

Reconceptualizing Grounded Theory: A Cognitive-Epistemological Approach to Qualitative Inquiry

إعادة تصور النظرية المؤسسة: مقارنة معرفية- إبستمولوجية
البحث النوعي

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Abstract

This research explores the epistemological foundations of Grounded Theory (GT) through the lens of indirect realism. While GT has traditionally been situated within sociological frameworks, its epistemological stance remains ambiguous. This research aligns GT's analytical praxis—open coding, axial coding, and theoretical coding—with cognitive mechanisms such as problem solving and hierarchical categorization. By bridging GT methodology with representational theories of perception, the research provides a clearer conceptualization of how knowledge is constructed from empirical data. Furthermore, it highlights GT's applicability as a systematic problem-solving tool in EFL contexts. This cognitive-epistemological perspective enhances both the methodological rigor and practical relevance of GT in educational research.

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Keywords: Grounded Theory, Inductive Reasoning, Indirect Realism, Problem -Solving, Learner Motivation.

ملخص:

يهدف هذا البحث إلى استكشاف الأسس الاستيمولوجية لمنهجية النظرية المرتكزة من خلال منظور الواقعية غير المباشرة، على الرغم من أن النظرية المرتكزة نشأت تقليدياً ضمن الأطر السوسولوجية فإن موقفها الاستيمولوجي ظل محل نقاش وغموض، يسعى هذا البحث إلى مواءمة التطبيقات التحليلية للنظرية المرتكزة والمتمثلة في الترميز المفتوح والتميز المحوري والتميز النظري مع الآليات الإدراكية المعرفية مثل حل المشكلات والتصنيف الهرمي، من خلال الربط بين المنهجية المرتكزة ونظريات التمثيل الإدراكي يقدم هذا البحث تصوراً أكثر وضوحاً لكيفية بناء المعرفة انطلاقاً من المعطيات التجريبية، كما يبرز فاعلية النظرية المرتكزة بوصفها أداة منهجية منظمة لحل المشكلات في سياقات تعليم اللغة الانجليزية بوصفها لغة أجنبية ويسهم هذا المنظور المعرفي- الاستيمولوجي في تعزيز الصرامة المنهجية ورفع القيمة التطبيقية للنظرية المرتكزة في ميدان البحث التربوي.

كلمات مفتاحية: النظرية المرتكزة، الاستدلال الاستقرائي، الواقعية غير المباشرة، حل المشكلات، دافعية المتعلمين.

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Introduction

This research seeks to probe Grounded theory, as developed by Glaser and Strauss (1967), tailoring it to the inductive mode of reasoning and, therefore, attempting to dissipate the epistemological equivocations around it. This is for

the reason, as admitted by (Fiona, 2017), that GT seems to stand on a fuzzy epistemological ground and, thereby, bearing on ambiguous analytical practices. In parallel with this, epistemology can be conceived as owing to accounting for the source of perceptual knowledge from a rationalist perspective. Drestke ((1981) described epistemology as “the study of knowledge, memory, a common way of storing and retrieving knowledge, and reasoning and inference effective methods for extending knowledge” (p.2).

As far as linguistic epistemology is concerned, indirect-realism of perception has invoked a representational grasp of language perception in that has attuned any perceptual experience with a set of mental psychological representational states impinged on by the function of balanced cognitive agents (Schmid, 2014). Along this thread of thought, GT as conceived by Strauss & Corbin (2008), is a systematic method for generating theoretical ideas or hypotheses following an inductive mode of reasoning. This is , in effect, highly central to the theory main objective, which is as noted by Charmaz (2014), to abstract concepts of a given phenomenon or experience through a progressive inspection of the related data.

