

3D Dynamic Visualizations – Applying GRASPS

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- <https://www.youtube.com/watch?v=QMbvptTEUs>

My Journey



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[Home](#) » [Centre of Educational Technology](#)

Centre of Educational Technology

In the Centre for Educational Technology we mainly work on the following topics:

1. educational technology,
2. inquiry-based learning,
3. responsible research and innovation,
4. new learning paradigm,
5. learning analytics,
6. educational data mining,
7. augmented reality and
8. inclusive education.



Ice breaker

Introduction



"Teachers can open
the door, but you
must enter it
yourself." –
Chinese Proverb



Aims: Explore authentic assessment (no scores)

- To introduce GRASPS model.
- To identify a problem (topic/theme/activity of a subject or course).
- Frame the problem within GRASPS.
- Use 3D dynamic visualization(s) as the tool to teach and find solutions.
- Share our ideas of using the tool.
- Write reflections on your GRASPS.



Goal Role Audience Situation Product Success Criteria



Teachers Use GRASPS model to design an authentic assessment

Establish an appropriate level of challenge or goal	Define the role of students in the performance task	Define the target audience for the product or service	Refer to the MYP global context exploration and set the scenario	Specify the What and the Why of the product creation	Specify the criteria used to evaluate students
What is the conceptual understanding that students need to demonstrate for a contextual purpose?	What is the student's persona in accomplishing the goal of the performance task?	What is the target audience whom students are solving the problem for or creating the product for?	What is the situation and why does it matter to students to create the product?	What product needs to be created? Can students show their understanding of the statement of inquiry through their product creation?	What criteria and strands can effectively evaluate students' performance?

Students Develop metacognition through GRASPS assessment

Clarify the goal and activate prior knowledge	Define my role and identify knowledge and strategies	Practice empathy and consider the needs of the audience	Analyze the situation encountered and consider intercultural communication	Devise an action plan for product making and seek feedback in the process	Use criteria to monitor process and evaluate the product
Do I understand the task and concepts that underpin this task? How will I approach the task? What do I already know?	What content knowledge do I need? What strategies are effective and available? What are my strengths and limitations?	What insights do I have about my target audience? What will my audience Say, Think, Do, and Feel?	What is the scenario? How do I connect this to the real-world situation? What is the role of intercultural communication in this situation?	What specification do I follow in completing the task? What is my timeline? Do I have an action plan?	Am I on track? What should I continue or stop doing? How do I evaluate my final product against the criteria?

Part 1 (as teachers)

G – to

R – as teachers

A – students/pupils

S – Middle Years

Programme (real world)

P – Product/ Performance

S – Success/ Standard



Take 10 minutes to identify a problem and then fill in the Google Sheet GRASPS.



“Tell me and I forget. Teach me and I remember.



Involve me and I learn.”



- Benjamin Franklin



- https://docs.google.com/spreadsheets/d/1n1UAzWGIDbOwZXyy2dKMbyX8ZXtd-L1YtfzIS_EZ-fo/edit#gid=0



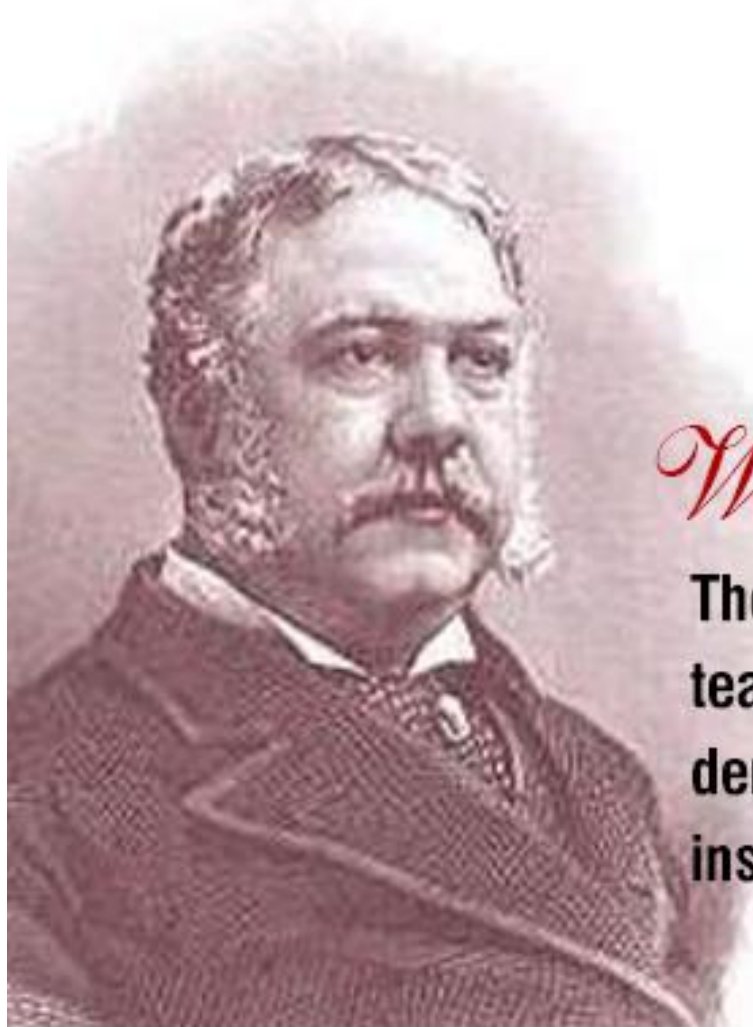
Eg: Rubric (Brookhart, 2013) – no numeric grade

Level of performance	Content	Evidence	Clarity
4	(clear, material includes detail)		No errors/minor errors
3	(information mostly accurate)		Some errors, do not interfere
2	(some material and some evidence)		Some errors that interfere with the answer
1	(unclear, material irrelevant)		Major errors, inappropriate

Part 2: Let's Play!!!



