Capturing a Group's Unquantifiable Understanding of a Concept

Capturing what a group knows about the topic at the beginning and end of the learning period

1. Combine Individual's Understanding

1a. Average

- % of students who understood topic for each learning objective. Transforms data into a more quantifiable set, easy to perform analysis on.
- "Understanding" a topic when a threshold of learners understand it. Realistic target goal

1b. Sum

- If anyone understands a topic, the group does. Like 2b, but learners don't get to work together

1c. Most / Least

- Using the learner that understood the least as what the group learned. Good for situations where *everyone* needs to understand a concept.
- Same but the learner who understood the most. Might be useful to find the upper limit of a lesson's effectiveness

2. Measure Group Throughout Learning

2a. Develop unique method for group's understanding

Developing a unique method for capturing the group's knowledge that does not rely on individual assessment.

Wouldn't fall under our research expertise, would require educational research experts.

2b. Use methods for individuals as a group

Treating the group as parts of one individual, more useful in situations where a group is working together throughout a project

Determining Learning Objectives and Measuring Effectiveness

Effectiveness is derived from the delta of knowledge between the start and end of the learning experience

Pros

- Effectiveness is adapted to the skillset of the group
- Better for a more free-flowing learning experience, rather than needing learners to understand specific concepts

Cons

- If the lesson is oriented towards a specific skill level, higher skill levels might not be shown as improving as much
- Does not account for the relevance or truth of knowledge

Learning objectives are predetermined and effectiveness is derived from the delta of knowledge between the group and the objectives

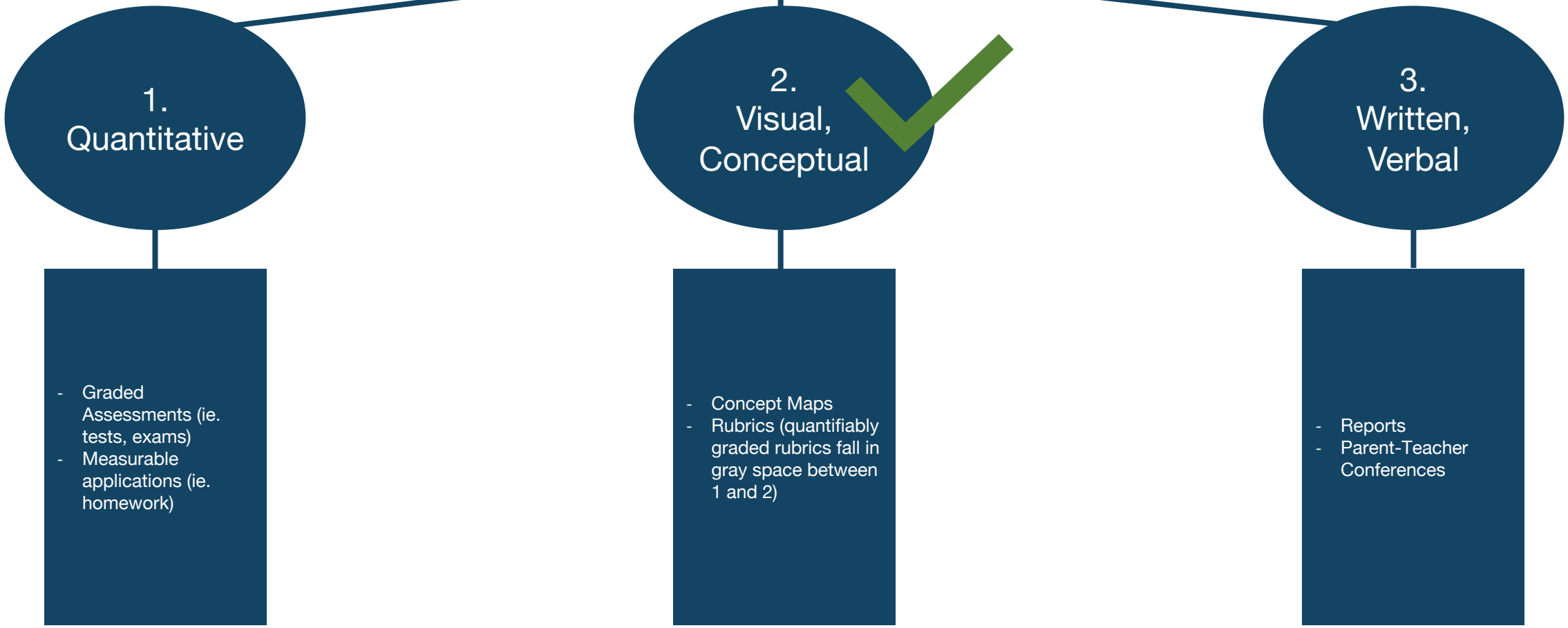
Pros

- Keeps within relevant learning outcomes and measures against a specific goal
- Better for more structured learning with goals that need to be hit

Cons

- Lacks the ability to capture learning outside the lesson goals
- Lessons that adapt to the learners' interests and skillsets will appear to do worse

Capturing a Group's Understanding of a Concept in a Deliverable Format



Visualizing a Group's Understanding of a Concept

Glossary

- Learner – Pupil, student, one who is being taught
- Understanding – “Comprehending the meaning, translation, interpolation, and interpretation of instructions and problems.” – Don Clark