

Education on the Horizon: Teaching and Learning with Technology

Week 2: Multimedia Learning

Dr. Yizhen (Eejain) Huang

Department Erziehungswissenschaft, University of Potsdam

First, some house cleaning...

- >> Course site
- >> Course communication channel
- >> Sigh up for presentation topic before this Friday

Any questions about the tools?

- >> Website
- >> Discord



What is media?

- » Media are tools used to store and deliver information or data
- » Multimedia are communications that incorporate multiple forms of information content and processing

Medium is like the
vehicle of information.



You can convey similar content
with different media.



What is multimedia learning

- >> Present the material using various media types that are intended to foster learning.
- >> Types of media: text, audio, static graphic (photos, drawings, maps, charts, figures), dynamic graphic (video, animation)

Why is it an attractive idea?

- >> Suitability: sometimes one media is more suitable to present certain information than others
- >> Student preference: sometimes one prefer certain media than others

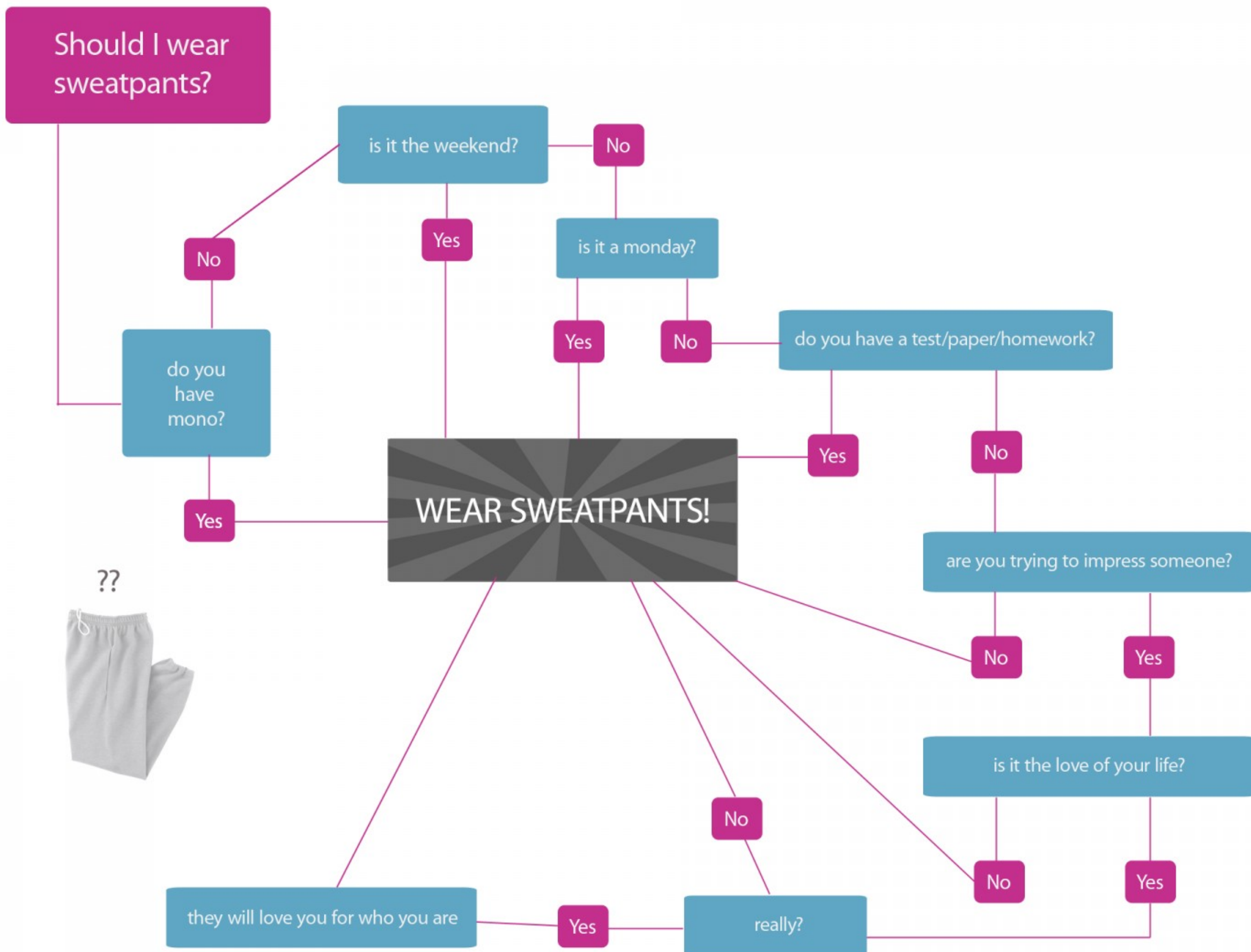
Let's consider suitability first...

Visual over words?

Example 1. How would you explain
how a smart phone works?



Example 2. How do you decide
what to wear?



Visual over words

- >> When the concept is abstract and hard to visualize.
- >> When the logic is not linear.

Audio over visual?

- >> Audio carries unique information
 - >> Example: Hearning range test (6:25–10:00)

What about personal preferences
for media types?

Is the "learning style" theory true?

- >> Claims of the learning style theory:
 - >> Each person has a preferred way of receiving new information: visual, auditory, kinesthetic
 - >> When learning something new, student will learn better when the instruction matches their preferred media types
- >> Are these claims true?

Example of instruction according to learning style theory

- >> When learning addition...
 - >> Visual learner: view grouping of objects
 - >> Auditory learner: listen to sets of rhythms
 - >> Kinesthetic learner: arrange objects into groups

What's wrong with this approach?

- >> No matter what's the input module, most of the information are encoded semantically (as meaning)
- >> Everyone can benefit from various representations of the same content

Take home message

- >> We need to consider which media to use for instruction, because
 - >> sometimes one media is more suitable to present certain information than others
 - >> sometimes one prefer certain media than others, although multimedia can be beneficial for everyone