The Patchwork Text

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Introducing myself....

• Professional background in healthcare
• Educator
• Special research interests
• Anatomy as a focus
• Doctorate in Education
• Journey of assessment
Discomfort with Assessment
How did it start?:


• Richard WINTER

• Worked with Jane AKISTER, Katalin ILLES, Maire MAISCH, Janet MCKENZIE, Peter OVENS, Jan PARKER, Bronwen REES, Lesley SMITH

• Since then, a number of papers have been written advocating the Patchwork Text as an effective assessment method.
Assessment FOR Learning

• small tasks (patches) produced periodically over the duration of the module
• after each product, small groups are set up and the patch discussed for sensitive critique and suggestions for improvement
• reworking of the patches is permitted
• patches submitted as a summative collection, with a
• reflective narrative – the stitching - explaining where the learning has taken place and how that has influenced their understanding of the subject
Session One: Gastrocnemius

LO: **understand muscles and their arrangement**

- Major muscle in posterior compartment of the leg
- Attaches from distal femur as two heads
- Attaches to calcaneus as a major tendon
- Fascicular arrangement is Bipennate

**Patch 1**

Draw a diagram to represent what you have learnt about the Gastrocnemius
Sharing with your neighbour

Show your picture to your neighbour.

Is it accurate?
Does it demonstrate your knowledge and understanding?
Does it (go towards) achievement of the LO?

Reflect on how could it be improved.
Knee Joint

Ankle Joint

Two heads of gastrocnemius

Two condyles of the femur

Calcaneal tendon

Gastrocnemius

Fascicles are oblique therefore lots of them and pull is strong

Ankle Joint
The Superficial Muscles of the Posterior Compartment of the Leg

- Two heads of gastrocnemius
- Calcaneal tendon
- Two condyles of the femur
- Knee Joint
- Insertion point: head of fibula
- Soleus
- Gastrocnemius & Soleus combined to make the Calcaneal tendon
- Calcaneus: heel bone
- Ankle Joint
Session Two: Muscle activity

LO: **discuss the mechanism of joint movement in gait**

- The ankle joint moves in dorsiflexion (up), and plantarflexion (down).
- During walking, the posterior leg muscles are active in moving this joint to enable the walker to transfer their weight forward and propel off their toes.

**Patch 2**
Prepare a poster to communicate the movement of the joint and how it links to walking.
Sharing with your neighbour

Share and explain your poster to your neighbour.

Do they understand what you have chosen to display?
Does it demonstrate your knowledge and understanding?
Think about how it links with the first task.
Does it (go towards) achievement of the LO?

Reflect on how it could be improved?
The Ankle Joint, muscle activity, and movement through the Gait Cycle

The knee and ankle change their direction of movement throughout the cycle, and each has a direct impact on the other. Gastrocnemius is the key to this activity.

Muscle Contraction

Concentric: force produced by the muscle exceeds the force applied to the muscle
Eccentric: force applied to the muscle exceeds the force produced by the muscle
Session Three: Application

LO: apply theory to the assessment of the patient’s ankle and foot

- Watch this video

**Patch 3**
Write a short piece (or poem?) about how you might assess this patient in your clinic.
Sharing with your neighbour

Read your piece with your neighbour.

What do you both agree on?
How does it differ from your neighbour’s assessment?
Think about how it links with the second task.
Does it (go towards) achievement of the LO?

Reflect on how your understanding of ankle joint assessment could be improved.
Assessment of a Patient

**History:** I would find out the following:
- patient complaint and circumstance of injury
- pain assessment
- patient medical, surgical and social history

**Observation:** I would observe the following:
- shape of calf
- skin colour
- walking

**Tests:** I would do the following:
- feel the temperature of the leg
- squeeze test
- ankle Range of Motion – passive and dynamic
Reflective Narrative

Having investigated the gastrocnemius muscle I now recognise that a muscle (agonist) must cross a joint to make it move. It also has to have an opposing muscle (antagonist) to move that joint in the other direction. This is a consequence of a muscle only being able to pull, and not push. From now on I can apply that principle to all muscles.

Learning about gastrocnemius led me on to reading up on Soleus. They work very similarly, but Soleus doesn’t cross the knee. So when I am in clinic and assessing ankle joint motion, I recognise that the position of the knee will have a direct bearing on my results. If it is straight, then I am testing both gastrocnemius and soleus. If it is flexed then I am only testing soleus.

I understand that a bipennate muscle has shorter fibres but in an oblique direction. These increase the strength of the muscle, rather than the size of the movement, so are good for pushing the foot against resistance, in this case, the ground.
Reflective Narrative

I particularly liked imagining my patient in front of me having experienced that injury. What would she say? What would it feel like? How would I tackle the situation? Using the skills I am learning about joint manipulation, muscle strength and stretch, tests that can be performed, and the assessment of gait, I am beginning to be able to apply my knowledge in other situations. For instance I had a patient last week who had pain in her Tibialis Posterior, and I performed a similar assessment to this fictitious patient. She actually had a tendonitis, but it was really good for me to practice my new skills and think the problem through. I needed help with the management plan, of course, but I am still in my early days of the course. My clinical supervisor fed back to me that I had had good communication skills, and my understanding of the structure and the function of the posterior muscles was impressive. Now I need to relate this to injury and the planning of appropriate care.
Through this patchwork text I have learned that I am a visual learner. I like to see things for myself and experience them to ensure I have understood them. I had a few harsher comments in the feedback sessions about my work, but I realised after I had revised it that my patches were better for the revision, and now thank people for helping me see my mistakes.

Since the start of the module I have met up with a friend every Tuesday evening to talk through anatomy and what we have learned. We have decided to do this throughout the course; we call it ‘Tues-chat’.

I really like clinic and getting to the bottom of someone’s problem. It makes all this book work mean something and encourages me to learn even more.
References

2. http://www.richardwinter.net/