



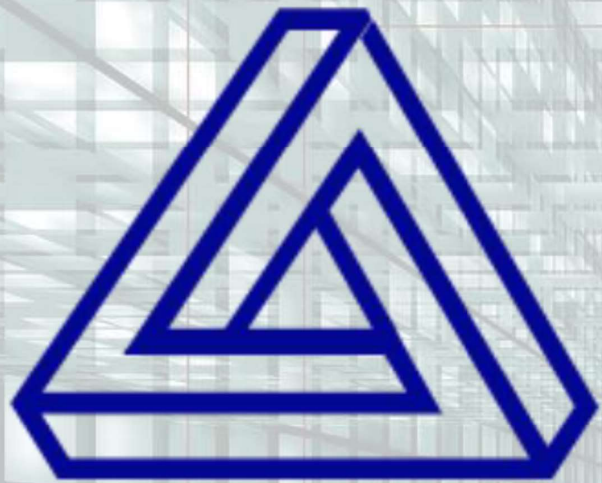
# Nuove tecnologie e Didattica Online



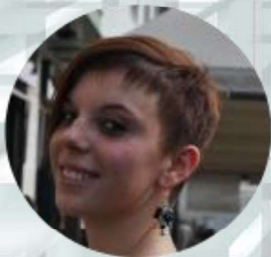
UNIVERSITÀ  
DEGLI STUDI  
DI TORINO

**Marina Marchisio**  
Delta Research Group  
Università degli Studi di Torino

Bologna, 21 maggio 2020



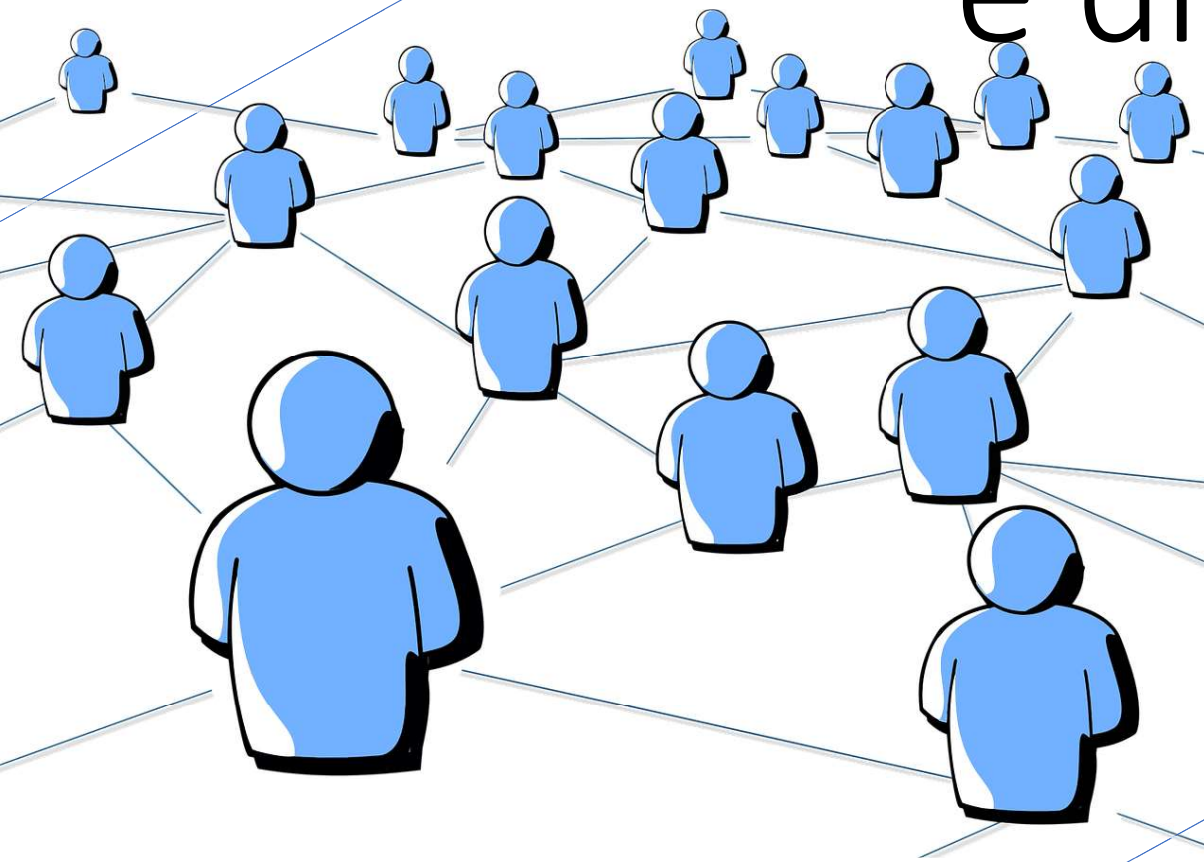
**D**igital  
**E**ducation for  
**L**earning and  
**T**eaching  
**A**dvanes  
**RESEARCH GROUP**



