

Teaching/Learning French To Algerian Science Students: From Curriculum To Classroom Reality

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Summary

This article explores the teaching of French in science courses, focusing on the challenges of balancing General French (GF) and French as a Specialist Language (FSL). The study takes a particular interest in the training of students¹ enrolled in biology, looking at the ability of the content taught to develop communication skills, both internal and external to their specialty. The results reveal that, although teaching often focuses on specialized content, students need more general language skills, essential for communicating and adapting to various situations, both professionally and daily.

Keywords: *French Specialty, Subject-Specific Skills, Communication, General French, Skill Frameworks.*

Introduction

Unlike teachers in the national education system, who are typically subject to regular supervision and monitoring by their supervisory authorities and required to follow predefined instructions and programs, university professors have the flexibility to propose diversified content tailored to students' needs and learning objectives in response to market demand.

However, it is crucial to consider the sociolinguistic environment to address learners' needs effectively. Courses should be designed based on the skills required. For instance, university students in scientific fields often study French for communication purposes or to gain access to specific knowledge relevant to their current or future fields.

In didactics, when discussing the teaching of French, we always consider the methodological framework—whether it be French for Specific Purposes (FSP), French as a Special Language (FSL), French for University Purposes (FUP), or General French (GF)—to determine the skills to be targeted and the content to be taught. Indeed, the concept of communicative competence, introduced by Dell Hymes (1972), remains central to foreign language teaching and learning, particularly in French, as its mastery allows learners to navigate any communicative situation, whether general or every day (GF).²

However, when it comes to Français de Spécialité or Français sur Objectif Spécifique, the distinction lies in the teacher's didactic approach (Mangiante & Parpette, 2004). Specialized French is based on the teacher's anticipation of the language needs specific to a particular field. This explains why, to date, there are no competency reference frameworks directly related to the professional world, apart from the Council of Europe's CEFR (1998), which focuses on non-specific language use in everyday communicative situations.

This contribution explains the type of French taught in science courses and the various skills targeted by this instruction. Accordingly, our research question is: To what extent

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does the content taught in "French" help biology students develop communication skills within or outside their specialization?

Considering this, we propose the following hypothesis: The teaching and learning of French may contribute more to developing disciplinary skills related to the student's specialization than linguistic and language skills.

1. Theoretical Framework

1.1. French for Specific Purposes (FSP)/Specialty French

According to Mangiante and Parpette (2004), "Le Français sur Objectifs Spécifiques" (French for Specific Purposes or FSP) is a course design approach based on a precise training request, which requires a focus on certain communication situations not necessarily related to the professional world and often characterized by urgency.

The objective is to create language programs adapted to specific contexts, which requires analyzing the target audience's training needs. These needs are particularly distinct for Algerian students, especially those enrolled in scientific and technical courses. Having been educated in Arabic, these students often face language and communication difficulties at university, where classes are predominantly taught in French. Existing language programs mainly concentrate on terminology that must meet the practical demands of the university setting.

Following the Algerian state's Arabization policy, initiated in the early 1980s, teaching scientific subjects in schools transitioned to Arabic. Despite subsequent reforms, French remains the primary language of instruction in scientific disciplines. In response to this situation, FUP emerged as a solution to bridge the gap between students' actual linguistic competencies and those expected at university. FUP aims to develop a tailored language program based on data collection and needs analysis to identify the required skills, ultimately offering language training that facilitates student integration into the university environment.

Historically, Specialty French was the first to designate methods aimed at specific audiences learning French for professional or academic purposes. The distinction between Specialty French and FSP lies in two distinct institutional and didactic approaches: supply-side and demand-side. The supply-side approach is broader, designed for a wide audience, and reflects the diversity of the field. For instance, French for the hotel industry addresses a range of professions, from reception to travel organization and tourism.

In contrast, FSP caters to the specific needs of a particular audience. While there is no strict boundary between Specialty French and FSP, the more specialized the demand—tied to clearly defined communication situations—the more the teacher must supplement available materials with content that directly addresses the specific needs of their audience. Conversely, a more general training program in a field already supported by available pedagogical resources may rely on existing methods without requiring extensive customization.

