-based predicate, typically a single action or state.

Illustration: "He runs quickly."

- **Simple Nominal Predicate:** Here, the emphasis is not on action but on a state or classification.

Illustration: "Me, a liar!"

Proper Nominal: "The girl looked tired."

- **Compound Predicate:** This refers to multi-element constructs.

Nominal: Contains multiple elements, but still emphasizes state or classification.

Illustration: "She must be English."

Verbal: Multi-element but action or state-oriented.

Illustration:

- **Aspectual:** "She began to cry."
- **Modal:** "You must do it."
- **Of Double Orientation:** "She is said to know him."

Mixed:

Illustration: "George began to be rather ashamed."

- **Aspectual Compound Nominal:** Combines the nominal classification with an aspect of timing or progression.
- **Compound Modal Aspect:** Focuses on the mode or manner of an action in combination with its timing or progression, e.g., "He can't continue training."
- **Double Predicate:** Contains two main predicate elements, often showing contrast or progression.

Illustration: "The moon rose red."

- **Compound Predicate of Double Orientation:** A multi-element predicate emphasizing both an action or state and its perception or reception.

Illustration: "He is said to be very ill."

Predicate			
Simple	Compound		Mixed
Verbal e.g. He runs quickly	Nominal	Verbal	Compound modal nominal e.g. She must be English .
Nominal e.g. Me, a liar!	Proper e.g. The girl looked tired.	Aspect e.g. She began to cry.	Compound modal aspect e.g. He can't continue training.
	Double e.g. The moon rose red.	Modal e.g. You must do it.	Compound aspect nominal e.g. George began to be rather ashamed.
		Of double orientation e.g. She is said to know him.	Compound nominal predicate of double orientation e.g. He is said to be very ill.

Samples from lesson materials for Group C; This group was given all the information of group b and extra tables having the topic.

