



# An Instructional Scenario (Lesson Plan): The Importance of A Balanced Temperature of the Human Body

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**Abstract:** This article entitled *An instructional scenario (lesson plan): The importance of a balanced temperature of the human body* aims to present a comprehensive teaching plan with all the information available to the teacher who wants to teach this unit. It also aims so that students could deepen their knowledge in the topic of body temperature, but also assess the range of normal and abnormal temperature values from different parts of the body. This teaching project was carried out with modern education through the Cisco Webex Meetings platform, it lasted one teaching hour and concerns the course *Nursing Theory II* for the 3rd Class of Vocational High School (EPAL) of the specialty *Nursing Assistant of the Health Sector, Prono& Wellness*. The specific scenario took place in the context of the training of B2 level ICT trainees. (Information and Communication Technology), organized by the Institute of Educational Policy (IEP) with the co-financing of Greece and the European Union. The strategy we relied on is active participation and collaborative learning. The students were encouraged to complete the playful activities created by the teacher and worked on a collaborative document (google documents), both for the enrichment of their knowledge and for their feedback.

**Keywords:** body temperature, distance learning, training scenarios, nursing assistant.

## I. INTRODUCTION

A particularly important role for all specialties of the Health, Welfare and Wellness Sector of EPAL plays both the theoretical training of students and the practical reception and recording of all Vital Signs (temperature, respiration, blood pressure, and blood pressure) (Gourgouli & co, 2013). This importance is also evident from the fact that the Vital Points occupy a central position in the Curriculum of the DG Class of EPAL of the course "Nursing II", which aims at teaching theoretical and laboratory part with practical training of students (FEK: 2292 / vol..B' / 31/12/1999).

More specifically, the recourse to the theoretical knowledge of the thematic unit of the human body temperature precedes the laboratory course and consequently the internship, hence this article emphasizes the theoretical acquisition of knowledge, where this will benefit the correct diagnostic prediction and assessment of a patient/individual's condition.

In the context of all this effort, the use of ICT is laying the foundation, which contributes substantially, interactively, and pleasantly to the understanding and consolidation of all that is to be taught, by emphasizing the collaborative work of students (Matzagouras, 2000). The playful exercises and collaborative documents offered by ICT help to better consolidation of the material taught, as well as the feedback of students, emphasizing the central points of the topic and not the detailed or redundant information, which can be tiring

or confuse students. Moreover, the use of ICT enhances and encourages the active participation of students with learning difficulties and helps them to better consolidation of the content, but also the better organization of notes more appropriately and to focus on all those important points (Tsimpoukli, 1999). Of course, the teacher is on the side of all those students supporting, guiding, and strengthening their effort and in case additional help is needed, the teacher provides students with additional/explanatory and more detailed material.

## II. MATERIALS AND METHODS

### Description of the Educational Scenario

The specific educational scenario has a duration of one teaching hour (45 minutes) and concerns the course Nursing Theory II for the 3rd Class of Vocational High School (EPAL) of the specialty of Nursing Assistant of the Health, Welfare & Wellness Sector. All 14 students participated through the Cisco Webex Meetings (modern education) platform created by the Ministry of Education, Research and Religions, due to the needs arising due to Covid-19. No pre-existing knowledge is required regarding the taught topic by the students. However, a basic familiarity with the use of computers and software is required.

The learning objectives of the teaching scenario are divided into three levels. More specifically, at the cognitive level students should learn the definition of body temperature, list the factors that affect body temperature, and recognize the range of normal and abnormal temperature values from its various points body. At the socio-emotional level, students participate in the activities of the lesson, discuss the results of the exercises and assess the value of learning one of the four Vital Signs of the human body, i.e. body temperature. Finally, in terms of ICT use, they will become more familiar with distance education (Contemporary Education) and will approach ICT as tools and resources for interactive learning.

This teaching scenario emphasizes the active participation of students and the collaborative interaction of students. The strategy on which it was based is collaborative learning (Koulaidis, 2007). In particular, through working groups, participation and interaction with students are enhanced. ICT (Information and Communication Technology) educational applications tend to maximize the benefits of any type of course, whether it is to be implemented live in the classroom or remotely with modern or asynchronous education.

## III. CONCLUSIONS

The evaluation of the students of the present educational scenario was positive, as both the purpose of the program and the individual teaching objectives were achieved. Through the discussion that initially took place at the beginning of the course (modern education - Cisco Webex Meetings) students were allowed to exchange very interesting views and knowledge gained from personal experiences or experiences related to their close family environment. Following the course, they completed the playful activities on the e-me platform. Finally, they were given a collaborative document (google form document) (Appendix 2), in which they interacted with each other, commenting on each other's answers to the questions asked. Shortly before the completion of the script, there was time for discussing questions, but also for solving them. In addition, students became familiar with ICT (Information and Communication Technology) as the course was implemented through the Cisco Webex Meetings platform (modern education), and all activities required the operation of a computer or tablet. Finally, the time of one teaching hour that was originally designed to implement the teaching scenario was sufficient for its successful completion.