In the sense defined, this research will provide a further wedge to depict Gt as being a product of thinking, hence forth, coming as a gist for investigation within a psycho-cognitive framework. More pointedly, this research attempts to set possible correlations between GT’s core analytical praxis, open-coding and theoretical coding processes, and the respective cognitive operations including problem solving (problem solving by analogy) and hierarchical categorization. Moreover, it seeks to

highlight GT's applicability as a systematic problem-solving tool in EFL contexts, particularly in addressing learner motivation issue in communicative speaking tasks

1. A Grasp of Grounded Theory as an Approach to Qualitative Research

Grounded theory is regarded as the most effective and popular analytical method for generating theoretical ideas or hypotheses from a given set of data. According to Corbin and Strauss (2008), GT is guided by two main key features. First, a processual approach which reveals through concept abstraction based on constant comparison of collected data of a given phenomenon. Second, theoretical sampling the aim of which is to elaborate and exhaust conceptual categories until theoretical saturation is reached. Eventually, a rigorous understanding of a given phenomenon, process or experience is attained and, therefore, coming up with theoretical ideas. The above two mentioned GT features seem to readily manifest through three main related pr-axes.

1.1 GT's Core Praxis

According to Strauss and Corbin (1998), GT operates according to three main functions: open coding, axial coding and selective coding which collectively fall in favour of fulfilling methodological rigour of data collection and data analysis requirements. First, open coding is the procedure through which researchers examine raw data to identify concepts or phenomena in a form of categories. Second, axial coding, a procedure for interconnecting the categories obtained in the open-coding stage for resetting patterns, relationships and new sub-codes based on dimensionlization. Third, selective coding, the aim of which to

identify a single core category that is central to elucidate the major aspects of the phenomenon under investigation.

In light of the three related GT data collection and analysis procedures (open coding, axial coding and selective coding), a philosophical-based account relating to an inductive reasoning seems to resonate with.

1.2 Indirect Realism as the Epistemological Underpinning for GT

GT seems to attune to an inductive mode of reasoning. Given that “Grounded theory is one that is inductively derived from the study of the phenomenon it represents.”(Corbin & Strauss, 2008, p.23) and maintaining that “systematic application of GT analytic methods will progressively lead to more abstract analytic level ”(Charmaz ,1983, p.125), this what typically may reinforce an indirect-realism-GT construct. In this respect, Charma’s (2014) pointed to two main key-principles governing an indirect abstraction of patterns, characteristics or theories. The first principle indicates that no preconceived theoretical ideas are to be involved in setting up initial concepts or phenomena in the first coding stage. In other words, researchers are expected to bracket with their ideas and prior knowledge about a given phenomenon. Moreover, it is claimed that data collection and data analysis are two key-processes that should be carried out simultaneously. In this regard, Ezzy (2002), noted that simultaneous and progressive data collection and analysis stages are safeguards against an emergent process, whereby new categories may emerge while analyzing a given set of data. It is for the sake of richness of the data, responsiveness, and

reflexivity to the emergent unanticipated patterns that researchers are more likely to ascertain the groundedness of a theory. Holding for an indirect realist-GT construct, the following areas of consistency arise: inductive reasoning, objectivity and representation.

1.2.1 Inductive Reasoning

Taken that ‘theorizing’ among other cognitive functions, which are central to indirect-realism perspective (Russel,1905-1919), such as arguing, decision-making and creating new ideas is one way to ‘thinking’ manifestation, this has legitimated what is to be ‘inductively reasoning’ as owing to one’s capability of abstracting concepts logically. Likewise, GT’s core principle is to generate hypothesis or theoretical ideas, which are subjected to verification, through an iterative and systematic data processing.

As far as the coding practice is concerned, it entails researchers to carry out a range of inductive reasoning tasks; selective task, which is to decide (decision-making) on certain properties from the data pieces that the researcher thinks are adequate for concept description or representation (Groome,2005). As for conservative focusing, which identifies with the ability to select a property which is subtly distinct from the first but still related to the core concept, this again holds implications for the axial coding. This latter, tends to reduce to Gibbs’ 2010 model: causal condition, central phenomenon, context, interaction strategies and consequences.

