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From Knowledge to Teaching: The Football Coach as a Mediator between Lexicographic Data and Practical Learning

Abstract

This article proposes a theoretical extension of the operative function within the Function Theory of Lexicography, based on the analysis of the mediating user: an individual who consults not to act directly, but to teach others how to act. Through a mixed-methods approach — critical theoretical review and qualitative analysis of interviews with 50 football coaches — a pedagogical need is identified in practical teaching contexts, characterized by the triple demand to *understand*, *act*, and *teach*. Findings reveal that, in such scenarios, communication cease to be a secondary mediator (as traditionally conceived) and becomes the structural core of the operative process. We thus argue for recognizing pedagogical submodality within the operative function, whose lexicographic data must support not only task execution, but also its didactic mediation. This proposal paves the way for the design of user-centred lexicographic tools for trainers and reaffirms the need to integrate pedagogical frameworks into lexicographic conceptualization.

Keywords

lexicography; function theory; pedagogy; communication; mediation; lexicographic needs.

1. Introduction

The Function Theory of Lexicography (or Function Theory), developed at the Aarhus Centre for Lexicography, has established a robust framework for linking users' extra-lexicographic needs with the functions that lexicographic products must fulfill (Bergenholtz & Tarp, 2003; Fuertes-Olivera & Tarp, 2014). Its user-centred paradigm has significantly advanced the conceptualization of tools designed to solve communicative, cognitive, and operative needs. However, its systematic application to *practical teaching contexts*—that is, those in which users consult not to learn for themselves, but to transmit knowledge to others—has been limited and underexplored. While Function Theory provides detailed typologies of communicative, cognitive, and operative situations, it does not explicitly include mediated "teaching-to-teach" scenarios in which the consulting user is not the final performer of the action. In the existing literature, pedagogical mediation is treated, at most, as an implicit variant of operative use rather than as a formally recognised situational configuration.

This gap is especially relevant in fields such as sports training, where coaches, teachers, and instructors, particularly at beginner levels, use lexicographic resources—whether specialised dictionaries, manuals, or digital applications—with the explicit purpose of *learning how to teach*.

In these cases, lexicographic consultation ceases to be an autonomous and bidirectional act (user–product) and becomes a *triadic and mediated process* (user–product–learners), in which the extracted information must be transformed into pedagogical discourse, adapted to varying contexts, and transmitted effectively. This dynamic introduces a new dimension: *pedagogical mediation*, where communication ceases to be a mere channel and becomes a structural component of the operative process.

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1. The distinction between technical knowledge and pedagogical content knowledge (Shulman, 1986);
2. The re-evaluation of the role of communication as a mediating element—not only in communicative functions but also in pedagogical operative situations; and
3. The need to acknowledge a pedagogical sub-modality within the operative function, whose requirements extend beyond "what to do" or "how to do it" to encompass "how to teach how to do it."

Coaches traditionally draw on manuals, handbooks, and specialised dictionaries as key resources for their professional practice. While these works are often perceived as pedagogical or instructional materials rather than lexicographic resources, some can be considered lexicographic tools under Function Theory umbrella because their structure and presentation of data closely align with a lexicographic framework. Many coaching manuals, for example, organise knowledge through clearly defined entries, key terms, definitions, cross-references, and contextual examples, allowing for non-linear consultation and rapid access to specific data. This structure is not merely formal: it enables coaches to translate theoretical knowledge into practical training tasks, supporting decision-making and the design of drills, exercises, and session plans. Such functionality is particularly important when coaching groups that speak a different language, when consulting specialised sports science literature, or when precise, operative understanding of concepts is required. From a Function Theory perspective, classifying certain manuals as lexicographic tools depends not on their generic label, but on their structural and functional features. When knowledge is organised through clearly delimited entries, systematic terminology, definitions, cross-references, and contextualised examples that allow non-linear, need-driven consultation, these resources meet the core criteria of lexicographic products: rapid access to specific data in response to extra-lexicographic situations (Bergenholtz & Tarp, 2003; Fuertes-Olivera & Tarp, 2014). Their inclusion within specialised lexicography therefore represents not a theoretical extension, but an application of established definitional principles to functionally equivalent resources.

In this sense, manuals and lexicographically structured resources go beyond traditional reading materials: they systematically organise specialised knowledge, clarify terminology, and actively mediate professional practice. Consequently, these resources should be understood within the field of specialised lexicography rather than general lexicography, as they serve domain-specific, operative purposes. This is evident in studies such as Agerbo's analyses of Danish lexicographic tools in physical training (2018, 2019) and in Huete-García's documentation of the extensive Spanish tradition of sports dictionaries and manuals structured lexicographically (2022; 2023a; 2023b).

Using football coaches as a case study—a paradigmatic group given their extensive use of digital resources for lesson planning and their diverse training backgrounds— this article seeks to analyse the role of the mediating user in operative situations and to argue for the relevance of conceptually expanding the operative function of lexicography. This focus is informed not only by theoretical developments in specialised lexicography and sport science (Koh et al., 2017; Stoszkowski & Collins, 2015; Huete-García, 2022), but also by sustained engagement with practising Spanish football coaches, including numerous professional conversations and exchanges that revealed their recurrent reliance on structured reference works, manuals, and digital resources when preparing training sessions. Although the Internet offers an abundance of information, coaches—particularly those working in youth-football—struggle to assess the credibility, relevance, and pedagogical applicability of the content available to them, further highlighting the practical value of lexicographically structured resources in operative contexts.

To this end, it combines (i) a critical theoretical analysis of the literature on lexicographic functions with (ii) qualitative empirical evidence drawn from questionnaires administered to 50 Spanish-speaking football coaches.

The following central hypothesis is proposed: when the user of a lexicographic tool is not the one performing the action, but rather the one who must teach it, the operative function acquires a pedagogical dimension that demands—both theoretically and technically—a redefinition of the user profile, the consultation situations, and the relevant lexicographic data. Accepting this hypothesis implies reorienting the design of digital tools toward supporting real-time didactic decision-making, beyond the mere provision of exercises or standardized instructions. The empirical section investigates whether coaches' consultation needs extend beyond classical operative situations, encompassing not only action execution but also the teaching of those actions to others.

2. Theoretical framework

2.1. The Function Theory

This study is framed within the theoretical framework of the Function Theory, developed primarily by Henning Bergenholtz and Sven Tarp (Bergenholtz & Tarp, 2003, 2004, 2005). Although its foundations were laid at the Centre for Lexicography at Aarhus University (Denmark), the theory has since been further elaborated and disseminated by scholars affiliated with the same centre and related institutions (e.g., Fuertes-Olivera & Tarp, 2014; Nomdedeu-Rull, 2021; Huete-García, 2023a).

The theory emerged in the 1990s as a response by members of the so-called *Danish school* to the absence of a comprehensive theoretical framework capable of guiding lexicographers in the design and development of new lexicographic tools (Fuertes-Olivera, 2012, p. 27). While earlier efforts—such as Ščerba's (1995) proposals and Wiegand's (1998) *General Theory of Lexicography*—had attempted to lay the groundwork for a general lexicographic theory, Bergenholtz and Tarp (2003) argued that none of these approaches sufficiently accounted for the needs and expectations of dictionary users:

> It was not until the appearance of the 'modern theory of lexicographic functions' that a theory was developed which takes the users, user needs, and user situations as the starting point for all lexicographic theory and practice (Bergenholtz & Tarp, 2003, p. 172).

At its core, the Function Theory rests on two fundamental postulates:

1. Lexicography constitutes an autonomous scientific discipline—albeit one with an inherently interdisciplinary orientation—whose primary object of study is the dictionary *in its entirety*; and
2. Dictionaries are *utility tools* (Bergenholtz & Tarp, 2003, p. 172; Tarp, 2008a, p. 119; Fuertes-Olivera & Tarp, 2014, p. 45), purposefully designed to fulfil specific human needs.

