



PALPATION TEACHING METHODS : CHALLENGES AND ISSUES

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CENTRE OSTÉOPATHIQUE DU QUÉBEC

- ◆ Small institution in Montreal
- ◆ Part-time osteopathic training for working health professionals
- ◆ Pedagogical direction for 20 years
- ◆ What can we do for helping students to maximise the development of palpation skills?



CHALLENGES

- ◆ Osteopathic palpation is a complex task
- ◆ Case Load Theory (Kalyuga et al, 2003; van Merriënboer et al, 2003) consider the sum of elements and links in a learning task
- ◆ Cognitive theory: The magical number is 7!
- ◆ Task's progression is essential
- ◆ Assistance or scaffolding



PROJECT FOR IMPROVING PALPATION ABILITIES:

- RATIONAL MANAGEMENT OF RESOURCES
- REACH EXPERTISE

1. Ensure the student's need for validation

- ◆ External validation... but...
- ◆ Internal validation!!!

2. Creation of reference frameworks

3. Get the palpation learning process systematic in order to create automatisms



1. STUDENT'S NEED FOR VALIDATION - EXTERNAL VALIDATION

- ◆ Imparted by teachers, but assumed that teachers is always faultless
- ◆ Can be obtain through comparison with colleagues
- ◆ Can be obtained through a comparison with a description of the palpation's expected results but it can neglect the reality of the tissues



1. STUDENT'S NEED FOR VALIDATION - INTERNAL VALIDATION

- ◆ Systematic search of the effects, known as "relative", to the setting in motion, known as "primary", of a structure or a tissue



2. CREATION OF REFERENCE FRAMEWORK

- ◆ Comparison
- ◆ Classification



3. CREATION OF AUTOMATISMS

- ◆ Explicit characteristics of the task (Kinchin et al, 2008)
- ◆ Systematic breakdown of complex palpation tasks into eight small phases that can be applied to the mobility of all structures and tissues



AUTOMATIC REFLEXES

- ◆ « As practioners gain experience in the execution of a task, their (expert) performance becomes increasingly smooth, efficient and automatic. While developing proficiency with attention-demanding complex tasks, some component skills become automatic, so that conscious processing can be devoted to reasoning and reflective thought with minimal interference in the overall performance. A great deal of experts' knowledge is finely tuned and highly automated enabling them to execute a set of procedures in a efficient, yet highly adaptative manner, which is sensitive to shifting contexts. » (Patel & al., 2000, p.257).



8 STEPS FOR THE DEVELOPMENT OF PALPATION SKILLS

- 1. General positioning of the practitioner and the subject
- 2. Precise 3D anatomical portrait
- 3. Appropriate contact with tissue
- 4. Clear identification of the objective



8 STEPS FOR THE DEVELOPMENT OF PALPATION SKILLS

- 5. Execution of the movement:
 - Primary movement
 - Relative reference point
- 6. Probing and repetition
 - Some frequent problems....



COMMON MISTAKES

- ◆ Non-respect of the tissues
- ◆ Focusing on movement to be performing instead of focusing on the tissue or the structure itself
- ◆ Forgetting basic elements of the process



8 STEPS FOR THE DEVELOPMENT OF PALPATION SKILLS

- 7. Establishing parameters for tests or techniques
- 8. Comparison: before and after the use of a technique



ADVANTAGES OF THE PROPOSED METHOD

- Can be applied for the mobility of all structures and tissues
- Students express their difficulties more precisely
- Promotes learning autonomy
- Faster and more proficient development of palpation skills
- Allows the integration of theoretical contents in practice sessions
- Provides a strong base for the development of expertise



ISSUES

■ For **teachers**:

- Cohesiveness
- Modification of teaching practices

■ For **students**:

- Up to 200 repetitions (and more!) with appropriate scaffolding to reach the acquisition of automatism in the palpation learning process



SOME REFERENCES...

- Kalyuga, S., Ayres P., Chandler, P. & Sweller, J. (2003). The expertise reversal effect. *Educational Psychologist*, 38(1), 23-31.
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- Patel, V.L., Glaser, R. & Arocha, J.F. (2000). Cognition and expertise : acquisition of medical competence. *Clin Invest Med*, 23(4), 256-260.
- van Merriënboer, J.J.G., Kirschner, P.A. & Kester, L. (2003). Taking the load off a learner's mind : Instructional design for complex learning. *Educational Psychologist*, 39(1), 5-13.



**THANK YOU FOR YOUR
ATTENTION...**

