

Development of innovative training solutions in the field of functional evaluation aimed at updating of the curricula of health sciences schools



MODULE FOUNDATIONS

Didactic Unit D: TECHNIQUES FOR THE INSTRUMENTAL ANALYSIS OF MOVEMENT AND FORCES

D.1 How can movements be measured and which parameters can be analyzed? What are its main applications?

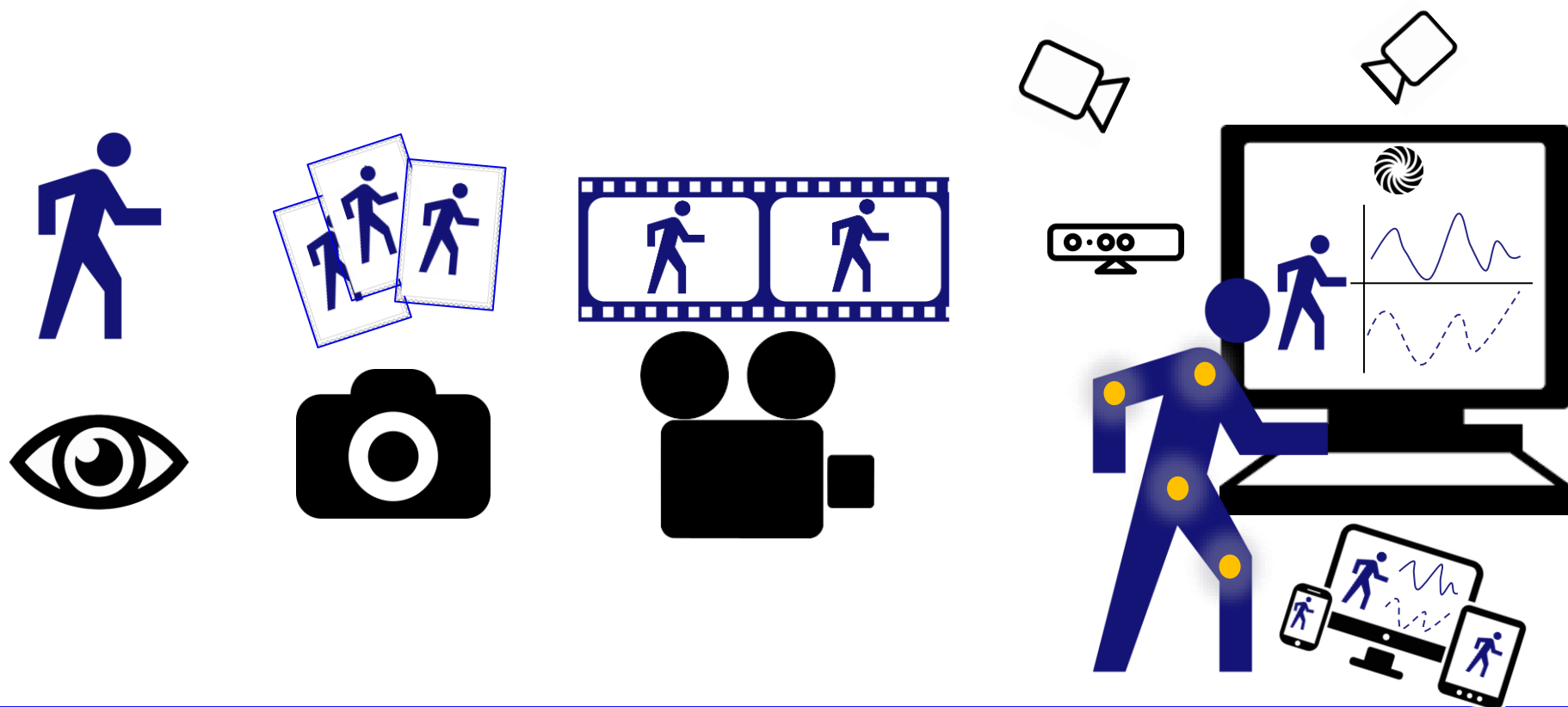


CLASS INDEX

- How can I measure Movements? Principal Techniques for instrumental analysis in Biomechanics
 - Main fields of application and examples
-
- **Class Workshop 1 and 2**

Measuring Movement

Evolution of movement analysis



Measuring Movement

Different Techniques used in Biomechanics for Movements Analysis

Optical Systems

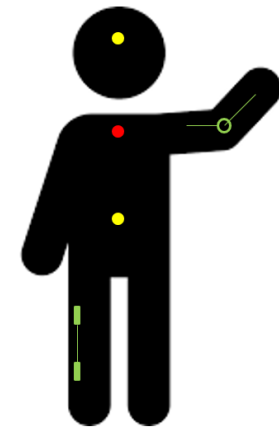
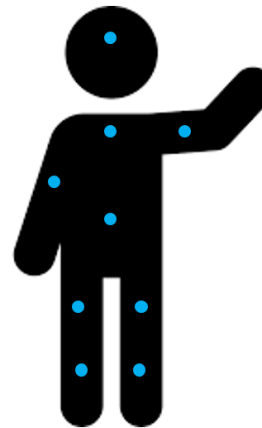
Inertial Systems

Others

Marker-based

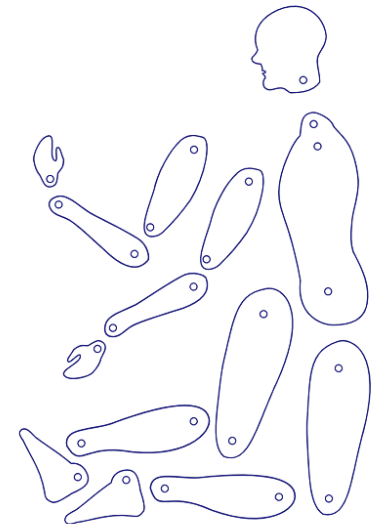
Marker-less

I.M.U



Measuring Movement

Areas of interest and examples of application



Class Workshop 1

Workflow

1st. Matching Up !!



