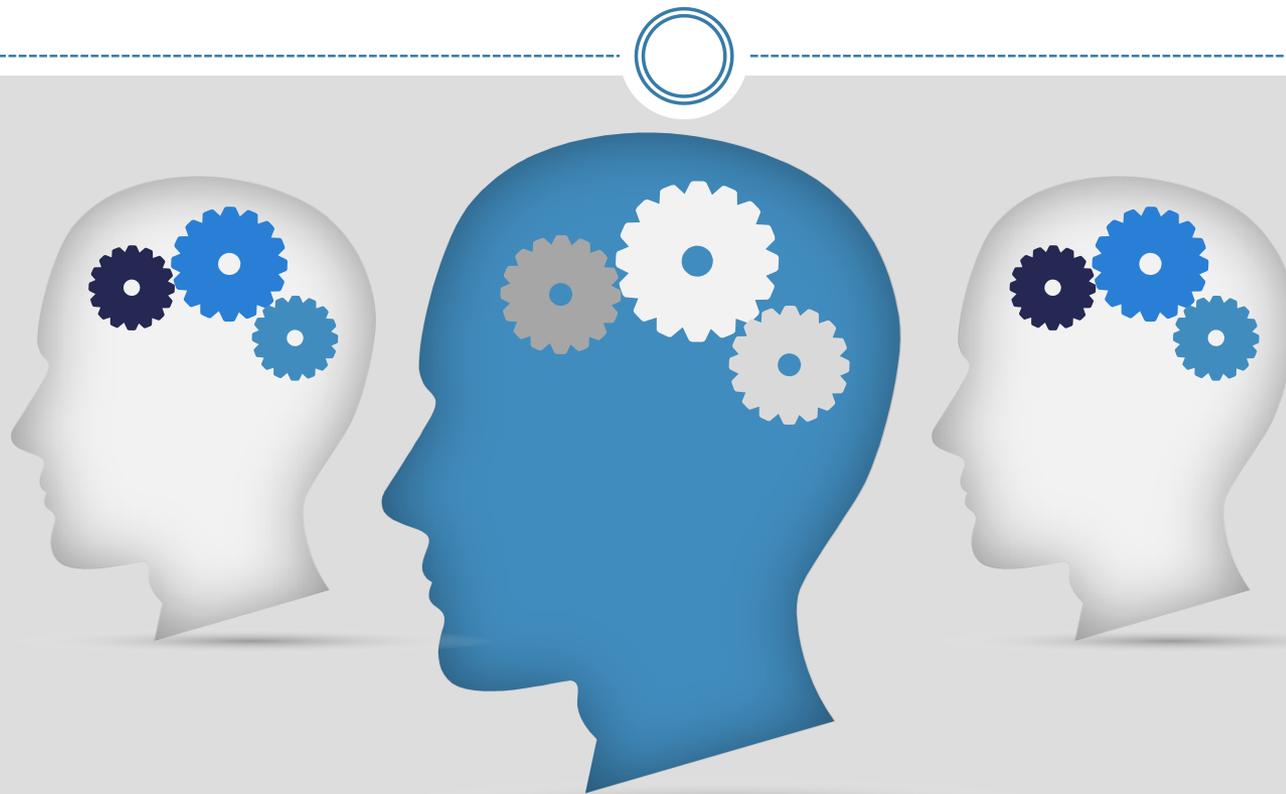
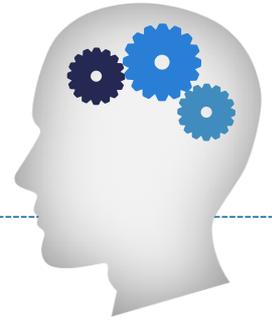


Using clinical case scenarios to assess reasoning in osteopathy



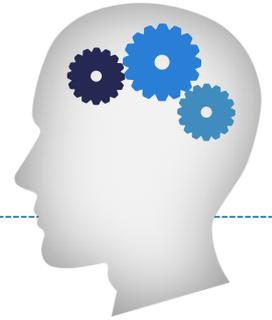
Karine Gagnon D.O. et Geneviève Lord-Bentkowski D.O.