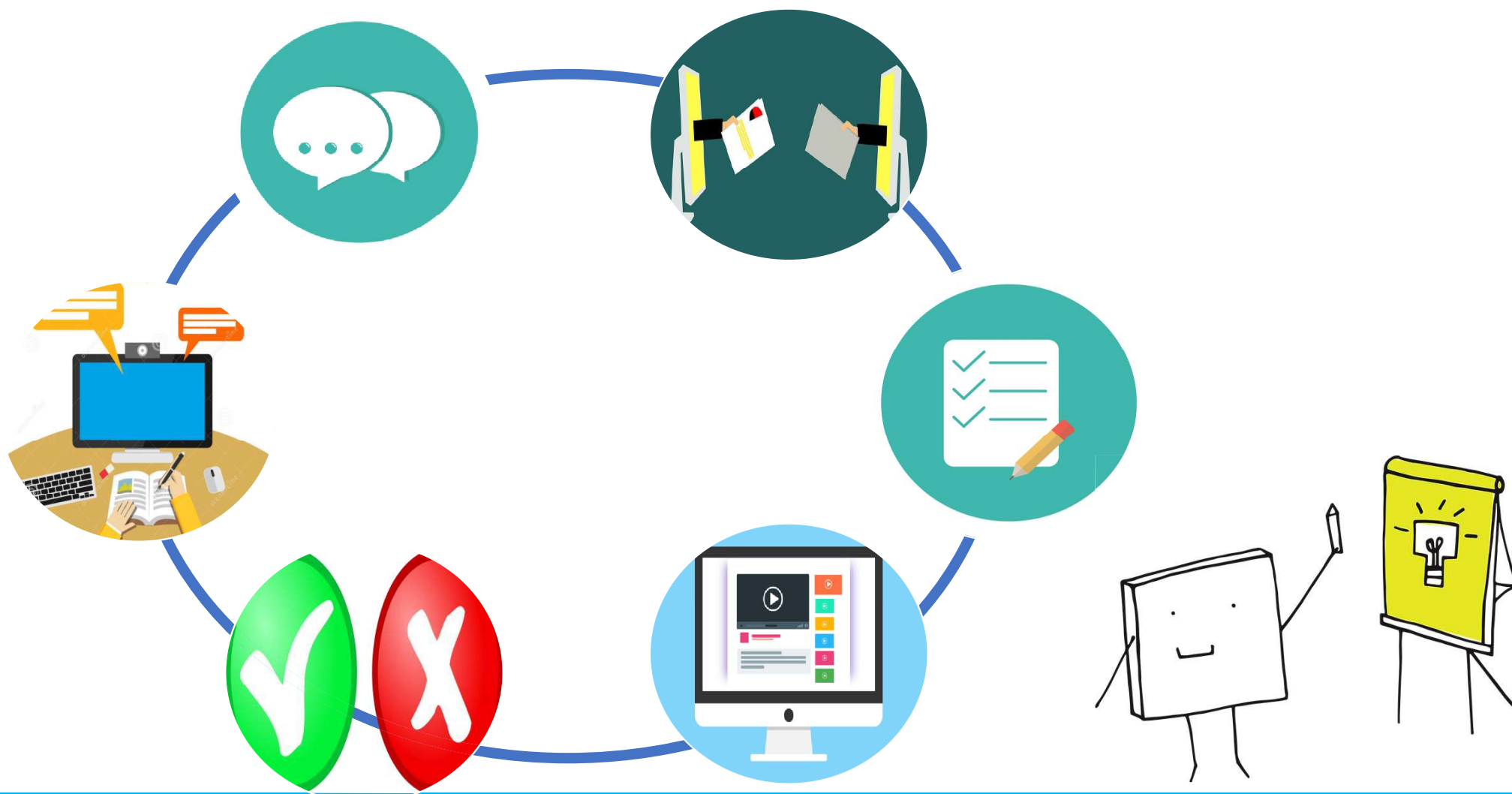
# Indice



