


**EXPLORING CHALLENGES AND DISCOVERIES: EXPERIENCES AND IMPACTS OF INTERNSHIPS IN CHEMISTRY TEACHER TRAINING** <https://doi.org/10.56238/sevened2024.021-003>

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**ABSTRACT**

This paper deals with the contributions, challenges, and reflections experienced during the completion of Supervised Internship II, by a student of the Chemistry Teaching degree program at the Federal Institute of Bahia, Guanambi campus. This curriculum component is subdivided into a theoretical part through seminars and reflections on teaching activities, and a practical part structured in moments of observations and teaching practice, including an interview with the school director to analyze the physical structure and documents of the field school. These activities aim to provide moments of practice and reflection as a source of experience to equip and contribute to the training of future teachers. It was observed that the experiences during the internship allowed the student to reflect on the strategies used by her and the supervising teacher, as well as to analyze the actions taken in order to improve her developing teaching practice.

**Keywords:** Supervised internship. Teacher training. Reflections on practice.

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## INTRODUCTION

Supervised internship is an essential tool for teacher training, as future educators can reflect on their future actions as teachers while immersed in the field of practice. This is because the internship brings to the classroom the various themes, theories, and concepts discussed throughout the trainee's education, allowing theory and practice to work together. By experiencing these diverse situations, students can rethink and reconfigure their classroom practice, improving it throughout their training.

Authors such as Silva (2005) argue that this is an opportunity for undergraduates to work with inquiry and doubt, equipping them for the critical exercise of the profession. This allows the student to understand the dynamics necessary to enter and remain in the job market.

Andrade (2005) considers that it is in the internship, an integral part of the curriculum, that the trainee assumes their professional identity and, by embracing the commitment to the student and the entire school community, begins to understand their social role. It is also at this moment that they can confront the various theories, interdisciplinary approaches, and problems that will be considered in the execution of their classroom action plan.

During the observation phase, when the behavior of teachers and students in the teaching-learning process is observed, it is possible to relate and analyze the factors that influence the cognitive development of learners. It is the practice used by the supervising teacher that will guide the dynamics of the intern's classroom.

Reflection on these factors is of fundamental importance for the construction of the teaching practice of future teachers because, as Santos et al. (2017) state, while observing classes and reflecting on these observations, the intern has the opportunity to learn how to use teaching methodologies and strategies that best suit the class and the content, and, furthermore, perceives ways to establish interpersonal relationships with other colleagues in the profession.

The teaching practice is the moment when the intern assumes the role of teacher and begins to act in their field, planning and selecting activities and resources suitable for the concepts and students. According to Santos and Freire (2017), the teaching practice period, by combining theory and practice, contributes to the development of skills and competencies related to the teaching process of content and fundamental personal and professional relationships for the teaching profession.

Thus, this work seeks to reflect and discuss the actions experienced by a Chemistry Teaching student during the completion of Supervised Internship II, aiming to bring contributions to teaching practice and the training of chemistry teachers.



## METHODOLOGY

The research is qualitative in nature and was conducted from April to June 2022, in the Supervised Internship II course, during the sixth semester of the Chemistry Teaching degree program at the Federal Institute of Bahia, Guanambi campus.

The internship took place at José Neves Teixeira Municipal School, located in the central region of Guanambi-BA. Its physical structure comprises: a teachers' room, a sports court, a courtyard, administration offices, a library, a cafeteria, a storeroom, bathrooms, and classrooms. The school serves students from the sixth to ninth grade of secondary education, and the teachers have qualifications in their respective fields, fostering a harmonious relationship within the school community. The internship was conducted with the 9th-grade classes during both morning and afternoon shifts.

Data collection was based on the analysis and reflection of observed classes, the school's reality, and data on the school's structure obtained through an interview with the school's principal. Five hours of the total workload were allocated for this interview. Subsequently, there was an observation period, which lasted for 10 hours and aimed to perceive the student-student, student-teacher relationship, developed content, and resources used in the classroom. Finally, the Teaching Practice phase involved a total of 30 hours and was based on the experiences gained during the observation period.