Using CCS to assess reasoning in osteopathy



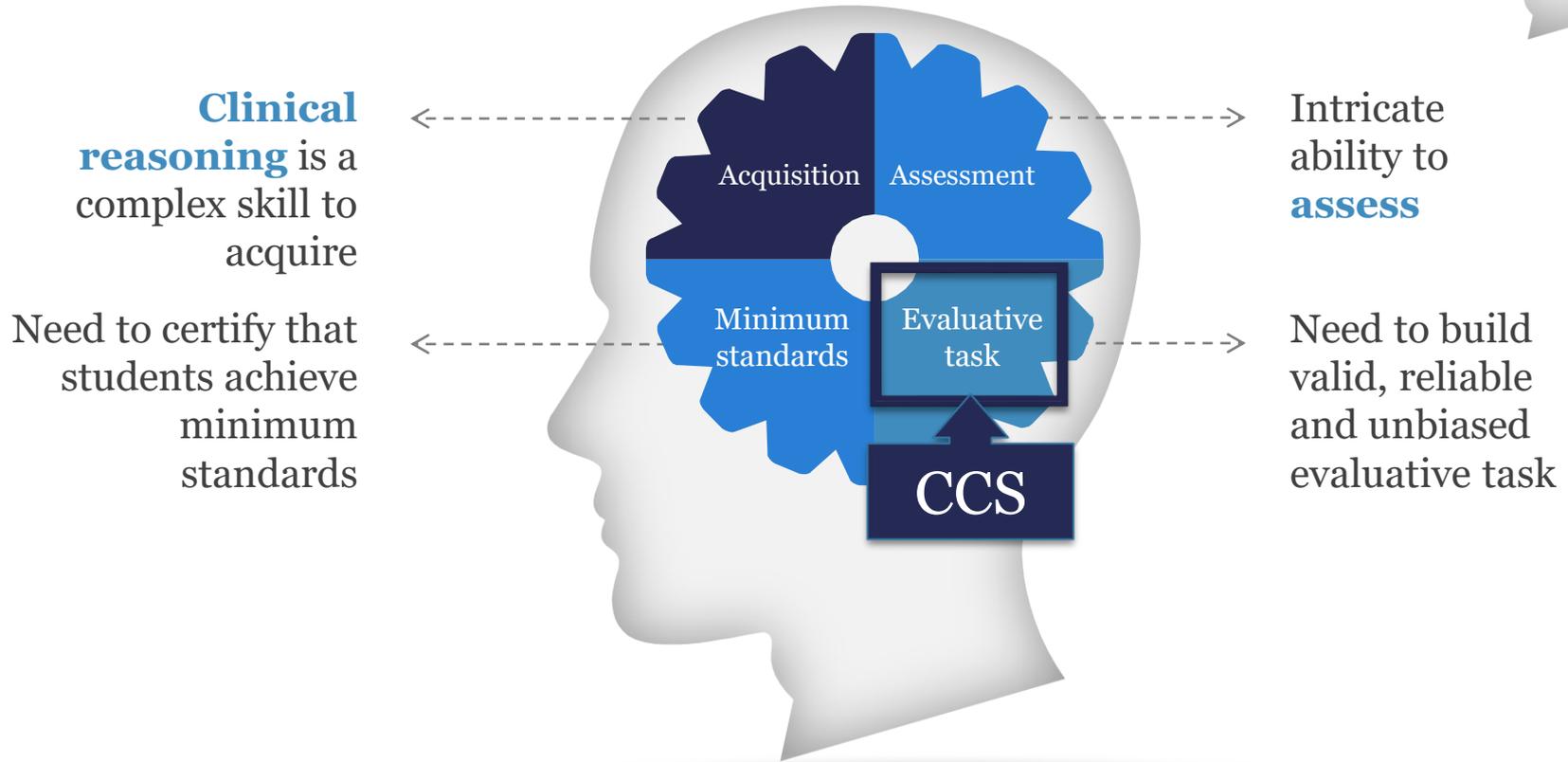
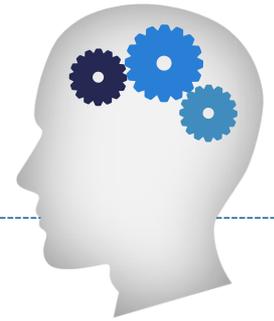
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Using CCS to assess reasoning in osteopathy



In education, assessing is a subjective process because it involves people and its target is unobservable. (Louis, 2012)

Example of a CCS

CLINICAL CASE SCENARIO - THIRD YEAR STUDENTS

35 years old right-handed woman on maternity leave from her work as a dental hygienist. She complains about occasional right shoulder pain that's been bothering her, mostly at work, for many years. The pain has been increasing in intensity and frequency for the past few months. She also has cervicgia and headaches that are often linked to her digestion.

HEALTH BACKGROUND HISTORY

- Fell down the stairs 6 months ago on her right side during her pregnancy
- Right epicondylitis when she got back to work after her first pregnancy
- 3 pregnancies between 28 and 35 years old – the first was a gemellary pregnancy which ended with a C-section (an epidural was performed for each delivery)
- Right collarbone fracture at birth

OTHER HEALTH RELATED CONDITIONS

- Localised pain in the mid-dorsal area that often occurs at the end of the day, which she relates to her breastfeeding
- Slow digestion of fatty food lately

OSTEOPATHIC EXAM

- General kyphotic posture and ptosis abdomen
- Increased tonus of the cervical paravertebral muscles +++, especially around C4
- Normal shoulder ROM, light pain at the end of the ROM, mostly in external rotation
- Right upper quadrant of the rib cage in inspiration
- Lateral compression of the right K5
- Diaphragm: central tendon slightly elevated and right arch in expiration
- Anterior tilt and light congestion of the liver
- Adherent C-section scar and painful when palpated
- Increased tonus of the right piriformis
- Posterior rotation ++ of the right ilium
- Increased tonus in the right quadratus lumborum and right latissimus dorsi
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- Intra-osseous dysfunction of the right clavicle
- Myofascial tension towards the right shoulder girdle
- Tension of the interosseous membrane of the right forearm
- Right torsion of the spheno-occipital synchondrosis
- Right occipitomastoid engaged

1. **Osteopathic reasoning:** Explain the reason for consultation while demonstrating the relevant correlations between elements. **(50 points)**
2. **Summary:** Provide a short summary of your osteopathic reasoning by identifying the dysfunctional axis and specify its origin and/or repercussions. Identify, when relevant, the background(s), the predisposing and precipitating factors. **(10 points)**
3. **Treatment plans:** Establish the short and long-term treatment plans while specifying each of your therapeutic intentions, ordering your normalization techniques to optimise your intervention and estimating the results. **(30 points)**
4. The **coherence** between sections and the argumentation **quality** are worth **10 points**.

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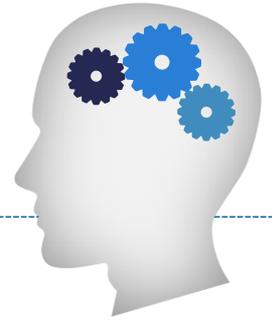
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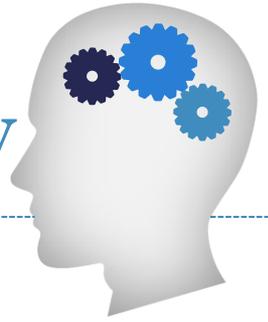
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Using CCS to assess reasoning in osteopathy



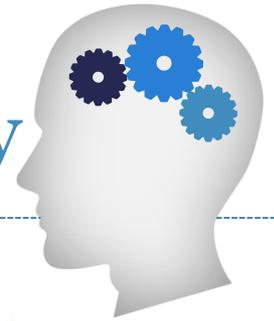
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Advantages of using CCS to assess reasoning in osteopathy



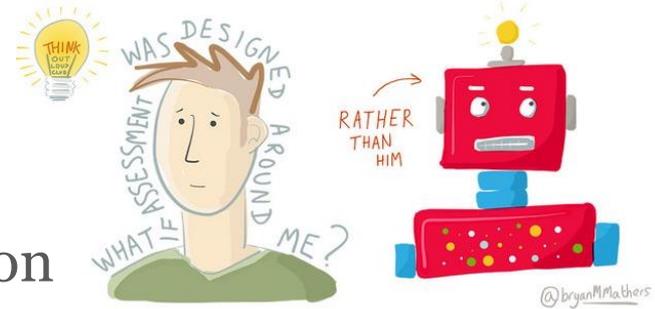
- Meaningful task
- Stimulate students' perseverance
- Develop students' competencies that are transferable
- Can be used in formative and summative contexts
- Focus explicitly on the reasoning process and not solely on the diagnostic outcome (Anderson, 2008)

