	<p align="center"><b>Science, Education and Innovations in the Context of Modern Problems</b> Issue 11, Vol. 8, 2025</p>
	<p align="center">Title of research article</p> <p align="center"><b>Teaching Competencies of Vocational Training Instructors and Their Implementation from the Perspective of Trainees (A Field Study at the National Institute of Specialized Vocational Training in Management – Guelma)</b></p>
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<p><b>Issue web link</b></p>	<p><a href="https://imcra-az.org/archive/38.5-science-education-and-innovations-in-the-context-of-modern-problems-issue-11-vol-8-2025.html">https://imcra-az.org/archive/38.5-science-education-and-innovations-in-the-context-of-modern-problems-issue-11-vol-8-2025.html</a></p>
<p><b>Keywords</b></p>	<p>Teaching competencies, vocational training instructors, vocational training, trainees.</p>
<p><b>Abstract</b> This study aims to examine the extent to which vocational training instructors apply teaching competencies, as perceived by trainees. To achieve this objective, a descriptive survey methodology was employed, utilizing a questionnaire as the primary research instrument. The questionnaire consisted of 41 items categorized into four domains: lesson planning, lesson implementation, lesson assessment, and classroom communication and interaction. The study sample comprised 233 trainees enrolled at the National Institute of Specialized Vocational Training in Management in Guelma during the 2023/2024 academic year. Data analysis and hypothesis testing were conducted using the SPSS statistical software. The findings indicate that vocational training instructors demonstrate a high level of competency in lesson planning, implementation, assessment, and classroom communication and interaction.</p>	
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## Introduction / Research Problem

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Teaching Competencies of Vocational Training Instructors and Their Implementation from the Perspective of Trainees (A Field Study at the National Institute of Specialized Vocational Training in Management – Guelma)

Assia Amrane, Saliha Guidoum

The advancement of nations is increasingly dependent on their knowledge capital and the presence of a well-educated, skilled workforce capable of innovation, productivity, and competition. In Algeria, the vocational training and education sector is recognized as a strategic pillar for national development. The government relies on this sector to supply a qualified workforce that meets labor market demands and contributes to sustainable economic, social, and service-sector development. This is achieved through investment in human capital, equipping individuals with the necessary skills and competencies for labor market integration and active participation in society.

Vocational training institutions are responsible for preparing a highly skilled and well-trained workforce ready to enter the job market. However, this objective can only be realized if vocational training instructors possess a high level of teaching competencies. These instructors serve as the cornerstone of any successful training process, requiring a blend of academic, professional, personal, and social qualifications. It is widely acknowledged that instructors play a crucial role in shaping the quality of vocational training outcomes to align with contemporary technological and industrial advancements. They instill perseverance and a strong work ethic in trainees while equipping them with both theoretical knowledge and practical skills. Moreover, they ensure that trainees acquire comprehensive expertise in their respective fields, enabling them to integrate effectively into the workforce.

Understanding teaching competencies is of paramount importance, as they constitute the minimum essential skill set required to achieve desired educational outcomes efficiently, minimizing time and effort while maximizing effectiveness. This underscores the need to focus on instructors' competencies in lesson planning, implementation, assessment, and classroom communication and interaction. Deficiencies in these areas can significantly hinder the achievement of vocational training objectives.

Given that instructors' competency levels may vary, this study seeks to assess current instructional practices, their effectiveness, areas of improvement, and the extent to which vocational training instructors incorporate modern teaching methods. Since instructors' performance serves as a key indicator of vocational training effectiveness, the study aims to address the following primary research question:

- **To what extent do vocational training instructors apply teaching competencies from the perspective of trainees?**

From this central question, the study explores the following sub-questions:

- To what extent do vocational training instructors apply lesson planning competencies from the perspective of trainees?
- To what extent do vocational training instructors apply lesson implementation competencies from the perspective of trainees?
- To what extent do vocational training instructors apply lesson assessment competencies from the perspective of trainees?
- To what extent do vocational training instructors apply classroom communication and interaction competencies from the perspective of trainees?

## 1. Research Hypotheses

### General Hypothesis:

- Vocational training instructors demonstrate a high level of teaching competency, as perceived by trainees.