## RESULTS AND DISCUSSION

Based on the observations made and the teaching practice conducted in the 9th-grade classes of Secondary Education, it was possible to experience issues related to the teaching profession and reflect on practices that contribute to teacher training.

Therefore, this report was structured based on internship monitoring documents and notes taken during observation and teaching practice. Emphasis was placed on the relationship between internship and teacher training, as well as on the challenges and opportunities experienced by professionals in the field, capable of inspiring the intern to pursue a teaching career.

## PERCEPTIONS REGARDING THE SUBJECT TEACHER

The subject teacher has a background in biological sciences and works at the mentioned institution with eighth and ninth-grade classes of Middle School, teaching the Science curriculum. Regarding lesson planning, it is based on the textbook adopted by the institution, but there is an effort to develop different activities that fit the students' reality and the concepts covered in the books. As for teaching resources, educational games such as



bingo, commented exercise resolution, model construction, drawings, and mind maps are used. Students seem to enjoy the teacher's didactics and her approach to the content, constantly interacting during explanations. The assessment system used is based on tests, attendance in activities, and participation in the Brazilian Astronomy Olympiad (OBA).

Concerning the teacher's relationship with the students, she demonstrates excellent control and skill, as even with very full classes, she always invites students to participate, and often they do so spontaneously. One of the biggest issues reported by her is the heat, especially in the afternoon, as even though there are air conditioning units in all rooms, they are not working due to lack of maintenance.

According to Scarpato (2000), during the act of teaching and learning, it is of utmost importance that the teacher structures contextualized classes based on dynamics that engage their class, fostering student-student and student-teacher interactions. This is corroborated by what was observed during the classes, given the teacher's proficiency with the content and teaching practice. For example, during one of the experiences, a Bingo of chemical elements was conducted, where hints about the applicability and history of the elements were given, providing context for the theme under discussion. The teacher took the opportunity to talk about the Uranium exploration in the city of Caetité, thus providing a moment of connection between the content and the daily lives of the school community. It was observed that this was a moment of relaxation where the class was focused and engaged in the activity.

The adopted textbook is the work "Natural Sciences - Learning from Everyday Life" by authors Eduardo Canto and Laura Canto from the publisher Moderna. According to the teacher, it presents very succinct texts with few information about certain subjects; she always seeks to use other resources during content explanation. However, she highlights the quality of the exercises proposed by the book.

## TEACHING ACTIVITIES

Initially, the intention was to teach the contents of substances and mixtures, electronic distribution, periodic table, and chemical bonds. However, due to the fact that the subject was already in progress at the beginning of the internship, the first two topics were taught by the supervising teacher during the observation period. Thus, the teaching activities covered the topics: Periodic Table and Chemical Bonds. Initially, the intern developed lesson plans, which were evaluated by the teacher during planning sessions, and together they defined the best strategies to be applied. In the case of the Periodic Table, for example, the lesson was structured as follows: contextualized lesson, investigative activity,



and construction of a mind map; the topics covered included: history, organization, properties, and applications. The lessons were taught to 5 classes, and in two of them, the students became a bit more restless, which could be explained by the proximity to the break time and the end of the class.

During the teaching activities, the intern noticed that, due to the classes being very crowded, it was always necessary to use a louder voice than usual, which was a bit tiring. However, there were moments of great socialization with the class; the students showed a lot of interest in the lesson, asked questions, and participated whenever requested. The students were able to make comparisons during the class, responding to the proposed activity, which is consistent with the studies of Amaral and Amaral (2008), who affirm that resources that enable dynamic classroom interactions and visualization of content lead to more effective learning. At the end of the lessons, the students reported that they really enjoyed the intern's dynamic teaching style and that she could be their chemistry teacher during high school.