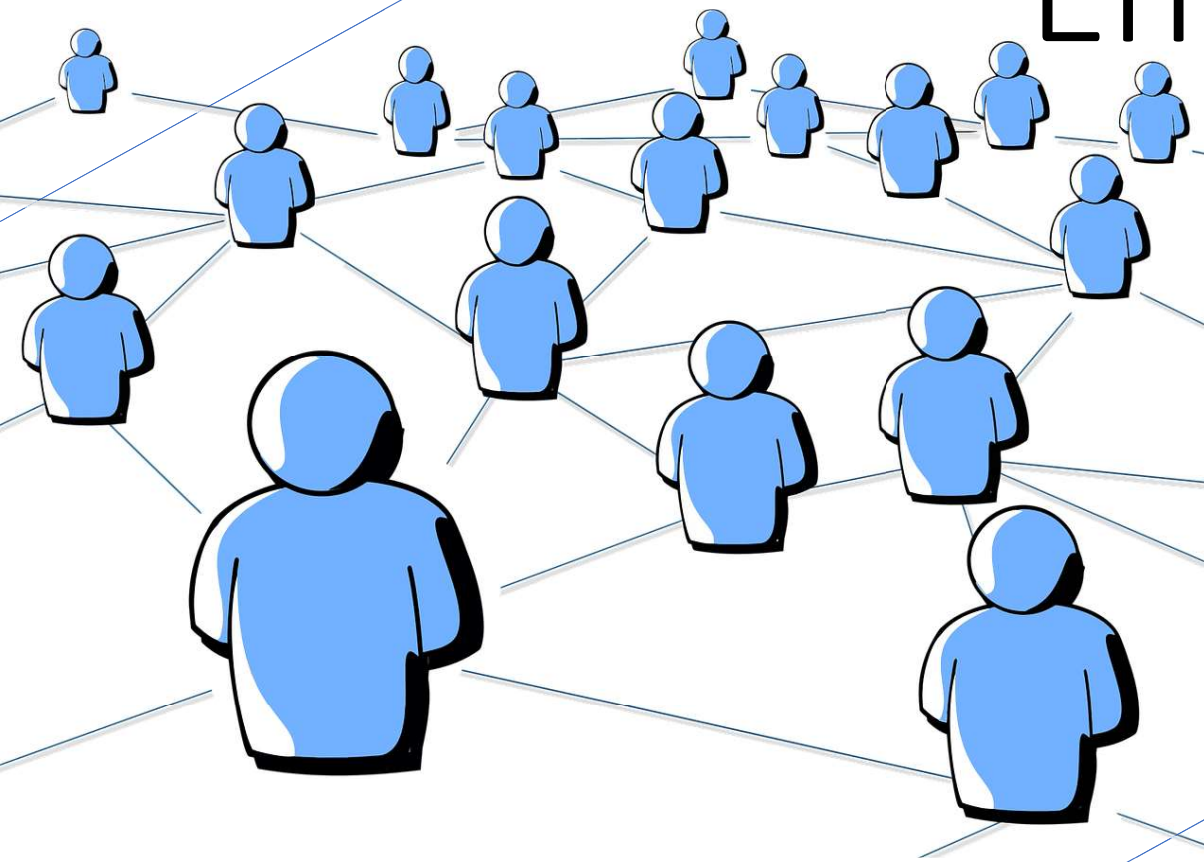
# Didattica a distanza e didattica online