1.2. Drawing up Language Skills and Specialty French Reference Frameworks

With the increasing number of students enrolled in science courses, there has been a growing demand for shorter, more targeted training programs in intensive language teaching centers. The development of these reference frameworks began in companies as early as the 1980s, but it was not until the 1990s that they were integrated into educational and training programs (Mangiante & Parpette, 2004).

Needs analysis is a critical step in developing specialty language training programs, as it is directly linked to what learners require as social actors who must communicate in various situations (Benabbes, 2018). Richterich notes: "The language needs of adults learning a living language correspond to the requirements arising from the use of the language in a multitude of situations in the social life of individuals and groups" (Richterich, 1973, p. 36).

According to Porcher, analyzing and focusing on learners' language needs helps anticipate their learning expectations and priorities. By personally identifying their needs, learners understand how to learn and become autonomous as a result: "Today, this needs analysis is all too often misused, in other words, transformed into a lock-in operation, which consists in believing that we can identify and fix the language needs of an audience once and for all, and then deduce an optimal teaching program that would meet those needs and only them" (Porcher, 1978: 9).

The standard approach to developing FSP and FUP programs is based on specific training requests, depending on the objectives of the requesting organization, the homogeneity of the target audience, and the material conditions of the training. This process is typically divided into five stages: training request, needs analysis, data collection, data analysis, and didactic development, which we will briefly illustrate.

1.3. Functional French (FF)

Functional French emerged in 1974, marked by significant political and economic changes. Several countries reduced the hours allocated to foreign language instruction, including French. This type of French was primarily intended for French government scholarship recipients. Due to tight budgets, the government encouraged more targeted French teaching. Functional French "cannot be characterized primarily by linguistic content and inventories, but rather by specified audiences and their objectives for the functional use of the linguistic tool they aim to acquire" (DDL, 1976, p. 231).

According to Lombard (2003), promoting the French language has been central to France's international trade policy since the early days of cultural diplomacy. Functional French (FF), which emerged after Scientific and Technical French (STF, 1950), French as a Specialty Language (FSL, 1963), and Instrumental French (IF, 1970), coexisted with these other approaches.

The teaching of French has also undergone a significant transformation, shifting from functional French to the functional teaching of French. As Porcher (1976: 68) pointed out, "It is not a question of functional French, but of the functional teaching of French," thus resolving the initial ambiguity. Indeed, "functional French" makes little sense from a didactic standpoint, unlike "functional teaching of French." The latter refers to any teaching method aligned with specific objectives, regardless of the audience or content. Therefore, there is no such thing as an intrinsically functional language; instead, teaching methods depend on the context and the language aspects addressed (Lehmann, 1993, p. 99).

The term functional French did not withstand the criticism of dialecticians and disappeared in the early 1980s, replaced by the functional teaching of French. Nevertheless, it is essential to note that functional French contributed to the development of a methodology based on the concept of needs, the core principle of which is adapting to learners and their teaching/learning context (Holtzer, 2004: 12). This focus on needs—whether learning, language, or cognitive—has become central to modern communicative approaches.

The implementing a Functional French program requires analyzing the speech acts and grammatical concepts that learners need to understand, internalize, and produce in communicative situations. Furthermore, as outlined in the second stage of developing a functional teaching/learning program (Lehman, 1983), it is essential to inventory communicative situations to structure the content effectively. Given the diverse specializations of learners, offering uniform communication situations would be inadequate. To design an effective functional French program, it is crucial to implement assessment mechanisms tailored to the specific needs of each learner.

2. Practical Framework

2.1. Methodology

To verify our initial hypotheses, we carried out a questionnaire survey of 26 1st year Master's students in the biology department of the University of Khenchela (located in

northern Algeria), affiliated with different specialties (plant biology, genetics, microbiology, ecology, and biochemistry), aged between 21 and 27, of heterogeneous gender and from various regions of the Khenchela wilaya, to detect their representations about the different types of skills developed through teaching and learning French.