## **FINAL CONSIDERATIONS**

During the internship, it was possible to make several observations, both regarding the school's structure and the practices of teachers and other staff members. It also provided an understanding of how the teaching-learning process occurs in the classroom.

The contact with the reality of the school and the classroom, as well as the issues involved, facilitated by the internship, was beneficial for teacher training, providing experiences that allowed the student teacher to reflect on the various positive and negative aspects that directly influence her still developing teaching practice.

Based on this, it is concluded that the school is better built through relationships of respect and mutual participation. Even though the creation of public policies aimed at improving teachers' working conditions is urgent, if the educational environment is grounded in this way, it will be a place of good professional and social practices.



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## APPENDIX A - Lesson Plans

LESSON PLAN		
IDENTIFICATION		
Teacher: Rita de Cássia Ramos Queiroz de Freitas		
School: Escola Municipal José Neves Teixeira		Grade Level: Elementary School
Grade/Class: 9th Grade/A	Unit: UNIT A	Activity duration: 50:00min
Lesson theme: Introduction to the Periodic Table		
Knowledge Area (BNCC): Natural Sciences and their Technologies		
METHODOLOGICAL APPROACH		
OBJETIVES: • To study the Periodic Table, covering its historical context and modern classification.		
CONTENT: • Historical; • The modern periodic classification; • Periods, columns, groups or families; • Identification and classification of elements as metals, non-metals, and noble gases.		
APPLIED METHODOLOGY: 1. Writing on the board with bullet points and dialogued explanation with presentation of examples; 2. Slides with theory; 3. Directed activity during explanation; 4. Notes and exercises.		
RESOURCES		
Materials, technologies, and resources used: Whiteboard, notebook, paper, colored pencils, textbook, human resources.		
ASSESSMENT PROCEDURES		



Directed activity during explanation;  
Exercise resolution from the provided workbook.

**Basic Bibliography:**

CANTO, Eduardo Leite; CANTO, Laura. Ciências naturais: aprendendo com o cotidiano. 6. ed. São Paulo: Moderna, 2018

**Complementar Material:**

FONSECA, Martha Reis Marques da Química: ensino médio/ Martha Reis  
2ª ed. – São Paulo: Ática, 2016

**LESSON PLAN**

**IDENTIFICATION**

**Teacher:**

Rita de Cássia Ramos Queiroz de Freitas

**Grade/Class:**  
9th Grade/A

**Unit:**  
UNIT A

**Activity duration:**  
1h 40 min

**Lesson theme:**  
Chemical Bonds

**Knowledge Area (BNCC):**  
Natural Sciences and their Technologies

**METHODOLOGICAL APPROACH**

**Specific Objectives:**

1. Identify the concept of chemical bonds and the main types (ionic, covalent, and metallic).
2. Explain why atoms bond and how chemical substances are formed.
3. Define the octet rule, explain what atom valence is, and its importance for the study of chemical bonds.
4. Recognize, describe, and characterize models of chemical bonds, how they occur, and what types of compounds they form.





- CONTENT:**
- Chemical bonds;
    - ✓ Ionic bonds;
    - ✓ Covalent bonds;
    - ✓ Metallic bonding.

**Prerequisite knowledge required:**

- Atomic models
- Periodic Table

**RESOURCES**

**Materials, technologies, and resources used:**

Materials needed for the class: projector, internet, slides, textbook, notebook, pen, and human resources.

**ASSESSMENT PROCEDURES**

Creation of a mind map, construction of a glossary of links.

**Basic Bibliography:**

CANTO, Eduardo Leite; CANTO, Laura. Ciências naturais: aprendendo com o cotidiano. 6. ed. São Paulo: Moderna, 2018

**Complementary material:**

FONSECA, Martha Reis Marques da  
Química: ensino médio/ Martha Reis 2ª ed. – São Paulo: Ática, 2016