As García Aragón (2016, p. 50) observes, considering dictionaries as 'tools' necessarily implies foregrounding their functional or *telic* dimension—i.e., clarifying their aims and objectives to ensure that the tool is efficient, useful, and usable for its intended users. This functional orientation builds upon Wiegand's (1987) notion of *genuine purpose*, which the theory reformulates through the concept of *lexicographic functions*—systematic constructs designed to capture and respond to types of human need (Fuertes-Olivera & Tarp, 2014, p. 10).

The central methodological shift introduced by the theory lies in its user-centred orientation. Traditionally, the nature of the lexicographic work (e.g., monolingual vs. bilingual, general vs. specialised) dictated its form and content—a practice that often led to discrepancies between theoretical prescriptions and practical implementation. In contrast, the Function Theory begins with the user: specifically, with the *extra-lexicographic situations* in which lexicographically relevant information needs arise (Bergenholtz & Tarp, 2003). To ensure that the resulting tool effectively addresses such needs, it is essential to define the target user group's profile and align it with one or more specific lexicographic functions.

The originality of this theoretical framework resides not only in this epistemological reorientation, but also in the methodological innovations it entails—particularly in the development of lexicographic resources for digital environments (though not exclusively so). The theory compels us to address foundational questions such as: What is the true essence of lexicography? Who is the recipient or user of the lexicographic work? What are the lexicographically relevant needs of the user? And in what extra-lexicographic situations do such needs arise for a particular user?

Accordingly, the theory analyses users through two intersecting dimensions:

- Functional-relevant characteristics (e.g., linguistic competence, cultural background, domain-specific expertise or professional experience); and
- Reference characteristics (e.g., prior dictionary experience, access to digital devices, physical or cognitive constraints).

User profiles are constructed through a combination of empirical methods—such as questionnaires, interviews, and direct observation—as well as deductive reasoning, thereby enabling lexicographers to design tools that respond to *concrete*, contextually situated needs.

At the core, the Function Theory rejects the notion of abstract or universal information needs. Instead, it insists that lexicographically relevant needs are always *specific* and *context-dependent*, shaped by both the profiles of potential users and the extra-lexicographic situations in which those needs emerge:

> The types of information needs relevant to lexicography should never be considered abstract needs, but specific and even concrete needs which are determined by the types of potential users of lexicography's practical works as well as the types of extra-lexicographical situations where lexicographically relevant information needs may occur (Bothma & Tarp, 2012, p. 90).

Within this framework, a *lexicographic function* is defined as:

> The satisfaction of the specific types of lexicographically relevant need that may arise in a specific type of potential user in a specific type of extra-lexicographic situation (Tarp, 2008a, p. 81).

Thus, each function comprises four interrelated elements:

1. Satisfaction (the aim of addressing the need),
2. Type of need,
3. Type of user, and
4. Extra-lexicographic situation.

Among the various lexicographic functions identified in the literature, the *operative function* holds particular relevance for the present study. This function orients the dictionary—or the lexicographic tool, broadly conceived within Function Theory—toward action by providing users with concrete guidance or instructions. Huete-García (2023b) has documented the presence of operative function in historical Spanish lexicographic works—from the 18th to the 20th centuries—covering domains such as fencing, horsemanship, and football, thereby reaffirming their legitimacy within lexicographic theory and practice. As Fuertes-Olivera and Tarp (2014, p. 51) note, such tools may include data that proscribe specific activities. In a *proscriptive* approach, "the lexicographer seeks not only to inform the user about language use, but also to recommend a preferred form or course of action" (Fuertes-Olivera & Tarp, 2014, p. 81). For instance, specialised sport dictionaries or tools with an operative function may advise on adapting training regimens according to weather conditions (Huete-García, 2019, p. 229), as illustrated by the following recommendation for dealing with adverse

weather: "In windy or rainy conditions, coaches should aim to reduce players' periods of inactivity to prevent them from cooling down."

To determine which data to include—and how best to organise them—the theory advocates the use of the deduction method, which entails close collaboration between a lexicographer and a subject-matter expert (e.g., a translator, coach, or domain specialist):

> Deduction as a lexicographical method is based on close collaboration between an expert in theoretical and practical lexicography and another expert knowledgeable about the translation process [or any other relevant domain] (Tarp, 2014a, p. 69).

This collaborative approach facilitates the efficient identification of lexicographically relevant needs, their subsequent translation into functional specifications, and the tailored selection and structuring of lexical data. Importantly, the Function Theory distinguishes between *data* (raw or processed linguistic or extra-linguistic material) and *information* (what the user extracts from the data to fulfil a specific purpose) (Fuertes-Olivera & Tarp, 2014, p. 58; Tarp, 2010b, pp. 459–460).

In conclusion, the Function Theory represents a paradigm shift in the discipline, reorienting both theory and practice toward tools that are rigorously tailored to the user, their needs, and the situational contexts in which those needs arise. The operative function epitomises this user- and action-oriented vision: it enables dictionaries not merely to *inform*, but to *guide* and *empower* users in achieving domain-specific objectives. As Bergenholtz and Tarp (2003, p. 177) assert: "Everything in a dictionary—absolutely everything—is, to a greater or lesser extent, influenced by its respective function(s)."

2.2. Knowledge and skills

Operative situations are characterised by users needing instructions to perform a specific action. What distinguishes them from other lexicographic functions is that, in this case, instructions serve as the primary means of acting in situations that require physical intervention, such as learning to perform physical exercise (e.g., in sports) or operating a machine, among many others. Thus, instructions, as lexicographic data, constitute a type of practical knowledge that can be transformed into one or more skills.

To understand how operative functions respond to problems that arise in practical situations, it is essential to differentiate between *knowledge* and *skills*. In these cases, what users need is more closely related to the learning processes that enable them to acquire skills than to the possession of theoretical knowledge about a given field. For example, a sports journalist (according to the terminology of Nomdedeu-Rull, 2009) may be an expert in everything there is to know about football, such as its history, origins, and the evolution of the game over time. In contrast, a professional football player typically lacks the theoretical and historical knowledge required to provide constructive insights into their own profession beyond their practical experience. In this case, the journalist possesses more theoretical knowledge than the football player, while the latter possesses the technical and physical skills that the journalist lacks—unless the journalist is also a field reporter (Nomdedeu-Rull, 2009). This distinction also applies to linguistic knowledge and language skills: although all speakers possess sufficient linguistic skills for communication, very few have theoretical knowledge of their language, and such knowledge does not necessarily imply strong communicative abilities (Tarp, 2010a, p. 45). Knowledge, therefore, is associated with information that enhances users' cognitive capacity, while skills refer to the ability to act in practical situations requiring dexterity. Skills are developed primarily in practical contexts.

Knowledge and skills are not entirely separate; evidence suggests that there is a transitional phase between them. However, not all types of knowledge can be transformed into skills.

> […] knowledge can be transformed into skills, while a systematic observation and study of the latter can lead to knowledge. The information acquired through consultation of dictionaries

> can be stored as knowledge but it cannot be directly transformed into skills. This information can assist users in performing specific mental, physical and linguistic tasks related to interpretive, operative or communicative situations and, in this way, it may be gradually internalized and reappear in the form of skills (Fuertes-Olivera & Tarp, 2014, p. 52).

Knowledge is relevant to solving problems in operative situations, but it is important to distinguish between two types (Agerbo, 2018, p. 364):

1. Theoretical, and
2. Practical knowledge.

Of these, practical knowledge is directly connected to skills development—the objective of the operative function. Furthermore, according to Agerbo (2018, p. 364), this type of information (user skills and practical knowledge) should be considered when defining user characteristics for the purpose of conceptualizing operative tools.

