Three cannibals and three scientists river-crossing riddle, with learning styles & sociology

Riddle: Three cannibals and three scientists need to cross a wide river using a row boat that can carry one or two people. Your job is to get all six people across the river by boat – but without ever having a situation where the cannibals outnumber the scientist – or else the scientist will be overwhelmed and eaten.

- The boat holds a maximum of two people.
- The boat cannot row itself across the river. It needs at least one cannibal or scientist.
- The cannibals eat only scientists - not other cannibals.
- The cannibals can never outnumber the scientists, even for an instant when the boat touches shore.
- The boat is the only option for getting across the river. No "thinking outside the boat".
- There is more than one solution.

Learning Styles: Assign individuals/groups to initially use one of the learning styles below. If unable to solve the riddle within 5 minutes, they may incorporate whatever other learning styles help them (no electronics).

Technique	Associated learning style	Initial equipment*	Later equipment*
Think about it	Abstract / cognitive	Nothing	3 quarters & 3 pennies
Talk about it	Oratory / auditory	Nothing	3 quarters & 3 pennies
Draw it	Visual / kinesthetic	Pen & paper	3 quarters & 3 pennies
Manipulate proxies	Kinesthetic / spatial	3 quarters & 3 pennies	3 quarters & 3 pennies

*Discretely/secretly and without comment, distribute equipment to each individual/group.
Observe the techniques employed by each group working on the riddle.

Iterate: Form groups of two people with each group having 3 quarters and 3 pennies. Have person A decide how to make a valid move by sending cannibals/scientists across the river. Have person B decide how to make the next move by sending the boat back with one or move cannibals/scientists. Continue to a solution emerges. Then have person B restart the process with a different starting move – providing a new solution.

Societal Question: Without discussion, have each person form a detailed mental picture of the scene. After "locking in", ask the participants to answer the following question in a manner consistent with their scene:

- Where is the river located (which continent, city, suburb, remote, mountains, plains, woods, or jungle)?
- What are they wearing: Partially or fully clothed, type of clothes and shoes (if any)?
- Who are they: Young/old, weak/strong, short/tall, male/female, light/dark-skinned, which spoken languages?

Vote on how they associated the coins. Did the group do it in a statistically significant way? Have individuals discuss reasons for their association. Individuals may be less than forthcoming about reasons for their choices.

Association	Possible reasons, perceptions, or value systems
Cannibal = penny Scientist = quarter	Visual: Skin color, e.g., darker-skin cannibals and lighter-skin scientist. Auditory: Copper and cannibal start with the letter "c". Cognitive: Perceived higher value of scientist to cannibal. Spatial: Pennies are made from copper, mined in areas near cannibals. **Others.**
Cannibal = quarter Scientist = penny	Visual: Quarters are larger and overpower smaller pennies (power dynamics). **Others – include no rationale for choosing quarters vs. pennies.**

Know thyself: How do I learn?

Cognitive - think	Visual - see	Oratory – say*
Kinesthetic – touch	Auditory – listen	
Spatial – location	Olfactory - taste	

*How can I know what I think until I have heard what I have said?

Iterate — Evolve
Empathy — Need-finding, Discovery
Test — Fail-forward
d.Thinking
Define — Interpret, Redefine
Prototype — Experiment
Ideate — Brainstorm