Advantages of using CCS to assess reasoning in osteopathy

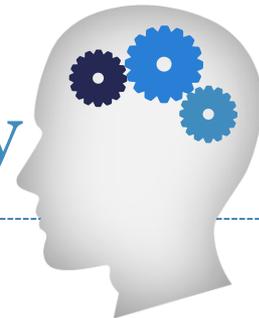


- Authentic assessments:

- Are realistic
- Require judgment and innovation
- Ask students to “do” and not just “say”, “repeat” or “reproduce”
- Simulate real professional situations
- Assess students’ ability to efficiently and effectively use a repertoire of knowledge and skills to solve a complex task
- Allow students to practice, seek information and get feedback

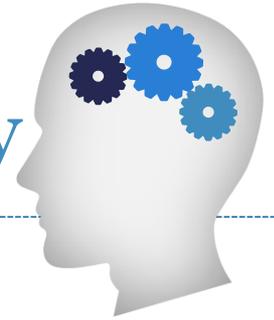


Advantages of using CCS to assess reasoning in osteopathy



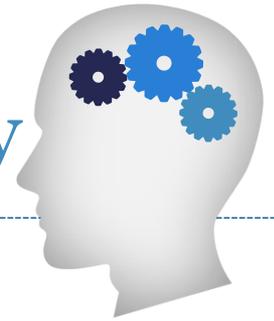
- Motivating tasks that trigger internal motivational factors:
 - Subjective task value
 - Contextualized situation based on common clinical cases
 - Self-perceived competency
 - Preliminary work in class (individually / small groups) and in a formative setting
 - Scenarios adapted to students' knowledge and competency level (3rd, 4th, 5th year students)
 - Perceived control over task
 - Choice given between two CCS
 - Multiple solutions

Advantages of using CCS to assess reasoning in osteopathy

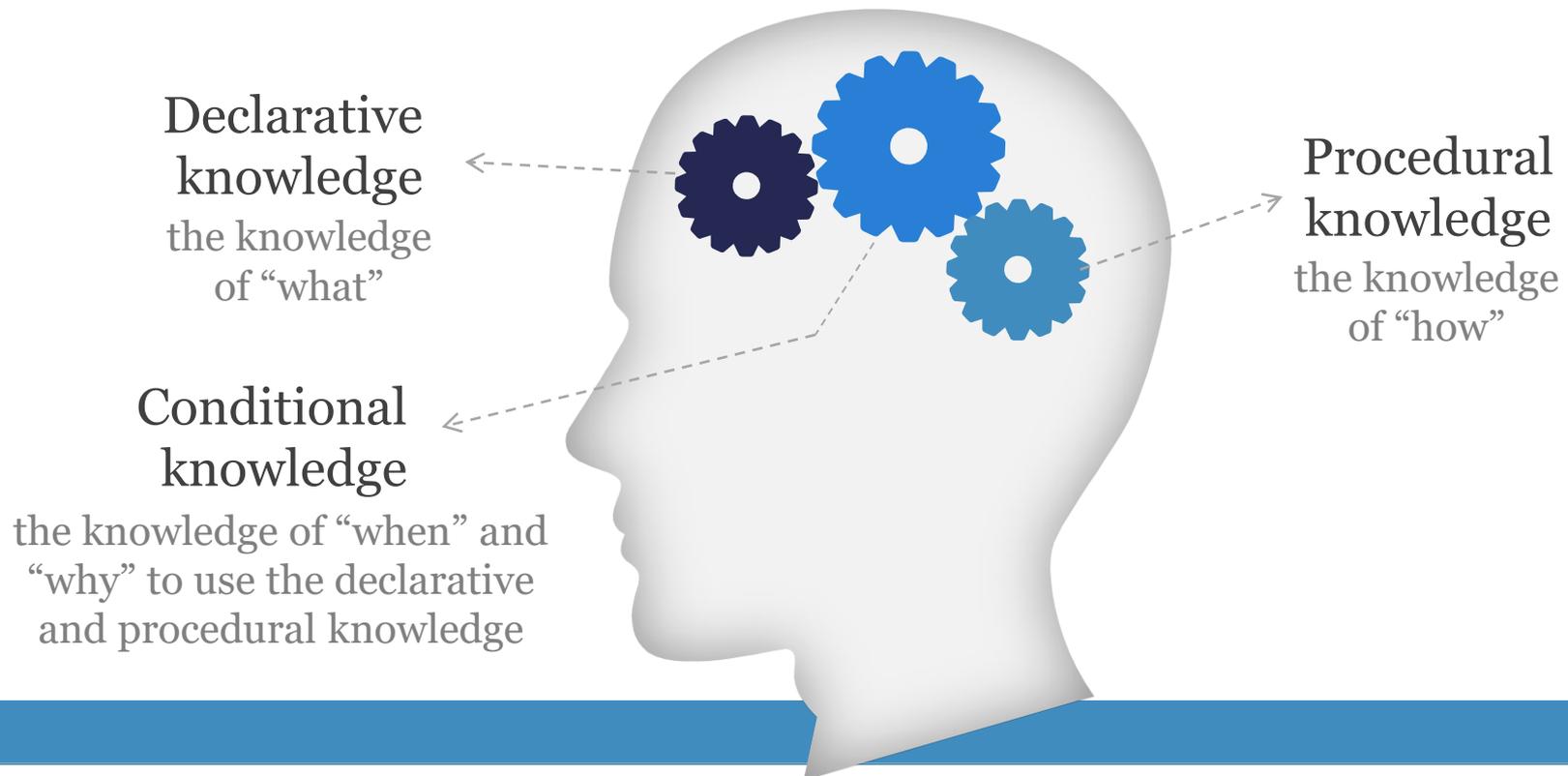


- Stimulate deep learning processes by forcing students to:
 - Reorganize
 - Synthetize
 - Rephrase in their own words
 - Make logical links
 - Establish relationships