Regarding the lexicographic product, it plays a crucial role in mediating the relationship between knowledge and practical skills because it serves as a structured reference source. Its role is particularly relevant during intermediate learning processes, where the acquisition of a specific skill does not automatically follow from theoretical knowledge alone; rather, this relationship is mediated by the user's interaction with lexicographic tools in concrete professional situations.

> […] much more complicated are the various situations related to the learning of skills, because in these cases the retrieved information cannot be directly transformed into skills, but has to be mediated by something else. And this "something else" can only be discerned by analyzing the existing relationship between information and knowledge, on the one hand, and skills on the other (Tarp, 2010a, p. 46).

Tarp (2010a, p. 47) identifies communication as the mediating element that transforms information obtained from dictionary data into linguistic knowledge, while practice acts as the transitional element between knowledge and skills.

In the specific case addressed by this research, the focus is on practical learning situations, where practice can be understood as physical exercises (training, for example), although each specialised field will determine the specific form that practice takes. Lexicographic tools that address this type of practical situation support the skills learning process at two levels, according to Tarp (2010a, p. 49):

1. Indirectly: by conveying knowledge through a systematic study of the specific topic, which can then be applied in physical exercises or training.
2. Directly: by providing data such explicit instructions that can be used to resolve specific doubts and problems related to exercises and training. In this case, it involves observing, evaluating, and understanding the situation in order to apply the corresponding operational function.

It is well established that the practical situations that lexicographic tools with an operative function must address are highly specific—so specific that they closely resemble those found in specialised dictionaries (Rodríguez Gallardo, 2014, pp. 328–329). This implies certain analogies between the two types of works, whose solutions in terms of data access may be similar, if there is a dialectical improvement between specialised knowledge and practical information, while also taking into account the variations that occur across different thematic fields (Rodríguez Gallardo, 2014, p. 329).

2.3. The operative function

The operative function—alongside the interpretive function—is among the most recently systematised functions within the theoretical framework of the Function Theory, despite its well-documented historical presence in lexicography in Spanish since the eighteenth and nineteenth centuries (Huete-García, 2022, 2023a). Both functions share a core characteristic: they are oriented towards satisfying user needs that necessitate *action*—whether through explicit instructions (operative) or guidance in interpreting non-verbal signs (interpretive) (Bergenholtz & Agerbo, 2017, p. 31). Their distinction, however, lies in the nature of the action required and the type of abstraction involved.

Whereas the interpretive function operates at the level of *understanding non-verbal communication*—a cognitive–linguistic abstraction—the operative function encompasses actions of a physical, mental, or linguistic nature, *provided their primary aim is not communicative* (Fuertes-Olivera & Tarp, 2014, p. 51). In this respect, operative abstraction is best characterised as *cognitive–operational*: the user is not seeking to interpret the meaning of a gesture or utterance, but rather to acquire knowledge of *how to perform a concrete task*—for instance, assembling flat-pack furniture, executing a tactical drill in football, or deploying discursive strategies to influence the outcome of negotiations.

The latter modality—linguistic performance directed towards a non-communicative end—is particularly challenging to delineate, given the fluid boundary between operative and communicative functions. As Tarp (2014a, p. 70) and Agerbo (2019, p. 86) emphasise, the distinction hinges on the *user's genuine purpose* in each extra-lexicographic situation. Table 1 summarises this conceptual differentiation.

<table>
<tr><th></th><th>Level of abstraction</th><th>Operative function</th><th>Level of abstraction</th><th>Interpretive function</th></tr>
<tr><td rowspan="3">Nature</td><td>Physical</td><td rowspan="2">Operate</td><td>Physical</td><td>Interpret</td></tr>
<tr><td>Linguistic</td><td>-</td><td></td></tr>
<tr><td>Mental</td><td>Understanding operation</td><td>Mental</td><td>Understanding non-verbal communication</td></tr>
</table>

Table 1. Comparison between the operative function and the interpretive function (Huete-García, 2022)

The operative function is structurally defined by its grounding in *instructional data*—data whose primary role is to facilitate the transition from *knowledge* to *skills* (Tarp, 2010a). In this context, the term *instructions* takes on a technical sense: it does not denote 'rules or norms' (as commonly defined in contemporary Spanish dictionaries such as the *DLE* or *Clave*), but rather 'detailed information on how to do or use something' (Cambridge Dictionary; Oxford Learner's Dictionary).

Agerbo (2019, p. 87) identifies two principal modes of representing such instructions:

1. Step-based, characterised by a numbered, sequential structure (e.g., training protocols or assembly guides); and
2. Non-step-based, adopting a more explanatory or advisory format (e.g., recommendations for modifying exercises in response to adverse weather conditions).

It is important to note, however, that not all sequentially presented linguistic data qualifies as operative. For instance, explaining how to conjugate a verb serves a *communicative* or *cognitive* need—not an operative one—since its aim is the development of *linguistic competence*, rather than *extra-linguistic practical performance*. On this point, the present analysis diverges from Agerbo (2019).

Finally, the operative function is distinguished from the cognitive function by its orientation towards *practical application*. While both functions necessarily involve cognition—as Faber et al. (2010) and García Aragón (2016) rightly observe, all human activity entails cognitive processing—only the operative function is explicitly directed at the acquisition of *skills through execution* (Bergenholtz & Agerbo, 2017, p. 34). Thus, learning *how to play cricket* constitutes an operative need, whereas learning *about traffic systems* is cognitive. The distinction does not rest on the presence or absence of thought, but on the *functional purpose*: *acting* versus *knowing*.

While manuals are not *inherently* lexicographic by genre alone, Function Theory demonstrates that they *can* legitimately be classified as lexicographic tools when they fulfil core lexicographic design criteria—specifically, when structured as consultable reference works responding to operative information needs. Tarp (2007, p. 177) established this theoretical expansion by observing that certain handbooks and guides share a fundamental characteristic with traditional dictionaries: they are tools conceived to be consulted by specific types of users in order to satisfy specific types of information needs in specific types of social situations, providing quick and easy access to the relevant data. This insight led to the formal recognition of the operative function as the "third leg" of lexicography (Tarp, 2008b, p. 129), extending the discipline's scope beyond cognitive and communicative functions to encompass action-oriented consultation scenarios.

Subsequent scholarship has empirically validated this position. Bothma and Tarp's (2013) analysis of *The Universal Dictionary of Trade and Commerce* (1760s) revealed an 18th-century lexicographic work explicitly designed to deliver operative instructions—demonstrating that manuals with lexicographic architecture have historical precedent within the discipline. Bergenholtz, Bothma, and Gouws (2015) further reinforced that the operative function applies to any reference tool—regardless of label—structured for non-linear consultation to solve action-based problems. Agerbo's (2019) doctoral research provided systematic evidence that physical-training manuals, when designed with lexicographic features (structured headwords, scannable microstructure, user-profile orientation), perform as operative lexicographic tools. Importantly, this classification hinges not on the label "manual" but on *design*: works must be conceived for consultation (not linear reading), organise data to enable rapid retrieval, and target specific user needs in operative situations (Tarp, 2007; Agerbo, 2018, p. 363).

In the Hispanic context, Rodríguez Gallardo (2013, 2014) argued for integrating operative-function principles into Economics handbooks precisely because their consultable structure aligns with lexicographic theory. Huete-García (2022, 2023) later formalised this position, demonstrating that Spanish-language manuals meeting lexicographic design criteria—modular organisation, explicit user profiling, and non-linear accessibility—constitute legitimate operative lexicographic tools. Thus, while generic pedagogical manuals remain outside lexicography's domain, those engineered as *reference tools* for operative problem-solving are not merely analogous to dictionaries but *are* lexicographic by theoretical and functional definition—a position now substantiated across multiple lexicographers and empirical studies.