## IV. REFERENCES

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## Annex 1

### Screenplay Title:

An instructional scenario (Lesson Plan): The importance of a balanced temperature of the human body.

### Estimated duration of the teaching scenario

1 teaching hour (45 ') distance with the use of modern education.

### Integration of the teaching scenario in the curriculum/prerequisite knowledge

Nursing II Theory 3rd Class EPAL. of the Health, Welfare & Wellness Sector.

### Prerequisite knowledge

- ✓ Students are not required to have any relevant pre-existing knowledge of the taught topic unit from the 2nd Grade EPAL. They are not asked to repeat so that the teacher can assess what they remember and what they do not.
- ✓ Basic knowledge of computers and software is required.

### Purpose and objectives of the teaching scenario

The goal is to know one of the four vital signs that are body temperature.

### The goals are:

#### Cognitive

- ✓ Learn the definition of body temperature
- ✓ List the factors that affect body temperature
- ✓ Recognize the range of normal and abnormal temperature rates from different parts of the body

#### Socio-emotional

- ✓ Participate in the activities
- ✓ Discuss the results of the exercises
- ✓ Assess the value of learning one of the four Vital Signs of the human body, ie body temperature

#### Regarding the use of ICT

- ✓ Familiarity with distance education (Modern education)
- ✓ Approaching ICT as tools and resources for interactive learning

#### Logistics Infrastructure / Preparation

Both the teacher and the students should have either a Mobile or Tablet or laptop/desktop computer, which has speakers, a camera, and a microphone. Internet connection is required. The teacher must have installed the Cisco Webex Meetings application, have a Google account for the use of Drive, and have codes of the Panhellenic School Network to be able to connect to [e-me](#). Students should in turn have installed the Cisco Webex meetings application, as well as have codes in the Panhellenic School Network to be able to connect to

e-me. The connection to the digital training platform can be made by clicking [Cisco Webex Meetings](#). The students have received the connection instructions on the online classroom platform and a test connection has been made the day before.

**Brief description:****Teaching Method**

In this teaching scenario, emphasis is placed on the active participation of students and their collaborative interaction. ICT educational applications tend to maximize the benefits of any type of course whether it is to be implemented in the classroom or remotely with modern or asynchronous education. Also, playful activities are integrated to provoke and maintain the interest of the students.

**Class organization:**

The online class consists of 14 students. All the students of the department DG class of the specialty Nursing Assistant of the Health and Welfare Sector participate in the implementation of the educational scenario. Students take part at the beginning of the lesson individually by writing on the Webex chat answers to the questions asked by the teacher. Then, they each complete the exercises that have been created in the e-me content and finally, work collaboratively on worksheet 1 (google documents) (annex 2).

**ICT added value**

The script is entirely remote in the form of modern education.

So, by using ICT they provide :

1. Facilitation of communication, sharing, and interaction between students and their teacher.
2. Interaction and immediate feedback from web applications.
3. The added value of the use of new technologies lies in the multi-sensory approach of the specific skills and the multifaced cognitive mobilization of the students.
4. With the use of new technologies both theoretical and laboratory courses and a system of practice and practical application of knowledge of students are promoted and guided by the teacher systematically.

**Teaching Activities:****Activity 1 (5 minutes)**

Students with the computer or tablet on will work individually and in groups remotely. The course begins with the question "what is body temperature". Students with what they have already known from the 2nd grade of EPAL are asked to compose the definition that was asked. The teacher encourages the students to write in the chat of the Webex platform words that they probably remember, to compose the definition in groups. Then the teacher asks a second question "what are the normal and abnormal temperatures from different parts of the body". Again, students record what they remember in the chat of the same platform. Throughout this activity the teacher shares on Webex a PowerPoint file he has prepared.

**Activity 2 (20 minutes)**

The students, by utilizing the above answers given in the Webex chat and based on the teacher's questions, encourage students to go to the e-me, to do the corresponding playful (interactive) exercises created by the teacher through e-me content. The first playful exercise is filling in the blanks and concerns the definition of body temperature. To complete this exercise, students must log in to the wall of the Nursing Theory II course by clicking [here](#). The teacher shares the above link with the students in the Webex chat.

Τί είναι θερμοκρασία σώματος; [Δραστηριότητα χρηστών](#) [Επεξεργασία](#)

Σύρετε τις λέξεις και αποθέστε τις στα κουτάκια

Θερμοκρασία σώματος είναι ο βαθμός  του σώματος που δείχνει την  μεταξύ της  και  θερμότητας  από το σώμα.

παραγόμενης  
 θερμότητας  
 αποβαλλόμενης  
 ισορροπία

After completing the above activity, students will engage in the second playful activity which is cryptography (hidden words), where they will have to find the factors that affect body temperature. This exercise has been posted on the lesson wall and can be found by clicking [here](#). Again the teacher shares the above link with the students in the Webex chat.