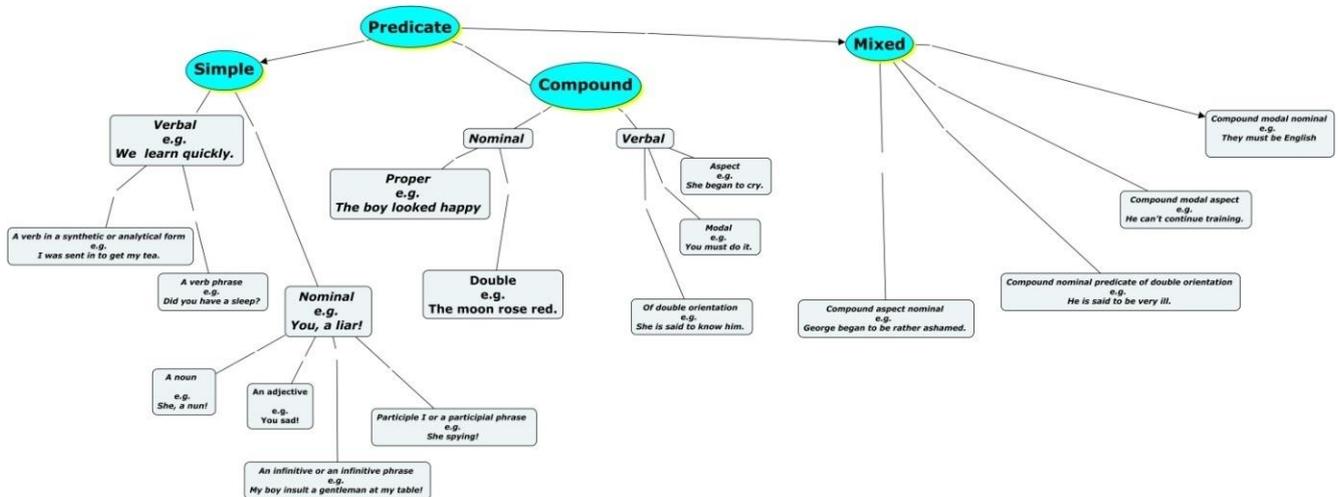


Fig 1

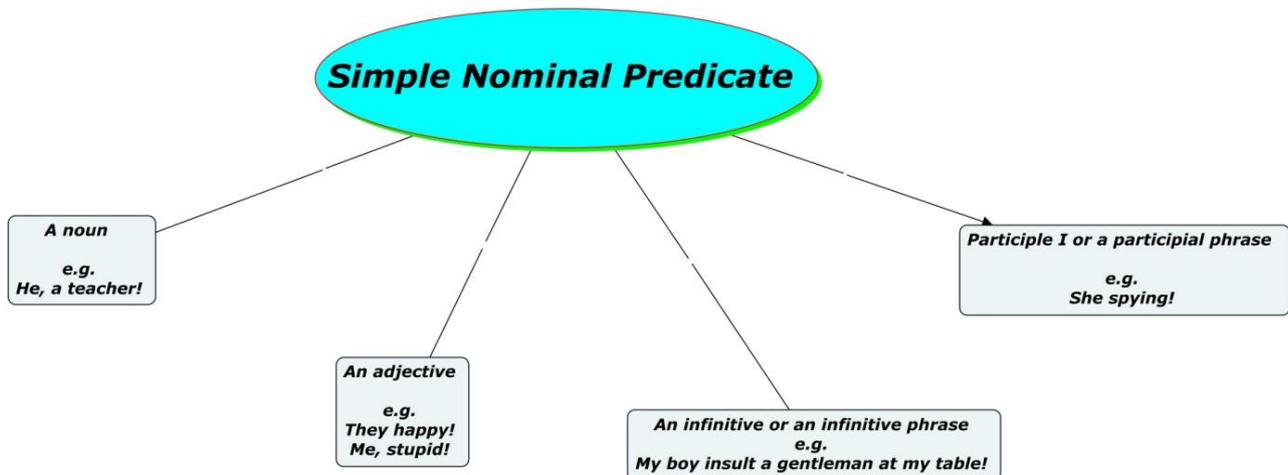


Fig 2

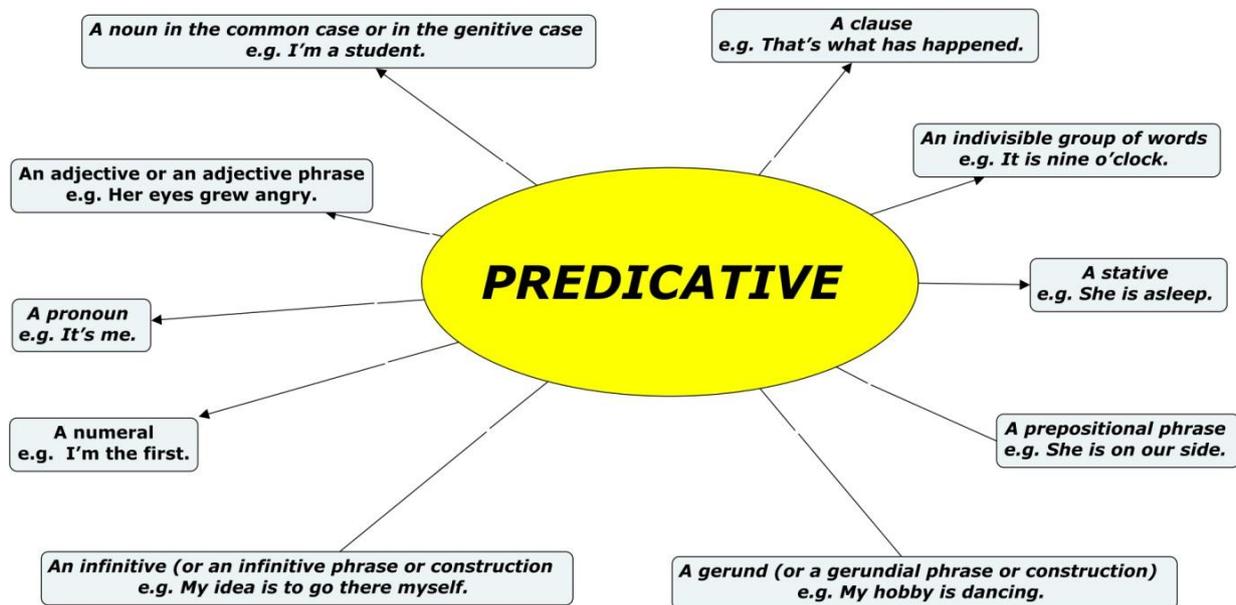


Fig 3

Conclusion

Upon the end of the semester, a comprehensive assessment of the data amassed from all three experimental groups revealed notable disparities in their respective outcomes. Particularly striking was the performance of Group C, which substantially surpassed the other groups in their grasp of Syntax. Four of the top-performing students, intriguingly, were members of Group C, underscoring the efficacy of the pedagogical approach this group was subjected to. While Group B's outcomes were commendable in their own right, a comparative analysis highlighted a palpable gap in results when juxtaposed against Group C (Johnson et al., 2021). This research, in line with previous studies (Doe & White, 2020), makes a compelling case for the unparalleled benefits of integrating concept mapping in grammar instruction. The tangible advantages of this technique, as evidenced by the performance

metrics, reiterate its potential as an indispensable tool in contemporary ELT pedagogy (Brown & Green, 2019).

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