In summary, the operative function should not be construed as a mere extension of the communicative function, nor as a subtype of the cognitive function. Rather, it constitutes an *autonomous category* within the Function Theory, defined by the user's need for guidance or instruction to perform concrete actions—whether physical, mental, or—critically—*linguistic acts pursued for an extra-communicative purpose*.

3. Methodology

The methodology adopted in this study integrates a conceptual approach, characteristic of theoretical research in lexicography, with a qualitative empirical component aimed at investigating the profile and information needs of the *mediating user*. This dual-method design serves two complementary purposes: first, to deepen the theoretical understanding of the *operative function* within the Function

Theory; and second, to provide an empirically grounded, fine-grained account of how educators—specifically those who consult lexicographic resources for pedagogical purposes—actually behave in real-world consultation scenarios.

First, a documentary and conceptual analysis was undertaken, grounded in a systematic review of the scholarly literature on the Function Theory, lexicographic functions, the notion of *instructions*, and recent empirical work on operative situations in lexicography. This review enabled the delimitation of the theoretical framework, the identification of gaps in the current conceptualisation of the operative function, and the formulation of a rationale for recognising a distinct *pedagogical submodality* within this function. The corpus of sources encompassed both foundational texts from the Centre for Lexicography at Aarhus University and subsequent studies addressing operative needs and the design of user-oriented lexicographic tools.

Second, to characterise the mediating user and examine their consultation practices in authentic contexts, a qualitative empirical study was conducted with football coaches. This professional group was selected on the grounds that: (i) their role involves the direct transmission of *practical skills*, and (ii) they represent a prototypical case of users who consult lexicographic tools not for personal use, but *in order to teach others*. The empirical investigation was carried out in two phases: an initial *exploratory phase* (in 2018), conducted in person using open-ended questionnaires administered in both paper-based and digital formats; and a subsequent *consolidation phase* (2020–2021), implemented via Google Forms to facilitate the collection of more extensive, structured, and systematically comparable data. The questionnaire was designed in accordance with the Function Theory user-centred principles, distinguishing between two categories of user-relevant characteristics:

1. Functional-relevant characteristics (e.g. formal training, professional experience, domain-specific competences, and habitual preparation practices); and
2. Consultation-related characteristics (e.g. typical consultation situations, information needs, encountered difficulties, temporal patterns of resource use, and expectations regarding the design and functionality of a lexicographic tool).

#	Question	Response / Notes
1	What is your educational level as a coach? (Please list any titles/certifications if applicable).	
2	What complementary training do you have? What type is it? (University studies, vocational training; if you are still a student, specify the field).	
3	What experience do you have as a youth football coach? (Indicate the teams where you have worked, apart from the current one).	
4	Do you habitually prepare your training plan?	**[ ] Yes [ ] No**
IF THE ANSWER IS YES:		
	• How do you do it? (Computer/detailed, paper, quick sketch, memorised, etc.)	
	• Where do you prepare it? (At home, at the field, elsewhere)	
	• Approximately how much time do you spend preparing the plan?	
	• How far in advance do you prepare it? (Days or hours before)	
	• Which part of the preparation do you find most difficult? Why?	
IF THE ANSWER IS NO:		
	• Can you explain the reasons why you do not prepare it?	
	• How do you guide the session without a prior plan? How do you get by?	

Table 2. Survey sample for relevant functional characteristics of the user (translated into English by the author)

#	Question	Response / Notes
1	Do you habitually use, or have you ever used, an app or manual for your training sessions?	
2	What shortcomings do you think football and training apps have? (Give at least two examples of problems you have had finding what you needed and indicate—if you remember—where).	
3	When and where do you consider it most likely for a coach to consult a training app? (e.g., while preparing, in the locker room, during warm-ups, etc.)	
4	Would you consult, or have you consulted, any type of data before a training session?	**[ ] Yes [ ] No**
4.1	**If yes:** What would you consult? Explain briefly (e.g., activities for a specific part).	
5	Have you ever had to improvise during a training session?	**[ ] Yes [ ] No**
5.1	**If yes:** In which cases? How did you solve it?	
6	What would you consult, or have you consulted, during training to solve those unpredictable problems?	
7	If you were to make a query in a football app, what do you consider you need most as a youth coach?	**[ ]** a) Instructions on **how to teach** a task. **[ ]** b) Instructions on **how a task is performed**.

Table 3. Survey sample for relevant consultation-related characteristics (translated into English by the author)

The study comprises two complementary components. The first is an exploratory segment, fundamental to identifying and elaborating the (1) functionally relevant characteristics of users—i.e. those traits (such as training, experience, and domain-specific expertise) that underpin the interpretation of data concerning their *extra-lexicographic situations* (see Table 2). The second component serves a more *hypothesis-generating* orientation: drawing on professionals' insights, it seeks to delineate (2) consultation-relevant characteristics, focusing specifically on the *act of consultation itself*—from which users' situations, needs, and expectations are inferred (see Table 3).

Data collection was conducted in two phases. The first phase (May–June 2018) employed an open-ended questionnaire, administered in both paper and Microsoft Word formats, to a purposive sample of 20 youth football coaches affiliated with local schools in Spain, Argentina, Uruguay, and China, all of whom were native Spanish speakers. Recruitment and distribution were facilitated via Facebook. While this phase yielded an initial characterisation of users' profiles and their lexicographic reference needs, some responses were necessarily brief, reflecting participants' limited availability. Nevertheless, the experience underscored the need for a more flexible, accessible data-collection instrument—and directly informed the design of the subsequent phase.

The second phase (January 2020–January 2021) utilised Google Forms to engage 30 Spanish-speaking collaborators across multiple countries, including coaching and pedagogical staff from the FC Barcelona Academy. The digital format—combined with mandatory response fields for key items—enabled the collection of richer, more systematic data while maintaining voluntary participation. This phase substantiated the preliminary findings of the first phase and enhanced the robustness and transferability of the results.

Data analysis followed a thematic coding approach, allowing for the identification of recurrent patterns in coaches' expressed needs—particularly those of an *operative*, *pedagogical*, and

communicative nature. Although the study was not designed to achieve statistical representativeness, the depth and consistency of the qualitative responses permitted the deduction of stable trends concerning *mediated consultation* (i.e. consultation undertaken by a mediating user on behalf of learners). Notably, the data revealed pedagogical needs not explicitly accounted for in the current formulation of the Function Theory. In accordance with the *deductive method* advocated by the Function Theory—which prioritises expert collaboration in need identification, these user needs were interpreted through the lens of lexicographic functions. On this basis, a critical assessment was undertaken of whether—and to what extent—they warrant a conceptual extension of the *operative function* to encompass *pedagogical mediation*.

In sum, this mixed-methods approach provides a robust foundation for analysing the coach's role as a *mediating user* and for advancing the argument that *pedagogical mediation* constitutes a hitherto undertheorized dimension meriting explicit integration into lexicographic theory—and, consequently, into the design of future digital lexicographic resources. Throughout the research, data collection and processing adhered strictly to the provisions of Regulation (EU) 2016/679 (GDPR). Informed consent was obtained from all participants; responses were fully anonymised; and data were used exclusively for research purposes, with secure storage and restricted access ensured at all stages.

4. Results

This section presents and analyses the qualitative results derived from the questionnaires administered to 50 youth football coaches in the two phases outlined in Section 3. It explores the situations in which their operative information needs emerge, the defining characteristics of their user profiles, and their perceptions of shortcomings in digital lexicographic tools within practical coaching contexts. By doing so, it contributes to a deeper understanding of emerging operative situations and the complex environments in which mediation and teaching play a structurally significant role.