### Sub-Hypotheses:

- Vocational training instructors demonstrate a high level of competency in lesson planning, as perceived by trainees.
- Vocational training instructors demonstrate a high level of competency in lesson implementation, as perceived by trainees.
- Vocational training instructors demonstrate a high level of competency in lesson assessment, as perceived by trainees.
- Vocational training instructors demonstrate a high level of competency in classroom communication and interaction, as perceived by trainees.

## 2. Research Objectives

This study aims to assess the extent to which vocational training instructors apply teaching competencies—including lesson planning, implementation, assessment, and classroom communication and interaction—from the perspective of trainees.

## 3. Significance of the Study

This study highlights the importance of the vocational training sector, which plays a crucial role in professional development and sustainable economic growth. It also emphasizes the vital role of vocational training instructors. Ensuring their effectiveness and competency directly impacts trainees' ability to acquire the necessary knowledge and skills to perform their professions and trades at the highest level.

Additionally, this study contributes to diagnosing the current state of teaching competencies and assessing the extent to which instructors possess them. Furthermore, it provides findings that may aid relevant authorities in decision-making, enhancing, and developing teaching competencies among vocational training instructors. This is achieved by equipping vocational training and education supervisors with a comprehensive list of instructors' training needs related to teaching competencies, which can be utilized for guidance and professional development.

## 4. Review of Previous Studies

A review of various studies focusing on teaching competencies among instructors is presented below, arranged chronologically from the earliest to the most recent:

**1. Al-Hashem & Al-Moussawi (2003):** this study aimed to assess the performance level of social studies teachers for sixth-grade students in Bahrain based on fundamental teaching competencies. Using a descriptive research approach, the researchers developed a checklist of essential teaching competencies and a classroom observation tool. The study was conducted on a sample of 28 teachers. The findings revealed that 42% of the competencies were performed at a high level of proficiency, 31% at a moderate level, and 27% at a low level. Teachers demonstrated moderate proficiency in lesson planning and implementation. (Jamal Suleiman, 2011, p. 340)

**2. Al-Ghaziwat (2005):** This study evaluated teaching competencies among faculty members of the Faculty of Educational Sciences at Mu'tah University, as perceived by social studies students, considering gender and academic level as variables. The descriptive methodology was applied, and a questionnaire was administered to a sample of 216 students. The results indicated that most faculty members still relied on traditional teaching methods, where the teacher remained the primary source of knowledge, and students played a passive role. The study also found that faculty members were often rigid in their opinions, showed little sensitivity to students' psychological and academic challenges, relied heavily on essay-based exams, and primarily used summative assessment methods.

Regarding communication competencies, the study showed that while some instructors treated students equitably, others adopted an authoritative approach. T-test results indicated statistically significant differences at the 0.05 level in students' evaluations of faculty performance, favoring female instructors in assessment and interpersonal skills.

**3. Daidish (2006):** This study aimed to evaluate the teaching competencies (planning, implementation, and assessment) of first-year middle school mathematics teachers in Sétif, considering the impact of training type and teaching experience. The study adopted a descriptive evaluative approach, using an observation checklist applied to a randomly selected cluster sample of 31 mathematics teachers. The results revealed variation in individual teachers' competency levels, with overall teaching performance falling below the high proficiency threshold of 70%. No statistically significant differences were found based on training type or experience.

**4. Rababaa (2015):** This study explored the extent to which faculty members at the College of Sharia and Islamic Studies at Qassim University possessed teaching competencies from their own perspectives during the 2014/2015 academic year. A sample of 97 faculty members was selected randomly, and the study adopted a descriptive survey approach using a questionnaire as the primary research tool. The results showed that faculty members demonstrated a high level of competency in lesson planning, implementation, and assessment.

**5. Abdul-Momani (2019):** This study aimed to identify the teaching competencies of vocational education teachers in basic schools under the Directorate of Education in Ajloun, Jordan. It focused on competencies related to lesson implementation and teaching methods. A descriptive research approach was employed, and a questionnaire consisting of 26 items was administered to a sample of 50 teachers. The findings indicated an overall competency level of 73%, surpassing the lesson implementation competency, which scored 71%.

