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Practice in Observation: Developing observational skills in Physiotherapy students

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Project supported by the Learning Development Unit University of Birmingham

Presentation Map

Skill Acquisition

Development

Assessment

Evaluation

Discussion

Conclusion

Future

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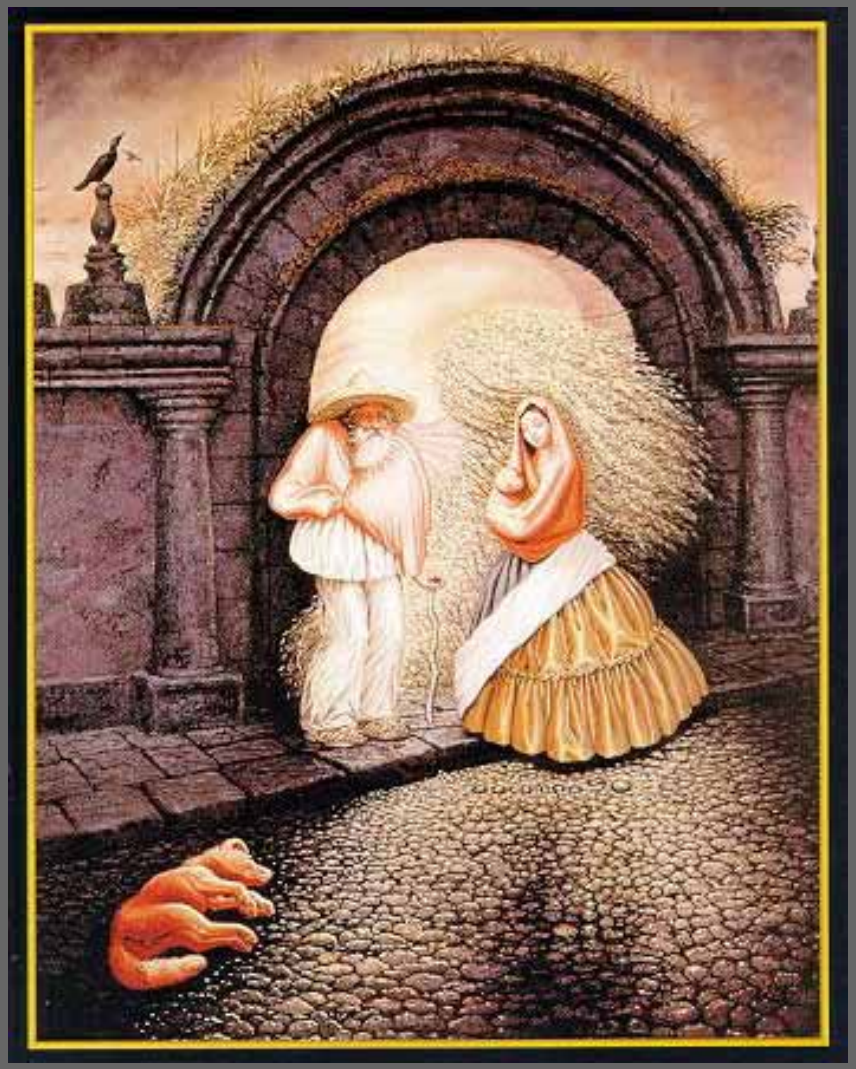
A major skill of the physiotherapist is the identification and analysis of human movement disorders.

How is this achieved?

