8th "Open Forum for Osteopathic Education" Conference



Redesign a practical osteopathic course using descriptive grids and Peyton's approach

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INTRODUCTION

Gen Z Students

- Want to be involved during the lecture and work with their teachers
- Like to collaborate with their peers and share feedback with them
- Love to use technology during a lecture and interact through it
- Need to be motivated before learning something new





FIRST LECTURE

PRESENTATION

- Teaching team presentation
- Course introduction and its role in the academic curriculum

 Icebreaker students' presentation: students interview each other (3') and then report to the class what they've learnt (30").





FIRST LECTURE

EXPECTATIONS

Which word best describes your beliefs about the purpose of education?

Mentimeter







- Teaching strategies
- Formative assessments

Final exam

- Expected learning outcomes
- Rules during lessons

FIRST LECTURE

METHODS, GOALS, RULES





TEACHING STRATEGIES

• Theoretical knowledge - mini lectures

• Practical skills - Peyton's 4-step teaching approach



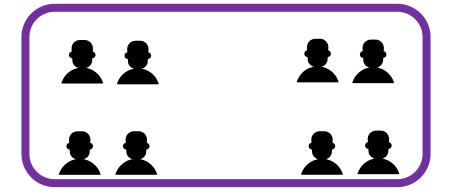


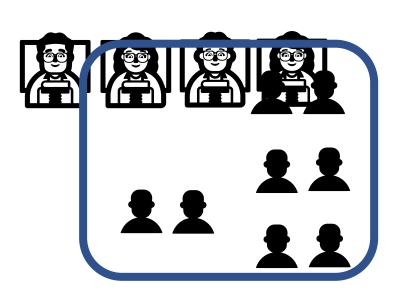
CLASS SETTING

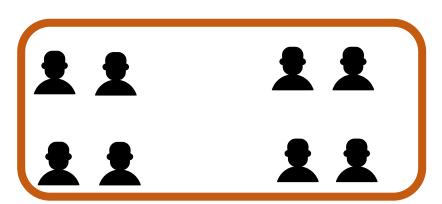
Small practice groups

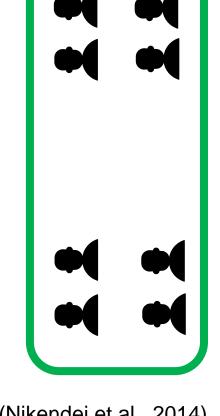
Modified Peyton's approach

Atmosphere with soft music









(Nikendei et al., 2014)





DESCRIPTIVE GRIDS

	Articulatory Technique: Hip Joint
The osteopath positions the patient correctly	 The patient is placed supine. The patient has the knee and hip flexed beyond 90° with the foot not resting on the table. The patient's arms are placed along his sides. In case of need, taking into account the constitution of the patient and the osteopath: the patient remains at the center of the bed; the patient is moved to the side of the osteopath.
The osteopath positions the table at the correct height	• The table must be at a height such that the patient's bent leg is level with the operator's jugular notch.
The osteopath positions himself properly related to the patient	 The osteopath positions himself homolaterally to the hip to be treated. The osteopath positions himself with the cranial leg bent and the caudal leg extended. The osteopath unloads the weight on the edge of the table via the lateral edge of the caudal thigh and the medial edge of the cranial thigh.
The osteopath adequately searches for the landmarks	 With the cranial hand, he monitors the joint by resting at the trochanteric level respectively with the thumb on the anterior face and the other fingers on the posterior face. The caudal arm wraps the patient's lower limb so that: the patient's knee is anterior to the osteopath's shoulder, the operator's forearm medially contacts the thigh and leg. the operator's hand grasps the distal third of the femur.





DESCRIPTIVE GRIDS

Osteopath applies correct force vectors	 The cranial hand monitors movement at the level of the greater trochanter. The caudal hand brings the ipsilateral leg into Flexion + ABD + ER and executes ER movements without returning to neutrality.
The osteopath manages his body correctly during the execution of the technique	• . The previous force vectors are generated by twisting the operator's torso.
The osteopath applies force with the correct rhythm, amplitude and fluidity	 The osteopath applies force vectors with increasing amplitude. The osteopath maintains a constant rhythm in a cyclical manner. The osteopath performs the technique without interruption or sudden changes in rhythm. The osteopath requires constant feedback on the patient's perception (pain or discomfort).
Osteopath brings patient back to neutral position	Osteopath brings the patient back to a neutral position safely.





FORMATIVE EVALUATION

FORMATIVE EVALUATION: assign a score from 1 (to be reviewed) to 4 (excellent) for each of the items

GOT	The osteopath positions the patient correctly	The osteopath positions the table at the correct height	The osteopath positions himself properly related to the patient	The osteopath adequately searches for the landmarks	The osteopath applies correct force vectors	The osteopath manages his body correctly during the execution of the technique	The osteopath applies force with the correct rhythm, amplitude and fluidity	Osteopath brings patient back to neutral position
Interfalangee, metatarsofalangee e interlinea Lisfranc								
Interlinea Chopart e tibio-tarsica								
Sottoastragalica								
Sottoastragalica variante								