**6. Slimani (2020):** This study examined the actual practice of teaching competencies among primary school teachers in Tiaret, employing a descriptive methodology. A structured observation checklist was applied to a purposive sample of 130 teachers from 18 primary schools. The findings revealed that primary school teachers generally exhibited satisfactory teaching competencies, with classroom interaction being the most effectively demonstrated competency.

### Critique of Previous Studies

A review of previous research indicates that the topic of teaching competencies has garnered significant interest among educators. The key points of comparison between the reviewed studies are as follows:

- **Objective:**  
The studies varied in their objectives:
  - Some focused on assessing the **actual practice** of teaching competencies among faculty members, such as *Slimani (2020)*.
  - Others aimed at **evaluating** teaching competencies, like *Daidish (2005)* and *Al-Ghaziwat (2005)*.
  - Some studies examined the **extent to which faculty members possess** teaching competencies, as in *Rababaa (2015)*.
  - In contrast, the present study seeks to determine the **degree of application** of teaching competencies among vocational training instructors.
- **Methodology:**  
The studies differed in their research approaches:
  - Several studies employed a **descriptive methodology**, such as *Al-Hashem & Al-Moussawi (2003)*, *Al-Ghaziwat (2005)*, *Abdul-Momani (2019)*, and *Slimani (2020)*.
  - Some adopted a **descriptive evaluative approach**, like *Daidish (2005)*.
  - The current study aligns methodologically with *Rababaa (2015)* in utilizing a **descriptive survey approach**.
- **Sample:**

- Some studies, such as *Al-Ghaziwat (2005)*, targeted **university students**.
- Other studies focused on **faculty members**, as in *Daidish (2005)*, *Rababaa (2015)*, and *Abdul-Momani (2019)*.
- The present study differs from all previous studies as it selects **trainees** as its sample.
- **Research Instrument:**
  - Most previous studies, including the present study, utilized **questionnaires** for data collection.
  - However, *Slimani (2020)* and *Daidish (2005)* used **structured observation checklists**.
- **Findings:**
  - The results of previous studies varied depending on their specific objectives.

The current study stands out from related research as one of the few studies—to the researcher's knowledge—that examines the **degree of application** of teaching competencies among vocational training instructors, as perceived by trainees in vocational institutions in Guelma.

The review of prior research provided valuable insights in:

- Formulating the research problem.
- Expanding theoretical knowledge related to teaching competencies.
- Selecting the appropriate research methodology.
- Choosing the most effective data collection tool.
- Analyzing, discussing, and interpreting results.
- Identifying relevant sources and references.

## 5. Operational Definitions of Study Terms

- **Teaching Competencies:** In this study, teaching competencies refer to the ability of vocational training instructors to effectively perform lesson planning, implementation, assessment, and classroom communication and interaction at a high level of proficiency. These competencies are measured based on the total raw scores obtained by vocational training instructors through trainees' responses to the teaching competencies questionnaire developed for this study.
- **Vocational Training Instructors:** This term refers to first- and second-rank instructors specializing in vocational training and education, who practice their profession at the National Institute of Specialized Vocational Training in Management in Guelma during the 2023/2024 training year.
- **Trainees:** The trainees in this study are individuals enrolled in vocational training through in-person training programs at the National Institute of Specialized Vocational Training in Management in Guelma during the 2023/2024 training year.

## 6. Theoretical Background of the Study

### 7.1. Teaching Competency

#### Definition of Competency

- **Al-Durajj (2003)** defines competency as:  
*"Acquired abilities that enable an individual to act and perform in a specific context, comprising integrated knowledge, skills, and attitudes. An individual utilizes these abilities to address and solve problems within a given situation."* (Mohammed, 2003, p. 16)
- **Good (as cited in Al-Shaib & Bin Zahi, 2011)** defines competency as:  
*"The ability to achieve desired outcomes efficiently, minimizing effort, time, and expenses."* (Al-Shaib & Bin Zahi, 2011, p. 16)

- **Al-Fatlawi (2003)** defines competency as:  
*"A set of behavioral abilities expressed through cognitive, skill-based, and affective tasks that contribute to the expected final performance at a satisfactory level of effectiveness. These abilities can be observed and evaluated through various assessment methods." (Al-Fatlawi, 2003, p. 29)*

Based on the above definitions, competency can be understood as an acquired ability manifested through a combination of cognitive, skill-based, and affective activities. It is demonstrated by an individual effectively and proficiently, with minimal effort and cost, and within optimal time constraints.