Learning to look



Barders,Gillers&Herman 2001

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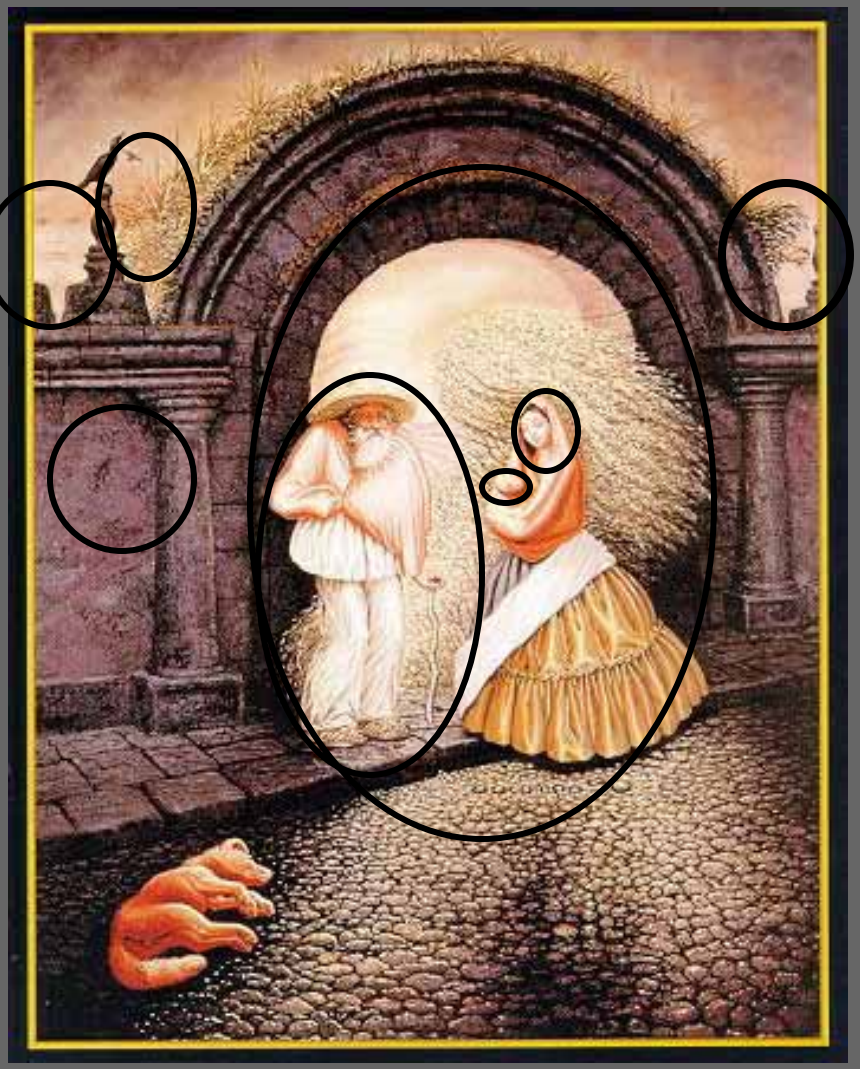
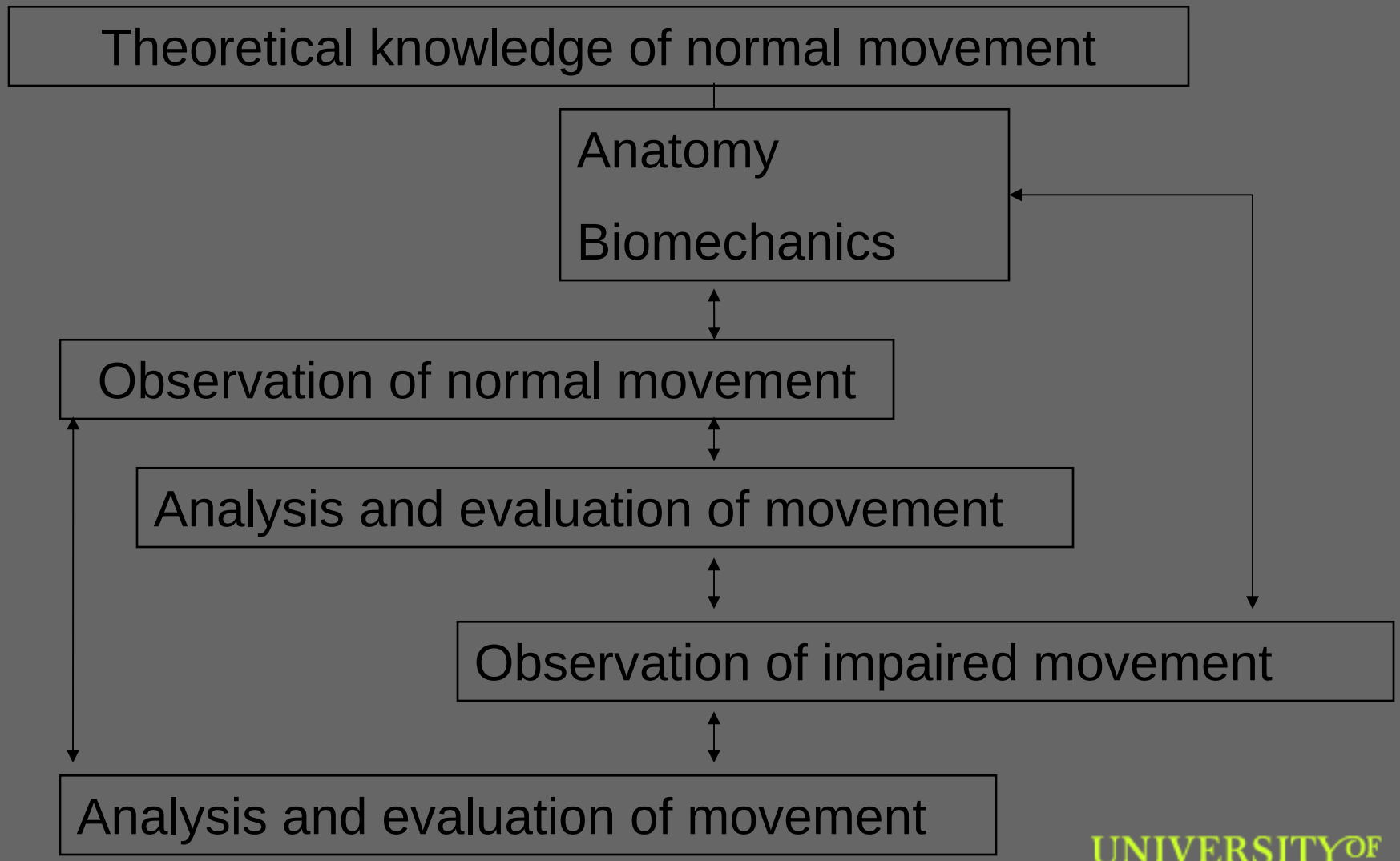
Learning to look