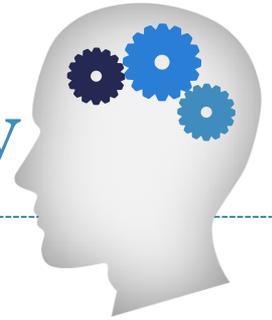
Advantages of using CCS to assess reasoning in osteopathy



- Require students to mobilize their declarative, procedural, and conditional knowledge

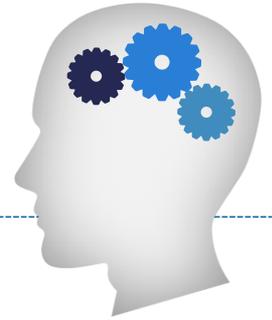


Limits of using CCS to assess reasoning in osteopathy



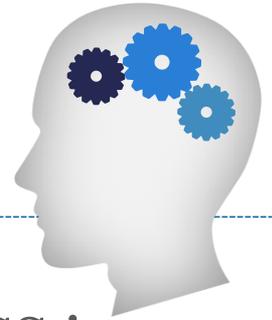
- Lengthy and costly correction process
- Reduced reliability of the evaluation process by:
 - The poor quantity of observations
 - The incomplete relevance of cases
 - The difficulty for some students to organise their thoughts in writing

Using CCS to assess reasoning in osteopathy



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Reliability of the assessment process



Reliability is difficult to determine since resolving a CCS is a complex assessment.

“With more complex assessments, reflecting integration of multiple skills and knowledge that may vary from task to task, distinctions between reliability and construct validity blur.”

(Moss, 1995)

The reliability of an assessment depends on:

- The stability of the interpretation
 - Need to form evaluators to use the grid
 - Double grading process
- The internal consistency of the evaluative tool

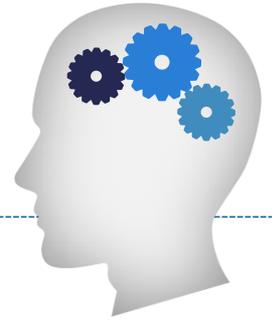
(Likert, 1932)

CCS criteria-based evaluation grid

		Evaluation Criteria			
Success Levels	Proficiency Levels	Quality of osteopathic vision (10%) /10 (X2)	Osteopathic reasoning (50%) /50 (X10)	Reasoning summary (10%) /10 (X2)	Short and long-term treatment plans (30%) /30 (x6)
Successful Exam (80% to 100%) No additional requirement	5 Achieves or surpasses all expectations	The different parts of the CCS (reasoning, summary and treatment plans) are well linked and reflect a thorough osteopathic vision. There are no digressions.	Content: The different aspects of the reason(s) for consultation are explained in depth while taking into account the chronology and all CCS elements based on their relevance, including safety issues. The value of osteopathic links and dysfunctional mechanisms are always relevant and expressed with accuracy. Reasoning Process: The proposed reasoning is supported by a complete argument and the logical aspect tends to ensure expertise growth.	The reasoning summary is fully relevant and complete. It provides a succinct summary while using specialised vocabulary (background, axis, predisposing factors, precipitating factor).	Content: The intention concerning the treatment plans and the estimated results are relevant and clinically realistic. The choice of normalizations and the order in which they'll be applied is completely adequate to ensure an efficient treatment. The advice suggested are totally relevant. Reasoning process: The proposed treatment plans and the indicators of adequacy choices tend to ensure expertise growth.
	4 Achieves most expectations	The different parts of the CCS (reasoning, summary and treatment plans) are sufficiently linked and reflect an adequate osteopathic vision. The CCS is generally concise. If some digressions are found, they are minor and don't hinder general comprehension.	Content: The different aspects of the reason(s) for consultation are mostly explained while taking into account the chronology and the most important CCS elements, including safety issues. The value of osteopathic links and dysfunctional mechanisms are mostly relevant and mostly expressed with accuracy. Reasoning Process: The proposed reasoning is mostly supported by a structured argument and the logical aspect, despite some deficiencies, will probably lead to expertise growth.	The reasoning summary is generally relevant and exhibits the most important elements. It provides a succinct summary while using specialised vocabulary (background, axis, predisposing factors, precipitating factor).	Content: The intention concerning the treatment plans and the estimated results are mostly relevant and clinically realistic. The choice of normalizations and the order in which they'll be applied is generally adequate to ensure an efficient treatment. The advice suggested are generally relevant. Reasoning process: The proposed treatment plans and the indicators of adequacy choices will probably ensure expertise growth.
Successful Exam (60% to 80%) Intervention plan based on identified shortcomings	3 On track to achieve most expectations	There's a lack of correlation between the different parts of the CCS (reasoning, summary and treatment plans) or the osteopathic vision seems minimal. The CCS might be too concise or too long. Digressions are often exhibited and might hinder general comprehension.	Content : Only a few aspects of the reason(s) for consultation are explained, some might be imprecise or false. Some essential CCS elements might have been under-used or some secondary elements were considered as principal or it lacks many contributory elements or some non-contributory elements were over-used. The chronology is sometimes inadequately exploited. The value of osteopathic links and dysfunctional mechanisms is sometimes questionable or imprecise and is not exploited using the whole context or is expressed in a theoretical manner (for example, a list of possibilities without making any decisions). Reasoning Process: The proposed reasoning is not always based on sufficient argumentation and the rational makes uncertain the development of expertise.	The reasoning summary might be lacking relevance or precision in some aspects or is incomplete or doesn't reflect the proposed reasoning. The summary isn't succinct enough: it repeats some parts of the reasoning or it adds new information. The summary doesn't use specialised vocabulary (background, axis, predisposing factors, precipitating factor).	Content: The intention concerning the treatment plans and the estimated results are sometimes clinically unrealistic. There might be insufficient normalizations or too many to be time realistic or they are not correlated with the proposed clinical reasoning and/or clinical possibilities to ensure a suitable treatment. The order in which the normalizations will be applied isn't always logical (lacks causality rigor or isn't clinically realistic). The advice suggested are incomplete, too numerous or not directly linked with the context. Reasoning process: The proposed treatment plans and the indicators of adequacy choices seem occasionally deficient to effectively ensure expertise growth.
Failed Exam (< 60%) Additional requirements based on identified deficiencies Mandatory makeup exam	2 Achieves some expectations but reveals many deficiencies	Major correlation weaknesses are noticed between the different parts of the CCS and are impacting the osteopathic vision.	Content: Many aspects of the reason(s) for consultation are not explained or are incompletely or inaccurately explained. The chronology is mostly incoherently exploited. The value of osteopathic links and dysfunctional mechanisms is mostly inaccurate or is not linked to the context. Reasoning Process: The proposed reasoning is not sufficiently based on a satisfactory argumentation and the rational presumably won't ensure the development of expertise.	The elements mentioned in the reasoning summary are generally impertinent. The summary is incomplete or too long and the wording is inadequate.	Content: The intention concerning the treatment plans and the estimated results are generally clinically unrealistic or are missing. Most of the suggested normalizations are irrelevant and the order in which they'll be applied is mostly illogical: for example, the treatment plan addresses the consequences before the cause or is unclear or is presented in a non-hierarchized list. The advice suggested are absent when necessary or are excessively numerous or are unnecessary. Reasoning process: The proposed treatment plans and the indicators of adequacy choices seem generally deficient to effectively ensure expertise evolution.
	1 Doesn't achieve most expectations	The correlation between the different parts of the CCS is incoherent and the osteopathic vision is insufficient.	Content: The reason(s) for consultation is insufficiently explained. The value of osteopathic links and dysfunctional mechanisms is insufficient. The chronology is incoherently exploited or not exploited at all. The explanations are often unintelligible or are missing. Reasoning Process: The poor quality of the proposed reasoning as well as its illogical aspects will hinder the development of expertise.	The elements depicted in the summary are mostly impertinent or are insufficient.	Content: The intention concerning the treatment plans and the estimated results are irrelevant, clinically unrealistic or are missing. The suggested normalizations are insufficient to ensure an adequate treatment and the order in which they'll be applied is mostly illogical. The advice suggested are absent even if necessary or are silly or are useless. Reasoning process: The proposed treatment plans and the indicators of adequacy choices hinder expertise evolution.