## Teaching Competencies

### Definition of Teaching Competencies

- **Mur'i (1983)** defines teaching competencies as:  
*"Precisely and clearly defined behavioral objectives that describe all the knowledge, skills, and attitudes necessary for a teacher to achieve effective teaching."*
- **Muslim (as cited in Karam, 2002, p. 130)** defines them as:  
*"A set of abilities and skills that a teacher must possess, enabling them to effectively and efficiently fulfill their duties, roles, and responsibilities, ultimately enhancing the educational process—particularly in terms of the teacher's ability to successfully transfer knowledge to students."*

From the above definitions, it can be concluded that teaching competencies encompass a combination of behavioral and cognitive objectives that teachers must master to ensure effective teaching.

### 7.2. Classification of Teaching Competencies

Several educational studies have proposed different classifications of teaching competencies. Below are some notable models:

- **Robert's Classification (1975):** Presented at the annual meeting of the **American Educational Research Association (AERA)**, this classification—later known as **Robert's Teaching Competency Model**—includes the following domains:
  1. Knowledge
  2. Behavior
  3. Attitudes
  4. Outcomes and Effects
  5. Experience (*Mullih, 1998, p. 63*)
- **Al-Laqani & Radwan's Classification:** This classification categorizes competencies as follows:
  1. Teaching proficiency
  2. Effective use of psychology
  3. Establishing positive interpersonal relationships within the institution
  4. Connecting the school with the local community
  5. Leadership ability
  6. Ability to fulfill professional responsibilities (*Al-Fatlawi, 2003, pp. 56-57*)

- **Fawzi Attwa's Classification:** Based on the level of specificity and generalization, teaching competencies were divided into three categories:
  1. General Educational Competencies
  2. Specific Educational Competencies
  3. Supportive Competencies (*Al-Azraq, 2000, p. 28*)
- **Al-Fatlawi's Classification (2003):**
  1. Scientific Competency and Professional Development
  2. Competency in Educational Objectives and Philosophy
  3. Lesson Planning Competency
  4. Lesson Implementation Competency
  5. Interpersonal Skills and Classroom Management Competency (*Al-Fatlawi, 2003, pp. 56-57*)

### Classification of Teaching Competencies in the Present Study

Based on the research objectives and in light of the aforementioned classifications, the present study classifies teaching competencies into the following four domains:

1. Lesson Planning Competency
2. Lesson Implementation Competency
3. Lesson Assessment Competency
4. Classroom Communication and Interaction Competency

### 7.3. Vocational Training

- **Aqili (2005)** defines vocational training as:

*"A structured process consisting of planned programs designed to equip human resources with the necessary knowledge and skills to perform their current jobs at a high level of proficiency through continuous improvement and performance development."*

- **Pierre Casse (1949, p. 48)** defines vocational training as:

*"A process aimed at developing individuals' professional and technical skills to enhance their efficiency and effectiveness in carrying out tasks and responsibilities related to their current or future jobs."*

From these definitions, vocational training can be understood as a systematic and pre-planned process that imparts essential knowledge and skills to trainees, enabling them to perform their professional duties with high efficiency and competence.

### Role and Responsibilities of Vocational Training Instructors

According to official decrees and regulations, the responsibilities of vocational training instructors vary depending on their rank. This study focuses on first- and second-rank instructors, as defined in Articles 32 and 33 of the Official Gazette (2009, pp. 7-8).

Responsibilities of First-Rank Vocational Training Instructors (Article 32):

First-rank instructors are responsible for all forms of vocational training and are specifically assigned the following duties:



- Delivering theoretical and practical instruction in one or more subjects.
- Supervising internships and professional development courses for vocational training instructors.
- Participating in organizing, conducting, and evaluating professional examinations, tests, and competitions.
- Assisting in the planning and evaluation of vocational training programs in professional settings.
- Contributing to the development of training curricula and reference materials.
- Engaging in technical and pedagogical research.
- Required to conduct 18 to 22 teaching hours per week.