Furthermore, the results are examined in light of the central hypothesis formulated in Section 1: that when the user of a lexicographic tool is not the one performing the action but the one who must teach it, the operative function necessarily acquires a pedagogical dimension. The empirical findings therefore serve not only to test this hypothesis but also to substantiate the theoretical and technical need to reconceptualise the operative function in pedagogical terms.

4.1. The operative situations of lexicographic consultation

Understanding the role of *user-trainers*—specifically, football coaches—as mediating users in lexicographic consultation necessitates a prior characterisation of the operative situations that give rise to information needs: that is, contexts in which users are required to act—physically or mentally—on the basis of *instructions* (Tarp, 2007; Fuertes-Olivera & Tarp, 2008). Yet, as Rodríguez Gallardo (2014, p. 319) notes, a significant empirical gap persisted until 2018: the near-total absence of detailed, context-sensitive studies of such situations in authentic usage environments, largely because practical manuals and instructional guides had evolved independently of systematic theoretical frameworks.

Although Verlinde et al. (2010) proposed a typology comprising six extra-lexicographic needs, including *communicative*, *cognitive*, and *operative*—their model has been critiqued for its underdeveloped treatment of the operative dimension and its implicit prioritisation of communicative functions. A substantial advance was subsequently made by Agerbo (2018), who—building on analyses of dictionaries with operative potential—distinguishes two foundational types of operative situation (Bergenholtz & Agerbo, 2017, p. 34):

1. Advisory situations (*what to do*): framed by the question *'What should I do in this situation?'* (e.g., responding to a bite from a venomous spider); and

2. Procedural situations (*how to do*): framed by the question *'How do I carry out this action?'* (e.g., executing a physical exercise step by step).

This distinction between *what* and *how* is fundamental to the functional architecture of lexicographic entries designed to support action.

Regarding the profile of users engaging in operative consultation, the scholarly literature underscores that characterisation must extend beyond demographic or linguistic variables—common in studies of communicative usage—and instead foreground the user's *skill level* and *practical expertise* within the relevant domain (Agerbo, 2018, p. 364). Equally critical is recognition of the *situational immediacy* in which many operative needs arise; consultations often occur *on the move*, particularly in mobile contexts. As Simonsen (2014, pp. 259–260) observes, such users tend to be punctual, impatient, imprecise, and engaged in other concurrent tasks. This behavioural profile directly informs the design principles underpinning mobile lexicography, commonly distilled into four pillars: *user*, *situation*, *access*, and *data*.

4.2. The user who consults to teach

This subsection characterises the youth football coach as a paradigmatic *mediating user*: one who accesses digital lexicographic tools not for personal learning, but with the explicit purpose of *teaching others*. This distinction is pivotal. Unlike traditional lexicographic users, whose consultation typically arises from *self-directed* communicative or cognitive needs (e.g., comprehension or production), the coach's engagement is driven by an *operative–pedagogical need*: namely, *how to design, adapt, and transmit physical tasks* to developing learners. This user profile was selected both for its relevance to sports practice and because it exemplifies a growing cohort of practitioners who rely on digital resources to acquire *how to teach* in situated, practical contexts.

The functional profile of these users is grounded in demographic and educational data gathered via a survey of 50 coaches affiliated with clubs and schools across Spain and several international settings. Participants ranged in age from 20 to 42 years, with professional experience often extending over multiple decades. Formal qualifications, structured according to the UEFA coaching pathway—UEFA B (Level 1), UEFA A (Level 2), and UEFA Pro (Level 3)—exhibit marked heterogeneity: 62% hold Level 2 or 3 certification, whereas 38% possess only Level 1 accreditation, non-formal training, or no formal qualification at all. In terms of higher education, 28% report university-level studies in sport-related disciplines, a further 28% hold degrees in unrelated fields, and 34% have completed vocational training or upper secondary education.

This diversity in formal preparation—typical of non-formal educational ecosystems such as youth sport—reinforces the hypothesis that *practical experience* and *situated learning* are central to the formation of coaching competence. Nevertheless, as subsequent analysis reveals, experiential accumulation alone does not ensure the development of *pedagogical content knowledge* (Shulman, 1986): that is, the capacity to transform domain-specific (e.g., technical–tactical) knowledge into *didactically effective* instructional proposals.

A core professional activity—*session planning*—is predominantly conducted in digital environments (56% on desktop computers, 18% on tablets) or analog formats (26% on paper), and almost invariably *outside* the immediate coaching context (82% at home, 18% at club facilities). Time allocation is constrained: over 70% of respondents report dedicating less than two hours per week to planning, typically with a lead time of one to seven days. Notably, 20% prepare sessions on the day of delivery—a practice understandably shaped by contextual pressures, yet one that heightens improvisation and curtails opportunities for reflective pedagogical design.

Analysis of perceived planning difficulties yielded six recurrent, thematically coherent categories—all firmly embedded in the teaching dimension of practice:

1. Design of the main session segment: challenges in integrating technical, tactical, physical, and cognitive elements in a balanced, purposeful manner—as opposed to the comparatively straightforward structuring of warm-up or cool-down phases (Informant 21).
2. Transfer across complementary phases: difficulty in designing warm-ups or re-adaptation activities that function not as mere 'fillers', but as *anticipatory* or *reinforcing* components aligned with core session objectives (Informant 45).
3. Adaptation to fluctuating attendance: unpredictability in player numbers necessitating real-time reconfiguration of pre-designed tasks (Informant 9).
4. Responsiveness to individual diversity: capacity to modify exercises (data) to meet the specific developmental, physical, or cognitive needs of individual players, moving beyond standardised group protocols (Informants 4 and 2).
5. Management of cognitive and attentional load: the challenge of calibrating not only physical intensity, but also cognitive demand and sustained focus throughout the session (Informants 10 and 40).
6. Effective transmission of instructions: difficulty in conveying task parameters *clearly and comprehensibly*—particularly at younger ages—so that players understand *what* to do, *how*, *why*, and *when* (Informant 13).

Eventually, the sixth category—*transmission*—introduces a decisive conceptual distinction. Whereas difficulties 1–5 pertain to *pedagogical design* (*what* to propose?), difficulty 6 concerns the *act of teaching itself* (*how* to communicate it?). As Informant 13 observes: *'You waste more time trying to make sure they understand perfectly when you explain it to the kids.'* Informant 40 elaborates: '*Maintaining the player's attention and concentration—and sustaining high intensity and pace throughout training—is always far more difficult than any task you prepare.'*

These testimonies underscore a fundamental insight: possessing *technical knowledge* of a drill (e.g., a defensive transition exercise) is not synonymous with *knowing how to teach it*. The coach must master not only *what* to do, but *how to teach what*: how to model performance, provide formative feedback, segment instructions, deploy visual aids or analogies, and manage errors in real time. In essence, this demands *specialised pedagogical knowledge* tailored to contexts of embodied, physical action.

This need—articulated repeatedly by participants as *'How do I teach it?'*—exposes a critical lacuna in the current landscape of digital resources. Most tools assume the user seeks information about *what* to do, not guidance on *how to teach* it. Yet when the ultimate objective is *pedagogical intervention*, the lexicographic tool must transcend the role of a static knowledge repository and instead function as a *support system for real-time, situated decision-making*. Such support might include: suggested instructional phrasing, demonstration sequences, anticipatory error-handling strategies, observation rubrics, or adaptable progressions/regressions responsive to group comprehension.

Accordingly, reconceptualising the coach as a user who consults *in order to teach* does more than expand the traditional purview of lexicography—historically centred on users consulting *to understand or produce language*. It necessitates a functional reorientation of the lexicographic tool itself: from inert archive to dynamic *pedagogical mediator*. This perspective is foundational for advancing research in applied lexicography within educational domains and provides theoretical grounding for future lexicographic products that integrate an operative function with an explicitly pedagogical purpose.