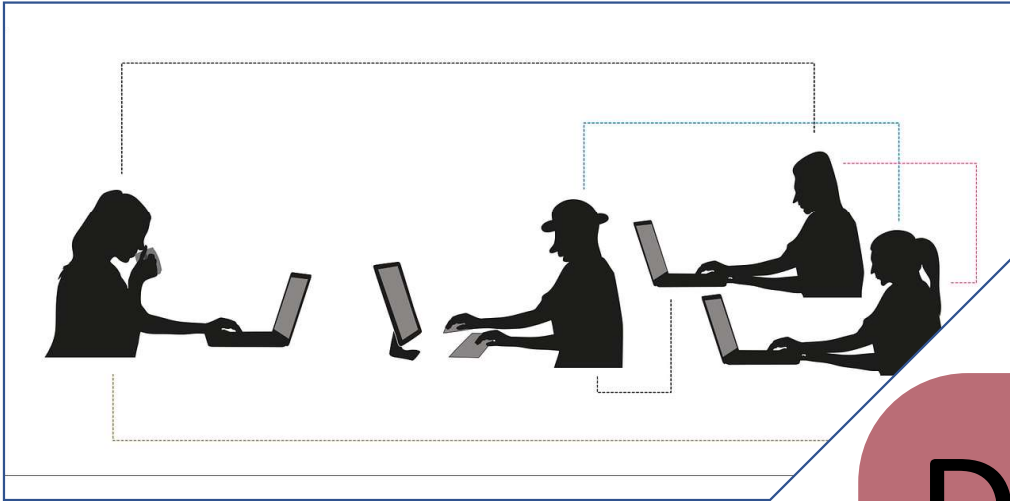
# Didattica Online



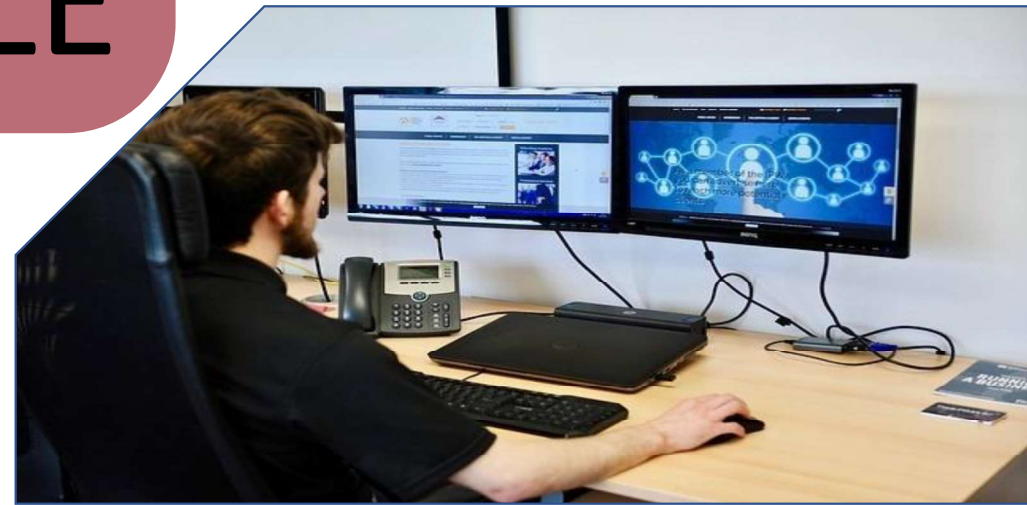
# Digital Learning Environment (DLE)



# DLE



DLE



# Caratteristiche del DLE



Disponibilità



Accessibilità



Adattività



Acceptability (culturalmente appropriato)