(Source: Official Gazette, 2009, pp. 7-8)

#### Responsibilities of Second-Rank Vocational Training Instructors (Article 33):

Second-rank instructors hold advanced teaching and training responsibilities, including:

- Delivering **theoretical and practical instruction** in one or more subjects.
- Training **vocational training supervisors and managers**.
  - Providing **professional development training** for vocational training instructors.
  - Offering **advanced training and capacity-building programs** for first-rank instructors.
  - Organizing and overseeing **competitions, professional examinations, and assessments**.
  - Conducting **research and developing vocational training curricula**.
  - Designing and preparing **lesson content and pedagogical resources** for vocational training institutions.
  - Required to conduct **18 to 22 teaching hours per week**.

(Source: Official Gazette, 2009, p. 8)

From the above, it can be concluded that, regardless of rank, vocational training instructors hold significant responsibilities in technical, pedagogical, and training aspects, as well as in management and administration. In addition to their instructional role, they are subject matter experts tasked with effectively delivering both theoretical knowledge and practical skills to trainees, ensuring a well-rounded vocational education.

## 7. Methodological Procedures of the Study

### 8.1. Research Methodology

To achieve the objectives of the present study, the descriptive survey method was adopted, as it is the most suitable approach for this research.

### 8.2. Study Population

#### 8.2. Target Population

The target population consists of trainees (both male and female) enrolled in in-person vocational training programs at the National Institute of Specialized Vocational Training in Management in Guelma. As of April 2024, based on the monthly report from the In-Person Training and Internship Monitoring Service, the total number of trainees was 315.

#### 8.2.2. Statistical Population



The statistical population consists of trainees enrolled in four semesters at the institute, totaling 233 trainees.

**Table 1: Distribution of the Statistical Population by Gender and Specialization**

Specialization	Number of Branches	Semester	Males	Females	Total
Human Resource Management	1	4	06	29	35
Documentation & Archiving	1	3	06	05	11
Digital Systems (IT & Networks)	1	3	07	04	11
Early Childhood Education	1	2	0	30	30
Executive Secretariat	2	2	06	52	58
Accounting & Management	2	2	10	41	51
Human Resource Management	2	1	11	26	37
<b>Total</b>	<b>-</b>	<b>-</b>	<b>46</b>	<b>187</b>	<b>233</b>

The questionnaire was administered to all members of the statistical population (233 trainees) enrolled at the National Institute of Specialized Vocational Training in Management in Guelma.

### 8.3. Data Collection Instrument

To measure teaching competencies among vocational training instructors, a questionnaire was developed after reviewing theoretical literature and previous related studies. The questionnaire consists of four domains with 41 items, as shown in the table below.

**Table 2: Distribution of Questionnaire Items by Domain**

Domain	Number of Items	Item Numbers
Lesson Planning Competency	07	1, 2, 3, 4, 5, 6, 7
Lesson Implementation Competency	15	8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22
Lesson Assessment Competency	10	23, 24, 25, 26, 27, 28, 29, 30, 31, 32
Classroom Communication & Interaction Competency	09	33, 34, 35, 36, 37, 38, 39, 40, 41

The questionnaire was structured using a **three-point Likert scale** with response options:

- **High** (3)
- **Moderate** (2)
- **Low** (1)

**Table 3: Interpretation of Teaching Competency Scores by Domain**

Score Range	Competency Level
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Score Range	Competency Level
[1 - 1.66]	Low
[1.67 - 2.33]	Moderate
[2.34 - 3]	High

## 8. Psychometric Properties of the Study Instrument (Validity and Reliability)

Following the preparation of the questionnaire, it was administered to a pilot sample of 15 trainees. The Statistical Package for the Social Sciences (SPSS) was used to analyze the data and assess the psychometric properties of the instrument.

### 9.1. Validity

To ensure the validity of the questionnaire, two types of validity were examined:

#### 1.9.1. Face Validity

Face validity was assessed by presenting the initial version of the questionnaire to a panel of experts specializing in pedagogical engineering. The experts evaluated the clarity of the items and their relevance to the measured domains. Based on their feedback, some items were reworded or clarified, and the instrument was finalized for pilot testing.