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William Arthur Ward

The mediocre teacher tells. The good teacher explains. The superior teacher demonstrates. The great teacher inspires.



3D Dynamic visualizations (animation)

Digital 3D models (animated – speed can be adjusted)

- <https://sketchfab.com/3d-models/adduction-28bc6538ab54413aafbbc1249744d66d>
- <https://sketchfab.com/3d-models/extension-e591e55f390e4aaba289fe7acd41d00e>
- <https://sketchfab.com/3d-models/flexion-9234ba1f526648608e7afebdb9948512>



Questions:

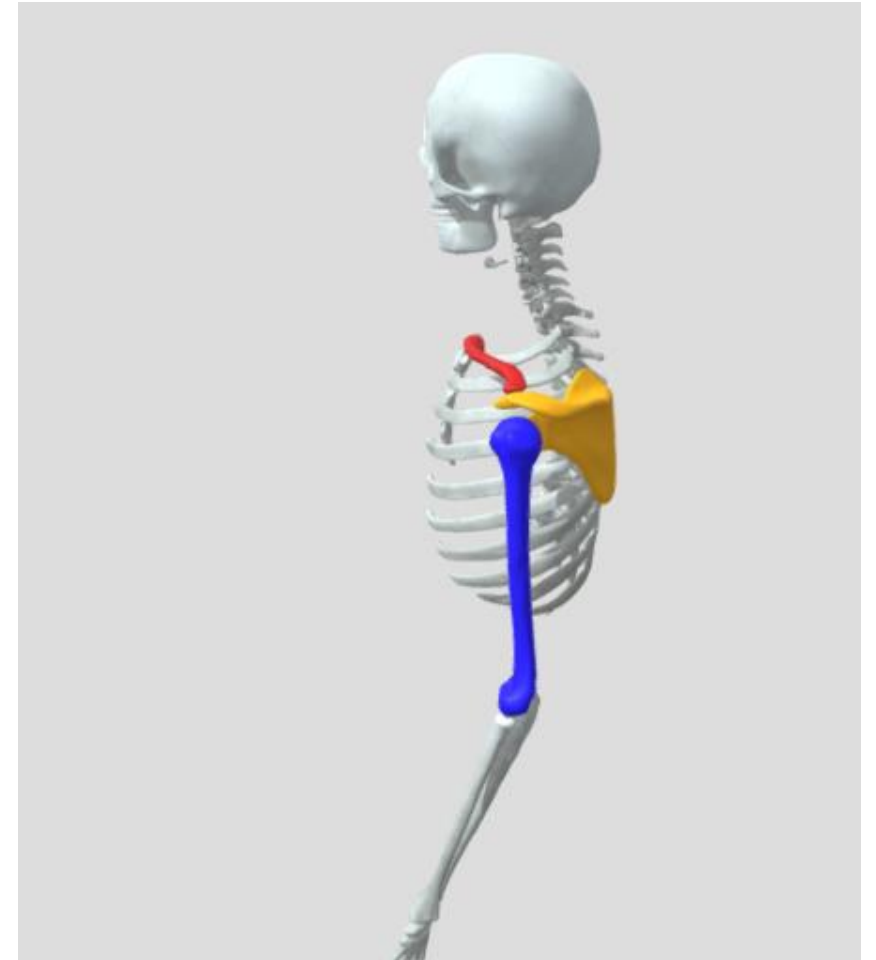
- How can I use this 3D animation on the topic selected?
- Which screenshot(s) best depict the focus of the topics?
- How will my students see this as applicable in a real world context?

- Update your thoughts in the Google Sheet.

Explore the possibilities of the 3D animations

- Spend 5 minutes on each 3D
(explore movements, views, interact)
- If you asked for a screenshot showing “away”
and you received the image on the right.

How could you provide guidance?





Building your demo lesson:

- 3D animation(s) identified
- GRASPS (written) – Product/Performance
- Success/Standard (identify possible answers to your task)
- Mock up our demo lesson eg. 5 slides (GRASP, rubric, and screenshots)



Let's share our ideas and reflect.

State the problem

Share how you applied GRASPS.

Remember we are exploring!!!!



Thank you for your participation
Aitäh





Reference:

- Iter, N. (2017). Using Performance Task-GRASPS to Assess Student Performance in Higher Education Courses.
- Brookhart, S. M. (2013). *How to create and use rubrics for formative assessment and grading*. Ascd.
- <https://www.aacps.org/cms/lib/MD02215556/Centricity/Domain/1526/Learn%20in%20Context.pdf>
- <https://alisonyang.weebly.com/blog/grasps-assessment-design-and-student-metacognition>