Sostenibilità



# Funzionalità del DLE



**Gestire** l'erogazione e la fruizione della formazione



**Monitorare** le attività svolte dagli studenti e i processi di apprendimento



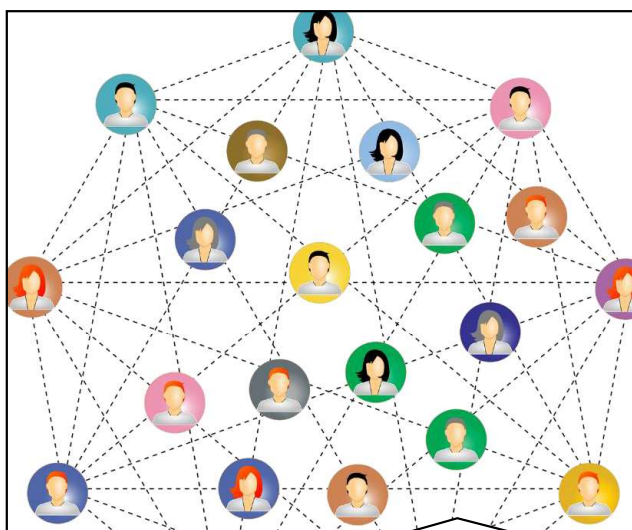
**Rilevare** la frequenza ai corsi e le attività formative dell'utente



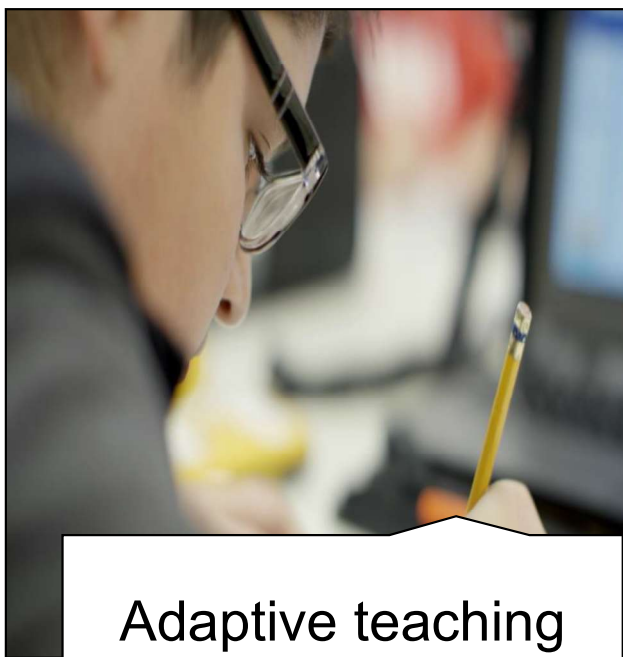
**Realizzare** attività collaborative

# I vantaggi di un DLE

Per chi insegna...



Comunità di pratica



Adaptive teaching

Osserva la seguente figura.

A gray L-shaped geometric figure. The top horizontal side is labeled  $c$ . The left vertical side is labeled  $2c$ . The bottom horizontal side is labeled  $2c$ . The right vertical side of the smaller section is labeled  $c$ .

Scrivi la formula che esprime come varia l'area della figura al variare di  $c$ .  
Puoi cliccare sull'icona  $\mathbb{P}$  per visualizzare il grafico della formula che hai scritto.

Risposta:

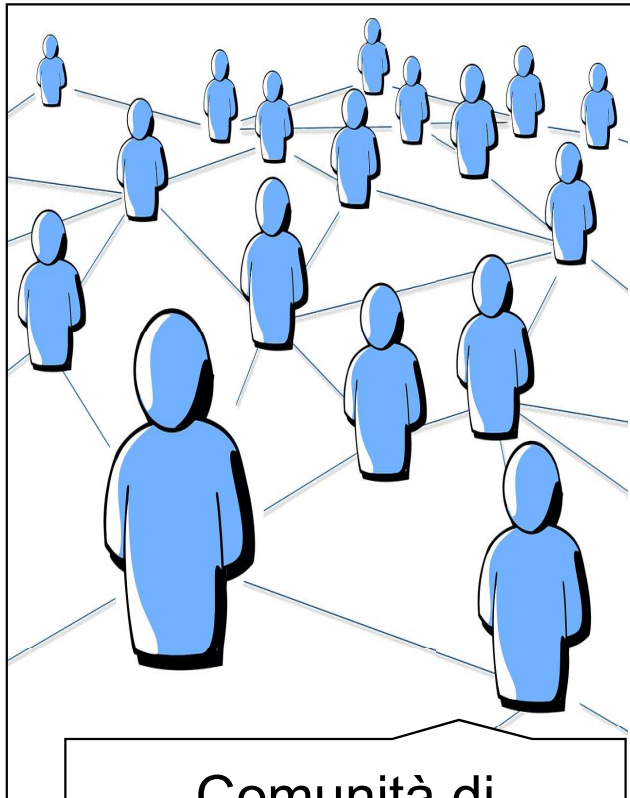
Risposta corretta:  $3c^2$

Clicca su Verifica per controllare la risposta e proseguire.