EXAM

SUMMATIVE GRIDS

TEST MOBIL. PASSIVA		-	+	++	Score
Posizione del paziente		2	4	6	6
Altezza del lettino		3	6	9	6
Posizione dell'operatore	0	3	6	9	9
Punti di repere	0	3	6	9	9
Vettori di forza	0	2	4	6	4
Intensità della forza	0	1	2	3	2
Riporta in posizione neutra	0	1	2	3	3
Safety sì/no		Score totale:		39	
	Punteggio totale su 13:				11,27

SOFT TISSUE		-	+	++	Score
Posizione del paziente	0	2	4	6	6
Altezza del lettino	0	3	6	9	9
Posizione dell'operatore	0	3	9		
Punti di repere	0	3	6	9	9
Vettori di forza	0	2 4 6			6
Uso del proprio corpo	0	3 6 9			9
Intensità della forza	0	2 4 6		6	
Forza con cadenza ritmica	0	2 4 6		6	
Riporta in posizione neutra	0	1	2	3	3
Safety sì/no		Score totale:			63
	Punte	13			

GOT		-	+	++	Score
Posizione del paziente	0	2	4	6	6
Altezza del lettino	0	0 2 4 6			
Posizione dell'operatore	0	3 6 9			6
Punti di repere	0	3 6 9		9	
Vettori di forza	0	2 4 6		6	
Uso del proprio corpo	0	3 6 9		3	
Ritmo, ampiezza, fluidità	0	2 4 6		4	
Riporta in posizione neutra 0 1 2 3		3			
Safety sì/no		Score totale:		43	
	Punteggio totale su 13:				10,35

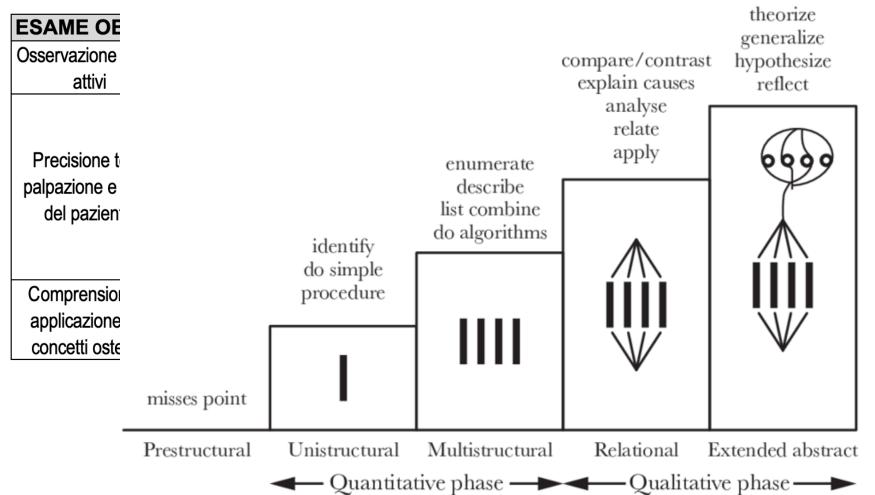
DIAFRAMMA		-	+	++	Score
Posizione del paziente	0	2	4	6	4
Altezza del lettino	0	2	4	6	4
Posizione dell'operatore	0	3 6 9			3
Punti di repere	0	3 6 9		6	
Vettori di forza	0	2 4 6		6	
Uso del proprio corpo	0	3 6 9		9	
Mantine/incrementa parametri	0	2	4	6	6
Riporta in posizione neutra	0	1	2	3	3
Safety sì/no		Score totale:		41	
•	Punte	8,352			





EXAME

EXAME MODALITIES



	-	+	++	Score
0	1	1	2	
0	1	1	2	
0	2	4	6	
0	1	2	3	
0	2	4	6	
0	2	4	6	
0	1	2	3	
0	1	1	2	
-20	0	0	0	
0	2	4	6	
0	3	6	9	
0	3	6	9	
	0			
Punt	0			

(Biggs and Tang, 2011)







- How interesting did you find the course?
- Did you find the workload related to the course acceptable?
- Was the time dedicated to the practical part adequate?
- How would you rate the supporting educational material?
- How does the teacher behave with the students?
- Does the teacher facilitate learning and stimulate interest about the different topics?
- Do you have any suggestion to improve the course quality?





REFERENCES

- Biggs, J. and Tang, C., 2011. Teaching for quality learning at university. Maidenhead: McGraw-Hill.
- Chicca, J. and Shellenbarger, T., 2018. Connecting with Generation Z: Approaches in Nursing Education. *Teaching and Learning in Nursing*, 13(3), pp.180-184.
- Giacomino, K., Caliesch, R. and Sattelmayer, K., 2020. The effectiveness of the Peyton's 4-step teaching approach on skill acquisition of procedures in health professions education: A systematic review and meta-analysis with integrated meta-regression. *PeerJ*, 8, p.e10129.
- Hulls, C. and Rennick, C., 2017. The use of a series of online mini-lectures to deliver facts in first year programming. *Proceedings of the Canadian Engineering Education Association (CEEA)*.
- Nikendei, C., Huber, J., Stiepak, J., Huhn, D., Lauter, J., Herzog, W., Jünger, J. and Krautter, M., 2014. Modification of Peyton's four-step approach for small group teaching – a descriptive study. BMC Medical Education, 14(1).
- Shatto, B. and Erwin, K., 2016. Moving on From Millennials: Preparing for Generation Z. *The Journal of Continuing Education in Nursing*, 47(6), pp.253-254.