1.2.2 Objectivity

The ontological convention central to indirect realism of perception, as noted by Burge (2010), is that the object attempted for perception has its external properties represented in the mind as really exist in the real world, and this what makes true of that the object is mind-independent. Fiona (2017) GT acquired status as ‘objectivist’ ascribes much to it assumption that coding and categorizing help with the mining of essential properties from primary data depending on the image they evoke (in vivo).

1.2.3 Representation

Indirect realism view of perception has culminated in the Representational Theory of perception (Fish, 2010 & Schmid, 2014) which builds on three key-notions: sensory modalities, perceptual (psychological) and linguistic representational states. Schmid (2014) emphasized that representation is not isolated from perceptual representation (cognitive faculties that enable the cognitive mechanism to coordinate perception, memory and language) but rather abounds by it in a way that language reshapes perceptual content which is integrated into the role of sensory modalities (vision, hearing and touch) formulating a specific linguistic code. In this respect, Andrade & May (2004) stated: “ Images are analogical representations, sharing some of the sensory and spatial properties of the items they represent. (p.87).

Aligning with GT’s core praxis (open coding, axial coding and selective coding), it seems to be liable to some representational conventions “Codes are considered to capture, or in some way represent, characteristics of ‘pieces’ of data. The

examination of similarities and differences between these pieces facilitates the establishment of definitive criteria for the assimilation of data to emergent categories”. (Charmaz, 2004, p. 29). i.e., the emergent categories or codes are the representation of a close examination of nuanced features pertinent to a set of sub-categories. GT’s underlying mechanism can be represented in the following diagram:

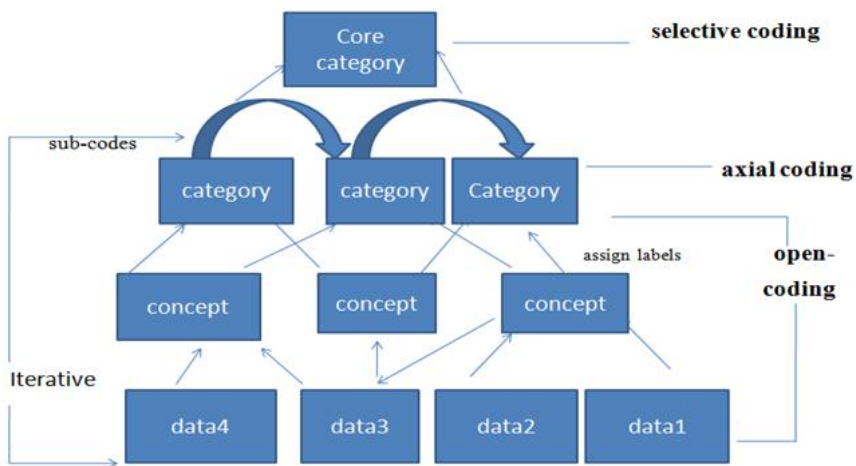


Figure 1: GT’s Architecture

Given the above representational diagram of GT’s underlying mechanism, it is highly predictable to project its main praxis in light of a problem- solving mental operation which involves recognition, representation, hypothesis generation, testing and restructuring (Sternberg, 1990).

1.3 GT as a Problem Solving Mental Operation

GT-grounded problem-solving operation understanding may reinforce the theory role in mirroring how the mind constructs raw experience (external world) into structured

knowledge through an iterative mode of data processing. According to Newell & Simon (1972), problem solving is a search in a problem space, guided by heuristic reasoning where Means-Ends analysis (breaking a given problem into sub-problems), until a path from the initial state is settled. A solid link between GT and problem solving as a mental operation can be further depicted through a two-fold alignment: open-coding as a problem solving by analogical mapping and GT's theoretical coding process as consistent with categorization process.