Reliability of the assessment tool

CCS criteria-based evaluation grid



The characteristics of the observable phenomenon to be measured (learning) are:

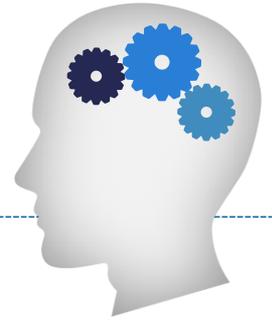
- Well known and their pertinence and clarity have been validated by experts
- Additives and form a coherent and one-dimensional whole
- Not redundant and each characteristic contributes specifically to the phenomenon to be measured

CCS criteria-based evaluation grid

		Evaluation Criteria			
Success Levels	Proficiency Levels	Quality of osteopathic vision (10%) /10 (X2)	Osteopathic reasoning (50%) /50 (X10)	Reasoning summary (10%) /10 (X2)	Short and long-term treatment plans (30%) /30 (x6)
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	4 Achieves most expectations	The different parts of the CCS (reasoning, summary and treatment plans) are sufficiently linked and reflect an adequate osteopathic vision. The CCS is generally concise. If some digressions are found, they are minor and don't hinder general comprehension.	Content: The different aspects of the reason(s) for consultation are mostly explained while taking into account the chronology and the most important CCS elements, including safety issues. The value of osteopathic links and dysfunctional mechanisms are mostly relevant and mostly expressed with accuracy. Reasoning Process: The proposed reasoning is mostly supported by a structured argument and the logical aspect, despite some deficiencies, will probably lead to expertise growth.	The reasoning summary is generally relevant and exhibits the most important elements. It provides a succinct summary while using specialised vocabulary (background, axis, predisposing factors, precipitating factor).	Content: The intention concerning the treatment plans and the estimated results are mostly relevant and clinically realistic. The choice of normalizations and the order in which they'll be applied is generally adequate to ensure an efficient treatment. The advice suggested are generally relevant. Reasoning process: The proposed treatment plans and the indicators of adequacy choices will probably ensure expertise growth.
Successful Exam (60% to 80%) Intervention plan based on identified shortcomings	3 On track to achieve most expectations	There's a lack of correlation between the different parts of the CCS (reasoning, summary and treatment plans) or the osteopathic vision seems minimal. The CCS might be too concise or too long. Digressions are often exhibited and might hinder general comprehension.	Content : Only a few aspects of the reason(s) for consultation are explained, some might be imprecise or false. Some essential CCS elements might have been under-used or some secondary elements were considered as principal or it lacks many contributory elements or some non-contributory elements were over-used. The chronology is sometimes inadequately exploited. The value of osteopathic links and dysfunctional mechanisms is sometimes questionable or imprecise and is not exploited using the whole context or is expressed in a theoretical manner (for example, a list of possibilities without making any decisions). Reasoning Process: The proposed reasoning is not always based on sufficient argumentation and the rational makes uncertain the development of expertise.	The reasoning summary might be lacking relevance or precision in some aspects or is incomplete or doesn't reflect the proposed reasoning. The summary isn't succinct enough: it repeats some parts of the reasoning or it adds new information. The summary doesn't use specialised vocabulary (background, axis, predisposing factors, precipitating factor).	Content: The intention concerning the treatment plans and the estimated results are sometimes clinically unrealistic. There might be insufficient normalizations or too many to be time realistic or they are not correlated with the proposed clinical reasoning and/or clinical possibilities to ensure a suitable treatment. The order in which the normalizations will be applied isn't always logical (lacks causality rigor or isn't clinically realistic). The advice suggested are incomplete, too numerous or not directly linked with the context. Reasoning process: The proposed treatment plans and the indicators of adequacy choices seem occasionally deficient to effectively ensure expertise growth.
Failed Exam (< 60%) Additional requirements based on identified deficiencies Mandatory makeup exam	2 Achieves some expectations but reveals many deficiencies	Major correlation weaknesses are noticed between the different parts of the CCS and are impacting the osteopathic vision.	Content: Many aspects of the reason(s) for consultation are not explained or are incompletely or inaccurately explained. The chronology is mostly incoherently exploited. The value of osteopathic links and dysfunctional mechanisms is mostly inaccurate or is not linked to the context. Reasoning Process: The proposed reasoning is not sufficiently based on a satisfactory argumentation and the rational presumably won't ensure the development of expertise.	The elements mentioned in the reasoning summary are generally impertinent. The summary is incomplete or too long and the wording is inadequate.	Content: The intention concerning the treatment plans and the estimated results are generally clinically unrealistic or are missing. Most of the suggested normalizations are irrelevant and the order in which they'll be applied is mostly illogical: for example, the treatment plan addresses the consequences before the cause or is unclear or is presented in a non-hierarchized list. The advice suggested are absent when necessary or are excessively numerous or are unnecessary. Reasoning process: The proposed treatment plans and the indicators of adequacy choices seem generally deficient to effectively ensure expertise evolution.
	1 Doesn't achieve most expectations	The correlation between the different parts of the CCS is incoherent and the osteopathic vision is insufficient.	Content: The reason(s) for consultation is insufficiently explained. The value of osteopathic links and dysfunctional mechanisms is insufficient. The chronology is incoherently exploited or not exploited at all. The explanations are often unintelligible or are missing. Reasoning Process: The poor quality of the proposed reasoning as well as its illogical aspects will hinder the development of expertise.	The elements depicted in the summary are mostly impertinent or are insufficient.	Content: The intention concerning the treatment plans and the estimated results are irrelevant, clinically unrealistic or are missing. The suggested normalizations are insufficient to ensure an adequate treatment and the order in which they'll be applied is mostly illogical. The advice suggested are absent even if necessary or are silly or are useless. Reasoning process: The proposed treatment plans and the indicators of adequacy choices hinder expertise evolution.

