# 2 Infographics & Concept Mapping

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**Summary of Teaching & Learning Context**

As part of the Athletic Therapy programme in TUS midlands, our students obtain clinical hands-on experience through practical classes and fundamental theoretical knowledge in lectures. The Athletic Therapy students are required to be competent in the assessment, diagnosis, treatment and implementation of rehabilitation programs for all musculoskeletal injuries. They are also required to understand and apply the principles of Injury Prevention in their practice. Hence, as part of the programme, our 26, Year one students undertake a module in Fitness Injury Prevention. Many different pre-habilitative principles are covered in detail such as flexibility, warm up, recovery, psychological strategies and sport nutrition.

As an educator using the flipped classroom approach to this cohort, I wanted to transfer theoretical knowledge and understanding into a digital format. This allowed the students to showcase their digital skills through the translation of complex concepts into simpler, bitesize, consumer friendly theoretical knowledge in an engaging and interactive format.

Many research journals in the Sport and Exercise Medicine and Allied Healthcare professional domains use infographics to summarise the main key messages of the article, through visual representation of the data, allowing the dissemination of research to all in our society. This is of significant importance in evidence-based practice, as translating evidence into practice poses challenges to both researchers who create and disseminate new scientific evidence and clinicians, educators and students who must interpret and implement new evidence into practice (Welch Bacon et al., 2021).

**Implementing the Strategy**

Provide students in small groups a topic, concept or journal article to create digital information in the format of an infographic.

Group size, no larger than 3 students, as one or two students provide the information for inclusion in the infographic, while the other student create the digital text.

Digital apps such as Canva (canva.com) have free sample templates that students can use to create their own infographics.

**Lecturer Support** - Having access to lecturers and more resources to help with assignments is crucial. The face to face support from lecturers, now that we are back on campus and having continuous assessments has been a positive development. This has helped me a lot as exams are difficult for me. Having more continuous assessment has helped me gain more knowledge and also improve my grades.

**Group Work & Assignments** - Doing group assignments and having group discussions helps because it helps to expand on ideas and get new insights into topics
knowledge.
The wiki format is ideal for sharing and getting feedback from group members. In educational settings wikis can be used to:

**Observations/Reflections**

Students found it a novel, engaging and interactive way of presenting theoretical concepts in a digital format, which was subsequently shared on the programme's social media sites.

**Reference:**

Welch Bacon, Pike Lacy, & Lam. (2021). *Knowledge Translation in Athletic Training: Considerations for Bridging the Knowledge-to-Practice Gap*. https://doi.org/10.4085/0470-20/2698664/10.4085_0470-20.pdf

# 5 Key Points In Sports Nutrition (Be Adaptable)

## 01
## KNOW YOUR SPORT

Know the physical demands of the sport. Duration, intensity, volume etc....

## 02
## IT'S PERSONAL

It's NOT one plan fits all, even in team sport settings. Each player is unique with different dietary requirements, diseases and preferences.

## 03
## ENERGY EXPENDITURE

How much calories burnt during the sport vs your maintenance calories
- Pre workout
- Intra workout
- Post workout

## 04
## SLEEP

Adequate sleep is vital for aiding the immune system and sport recovery, also aids in good mental health.
- 8 hours approx

## 05
## SUPPLEMENTATION

It's recommended to get your dietary requirements from foodstuffs. However if time is a constraint using supplements to boost up your Carbs, Protein, Fats intake is advided.

**Concept Mapping**

Summary of Teaching & Learning Context

Concept mapping is growing in popularity as an active learning strategy. It is viewed within the Athletic Therapy Education field as a process that facilitates clinical reasoning and decision making, through a student-centred approach to learning (Speicher et al., 2013).

As part of the Athletic Therapy programme in TUS Midlands, our students are required to have in-depth knowledge and understanding of musculoskeletal injuries, including aetiology, pathophysiology, clinical presentation, differential diagnosis, treatment and rehabilitation. Core modules in Athletic therapy and other allied healthcare professional domains, require clinicians and students to think critically and reason clinically (Barrett et al., 2018), which ultimately is one of the main responsibilities of an educator in this field.

Through the use of the flipped classroom approach in the program, I wanted to enhance critical thinking and transferability of theoretical knowledge through the use of concept mapping. This allowed the students to link many similar clinical presentations of musculoskeletal injuries, highlighting the similarities and differences in an anatomical area, in a visual and interactive representation. This is an importance task in the development of knowledge and metacognition of students, whereby students can scaffold information and present it a more meaningful and simplified way.

**Implementing the Strategy**

Small groups of 3 or 4 students, where they are provided with a topic or a concept to create multiple different links or maps. After the session, each group presents their concepts and allows for questioning and debate around the mapping. This can be done using flip-board paper, whiteboard or digitally.

**Observations/Reflections**

Students found it novel, engaging and interactive way of presenting theoretical concepts, highlighting the interconnectivity of the subcomponents of the concept. (see image below)

**Reference:**


Barrett, Denegar, & Mazerolle. (2018). *Challenges Facing New Educators: Expanding Teaching Strategies for Clinical Reasoning and Evidence-Based Medicine*. Athletic Training Education Journal, 13(4), 359–366. https://doi.org/10.4085/1304359

Speicher, T. E., Martin, M., & Zigmont, J. (2013). *Evidence-Based Concept Mapping for the Athletic Training Student*. Athletic Training Education Journal, 8(4), 124–130. https://doi.org/10.4085/0804124