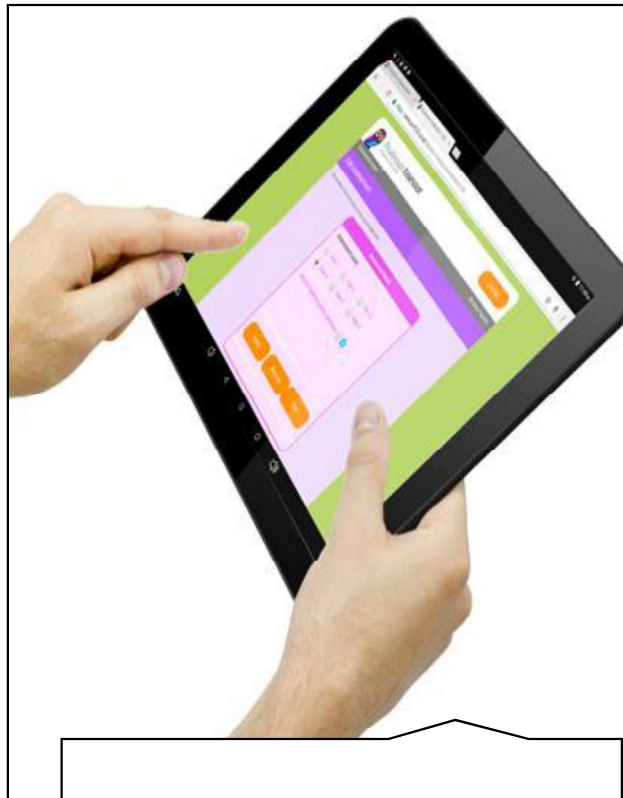
Valutazione  
formativa automatica

# I vantaggi di un DLE

Per chi studia...



Comunità di apprendimento



Adaptive learning

✘ An ice-creamer needs to cover the inner surface of the cones with black cherry sauce.  
Given that the inner height of a medium cone measured 11 cm the inner diameter is 5.6 cm long, calculate the measure of the inner surface that should be covered with black cherry sauce.  
Approximate the result to the nearest integer.  
Result =  cm<sup>2</sup>

✔ We need to compute the area of the inner surface of the cone, given that its measures are the following:

- heigh:  cm   
Correct response: 11 cm
- radius:  cm   
Correct response: 2.8 cm

✔ To compute the area of the lateral surface we need to know how much the apothem is long.  
You can compute its measure by the formula:  $a = \sqrt{h^2 + r^2}$   
Round the result to the second digit.  
 $a =$   cm   
Correct response: 11.35±0.01 cm

Now we can compute the area of the lateral surface by the formula  $S_l = r \cdot a \cdot \pi$ .  
 $S_l =$

Autovalutazione con feedback immediati e interattivi

# DLE

Si basa su una **piattaforma** (LMS) (basica o integrata con diversi strumenti)

L'accesso avviene tramite **credenziali** (username e password)

Le credenziali sono legate a un **indirizzo mail**

Può aiutare gli studenti avere un **unico DLE per la Didattica Online della scuola**

# Web-based constructive learning environments

Learning is a **lifelong active process of knowledge building** mediated by experiences and relations with the environment and the community (von Glasersfeld, 1989)

Technology can support the creation of **constructivist digital environments** through

- computer mediated communication
  - computer supported collaborative work
  - case based learning environments
  - computer supported cognitive tools
- (Jonassen, et al., 1995)

7 goals for building learning environments (Honebein, 1996)

1. to provide experience with the **knowledge construction** process
- to provide experience in and appreciation of **multiple perspectives**
- to embed learning in **realistic and relevant contexts**
- to encourage **ownership and voice** in the learning process
- to embed learning in **social experience**
- to encourage the use of **multiple modes of representation**
- to **encourage self-awareness** in the knowledge construction process

Ambienti virtuali  
integrati per  
l'apprendimento e  
l'insegnamento della  
matematica