Learning to look in Physiotherapy



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Recognition of human movement

Johansson 1973, 1975

Developing qualitative observational skill

Specific training

Specific to activity

Perceptual abilities

Speed of movement

Knudson & Morrison 1996

Observation

Description

Interpretation

Bardes, Gillers & Herman 2001

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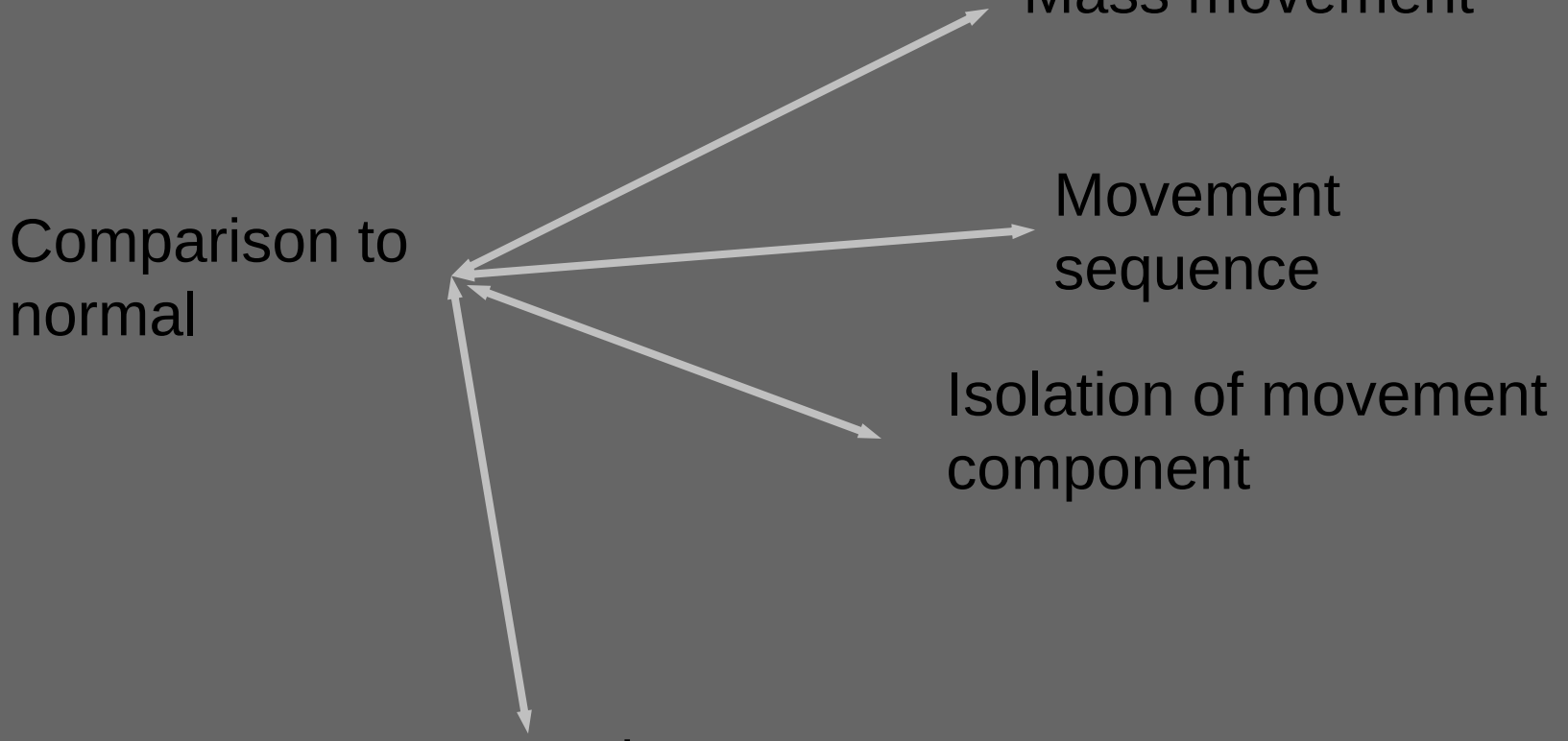
Movement Identification



Use of video clips in the lecture

- Opportunity for students to avoid interaction and contribution to session
- Real neurological movement problems
- Capacity to replay movement sequence and review movement
- Potential to use in small groups or large group sessions providing equality of learning experience

What is WebCT?

Web Course Tools developed in 1995 by University of British Columbia to facilitate course development and student learning, now a commercial venture: WebCT.com

Designed to:

- Manage overall course
- Manage and present content
- Develop assessment
- Encourages self directed learning
- Interactive
- Widens campus boundaries
- Extends student access
- Support

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Skill acquisition	Development	Assessment	Evaluation	Discussion	Conclusion	Future

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Developmental questions:

Patient Mr B has had a stroke.

Which is the affected side of his body?

Left

What side of the brain is likely to have been affected?

Right

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Identify the position of his:

a) head

Extended and slightly side flexed to the left

b) left leg

Hip flexed, knee flexed, leg laterally rotated, foot plantar flexed

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Mrs C has had a stroke. In this sequence of sitting to lying

What happens to the right upper limb?

What happens to the left upper limb?

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How does she move her right lower limb?

How does she move her left lower limb?

