

Problem-based learning as a pedagogical framework to inspire change and innovation across five European higher education institutions

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What we will cover

- The European Master of Science in Occupational Therapy
- Problem-based learning (PBL)
 - as a pedagogic approach
 - as an educational activity
- Different approaches to PBL
 - Barrows and Tamblyn
 - The seven steps method
- PBL on the OT-EuroMaster

European MSc of Science in Occupational Therapy: 5 institutions – 6 modules - 1 programme



Karolinska Institutet Stockholm, Sweden

Amsterdam University of Applied Sciences
Amsterdam, Netherlands

University of Brighton Brighton, UK

**ZHAW Zürcher Hochschule für Angewandte
Wissenschaften** Winterthur, Switzerland

University of A Coruña A Coruña, Spain



Scientific competencies,
research skills and
critical thinking



Sharpen the
«occupational lens»



International view
Intercultural humility

Problem-based learning (PBL) - a pedagogic approach

- PBL is a way of learning where all subjects are integrated around problem-solving with a real-life situation
 - „Problems“ trigger the learning process
 - „Problems“ are selected in relation to the intended learning outcomes
 - „Problems“ are used from day one
- Learning in this way increases student engagement with subject matter
- Positive engagement in learning leads to advanced productivity, increased perception of self-worth, and enjoyment

PBL – an educational activity

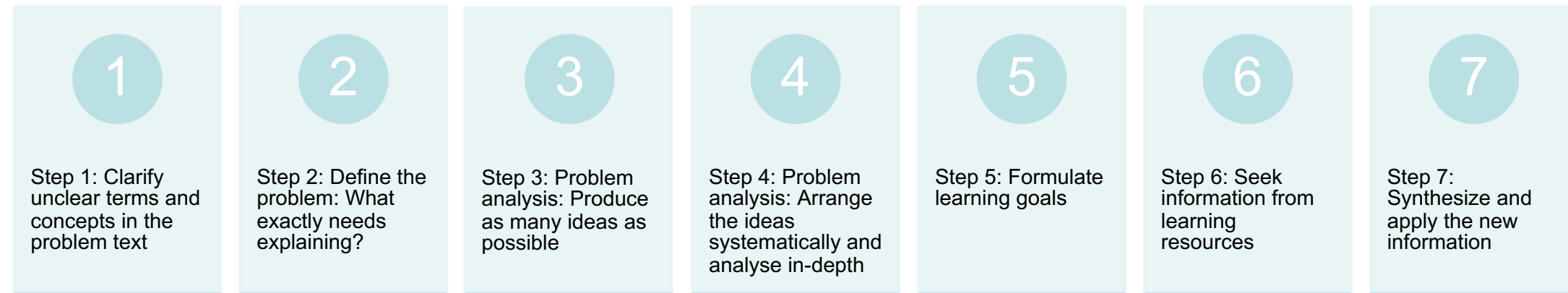
- Authentic, complex problems
- Small group learning teams
- Structured group process, very active, with support of tutor
- Student-centred:
 - student knowledge and experience is sought after
 - collaboration skills through group work
 - social construction of learning and knowledge combined with individual, self-directed learning process
- Emotional engagement is essential

PBL approach based on Barrows and Tamblyn (1980)

Always begin with asking how students feel to activate emotional engagement

FACTS	IDEAS	QUESTIONS/LEARNING NEEDS	RESOURCES/ACTION PLAN
<p>What is currently known about the problem?</p> <p><u>Concrete facts and knowledge:</u></p> <ul style="list-style-type: none"> • Patient is 80 years old. • She was admitted to hospital on Wednesday with a broken arm. • The team consists of OT, PT, and Social Workers etc... 	<p>What are we less certain about? What needs further exploration? What is our current understanding and where are the gaps in our knowledge?</p> <p><u>Ideas for further discussion:</u></p> <ul style="list-style-type: none"> • How long will our patient be in hospital? What is the average length of stay? • How long does a bone take to heal? • What daily tasks will our patient find difficult? • How can an OT help? Etc.... <p>This section accounts for the majority of the PBL tutorial session.</p>	<p>The key questions that will need to be taken away from the session.</p> <p><u>These might include:</u></p> <ul style="list-style-type: none"> • What is the anatomy of the arm? (Bones, muscles, nerves) • What is the role of an occupational therapist within an acute hospital setting? • What policies and best practice guidelines are there to support best practice in this setting? Etc... 	<p>Where will you find the information that you need to answer your questions?</p> <p><u>These might include:</u></p> <ul style="list-style-type: none"> • Teaching sessions throughout the week. • Anatomy textbooks / online resources. • Relevant journal articles / research studies. Etc...

Another approach: Seven steps based on Moust, Bouhuijs and Schmidt (2021)



But what's missing? – Step Zero

Barrows and Tamblyn (2021) start with emotions: the stronger the emotion the more you will learn and retain

So, for the OT-EuroMaster we introduced Step Zero

When first introduced to problem – students encouraged to think about how they feel?

What is their emotional reaction?

Does the problem matter or maybe not matter to the student?

Discuss initial feelings and then move onto Step One

In conclusion

PBL is a more efficient way of learning theory and practical skills, compared to traditional programmes (Ren et al. 2023)

PBL promotes a better learning experience and increased engagement with subject material, compared to traditional ways of learning (Groenewald et al. 2023; Ren et al. 2023)

PBL demonstrates superior efficacy for longer-term retention and application of knowledge, compared to more traditional teaching methods (Yew and Goh, 2016)

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...get in touch if you have any questions!

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