4.3. User perceptions of shortcomings in digital lexicographic tools in practical contexts

Having established the functional profile of football coaches—a user group of particular salience at youth levels—it is now essential to identify the information needs that emerge during their *consultation* of digital lexicographic tools. These needs are intrinsically shaped by: (i) established usage

habits; (ii) the practical contexts in which intervention occurs (e.g., training sessions, competitive matches, and session planning); and (iii) user expectations concerning the design and functionality of such tools (cf. Bergenholtz, Nielsen & Tarp, 2009; Tarp & Gouws, 2023). To advance this inquiry, a critical methodological step involves the systematic analysis of shortcomings as perceived by *expert users* themselves. With regard to the tools considered, informants mentioned Gesdesp, Effpro, Tactical Pad, Soccer Coach Pro, and Longo Match; however, most informants in the first part of the survey were unable to identify a specific app. This may be either because these tools do not provide the type of data and functionalities needed to meet their information requirements. Importantly, the questionnaire was designed to elicit informants needs and expectations for a potential new application that would support their consultation needs, rather than to conduct a detailed comparative analysis of existing tools. While participants occasionally referenced specific apps as points of reference, their primary focus remained on articulating the functional requirements and data features they would value in an ideal solution tailored to their professional context.

Drawing on qualitative testimonies from coaches affiliated with prominent Spanish institutions and a range of international clubs and schools (c.f. Table 4), the analysis has highlighted two overarching dimensions that offer opportunities for enhancement: macrostructural and microstructural (see Tables 2 and 3). Both categories are of particular significance for *coach education*, as they expose a persistent misalignment between current technological provisions and the situated realities of pedagogical practice in sports settings.

Football Club – Sport Institution	Country
F. C. Taicheng Lions	China
SPHQ F.C. Shenzhen – Toulouse F.C. Partner	China
Tagou Football School	China
Barça Academy	China, India, USA, Japan, Singapur and Spain
Sirio Libanés	Argentina
Real Hervido	Uruguay
FC Potential	South of Korea
F. C. Barcelona	Spain
RCD Espanyol	Spain
Federación de Fútbol de Madrid	Spain
A. D. Sporting Union	Spain
C.D.U. Finca	Spain
C. D. Leganés	Spain
C. E. Escolar	Spain
E.F. RCD Espanyol de Badajoz	Spain
Get Ahead Football	Spain
S. D. Ágreda	Spain
Urbanitzacions CD	Spain
U. E. Santes Creus	Spain
C. F. Reus Deportiu	Spain
CF Reus Reddis	Spain
Fundació F. Base Reus	Spain
U.E. Manlleu	Spain
Club Gimnàstic de Tarragona	Spain
CF Atlético Jonense	Spain

Table 4. Schools and football institutions of participating coaches

4.3.1. Usability: design, organization and accessibility

Usability considerations involve the alignment of information architecture, interface design, and technical configurations. Feedback from the coaches identifies four primary areas where these elements can be further optimised.

First, there is a marked absence of *functional organisation* in content structuring. Many applications work as decontextualised repositories of isolated exercises, lacking a hierarchical or needs-responsive framework that incorporates key variables in pedagogical planning—such as the players' developmental stage, technical–tactical complexity, available space, group size, or session-specific objectives. As one coach from the Madrid Football Federation observes:

> 'An app can propose a generic task, but to achieve quality, a substantial adaptation process is required—tailoring it to the team's specific objectives and available resources (space, number and characteristics of players, among the most critical factors).' (Informant 14)

Second, visual design is widely perceived as a *cognitive impediment*. Multiple respondents highlight problems of *visual overload*, which compromise navigability and avoid rapid decision-making during live practice—a concern consistent with principles of user-centred design (cf. Norman, 2013). An RCD Espanyol coach succinctly remarks: *'Visual organisation of the app's possibilities. Brevity is the soul of wit.'* (Informant 11)

Third, a conspicuous lack of *multimodal resources* undermines usability. The majority of tools rely exclusively on written text, omitting visual supports—such as diagrams, video demonstrations, or animations—that would significantly enhance comprehension and facilitate swift transfer to the training environment. This limitation is explicitly noted by coaches from CD Leganés and FC Barcelona alike (Informants 5 and 38).

Fourth, *technical accessibility* presents two recurring operative challenges. Firstly, cross-device usability remains inconsistent: several applications deliver a suboptimal experience on tablets—a device frequently used pitchside—compared to smartphones (Informant 28, Fundació Futbol Base Reus). Secondly, and critically, the capacity for *offline access* is often absent, despite its necessity in facilities with unreliable or no internet connectivity. As one FC Barcelona coach insists: *'I need to access the tool without an internet connection.'* (Informant 40)

Collectively, these macrostructural deficiencies demonstrate that effective tool design for practical pedagogy cannot be reduced to the *digitisation of static content*. Rather, it must be grounded in an analysis of the teaching context—encompassing its *temporal*, *spatial*, and *technological* dimensions—and responsive to the situated, time-pressured nature of real-world coaching practice.

4.3.2. Data: pedagogical functionality and didactic foundation

The effectiveness of data inputs depends on the alignment of content, intended purpose, and system adaptability. Our analysis identifies five interrelated areas where these input dimensions can be strengthened.

First, a lack of *functional transparency* is pervasive. The applications examined seldom articulate *what* they are designed to achieve, *for whom* they are intended, or *in which extra-lexicographic situations* they are applicable. This opacity results in the provision of generic, decontextualised content that fails to align with the actual profiles, constraints, and pedagogical aims of coaches. As one coach from Sporting Unión Madrid remarks:

> 'The biggest problem is that many exercises originate from elite-level coaches or teams and are neither appropriate nor effective for the age groups and developmental stages we work with. Moreover, most exercises are presented in isolation, lacking any underlying methodological rationale.' (Informant 3)

This misalignment between the tools' implicit model (professional football) and the realities of youth coaching is reported consistently across geographical contexts—from Spain to Argentina and China—with users highlighting mismatches in *playing philosophy*, *available human resources*, and *institutional pedagogical frameworks* (Informants 8 and 15).

Second, there is a pronounced demand for *personalisation*. Coaches seek not static catalogues of drills, but *adaptive*, multifunctional tools that enable them to modify key parameters—such as group size, duration, intensity, and specific learning objectives—and thereby generate coherent, context-sensitive session plans. This need resonates strongly with the principle of *adaptive teaching* (Hattie, 2009), which presupposes flexible, non-prescriptive resources responsive to learner variability.

Third, respondents emphasise the need for *functional proscription*—understood here not in a linguistic or normative sense, but in an *operative–ethical* one. In physical education contexts, proscription entails *preventive guidance*: explicit warnings or recommendations concerning risks associated with workload, developmental stage, environmental conditions (e.g. extreme heat or poor air quality), or unsafe techniques. As a coach affiliated with Shenzhen FC and Toulouse FC notes: *'[It would be useful] to receive advice on how to adapt training in adverse weather conditions.'* (Informant 2)

Fourth, the absence of an *explicit methodological foundation* is frequently criticised. Users expect content not only to describe *what* to do, but also to justify *why* and *how* a given task integrates within a broader pedagogical sequence. Ideally, tools should accommodate multiple methodological paradigms—such as *comprehensive teaching models*, *small-sided games*, or *tactical periodisation*—enabling clubs and schools to select or adapt resources in line with their own conceptual and philosophical orientations.