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- Students were able to access the material within WebCT to continue and complete the activity in their own time.
- 15 different video clips with 3-5 questions per clip
- Model answers were available within the web page.
- WebCT allowed the tutor to monitor the students

The Assessment

Three questions were asked

1. Give a general impression of the movement

Initial observation

2. What is happening at her head, trunk, upper limbs, pelvis and lower limbs as she moves from sit to stand?

Specific activity

3. How is this different from normal?

Interpretation

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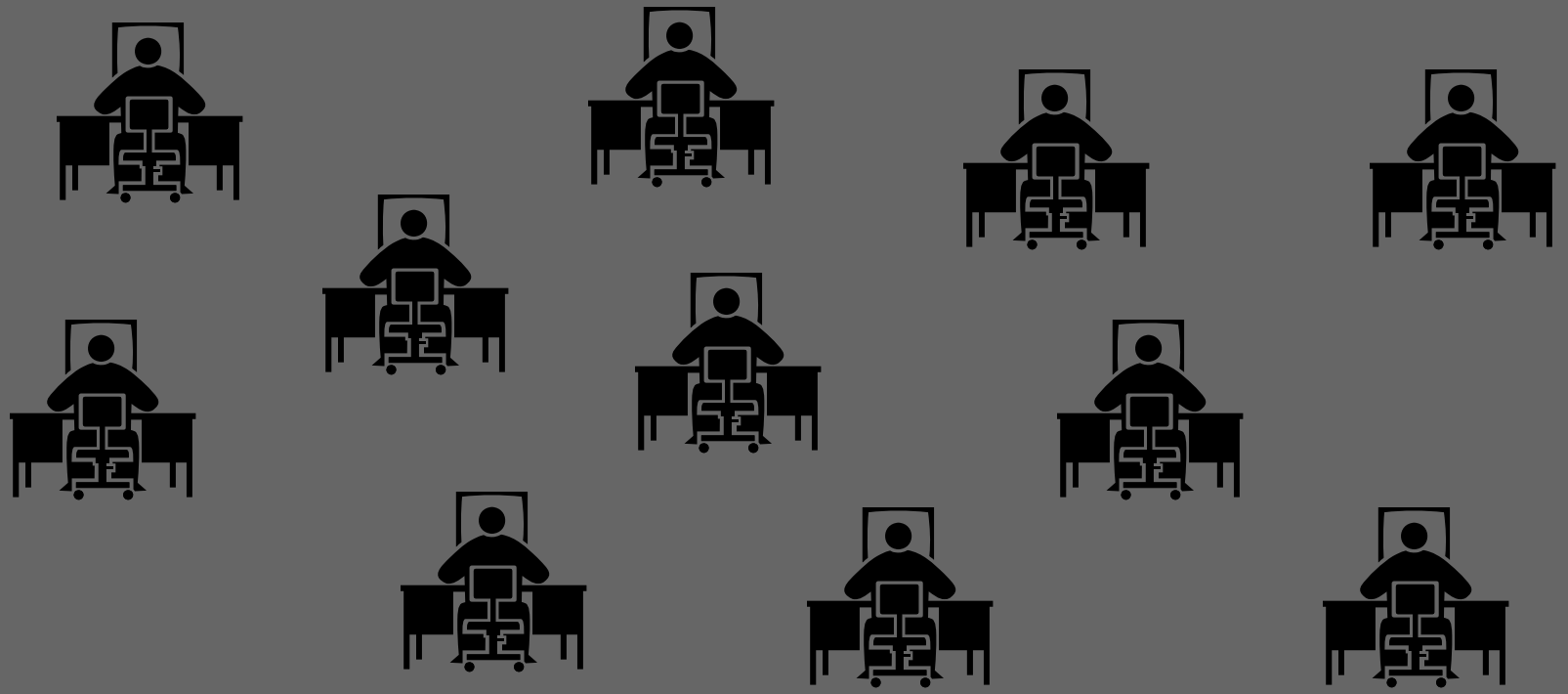
Model answer

Expert panel of clinicians working in neurological rehabilitation



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Evaluation

Group 1 n=74

Questionnaire to first year participants

- 84% found web based learning useful or very useful
- 88% felt that their competence in using the new learning environment was good or very good

Focus group discussion

Assessment results

Had the experience of computer based learning developed the observation skill in these undergraduate physiotherapy students?