Ποιοι παράγοντες επηρεάζουν τη θερμοκρασία του σώματος; [Δραστηριότητα χρηστών](#) [Επεξεργασία](#)

Βρες τις λέξεις του Κρυπτόλεξου

N	M	Y	Σ	E	P	T	Σ	T	M	B	Y
Σ	Φ	Φ	I	K	Ά	Π	N	I	Σ	M	A
Π	E	P	I	B	Ά	Λ	Λ	O	N	P	Θ
Z	Υ	Ε	Σ	Ο	Α	Σ	K	H	Σ	H	Ο
Σ	I	Δ	Θ	B	Ξ	H	I	Ψ	Ψ	K	Σ
O	P	M	O	N	Ο	Λ	O	Γ	I	K	Ά
A	Σ	Θ	Έ	N	Ε	I	E	Σ	Z	K	M

  

A	M	Σ	I	N	Π	Ά	K	K	Γ	M	X
Ε	P	M	Ω	Φ	Λ	M	I	Ω	A	Z	Ω
P	P	Ξ	M	T	P	A	Ύ	M	A	T	A
Β	Ά	P	O	Σ	Θ	X	I	Γ	H	Σ	A

**Βρες τις λέξεις**

Ηλικία Περιβάλλον Στρες Άσκηση Βάρος Ορμονολογικά Κάπνισμα Ασθένειες Τραύματα

Θ Διάρκεια: 0:00 0 από 9 βρέθηκαν

Έλεγχος

Finally, the students complete the third playful activity, where they will have to find the normal and abnormal body temperatures from different points by filling in the blanks. This exercise is given by clicking [here](#).

**Φυσιολογικές και μη φυσιολογικές θερμοκρασίες σώματος από διάφορα σημεία του σώματος [**

Σύρετε τις λέξεις και αποθέστε τις στα κουτάκια

Το εύρος της φυσιολογικής τιμής θερμοκρασίας από τη μασχάλη είναι:  36.5-37.5oC

Το εύρος της φυσιολογικής τιμής θερμοκρασίας από το στόμα είναι:  <36oC

Το εύρος της φυσιολογικής τιμής θερμοκρασίας από το ορθό είναι:  36-37oC

Πυρετική δεκατική κίνηση έχουμε όταν το εύρος της θερμοκρασίας από τη μασχάλη κυμαίνεται από:  36.2-37.2oC

Πυρετό έχουμε όταν η θερμοκρασία από τη μασχάλη είναι:  >40oC

Υπερπυρεξία έχουμε όταν η θερμοκρασία από τη μασχάλη είναι:  >37.6oC

ενώ υποθερμία  37.2-37.6oC

**] Ελεγχος**

### Activity 3 (completion) (20 minutes)

After completing all the above playful activities, the teacher gives the Webex chat the link that leads to a google document and is entitled [Worksheet 1](#) (annex 2), so that he could be able to check the answers given by the students to the above activities, whether they are correct or incorrect. By entering in this document, students should respond to the exercises given in groups, being given the encouragement to comment on each other's answers. As students answer these questions, the teacher checks encourage and support the students throughout the completion.

This is followed by a discussion among students, with the teacher intervening where necessary, and discussing the mistakes they made, getting the feedback they need.

### Course assessment

At the end of the course, the degree of achievement of the learning objectives of the teaching is evaluated by:

- ✓ filling in the blanks by defining what body temperature is
- ✓ exercising with hidden-word-puzzle, to identify the factors that affect body temperature
- ✓ filling in the blanks to learn the normal and abnormal body temperatures from different parts of the human body
- ✓ [Worksheet 1](#), which is also used as an evaluation tool

### Worksheet

Students are given to fill in [Worksheet 1](#) (collaborative document).

### Technological tools used:

- [Course wall Nursing Theory II DG Lyceum](#) in e-me
- Cisco Webex Platform
- Powerpoint presentation
- E-me content
- collaborative document (google documents)

**Scalability**

Teaching could be extended in time to the same specialty to the same students, with the ultimate goal of the future health professionals of the specialty Nursing Assistants to receive more detailed knowledge and to deepen in this topic (body temperature).

**Annex 2****Worksheet 1**

Course: Nursing Theory II

Class: DG Lyceum

Specialty: Nursing Assistant

The following table gives two exercises, which were based on what you have already done in the playful activities, I would like you to work together to answer the following questions. This will help you and me to check the answers you will give and comment on any of your mistakes or points that seemed difficult.

Names of students	Exercise 1: Measure the body temperature (with a tympanic thermometer) of a patient in the hospital and see that in the morning it is: 36.5 °C, in the afternoon: 38 °C, and in the evening 40.2 °C. Comment on these temperatures.	Exercise 2: What factors do you consider affecting body temperature?	Comment-Characterization
Konstadinos A.			
Niki A.			
Anthi A.			
Maria B.			
Popi Z.			
Eirini K.			
Valia K.			
Maria K.			
Maria R.			
Maria S.			
Emanuel T.			
EvaT.			
Zaharias F.			
Eirini H.			