Finally, a *relational deficit* is evident: current tools typically preclude *co-creation* and *collaborative knowledge-building*. They offer no functionality for users to design, store, annotate, or share bespoke tasks—and most important, lack integrated spaces for professional dialogue (e.g. moderated forums or communities of practice). This omission undermines what Agerbo (2019, p. 212) identifies as the 'need for recognition': the professional's aspiration to be acknowledged not as a passive consumer of standardised content, but as an *active*, *reflective agent* and *knowledge producer* within their field.

4.3.3. Implications for the training of trainers

The shortcomings identified are not merely *technical* in nature; they possess a distinctly pedagogical dimension. Collectively, they expose a systemic misalignment between the design of digital lexicographic tools and the *situated realities* of teaching in practical, embodied contexts. For teacher education—both initial and continuing professional development—this discrepancy carries significant implications: future practitioners must be equipped not only to *use* digital technologies, but also to *critically appraise* them and *adapt* their application to local pedagogical and organisational constraints.

Moreover, educators require training as *designers of situated resources*—capable of integrating three interdependent domains of expertise:

- Lexicographic principles (e.g. clarity, functional orientation, and accessibility);
- Pedagogical principles (e.g. sound sequencing, adaptability to learner variability, and explicit methodological rationale); and
- Ethical principles (e.g. safety, inclusivity, and professional recognition as knowledge producers).

In sum, the development of lexicographic tools for applied teaching contexts—such as sports coaching—demands a rigorously user-expert-centred approach: one that begins with an empirical grounding in practitioners' authentic needs and translates these into explicit, theory-informed design criteria.

Only through such an approach can the field move decisively beyond the prevailing *'exercise repository'* paradigm and foster digital ecosystems that actively *enhance*, rather than inadvertently *constrain*, the professional agency and pedagogical capacity of those who teach.

4.4. The pedagogical need as a submodality of the operative function

One of the key findings of the survey process—and the central focus of this study—is the existence of a pedagogical need, as expressed by the coaches themselves. It is important to recall that knowledge of physical tasks applicable to cognitive or operative situations is not equivalent to pedagogical knowledge. In other words, knowing how to teach a specific concept or exercise to others—particularly when the person using the tool must teach someone else to perform a given physical action rather than engage in self-learning—requires a distinct set of skills. The pedagogical dimension is therefore an essential component of operative situations.

Once this need for consultation has been identified, it becomes necessary to determine whether it emerges in situations different from those already recognised in lexicography (communicative, cognitive, operative, interpretive) or, conversely, whether it arises within one of these established situations. From the perspective adopted in this research, pedagogical need does not arise in special pedagogical situations separate from communicative, operative, or interpretive ones, because pedagogical need is implicitly linked to the concept of operative need. This need typically involves instructions for learning how to act in a certain way—a definition that remains compatible with the existence of another type of operative (pedagogical) situation in which instructions are required to teach another person how to act in a certain way. The only distinction is that, in the case of pedagogical need, the necessary instructions concern teaching, which is itself a type of action in which instructions constitute part of the discourse, as the coach must transfer what has been learned from the tool to their players. The coach assumes the role of mediator between the tool and the players, consulting what they intend to teach, learning how to teach it, and subsequently transmitting this to their players.

In this sense, the need to learn how to teach is related to an operative situation because the subject matter being taught generally entails physical action. However, could a pedagogical need arise within a communicative situation?

In general, the communicative function of lexicography does not address a pedagogical need related to linguistic performance because, it should be emphasised, a pedagogical need (such as learning how to teach the differences between the verbs *ser* and *estar* in Spanish) is a need for instructions, and there already exists a lexicographic function that provides instructions to users—the operative function. The objective in such cases, although related to communication, is not to learn how to use or understand these two verbs—to continue with the same example—but rather to learn how to teach them through a set of strategies. Learning to apply these strategies constitutes an operative need that will ultimately enable learners to achieve a range of communicative objectives (reading comprehension, translation, oral expression, etc.).

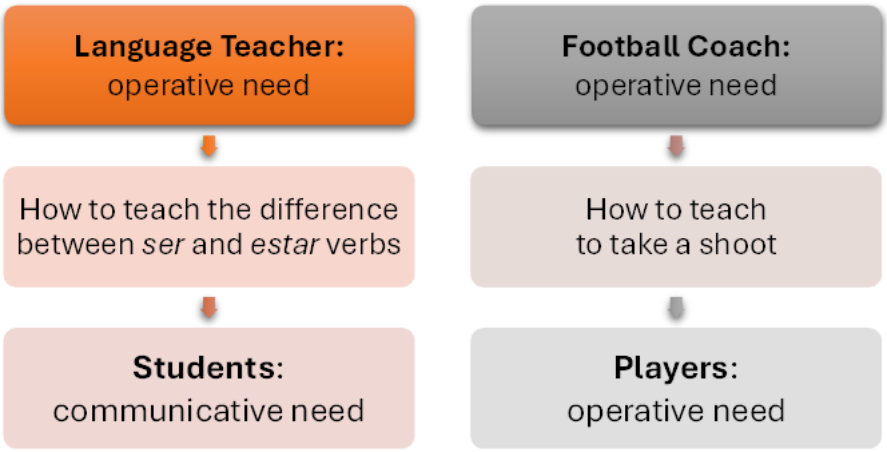

Figure 1. The role of the mediator in communicative and operative situations

As illustrated in Figure 1, unlike operative situations, where the coach's role has an operative (pedagogical) need to be applied in a specific situation, language teachers, although they share this type of need, since it is also operative (pedagogical), apply it in a communicative situation (a language class). This demonstrates that the role language teachers and football coaches assume is similar in that they both act as *mediators*.

According to Tarp (2010a, pp. 46–47), it is *communication*—described as "the mediating element" (see Figure 3)—that enables the transformation of lexicographic data into linguistic knowledge. In standard operative situations, by contrast, it is *practice itself* that serves this mediating role. However, when consultation is undertaken *in order to teach*, the dynamic shifts: the user assumes the position of a *mediator*, and the operative need becomes inherently more complex. In such cases, *communication* necessarily reassumes its mediating role—not because the underlying lexicographic need becomes communicative (it remains operative), but because the pedagogical transmission of knowledge to users requires discursive mediation.

Thus, while prototypical operative situations exhibit a direct correspondence (*operative situation → operative need → practice as mediator*), any deviation from this pattern—particularly in pedagogical contexts—necessitates *communication* as the channel through which data are converted into actionable knowledge. The nature of the mediating element, therefore, depends not on the *type* of consultation need per se, but on the *user's role and purpose*: when the user acts for themselves, practice mediates; when they act on behalf of others, communication does.

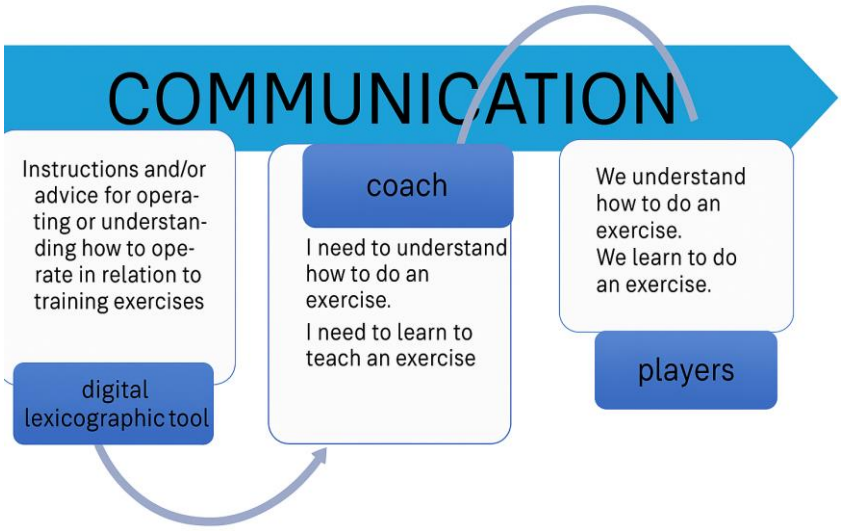

Figure 2. Communication as a mediating element in the obtaining process and transfer of information

5. Discussion

Identifying a pedagogical need as a submodality of the operative function raises a fundamental theoretical question: can this need be inscribed in an independent type of *pedagogical situation*, or is it a situational variant already contemplated in the Function Theory—that is, a specific manifestation of operative (or communicative) situations in contexts of teacher mediation?