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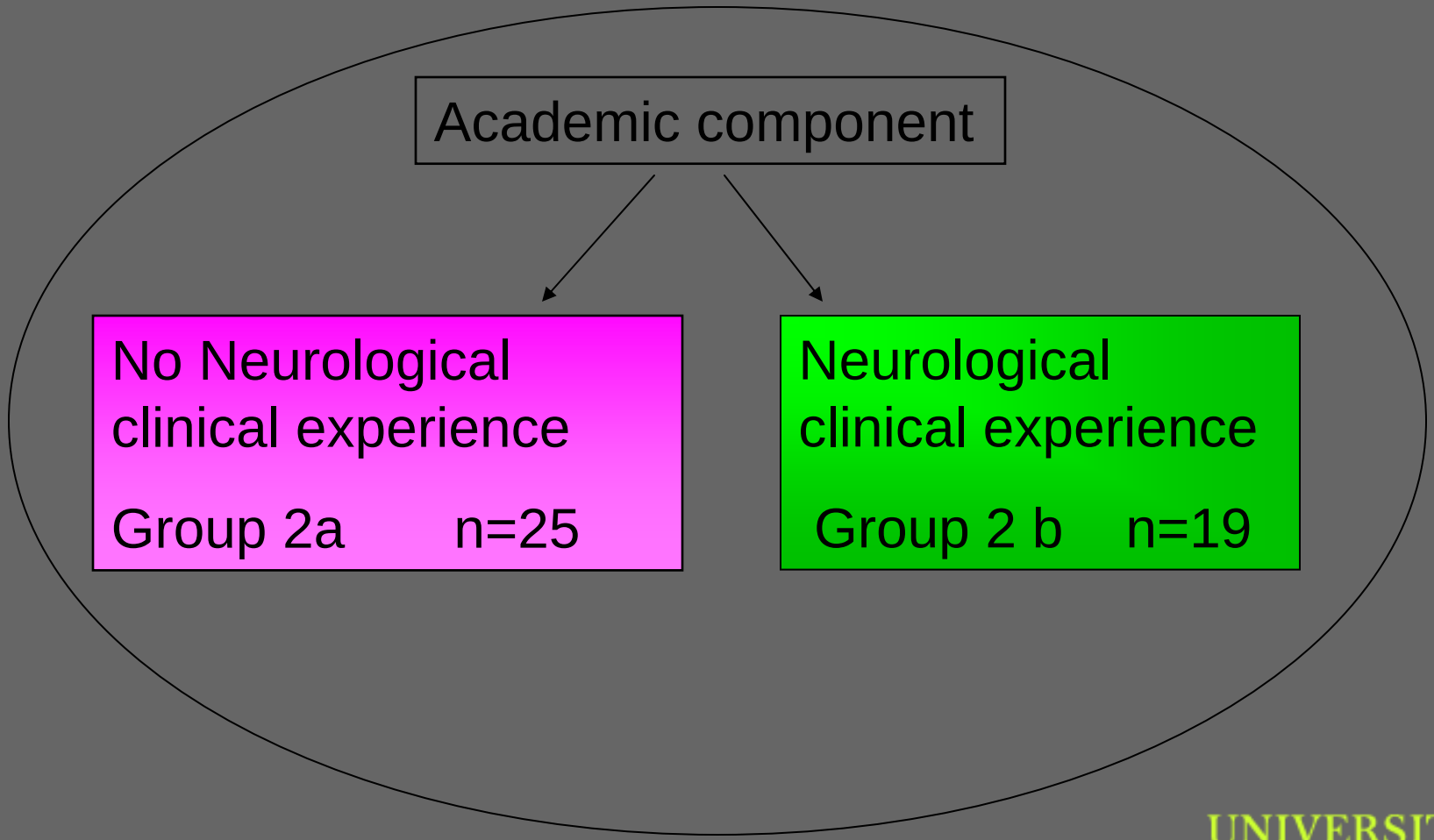
Group 2 undertaking same module but without WebCT