#### 1.9.2. Intrinsic Validity

Intrinsic validity refers to the accuracy of the test results, ensuring they are free from measurement errors. It is determined by calculating the square root of the reliability coefficient:

$$\text{Intrinsic Validity} = \sqrt{\text{Reliability Coefficient}}$$

**Table 4: Intrinsic Validity of the Questionnaire**

Intrinsic Validity	Total Items	Sample Size
0.864	41	15

The table indicates that the **intrinsic validity of the questionnaire is 0.864**, which is **high**, confirming the validity of the questionnaire items.

### 9.2. Reliability

To assess the reliability of the study instrument, **Cronbach's Alpha** coefficient was calculated. The results are presented in the table below:

**Table 5: Cronbach's Alpha Reliability Coefficient**

Cronbach's Alpha	Total Items	Sample Size
0.748	41	15

The **Cronbach's Alpha value** for the questionnaire is **0.748**, which is **high**, indicating strong reliability. This confirms that the questionnaire is **consistent and suitable for application** in the study.

## 9. Study Scope

### 10.1. Time Scope

The main study was conducted during the second semester of the 2023/2024 training year.

### 10.2. Spatial Scope

The fieldwork was carried out at the National Institute of Specialized Vocational Training in Management - Djebabla Kaddour in Guelma.

### 10.3. Human Scope

The study targeted trainees enrolled in in-person vocational training programs across four semesters, totaling 233 trainees for the 2023/2024 training year.

## 10. Statistical Methods Used

Data were processed using the Statistical Package for the Social Sciences (SPSS) to calculate:

- Arithmetic means
- Weighted averages
- Standard deviations
- Cronbach's Alpha correlation coefficient to assess the reliability of the study instrument.

## 11. Presentation and Discussion of Study Results

### 12.1. Presentation and Discussion of the First Hypothesis Result

#### Hypothesis 1:

*"The degree of application of lesson planning competency among vocational training instructors is high from the perspective of trainees."*

To test this hypothesis, arithmetic means and standard deviations of respondents' answers for the first domain were calculated.

**Table 6: Arithmetic Mean and Standard Deviation for Lesson Planning Competency**

Domain	Arithmetic Mean	Standard Deviation	Level
Lesson Planning Competency	2.39	0.49	High

The results of Table 6 indicate that the arithmetic mean of respondents' answers for the first domain is 2.39, with a standard deviation of 0.49, suggesting that the degree of application of lesson planning competency is high.

This outcome can be attributed to the significant emphasis placed on lesson planning by vocational training instructors, reflecting strong control over planning elements. This proficiency contributes to performance improvement and enhances the overall training process.

The instructors' commitment to lesson planning is evident in their effective execution of tasks, including:

- ✓ Thorough and well-structured preparation of training sessions
- ✓ Clear definition of steps and required stages
- ✓ Balancing the selection of appropriate instructional methods, tools, and activities
- ✓ Conducting assessments and setting clear learning objectives
- ✓ Ensuring trainees acquire the necessary skills to achieve the desired learning outcomes in an optimal timeframe

These factors collectively contribute to reducing randomness in the teaching process, ensuring a structured and effective training environment.

This finding aligns with Rababaa (2015), which concluded that faculty members demonstrated high competency levels in lesson planning, implementation, and assessment. However, it contrasts with Al-Hashem & Al-Moussawi (2005), which found that the level of mastery of lesson planning competency was moderate (31%). Additionally, it disagrees with Daidish (2006), which reported weak performance in core teaching competencies (planning, implementation, and assessment) compared to the high competency benchmark of over 70%.

## 12.2. Presentation and Discussion of the Second Hypothesis Result

### Hypothesis 2:

*"The degree of application of lesson implementation competency among vocational training instructors is high from the perspective of trainees."*

To test this hypothesis, arithmetic means and standard deviations of respondents' answers for the second domain were calculated.

**Table 7: Arithmetic Mean and Standard Deviation for Lesson Implementation Competency**

Domain	Arithmetic Mean	Standard Deviation	Level
Lesson Implementation Competency	2.35	0.51	High

The results indicate that the arithmetic mean for lesson implementation competency is 2.35, with a standard deviation of 0.51, suggesting a high level of application.