Reliability of the assessment tool

CCS criteria-based evaluation grid



Qualitative appreciation can be transformed in a numeric and additive scale if:

1. The observable phenomenon can be described on a continuum ranging from absent to present at different levels
2. Every point is equidistant from one another
3. The contribution of each point of the scale is defined and considered

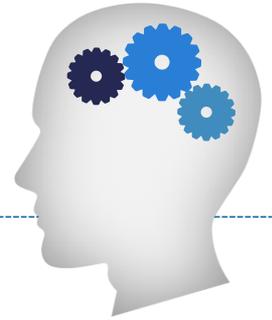
CCS criteria-based evaluation grid

		Evaluation Criteria		
Success Levels	Proficiency Levels	Osteopathic reasoning (50%) /50 (X10)		
Successful Exam (80% to 100%) No additional requirement	5 Achieves or surpasses all expectations	<p>Content: The different aspects of the reason(s) for consultation are explained in depth while taking into account the chronology and all CCS elements based on their relevance, including safety issues. The value of osteopathic links and dysfunctional mechanisms are always relevant and expressed with accuracy.</p> <p>Reasoning Process: The proposed reasoning is supported by a complete argument and the logical aspect tends to ensure expertise growth.</p>		
	4 Achieves most expectations	<p>The different parts of the CCS (reasoning, summary and treatment plans) are sufficiently linked and reflect an adequate osteopathic vision. The CCS is generally concise. If some digressions are found, they are minor and don't hinder general comprehension.</p>	<p>Content: The different aspects of the reason(s) for consultation are mostly explained while taking into account the chronology and the most important CCS elements, including safety issues. The value of osteopathic links and dysfunctional mechanisms are mostly relevant and mostly expressed with accuracy.</p> <p>Reasoning Process: The proposed reasoning is mostly supported by a structured argument and the logical aspect, despite some deficiencies, will probably lead to expertise growth.</p>	<p>The reasoning summary is generally relevant and exhibits the most important elements. It provides a succinct summary while using specialised vocabulary (background, axis, predisposing factors, precipitating factor).</p> <p>Content: The intention concerning the treatment plans and the estimated results are mostly relevant and clinically realistic. The choice of normalizations and the order in which they'll be applied is generally adequate to ensure an efficient treatment. The advice suggested are generally relevant.</p> <p>Reasoning process: The proposed treatment plans and the indicators of adequacy choices will probably ensure expertise growth.</p>
Successful Exam (60% to 80%) Intervention plan based on identified shortcomings	3 On track to achieve most expectations	<p>Content: Only a few aspects of the reason(s) for consultation are explained, some might be imprecise or false. Some essential CCS elements might have been under-used or were considered as principal or it lacks many contributory elements or some non-contributory elements were over-used. The chronology is sometimes inadequately exploited. The value of osteopathic links and dysfunctional mechanisms is sometimes questionable or imprecise and is not exploited using the whole context or is expressed in a theoretical manner (for example: a list of possibilities without making any decisions).</p> <p>Reasoning Process: The proposed reasoning is not based on sufficient argumentation and the rational makes uncertain the development of expertise.</p>		
Failed Exam (< 60%) Additional requirements based on identified deficiencies Mandatory makeup exam	2 Achieves some expectations but reveals many deficiencies	<p>Major correlation weaknesses are noticed between the different parts of the CCS and are impacting the osteopathic vision.</p>	<p>Content: Many aspects of the reason(s) for consultation are not explained or are incompletely or inaccurately explained. The chronology is mostly incoherently exploited. The value of osteopathic links and dysfunctional mechanisms is mostly inaccurate or is not linked to the context.</p> <p>Reasoning Process: The proposed reasoning is not sufficiently based on a satisfactory argumentation and the rational presumably won't ensure the development of expertise.</p>	<p>The elements mentioned in the reasoning summary are generally impertinent. The summary is incomplete or too long and the wording is inadequate.</p> <p>Content: The intention concerning the treatment plans and the estimated results are generally clinically unrealistic or are missing. Most of the suggested normalizations are irrelevant and the order in which they'll be applied is mostly illogical: for example, the treatment plan addresses the consequence before the cause or is unclear or is presented in a non-hierarchized list. The advice suggested are absent when necessary or are excessively numerous or are unnecessary.</p> <p>Reasoning process: The proposed treatment plans and the indicators of adequacy choices seem generally deficient to effectively ensure expertise evolution.</p>
	1 Doesn't achieve most expectations	<p>Content: The reason(s) for consultation is insufficiently explained. The value of osteopathic links and dysfunctional mechanisms is insufficient. The chronology is incoherently exploited or not exploited at all. The explanations are often unintelligible or are missing.</p> <p>Reasoning Process: The poor quality of the proposed reasoning as well as its illogical aspects will hinder the development of expertise.</p>		