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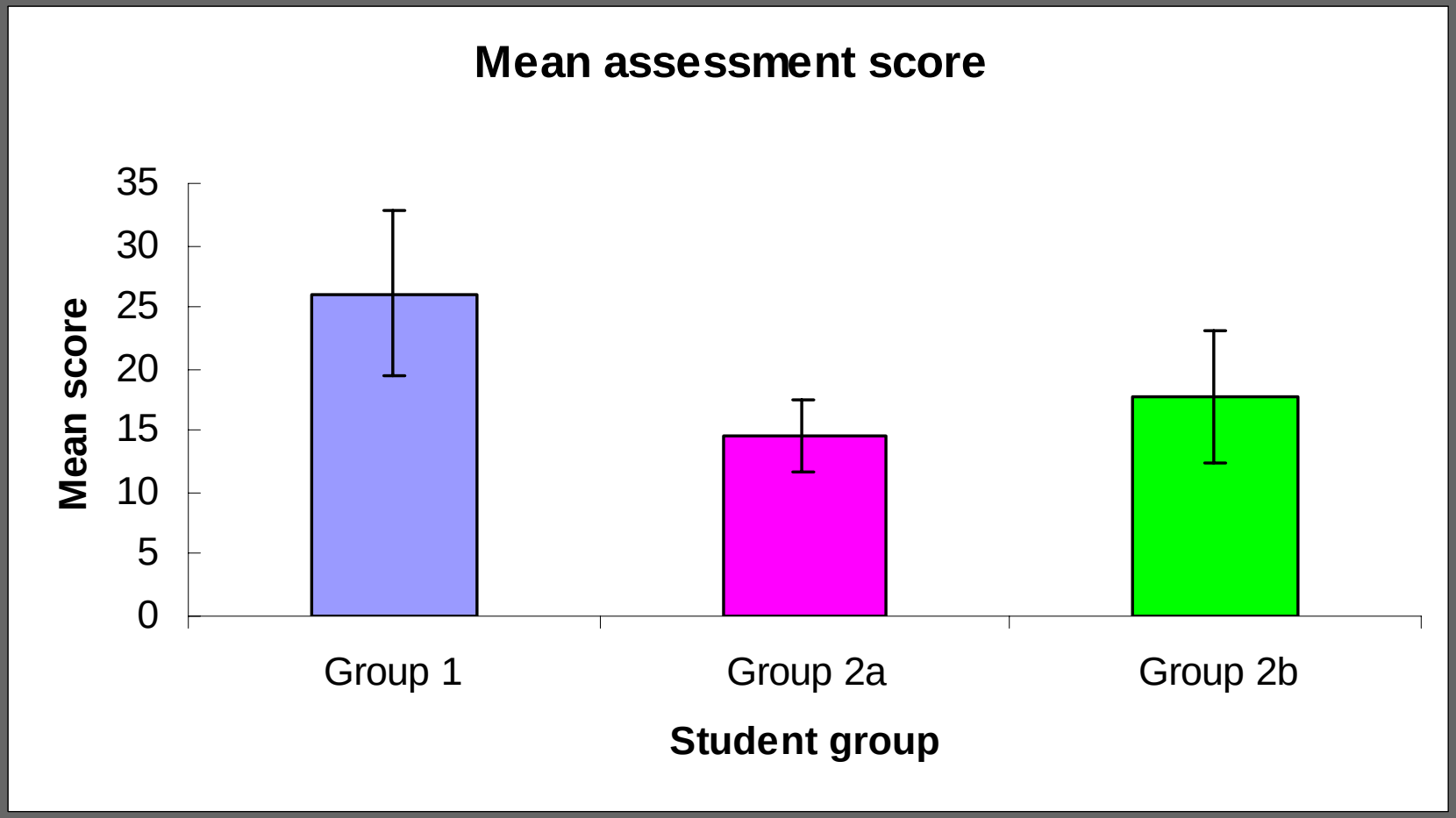
ANOVA