This suggests that instructors demonstrate strong competency in lesson execution, particularly in:

- ✓ Engaging trainees' interest at the beginning of lessons
- ✓ Using varied teaching methods tailored to trainees' characteristics
- ✓ Effectively utilizing instructional resources
- ✓ Providing continuous monitoring, feedback, and guidance

This result aligns with Abdul-Momani (2019), where lesson implementation competency scored 3.43 (71%), indicating a high competency level. It also agrees with Rababaa (2015), which found that faculty members possessed high competency levels in planning, implementation, and assessment.

### 12.3. Presentation and Discussion of the Third Hypothesis Result

#### Hypothesis 3:

*"The degree of application of lesson assessment competency among vocational training instructors is high from the perspective of trainees."*

To test this hypothesis, arithmetic means and standard deviations of respondents' answers for the third domain were calculated.

**Table 8: Arithmetic Mean and Standard Deviation for Lesson Assessment Competency**

Domain	Arithmetic Mean	Standard Deviation	Level
Lesson Assessment Competency	2.34	0.55	High

The results indicate that the arithmetic mean for lesson assessment competency is 2.34, with a standard deviation of 0.55, suggesting a high level of application.

This result suggests that vocational training instructors understand the importance of assessment in the training process, as it influences trainees' cognitive, affective, and psychomotor development.

Key aspects of assessment competency include:

- ✓ Identifying trainees' strengths and reinforcing them
- ✓ Diagnosing weaknesses and applying corrective measures
- ✓ Utilizing diverse assessment tools (oral, written, and practical evaluations)
- ✓ Ensuring alignment between assessment tasks and learning objectives

This result aligns with Rababaa (2015), which found that faculty members demonstrated a high level of competency in assessment. However, it contrasts with Al-Ghaziwat (2005), which found that instructors relied heavily on essay-based exams and final assessments, rather than utilizing diverse evaluation methods.

### 12.4. Presentation and Discussion of the Fourth Hypothesis Result

**Hypothesis 4:**

*"The degree of application of classroom communication and interaction competency among vocational training instructors is high from the perspective of trainees."*

To test this hypothesis, arithmetic means and standard deviations of respondents' answers for the fourth domain were calculated.

**Table 9: Arithmetic Mean and Standard Deviation for Classroom Communication and Interaction Competency**

Domain	Arithmetic Mean	Standard Deviation	Level
Classroom Communication and Interaction Competency	2.40	0.54	High

The results indicate that the arithmetic mean for classroom communication and interaction competency is 2.40, with a standard deviation of 0.54, suggesting a high level of application.

Key elements of effective classroom communication include:

- ✓ Establishing direct and engaging interactions with trainees
- ✓ Creating a dynamic and interactive learning environment
- ✓ Using trainees' names to personalize communication
- ✓ Listening actively and encouraging discussion
- ✓ Adapting vocal tone and body language to maintain engagement

This result aligns with Slimani (2020), which found that primary school teachers demonstrated strong communication and interaction skills in their classrooms.

## 12.5. Presentation and Discussion of the General Hypothesis Result

### General Hypothesis:

*"The degree of application of teaching competencies among vocational training instructors is high from the perspective of trainees."*

To test this hypothesis, arithmetic means and standard deviations of respondents' answers for all domains were calculated.

**Table 10: Overall Arithmetic Mean and Standard Deviation for Teaching Competencies**

Domain	Arithmetic Mean	Standard Deviation	Level
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Domain	Arithmetic Mean	Standard Deviation	Level
Lesson Planning	2.39	0.49	High
Lesson Implementation	2.35	0.51	High
Lesson Assessment	2.33	0.55	High
Classroom Communication & Interaction	2.40	0.54	High
Overall Teaching Competencies	2.36	0.47	High

Based on the results in Table 10, it is observed that the arithmetic mean of respondents' answers to the questionnaire items is 2.36, with a standard deviation of 0.47, indicating that the overall teaching competency level among vocational training instructors is high.

This result suggests that instructors demonstrate strong proficiency across all dimensions of teaching competencies, enabling them to perform their duties with efficiency and precision. This high competency level may be attributed to the effectiveness of the pedagogical training program undertaken by most instructors at the National Institute of Specialized Vocational Training in Management – Djebabla Kaddour in Guelma.