CCS criteria-based evaluation grid

		Evaluation Criteria			
Success Levels	Proficiency Levels	Quality of osteopathic vision (10%) /10 (X2)	Osteopathic reasoning (50%) /50 (X10)	Reasoning summary (10%) /10 (X2)	Short and long-term treatment plans (30%) /30 (x6)
Successful Exam (80% to 100%) No additional requirement	5 Achieves or surpasses all expectations	The different parts of the CCS (reasoning, summary and treatment plans) are well linked and reflect a thorough osteopathic vision. There are no digressions.	Content: The different aspects of the reason(s) for consultation are explained in depth while taking into account the chronology and all CCS elements based on their relevance, including safety issues. The value of osteopathic links and dysfunctional mechanisms are always relevant and expressed with accuracy. Reasoning Process: The proposed reasoning is supported by a complete argument and the logical aspect tends to ensure expertise growth.	The reasoning summary is fully relevant and complete. It provides a succinct summary while using specialised vocabulary (background, axis, predisposing factors, precipitating factor).	Content: The intention concerning the treatment plans and the estimated results are relevant and clinically realistic. The choice of normalizations and the order in which they'll be applied is completely adequate to ensure an efficient treatment. The advice suggested are totally relevant. Reasoning process: The proposed treatment plans and the indicators of adequacy choices tend to ensure expertise growth.
	4 Achieves most expectations	The different parts of the CCS (reasoning, summary and treatment plans) are sufficiently linked and reflect an adequate osteopathic vision. The CCS is generally concise. If some digressions are found, they are minor and don't hinder general comprehension.	Content: The different aspects of the reason(s) for consultation are mostly explained while taking into account the chronology and the most important CCS elements, including safety issues. The value of osteopathic links and dysfunctional mechanisms are mostly relevant and mostly expressed with accuracy. Reasoning Process: The proposed reasoning is mostly supported by a structured argument and the logical aspect, despite some deficiencies, will probably lead to expertise growth.	The reasoning summary is generally relevant and exhibits the most important elements. It provides a succinct summary while using specialised vocabulary (background, axis, predisposing factors, precipitating factor).	Content: The intention concerning the treatment plans and the estimated results are mostly relevant and clinically realistic. The choice of normalizations and the order in which they'll be applied is generally adequate to ensure an efficient treatment. The advice suggested are generally relevant. Reasoning process: The proposed treatment plans and the indicators of adequacy choices will probably ensure expertise growth.
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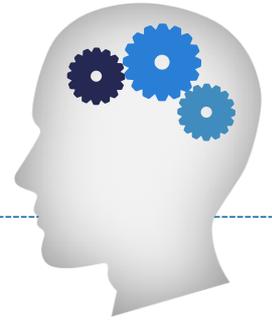
Validity of the task



Construct validity:

- Essential to evaluate complex skills (Messik, 1994)
- Ensured by the internal consistency of the task (the assessment is representative of course content)
- Assessed learning, evaluation tool, evaluation settings, compilation of results and minimal success thresholds are clearly stated

Bias mitigation

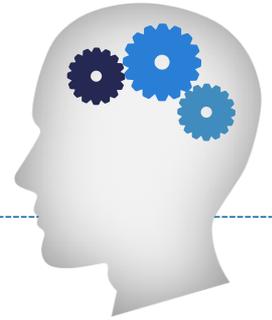


How to limit interpersonal bias:

- Remove students' name on copies
- Double grading process

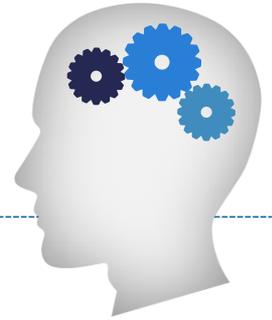


Using CCS to assess reasoning in osteopathy



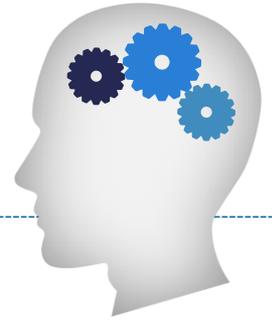
- Introduction
- Advantages and limits of using clinical case scenarios (CCS)
- Test quality: Reliability/validity/bias
- Using CCS as a formative assessment
- Conclusion

Using CCS as a formative assessment



- Gives the opportunity to practice before the final exam
- Provides feedback on learning before the final exam
- Deepens osteopathic reasoning since students must:
 - Select the most important elements
 - Establish valid links between health background history, other health conditions, palpatory findings and reason(s) for consultation
 - Analyze all the information to determine the best treatment plan and techniques to achieve the client's goal

Using CCS as a formative assessment



Instructions given to students:

- Text between 1000 and 2000 words
- Maximum 3 attempts to obtain a score of at least 8/10
- Due date for each attempt
- 10% of the final grade (3rd, 4th and 5th year students)



STUDENT CLINICAL CASE SCENARIO CHECK LIST

In my OSTEOPATHIC REASONING:

I identified, whenever appropriate, a medical emergency or the need for an external consultation.	<input type="checkbox"/>
I explained the reason for consultation with precision .	<input type="checkbox"/>
I used all essentials elements in the osteopathic exam.	<input type="checkbox"/>
I used all essentials elements in the other health related conditions and background history.	<input type="checkbox"/>
I used a plausible chronology.	<input type="checkbox"/>
I invoked precise osteopathic links .	<input type="checkbox"/>

In my reasoning SUMMARY:

I identified the background (when present) and the dysfunctional axis .	<input type="checkbox"/>
I identified them with precision (It's an actual summary).	<input type="checkbox"/>
I identified them with concision (I didn't add new information that wasn't included in the reasoning).	<input type="checkbox"/>
I included the predisposing and precipitating factors if indicated.	<input type="checkbox"/>

When establishing the FIRST TREATMENT:

I established my short-term priorities based on the reason for consultation and the general context.	<input type="checkbox"/>
I indicated my general goal .	<input type="checkbox"/>
And/or I briefly pinpointed my short-term expectations .	<input type="checkbox"/>
My first treatment priorities reflect my reasoning .	<input type="checkbox"/>
I established a logical intervention order (my treatment isn't a non hierarchical list of dysfunctions).	<input type="checkbox"/>
I briefly estimated the possible impacts of my intervention.	<input type="checkbox"/>
I remained realistic regarding the amount of time and the therapeutic response .	<input type="checkbox"/>
If indicated, I acknowledged the need for external consultation or for health habit changes.	<input type="checkbox"/>

When establishing the LONG-TERM treatment plan:

I established my long-term priorities based on the reason for consultation and the general context.	<input type="checkbox"/>
And/or I briefly pinpointed my long-term expectations .	<input type="checkbox"/>
And/or I briefly indicated the results expected after the first treatment.	<input type="checkbox"/>
Occasionally, I indicated the limitations that might interfere with the osteopathic intervention.	<input type="checkbox"/>
I justified the long-term actions that I need to take (my treatment isn't a non hierarchical list of dysfunctions).	<input type="checkbox"/>
If indicated, I acknowledged the need for external consultation or for health habit changes.	<input type="checkbox"/>



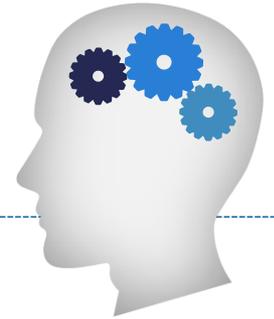
REASONING

SUMMARY

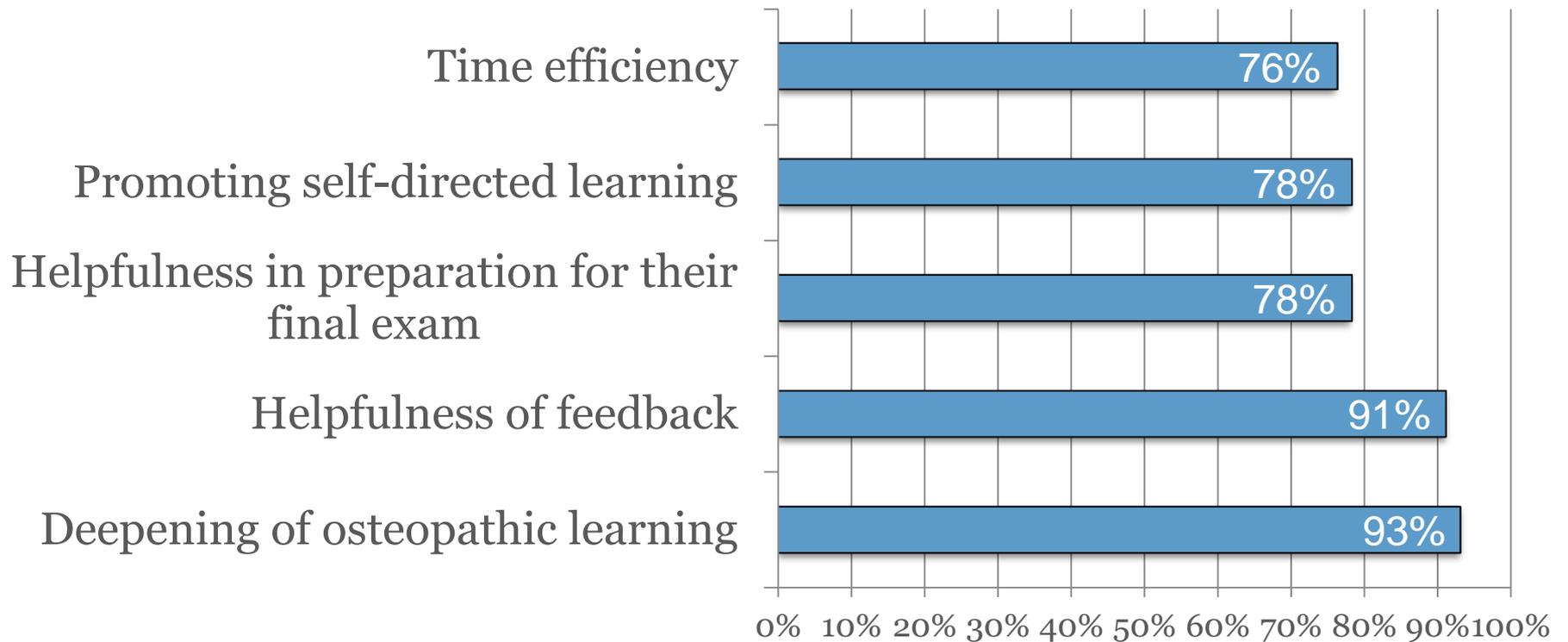
FIRST
TREATMENT

LONG-TERM
TREATMENT

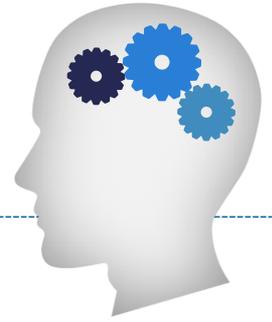
Students' satisfaction rating



Satisfaction levels for formative CCS

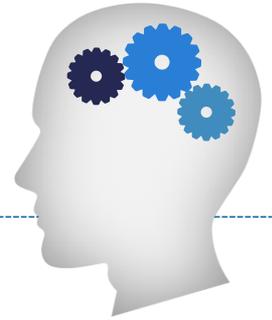


Using CCS as a formative assessment



- Introduction
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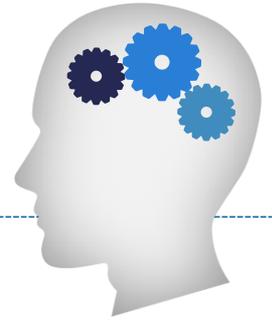
Conclusion



One of the greatest pedagogical challenge is to build valid, reliable and practical tools to assess complex skills and confirm professional competencies.



Conclusion



Using CCS to assess clinical reasoning has so many advantages that, even with its few drawbacks, it's still a great assessment tool and it could be part of the solution.