The structure of this survey makes it possible to examine the effect of two variables (the content taught and real academic needs) on students' representations of the skills installed in French at the end of the "French" training course. In other words, our concern is identifying the types of installed skills perceived by students and establishing links between the content of the French subject taught and students' actual needs.

The research methodology is based on a corpus of responses to a questionnaire consisting of 12 questions, three of which are closed, eight multiple-choice, and one open question, structured around five main ideas and main entries:

- Interest in learning French (Qs: 1, 2, 3, 4).
- The nature of the content provided (Qs: 5, 6, 7, 10).
- Installed skills (Q: 8).
- Difficulties encountered (Q: 9).
- Proposed solutions (Qs: 11, 12).

Referring to the Moodle platform to check the targeted skills³ in French, in the various M1 specialties in the "Natural and Life Sciences" field, we noticed that this subject is called "Communication." Indeed, it aims to enable students to communicate orally and in writing, to present and express themselves well in public, to listen and exchange, and to use professional documents for internal and external communication. The course covers five main areas: strengthening language skills, communication methods, internal and external communication, meeting techniques, and oral and written communication. It should be remembered that this same subject, which is aimed at general French language teaching, is also part of the program for the first semester (S1) of the first year of the bachelor's degree. It is known as "Techniques de communication et d'expression 1". In S2, the same subject, "Techniques de communication et d'expression 2", is taught in English.

That said, whatever the student's level of study and specialization, the objectives assigned to teaching and learning French do not go beyond the general framework of the language and have nothing to do with "specialty language" or "terminology."

2.2. Main Results and Discussion

The research we present below is based on the hypothesis that students' difficulties have much more to do with general language problems (FGL) than with their specific dimensions (FSL). Therefore, the challenge of such research is to cross-reference the skills established through the French curriculum, the real needs of students, and the content taught. We want to gather relevant data on teaching practices, check whether they correspond to the teaching program and meet the expectations of university students specializing in biology.

Given the responses received, we base our analysis on the abovementioned five elements.

2.2.1. Interest in learning French (Qs. 1, 2, 3, 4)

Although biology students only sometimes (50%) attend French classes, most (80%) confirm that they are motivated to learn this subject, which is part of their training program. 85% use it outside the classroom and in their daily lives.

This focus on French is justified because students must write and defend their Master's theses in French.

These results show that the French language plays a central role in all areas of life: education, health, and administration. Indeed, whether students like it or not, they are obliged to learn it to be able to fulfill the various missions of life, integrate into the world of work, and meet the challenges and demands of a society characterized by globalization thanks to the emergence and use of new information and communication technologies (ICT).

³ : <http://elearning.univ-khenchela.dz/moodle/course/index.php?categoryid=139>

2.2.2. The nature of "French" content (Qs. 5, 6, 7, 10)

Most French language courses (35.3%) focus on learning and translating specialist terms, 29.4% on general language aspects (vocabulary, grammar, conjugation, and spelling), 23.5% on reading and understanding specialist texts, and 11.8% on producing scientific texts.

Furthermore, the texts used in class are explanatory and informative (70.6%). Argumentative texts are rarely used (11.8%).

From these results, teaching the French language has specific objectives closely linked to the specialty in question. French is a specialty language. The training programs are therefore designed according to the professional sector, without prior knowledge of the target audience.

As for the nature of the content taught in French (Q7), 62.5% of students say it is different for all groups of students. Of course, since the students belong to different specialties, the teachers must cover all the communicative situations of the specialized field in which each group is enrolled.

Although the syllabus assigned to this subject emphasizes, in addition to internal communication skills relating to the specialty (FSL), communication skills outside the specialized framework to which these students belong (FGL), teachers still promote specific teaching content characterized by linguistic forms specific to specialized communication in a particular field. However, by the end of their training, future biologists will be just as capable of using the French language (FGL) in everyday communicative situations.