1.3.1 Open-Coding as a Problem Solving by Analogical Mapping

GT parallels problem solving in terms of its main analogical mapping strategy. In GT open-coding strategy, constant comparison between retrieved categories for minimal features difference, which is carried out in an iterative manner, hallmarks the whole process. More particularly, the problem to be solved (the target problem) has to be interpreted and represented. A possibly useful source analogue has to be selected and retrieved from long-term memory and some similarity between source analogue and target problem has to be noted, and the elements of the source analogue mapped on to the target. The novel information provided by the source allows inferences to be drawn and transferred. The first fold of alignment will be represented in the following example.

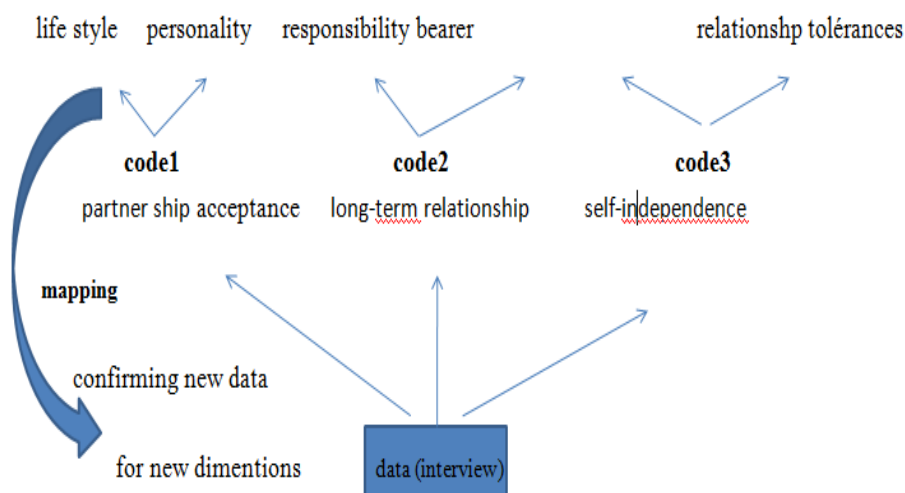


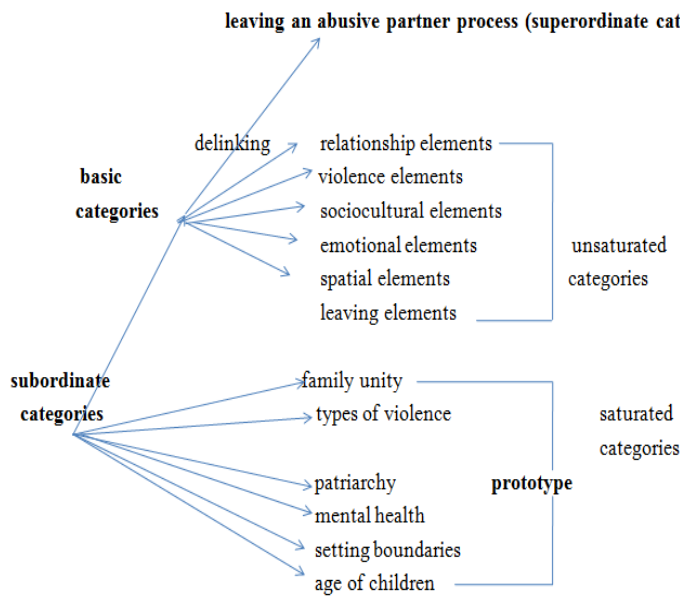
Figure 2: Open-Coding as a Problem Solving by Analogical Mapping

1.3.2 GT's Theoretical Coding Process as Consistent with Categorization Process

GT's theoretical coding process seems to fall in alignment with the process of categorization in a number of ways. In this respect, Reed (1967) depicted the process of categorization as an advantageous means by which objects of the world are identified. The second achievement can be regarded in terms of that setting categories reduces the need for constant learning maintaining that one does not have to be taught about novel objects if he/she can classify them. Categorizing allows us to decide what constitutes an appropriate action. Categorizing enables us to order and relate classes of objects and events (p. 186).