To address this question, it is essential to distinguish between two notions that are often conflated:

1. Pedagogical lexicography, understood as a genre or product modality (e.g., dictionaries designed for learners); and
2. Pedagogical need, understood as a type of *extra-lexicographic* need that may arise across various situational types—operative, communicative, or even cognitive—provided the user acts as a *mediator*.

Traditionally, pedagogical lexicography has been associated with language teaching and learning, whether in L1 or L2 contexts (Hernández, 2008, p. 22; Nomdedeu-Rull, 2017). In this sense, it constitutes a functional subgenre with predominantly *communicative*, and to a lesser extent *cognitive*, functions (Nomdedeu-Rull & Tarp, 2018). However, as these authors emphasise, *pedagogical orientation* is not a function *per se*; rather, it is a *design dimension* applicable across diverse lexicographic tools, irrespective of their primary function. In other words, a resource may be pedagogically oriented—i.e., designed to foster learning—without its core function being pedagogical.

This distinction allows us to reinterpret examples such as a Spanish as a Foreign Language dictionary, a military training manual structured as a dictionary, or a botany dictionary for students. All share a pedagogical orientation in their design—evident in features like clarity, sequencing, and graded examples—yet fulfill distinct functions: *operative* in the first two cases (guiding action), and *cognitive* in the third (facilitating knowledge acquisition). What connects the primary and mediated users is the presence of a mediator. The mediated end users, such as students or players, do not consult the tool directly; they receive the content only after it has been reprocessed and conveyed by the mediator. In this system, the primary user—the mediator—consults the resource and changes its content into pedagogical instruction, while the mediated user receives the knowledge indirectly through the mediator. It is in this context that *pedagogical need*—not as an autonomous function, but as a *submodality* of the operative function—gains its full significance.

Consider the case of youth football coaches. Here, the three phases of the consultation process—*understanding*, *acting*, and *teaching*—intertwine in a non-linear fashion. The first two phases (*understanding* and *acting*) align with the classical operative function, insofar as they involve acquiring physical skills through instruction (Tarp, 2010a). The third phase—*teaching*—does not constitute a new function, but rather a *functional specialisation*: an operative situation in which the required action shifts from physical execution to *discursive* and *didactic* performance. Articulating clear instructions, modeling behaviors, anticipating learner errors, and modulating feedback all draw upon a specific form of *Pedagogical Content Knowledge* (Shulman, 1986)—a competence not automatically derived from technical expertise.

This perspective helps resolve an apparent paradox: despite widespread recognition of the educational dimension of youth football, many coaches continue to employ ineffective methods in practice. The gap, it seems, does not stem from a lack of pedagogical intent, but from the absence of tools specifically designed to support mediational competence. When existing applications offer only exercise descriptions without guidance on *how* to implement them effectively, they respond to the *primary* operative need (*to act*), but neglect the *secondary*—yet no less crucial—need (*to teach how to act*).

Accordingly, the proposal advanced here is *not* to posit a new, autonomous "pedagogical function"—which would risk unnecessary fragmentation of the theory—but rather to *specify* the operative function for *mediation contexts*. This approach remains fully consistent with the Function Theory underlying principles: as Agerbo (2019, p. 87) observes, lexicographic functions are not fixed ontological categories, but dynamic constructs shaped by users' real needs in specific situations. The emergence of mediating roles—such as the coach as teacher—does not undermine the theory; rather, it enriches it, revealing that operativity does not conclude with action itself, but may extend to the teaching of action.

This conceptual expansion opens a promising avenue: that of a lexicography for practical teaching—one capable of integrating domain-specific knowledge (e.g., football, music, health, or technology) with pedagogical principles, and serving not only *those who do*, but also—and with equal rigor—*those who teach how to do*.

6. Conclusions

The findings support the proposition that when the user of a lexicographic tool acts as a *pedagogical mediator*—that is, consults it not to perform an action directly, but to teach that action to others—the operative function, as formulated in the Function Theory, requires conceptual expansion. Findings from the qualitative analysis involving 50 youth football coaches reveal that consultation needs in such contexts extend beyond *'what to do'* or *'how to do it'*, encompassing a third, essential dimension: *how to teach others to do it*.

This observation supports a central theoretical proposition: the existence of a *pedagogical need* as a submodality of the operative function. Whereas in standard operative situations practice serves as the mediating element between knowledge and skill (Tarp, 2010a), in contexts of teacher mediation, *communication* becomes the structural intermediary—an indispensable channel for transforming lexicographic information into pedagogical discourse. Statements such as *'more time is wasted trying to make sure it's perfectly understood'* (Informant 13) or *'maintaining attention… is much harder than any task you prepare'* (Informant 40) do not merely reflect technical challenges; rather, they signal a gap between *technical knowledge* and *pedagogical knowledge*—that is, between mastering a skill and possessing the capacity to teach it effectively.

This reconceptualisation needs a redefinition of three foundational axes in educational contexts:

1. User profile: It is no longer sufficient to describe users in terms of linguistic competence or domain-specific experience. Priority must be given to their *practical expertise* and, crucially,

their *Pedagogical Content Knowledge* (Shulman, 1986)—that is, their ability to translate technical knowledge into viable, context-sensitive didactic proposals.

2. Extra-lexicographic situation: Needs arise within *triadic* contexts (user–product–learners), wherein the ultimate purpose of consultation is *mediation*, not direct action. In such scenarios, consultation time is severely constrained; technical conditions (e.g., offline access, tablet or mobile use, field-based settings) are limiting; and cognitive load is high.
3. Relevant lexicographic data: Beyond standardised exercises or procedural instructions, users require resources that support *didactic decision-making*. These include: age-appropriate instructional language; sequences for modelling and providing feedback; strategies to manage learners' cognitive load; exemplifications of common errors and their remediation; and guidance on progression or regression based on observed understanding.

These redefinitions align closely with core dimensions of Function Theory. The expanded user profile corresponds to the typology of users, now incorporating *Pedagogical Content Knowledge* as a key competence. The reconceptualised situation reflects the extra-lexicographic context, highlighting triadic mediation rather than direct action. Finally, the specification of relevant lexicographic data aligns with the principles of data selection and presentation, ensuring resources support both action and didactic decision-making. In this light, the shortcomings identified in existing tools—ranging from a lack of methodological grounding to the absence of spaces for co-creation and professional recognition (Agerbo, 2019)—are not minor technical flaws, but symptoms of a deeper *epistemological disconnection*: the persistence of a content-consumption model, in contrast to the emerging demand for tools that foster *reflection* and *teaching practice*.

Finally, this research opens two prospective avenues. First, the extension of the proposed framework to other domains where pedagogical mediation is central—such as vocational training, language education, or community health. Second, the critical integration of the Function Theory with established pedagogical theories, enabling a more coherent articulation of lexicography and didactics within a unified paradigm.

In summary, advancing towards a *lexicography for practical teaching* entails moving beyond a repository-based approach towards one that is *ecological*, *situated*, and *dialogical*—recognising the educator not as a passive recipient of information, but as a reflective designer of learning experiences. Only then can lexicographic tools fulfilling an operative function achieve their full potential: not merely to inform, but to enhance the capacity to teach.

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