There was a significant difference between groups

($F_{(2,117)}$ =38.1, P<0.01)

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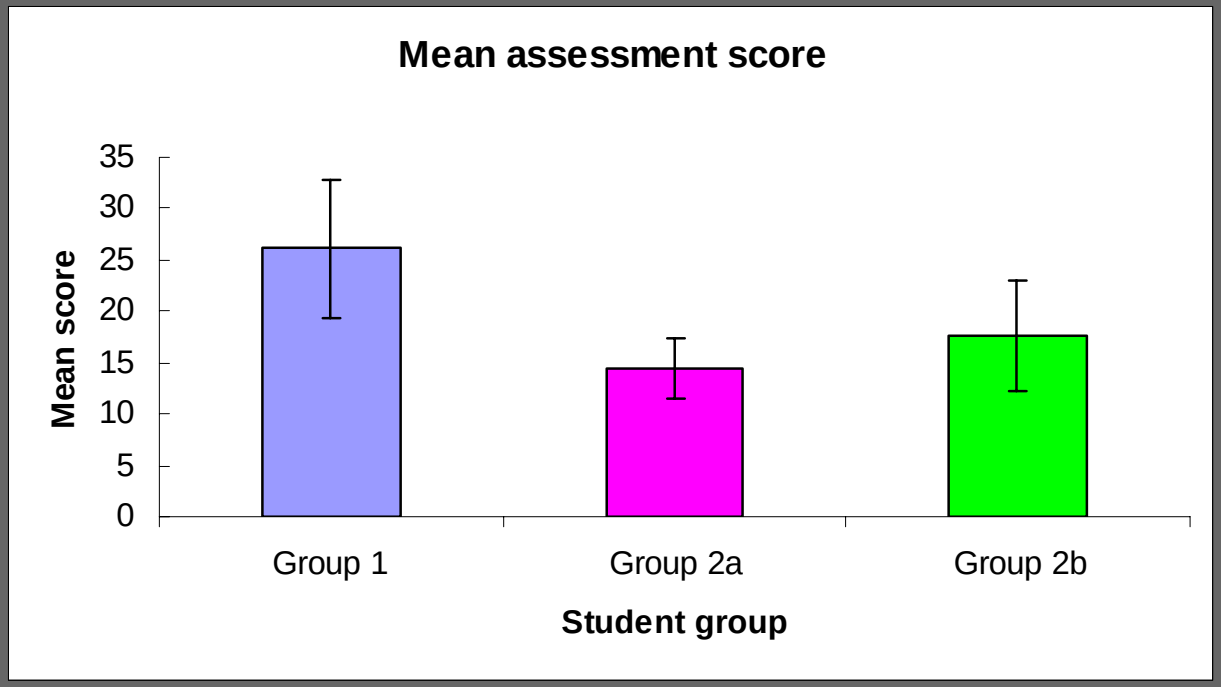

A significant interaction between groups

Group 1 : Group 2a P<0.01

Group 1 : Group 2b P<0.05

Group 2a: Group2b P< 0.01

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Application of the principles of observation

Specific training

Specific to activity

Speed of movement

Observation

Description

Interpretation

Additional outcomes

- Development of Information technology skills
- Preparation for patient contact
- Awareness of clinical communication strategies
- Development of the independent learner

Conclusion

The use of computer based learning has provided practice in observation and this has shown a significant development in the level of observational skill in undergraduate physiotherapy students

Future developments

Re test group 1 students following 18 weeks clinical practice to:

- **Explore the development of observational skill through video analysis**
- **Evaluate further skill development over time**
- **Investigate use of observational awareness in all areas of clinical practice**

With thanks to:

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The Expert Panel

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