In parallel, Carroll (1996) emphasized the hierarchically categorized nature of the real world. He noted that some categories contain other categories. As a result, our perception is

managed categorically. There are three types of hierarchically organized categories: superordinate categories (e.g., furniture), basic level categories (e.g., table) and subordinate categories (e.g., *lamp-table*). Drawing insight from Carroll's 1996 and Reed' 1967 arguments for the centrality of the categorization process in perceiving the external world, and thereby, developing a structured experience, GT as correlated with categorization can be further highlighted through the following example (experience of abusive partner as will be represented in figure 3).



**FIGUR3 : GT’s Theoretical Coding Process as Consistent with
Categorization Process**

GT’s theoretical coding process (as figure 3 shows) seemingly adapts to Collin and Qillian’s 1969 semantic hierarchical model. It claims that concepts in memory are classified in a hierarchical structure moving from superordinate

categories (e.g., leaving an abusive partner process) to basic unsaturated categories into subordinate (saturated) categories. Building on this cognitive-hierarchical conceptualization of GT's coding process, the following section extends the discussion to its practical implications as a methodological problem-solving tool within EFL research context.

2. Grounded Theory as a Methodological Problem-Solving Tool in EFL Context

Conceptualized GT as a form of systematic problem-solving in qualitative research (Newell and Simon, 1972), where a serial mode of cognition takes place (moving from recognition and representation of a given issue towards hypothesis generation, testing, data saturating until reaching a stable state of the related problem resolution), this has crystallized it as typical methodological tool for doing qualitative research. More pointedly, following GT respective methodological tactics, researchers move from identifying a research problem (data collection, writing memos through open coding strategy) to hypothesis testing (constant comparison and iterative cycle of data analysis) to theory generating (Glaser and Strauss, 1967).

Within EFL research area, addressing learning and teaching problems by means of GT becomes a widely recognized methodology. According to Dorney (2007) and Riazi (2016), aligning GT as an analytical qualitative research tool with a mental-problem solving operation becomes notably valuable since classroom occurring phenomena such as learner's lack of motivation and silence, feedback dynamics, and intercultural communication (O'Donovan, Berry; Rust, Chris; Price &

Margaret, 2015 Alerby, 2019), are ill-structured problems which require systematically discovery-directed analysis.

To transpose EFL learning classroom ambiguities into conceptual clarity, Charmaz (2014) and Corbin & Strauss (2015), pointed out that through memo writing, category refinement and theoretical sampling, GT mobilizes problem-solving functionalities into a comprehensive methodological pedagogy- oriented system.

2.1 A Grounded Theory-Based Study Sample of Learner's Motivation in EFL

To elaborate on the relevance of GT for addressing troublesome problems encountered in EFL classroom context, particularly learner's lack of motivation, the following section encapsulates the related issue through the lens of GT's main analytical praxis starting from research problem to data collection and analysis.

2.1.1 Research Problem

Some students remain reluctant to participate in communicative tasks in EFL speaking class despite the motivational learning atmosphere. The issue raised is problematic and complex as it is context-bound. In order to further dissipate the complexity of the related issue and lay clear boundaries about its phenomenality, a grounded theory-based approach is needed to set a clear conceptual framework by generating empirical data-based explanation and suggesting pedagogical solutions. In light of the research overall problem, the following research main question and sub-questions take place.

2.1.1.1 Research Main Question

How do EFL teachers deal with learner's lack of motivation during communicative speaking classroom activities?

Research Sub-Questions:

- 1-What patterns are associated with learners' lack of motivation?
- 2-what factor are lying behind learners' reluctance to engage in EFL speaking classroom?
- 3- How might classroom practices be implemented to reduce uncooperative learning?