Therefore, adopting a two-pronged approach to developing this training program, based on disciplinary and cross-disciplinary skills, would be wise.

2.2.3. Installed skills (Q. 8)

The French courses enabled students to develop more oral communication skills (reception/production) in their specialization than in general. Thus, 63% of those surveyed stated that the TD session (tutorials) dedicated to the French subject had helped them a great deal in explaining scientific phenomena, and 31.6% of them declared that by attending the French course, they had become capable of assimilating a scientific discourse orally, very few students (5.3%) considered that the lessons given in French had enabled them to develop their ability to react and give their opinion in a debate.

An analysis of these responses reveals that the French courses taught under the heading of "communication" develop students' disciplinary skills more than their language and internal communication skills more than their external ones. Moreover, greater emphasis is placed on oral than written expression and on reception than production.

In other words, the training program aims to provide biology students with skills that go beyond the level of language skills based on "le bon français" in the grammar book and prepare them for their future professions. Specialized French and general French are both essential and should be considered on an equal footing to meet all needs, whether specific or general.

2.2.4. Difficulties encountered in training (Q. 9)

Referring to the answers given to question 9, we find that students have much more difficulty in mastering the terminology specific to their field of specialization (21.1%) and in appropriating the elements that come under linguistic competence (21.1%) than in reading comprehension (15.8%), writing production (15.8%) and oral production (15.8%). Listening comprehension is only a problem for a minority (10.5%).

Although teachers pay particular attention to specialty language and language points (see Q. 5), students still need to improve their training and experience linguistic and disciplinary difficulties.

In this way, linguistic competence is considered an integral and essential part of communicative competence, whether internal or external to the training program. In

addition, the language of specialization must focus on the mastery of a certain number of well-targeted discourses relevant to the field of specialization in question and not on specialized lexicon or terminology.

2.2.5. How can teaching and learning French to science students be effective?(Qs: 11, 12)

Most respondents' answers (42.1%) reveal that GF and FSL are essential in the university training of biology students. Furthermore, in contrast to 31.6% who favor specialty French, 26.3% prefer general French.

The French program aims at communication skills within and outside the specialty, covering students' general and specific needs. However, according to respondents' answers (Cf. Q.5), teachers approach the language very specialized in the "Natural and Life Sciences" field.

To improve the quality of French teaching and learning in science courses, the students surveyed recommend that teachers of this subject adopt effective strategies to develop their language skills, which are considered an essential skill; propose varied activities that encourage oral and written communication in class; choose topical, motivating and exciting themes; and encourage them to read texts in French.

Here are some examples of student responses:

"You need to start by learning the main vocabulary words, basic grammar and conjugation rules,"; "read French texts, "and "You also need to listen well to people speaking French and try to speak yourself as much as possible."

All the answers provided demonstrate the importance attached to the skill of communicating outside the field of specialization, considering it to be a significant difficulty suffered by students. That said, while not confining themselves to an approach based on linguistic objectives, teachers should adopt a skills-based approach built around communicative objectives served by linguistic content.

It would be better to prioritize the learning of GF, which allows students to communicate in the most common communication situations outside the specialized sphere of scientific French. The latter concerns well-targeted and relatively limited communication situations and is aimed at the language needs associated with the practice of a profession or specialized activity.

Conclusion

In conclusion, this research sheds light on biology students' challenges in learning French by examining the general needs of French (GF) and French as a specialist language (FSL). The results reveal that, although teaching often focuses on specialized content, students need more general language skills, essential for communicating and adapting to various communication situations, both professionally and every day.

To respond effectively to these needs and meet students' expectations, we must combine a disciplinary and cross-disciplinary skills-based approach, enabling students to master specialized and general French. Based on varied strategies and more adapted pedagogical-didactic approaches, this dual approach would contribute to complete training in harmony with students' specific needs and the job market's expectations.