Couple 1. Jane and Peter: The Incredibles

Couple 2. John and Will: The Outsiders

Couple 3.

4. ...

5.

6.

7.

8.

9.

10.

Class Workshop 1

Workflow

2nd. Topics Generation ...



1. Climbing stairs
2. ...
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

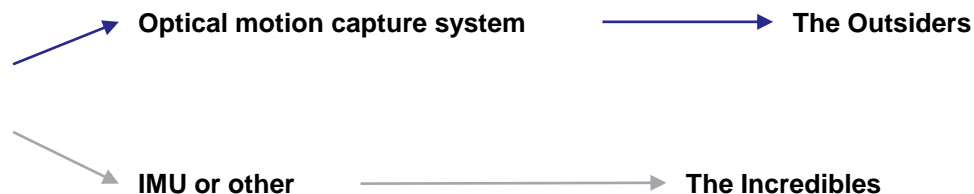
Class Workshop 1

Workflow

3rd. Topic lottery



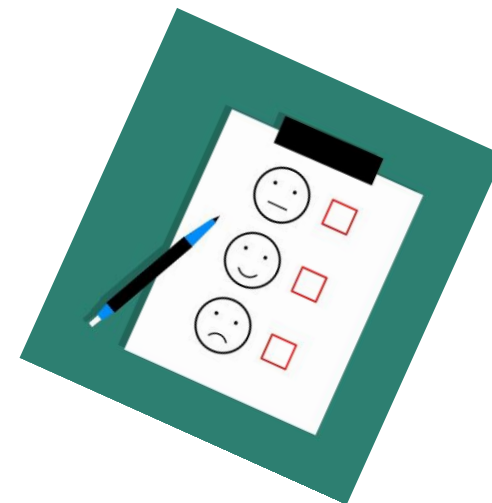
1. Climbing stairs



Class Workshop 1

Workflow

4th. Fill the worksheet



Development of innovative training solutions in the field of functional evaluation aimed at updating of the curricula of health sciences schools

TEACH

Erasmus+


Students' full name:
Participant 1:
Participant 2:

MODULE FOUNDATIONS
Didactic Unit D. Techniques for the instrumental analysis of movement and forces.
D.1 How can movements be measured and which parameters can be analyzed? What are its main applications?

WORKSHOP 1: TECHNIQUES FOR MOVEMENT ANALYSIS

1. RESEARCH INFORMATION
TOPIC ASSIGNED: _____
TECHNIQUE ASSIGNED: OPTICAL SYSTEM (Example: 3D Photogrammetry).
 OTHERS (Example: Inertial Measurement Units).

2. QUESTIONS TO BE DISCUSSED
2.1 Paper's title.



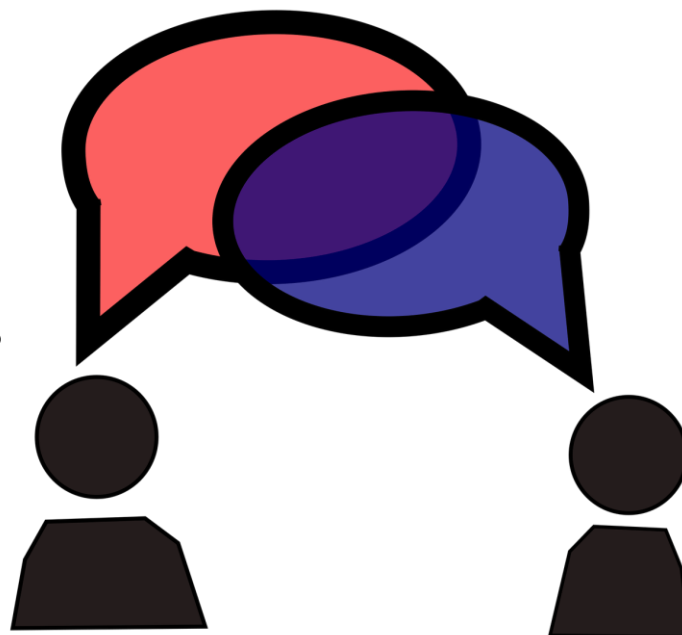
Class Workshop 1

Workflow

5th. Present your results



The Outsiders



The Incredibles

Class Workshop 2

Workflow

1st. Matching Up AGAIN !!



Did you read the theoretical contents ??

Class Workshop 2

Workflow

2nd. Prepare a PPT !!

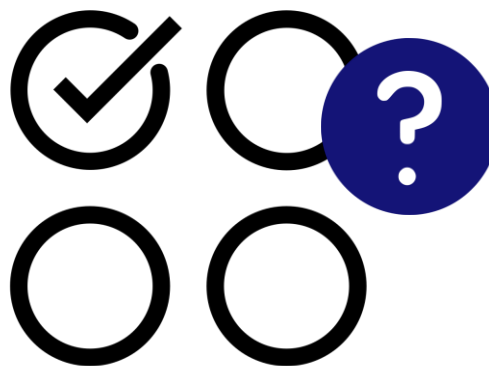
Contents of your study

1. Movement of interest
2. Objectives
3. Movement Analysis Technique
4. Main Parameters

Class Workshop 2

Workflow

3rd. Presentation !!





The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