2.2 Research Objectives

Aligned with the research main questions, the following three objectives are sought to be attained. First, generate a grounded theory accounting for learner's lack of motivation in communicative EFL speaking tasks. Second, inform practical pedagogical strategies and procedures relating to the generated theory. Third, demonstrate learner's lack of motivation as ascribed to linguistic, emotional and sociocultural factors.

2.3 Research Methodology

Following Charmaz's 2014 Constructivist GT approach, which emphasizes collecting data from participants' reflections and researchers' reflexivity, a relevant methodology to investigate EFL learners' reluctance to participate in English speaking communicative activities (debate, discussion, oral presentation) employs the following practical tactics.

2.3.1 Data Collection and Analysis Methods

Ensuring thought-through data collection instruments ties closely with enhancing the reliability and validity of the research results. To this end, efficient research instruments may include non-participant classroom observations (video/audio-recording) during communicative activities such as pair-work, role-plays and group discussions. Moreover, recruiting learners (e.g., 2-3 university-level EFL speaking classes) and teachers in structured-interviews, where data about their reflections on their perceptions towards assigned communicative speaking tasks, speaking mistakes-making and motivational classroom conditions, can be elicited. Additionally, classroom observation by means of which participants' speaking duration in role-plays and oral presentation, turn-taking patterns, noticeable learner's hesitation, observable learner's unproductive silence and teachers' feedback dynamics, provides empirically grounded and measurable data for an iterative and concurrent procedure of data collection and analysis.

Based on GT's methodological problem-solving tactics, open-coding (chunk-by-chunk coding) of multiple transcripts and observation notes generates multiple codes for constant comparison across participants and settings. Then, axial coding applies to the generated codes by clustering them into categories encapsulating factors such as emotional inhibition, peer hierarchy and task complexity as predictable factors behind learners' lack of motivation. After each coding phase, memos are written to reflect on possible combinations, hypotheses and theoretical sensitivity. Regarding theoretical sampling phase, the collected data from written memos inform further data to be

collected (e.g., eliciting participants' answers to questionnaire on the particular psychological impediments to the speaking class engagement). Through selective coding, the sampled data are integrated around a core code (e.g., unproductive silence as a safeguard against discriminatory classroom dynamics). Sampling and coding data continuously takes place until new characteristics of the generated central categories emerge. Finally, a narrative that explains the emergent theoretical model (a grounded theory), coding process, patterns, conditions and results is produced.

The constructed grounded theory is expected to account for the reasons and conditions triggering learners' lack of motivation within EFL speaking activities. It may also delineate academic challenges and practical procedures and solutions (e.g., scaffolding strategies and adjustment of the speaking task designs) to reduce learners disengagement.

Conclusion:

The attempt to depict GT as acquiesced with the inductive mode of reasoning can be reinforced with respect to its major concern and core praxis. Introduced GT as most influential technique for conducting qualitative research, for its solid generated theoretical ideas, this can further strengthen its acquired objectivity status, considering that the range of open-coding, axial coding and theoretical sampling practices take collectively on a mental solving operation (analogical mapping) and categorization process. Moreover, the integration of GT with problem-solving approaches to untangle issues in the domain of EFL teaching provides a solid methodological framework that enhances both scientific rigor and practical applicability of

generated GT models to educational practices. Constructing theories based on empirically processed data while simultaneously sensitizing inductive reasoning (critical thinking and analytical reasoning), this link may highlight the importance of guiding academic research within the area of EFL teaching by drawing insights from learners' ability to construct knowledge and adapt effectively to complex learning situations.

For a comprehensive GT-mental problem solving hybrid, this research emphasizes the significance of applying Benchmarking-based techniques (Gunasekaran, 2002) to EFL teaching-learning emerged issues. Benchmarking is a technique which allows researchers and educators in educational institutions to compare practices, identify gaps and adopt efficient strategies to ultimately enhance the quality of academic research to be both theoretically comprehensive and practically significant.

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