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## MOBILE LEARNING INTERFACES DESIGN: A LITERATURE STUDY

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# INTRODUCTION: AESTHETIC

The study of  
beauty and taste

Plays important  
role in influencing  
user's perception



# STUDY BACKGROUND: MOBILE LEARNING (M-LEARNING)

A way to access education through mobile devices.

Devices such as mobile phone and tablet.

Unlimited by location, time or situation.

# STUDY BACKGROUND: HUMAN COMPUTER INTERACTION (HCI)

Focuses on the relationship between user and computers

## Objectives of HCI

- To create reliable interface
- Design better use of user interface and computer graphic
- To get faster information
- To provide original, dependable and upgrade of user interface (UI)

# STUDY BACKGROUND: USER EXPERIENCE DESIGN (UXD)

Designing with user in mind

## Objectives of UXD

- To maximize usability to the user.
- To attract use attention.
- Amplifying user satisfaction towards the product.

# STUDY BACKGROUND: USER INTERFACE DESIGN (UID)

The study of designing user interfaces for software and machines, such as computers, mobile devices, and other electronic devices

## Principles of design

Described the main ideas about the practice of visual design

## Elements of design

The basic components of any visual design that construct its structure and in expressing visual messages.

# STUDY BACKGROUND: USABILITY

The ease of use and learnability of a human-made object such as a tool or device.

The degree to which a software can be used by specified consumers to achieve quantified objectives with effectiveness, efficiency, and satisfaction in a quantified context of use



# FINDINGS: PRINCIPLES / ELEMENTS USED IN MOBILE LEARNING DESIGN

Author / Year	Principles/elements used
T. Georgiev, E. Georgieva (2009)	Layout – navigation
M. Seraj, C.Y. Wong (2012)	Consistency, learnability, flexibility, user guidance, minimal action, minimal memory load.
L. Arockiam, J. C. Selvaraj (2013)	Colour, font
C. M. Wang, C.H.Huang (2015)	Simplify, ease of use, consistency, graphic illustration, colour, layout
K. Saraubon et al. (2016)	Font, graphical media, navigation, memory load, simplify
J. F. Fazeena et al. (2016)	Colour, navigation, icons – shapes, consistency
D. B. Setyohadi et al. (2017)	Colour, shape
A. S. Alawani, A. D. Singh (2017)	Colour, font, navigation, graphical layout, memory load
D. Song (2017)	Navigation, simplify, gesture, colour, animation, memory load
N. Kiliñç, Ö.Delialiođlu (2018)	Simplicity, harmony, colour

# FINDINGS:

## USABILITY ATTRIBUTES IN MOBILE LEARNING APPLICATION

Author / Year	Usability attributes discussed/ used
M. Seraj , C.Y. Wong (2012)	Consistency, flexibility, user guidance, minimal memory load, minimal action, learnability, .
Hujainah et al. (2013)	Adjustability, fun ability, reliability, satisfaction
C. M. Wang, C.H. Huang (2015)	Visibility, ease of use, efficiency, enjoyment
K. Saraubon et al. (2016)	Memory load, simplify
Ismail et, al (2016)	Visibility, ease, efficiency, enjoyment
J. F. Fazeena et al. (2016)	Consistency
A. S. Alawani, A. D. Singh (2017)	Memory load
D. Song (2017)	Simplify, memory load
N. Kiliñç, Ö. Delialiođlu (2018)	Simplicity

# CONCLUSION

- Result shows the importance of aesthetically pleasing interfaces in m-learning.
- However, m-learning design cannot be justified using the principle of web design.
- Sizes and flexibility of the screen is different.
- Using design principles can contribute to usability and increase competency.
- A more specific mobile framework should be develop.
- A detailed study of each design principles effect on mobile usability and user perception.



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