Approximately 13 first-rank vocational training instructors participated in this training during the 2023/2024 academic year, undergoing an official certification process at the time of the study. The positive impact of the pedagogical training is evident in practice, explaining the high degree of instructors' mastery of various teaching competencies.

## 12. Final Conclusion

Based on the field study conducted on 233 trainees and their evaluation of vocational training instructors, the findings reveal a key equation:

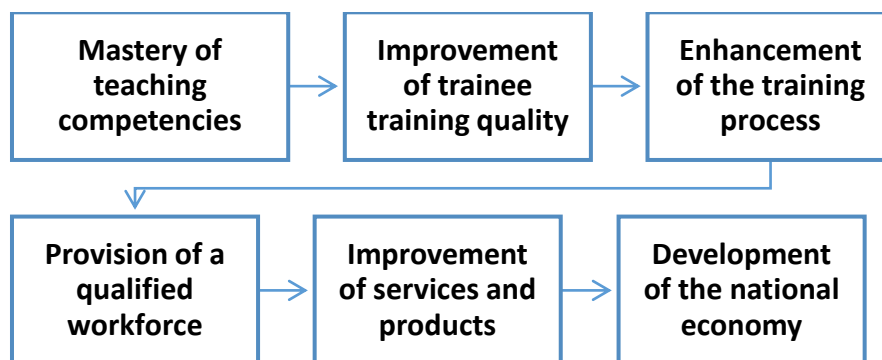
- A highly competent instructor one possessing advanced teaching skills and abilities to effectively transfer knowledge directly enhances the quality of training received by trainees.
- High-quality training enables trainees to acquire the necessary skills for seamless integration into the labor market, leading to an overall improvement in vocational education and training.
- Enhancements in lesson planning, implementation, assessment, and classroom communication and interaction contribute to a comprehensive and effective training experience for trainees.
- As a direct outcome of quality education and training, the labor market benefits from a well-trained and highly qualified workforce, which enhances overall workforce efficiency and productivity.

### Impact on the Economy and Society

Improved workforce skills lead to higher quality products and services in both industrial and service sectors. Enhanced competitiveness and better service offerings contribute to market growth and economic stability. A well-trained workforce drives economic development by improving productivity and service quality. Sustainable development is achieved, fostering continuous societal progress.

### Figure (01): The Development of Teaching Competency Mastery Among Vocational Training Instructors





## Conclusion

A vocational training instructor's expertise in their field, mastery of teaching competencies, and comprehensive understanding of instructional methods ensure the delivery of effective and tailored training that meets trainees' needs. These competencies encompass both theoretical knowledge and practical skills, enabling instructors to accurately and efficiently transfer technical and vocational expertise.

A well-rounded instructor:

- ✓ Plans lessons effectively, ensuring structured and goal-oriented training.
- ✓ Executes lessons skillfully, selecting appropriate teaching methods and resources.
- ✓ Communicates and interacts efficiently with trainees, guiding them throughout the learning process.
- ✓ Conducts periodic assessments to monitor progress and ensure that both educational and professional objectives are achieved.

By investing in the continuous development of these teaching competencies, relevant authorities can enhance the quality of vocational education, improve trainees' skill levels, and better align training programs with labor market demands. This, in turn, contributes to trainees' success in their professional careers while narrowing the gap between education and workforce requirements.

## Recommendations and Suggestions

Based on the study findings, the following recommendations are proposed:

- ✓ Conduct similar studies in vocational training and apprenticeship centers to assess the degree of teaching competency mastery among vocational training instructors.
- ✓ Adopt and reinforce all the competencies identified in this study, as they were rated highly by the study participants.
- ✓ Carry out survey studies to identify the training needs of vocational training instructors in relation to teaching competencies.
- ✓ Encourage foundational training programs, whether through initial teacher training or pedagogical mentoring, under the supervision of inspectors, to enhance the essential competencies required for teaching.

- ✓ Organize training sessions, workshops, and scientific conferences to develop instructors' knowledge, skills, and attitudes, thereby improving the quality of vocational education.
- ✓ Implement continuous professional development programs post-employment as a priority for enhancing teaching performance.
- ✓ Conduct regular and periodic assessments to maintain the required performance standards.
- ✓ Introduce financial and non-financial incentives to reward outstanding instructors in vocational training institutions for their excellence in teaching.

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