References

1. Benabbes, S. (2018). L'enseignement de techniques d'expression et de communication (TEC) à l'université: Décalage entre formation et besoins langagiers des étudiants biologistes, *Franciscola* 3 (96).
2. Delagneau J.-M. (2017), "Les langues de spécialités : dossier", *Les Langues modernes*, n° 3, p. 5-94.
3. Hymes D. (1991). *Vers la compétence de communication*, Paris, coll. LAL, CREDIF, Hâtier/Didier (French translation of *On communicative competence* in J. Holmes and J.-B. Pride (dir.), *Sociolinguistics*, Penguin Books, 1972).
4. Holtzer, G. (2004). *Du français fonctionnel au français sur objectifs, histoire des notions et des pratiques. Le Français sur objectifs spécifiques : de la langue aux métiers*, *Le français dans le*

- monde, Recherche et application.
5. Lehmann, D. (1983). Français fonctionnel, enseignement fonctionnel du français. In GALISSON, R., (dir.) Lignes de force du renouveau actuel en didactique des langues étrangères, Paris, CLE international.
 6. Lehmann, D. (1993). Objectifs spécifiques en langue étrangère, Hachette, Paris.
 7. Lombard, J. (2003). Hannah Arendt. Éducation et modernité. Paris: L'Harmattan.
 8. Mangiante J.-M. (2006). "Français de spécialité ou français sur objectif spécifique : deux démarches didactiques distinctes", [online], available at : Dialnet-FrancaisDeSpecialiteOuFrancaisSurObjectifSpecifique-4030419 (5).pdf
 9. Mangiante, J.-M. and Parpette, C. (2004), Le Français sur objectif spécifique: de l'analyse des besoins à l'élaboration d'un cours, Paris, Hachette FLE.
 10. Parpette, CH. (2018). French for university purposes: between context, didactic know-how, and institutional strategy. Languages on Specific Objectives and Professional Identity, University of Belgrade, pp.55-67.
 11. Porcher, L. (1978): « Interrogation sur le public, la langue, la formation », in ELA, n°30, Avril-Juin, pp.4-17
 12. Richterich, R. (1973). Modèle pour la définition des besoins langagiers des adultes, in Le français dans le monde, n°109, p.21-25

Appendix: Questionnaire for science students at Abbès Laghrou University, Khenchela As part of a study into the skills developed through the teaching/learning of French to science students, we would like to ask you to take part in this questionnaire to examine the content taught and the type(s) of skill(s) developed through the teaching of French. Please answer the following questions.

Personal information

Sex: Female or Male

Age:

Year of study:

Question 1

How do you rate your French? **Excellent; Very good; Good; Fair; Poor**

Question 2

Apart from your studies, do you use French in your daily life? **Yes No**

Question 3

Are you motivated by learning French as a subject in your training program? **Yes No**

Question 4

Do you attend this session? (Choose one answer only) **Always; Sometimes; Rarely; Never**

Question 5

What do you do during this session? (Choose one or more answers from the list below)

- Read and understand a specialized text
- Writing a scientific text
- Learn or translate specialized terms (words)
- General language skills (vocabulary, grammar, conjugation, spelling)
- Other:

Question 6

Are the texts you deal with in class:

- Explanatory and informative (scientific)
- Narrative and descriptive
- Argumentative
- Injunctive (prescriptive: recipe, instructions, etc.)

Question 7

Are the French courses provided the same for all groups in your specialty? **Yes No**

Question 8

Did the French courses you attended enable you to: (one or more answers are possible)

- Assimilate (or understand) an oral scientific discourse

- Explain a scientific phenomenon in TD
- Have your say in a debate
- Other

Question 9

Are the difficulties you encounter in French related to: (one or more answers are possible)

- Listening comprehension
- Oral production
- Reading comprehension
- Written production
- Specific terminology
- Language points (morphosyntax, lexicon, etc.)

Question 10

In your opinion, does the content of the French subject meet:

- Your specific needs (related to your area of expertise)
- Your general needs (for communication in general French)

Question 11

What type of French do you think is essential in your training?

- French for specific purposes (related to your field of specialization)
- General French (for general communication purposes)
- Both

Question 12

What do you suggest making the most of French teaching and making it effective.