

VISUAL MNEMONIC AIDS FOR REGIONAL ANESTHESIA

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BACKGROUND

- Ultrasound-guided regional anesthesia (UGRA) requires understanding of sonoanatomy and unique block characteristics
- Visual mnemonics may be useful for retaining UGRA knowledge for trainees
- We aimed to create and evaluate visual mnemonics to represent sonoanatomy and unique block characteristics for 4 UGRA blocks of the brachial plexus

METHODS

- This study received an exemption from institutional review board approval from the Mount Sinai Program for the Protection of Human Subjects/IRB.
- Visual mnemonics for interscalene, supraclavicular, infraclavicular and axillary brachial plexus blocks were developed with medical illustrators (figure 1), edited following feedback (figure 2)
- Attending anesthesiologist with previous regional anesthesia fellowship training were surveyed for feedback on visual mneumonics regarding understandability, quality, usefulness, and qualitative feedback to improve future iterations.

RESULTS

Figure 1 Visual Mnemonics for various upper extremity blocks. Starting from top right, going clockwise: Axillary, Infraclavicular, Supraclavicular, Interscalene

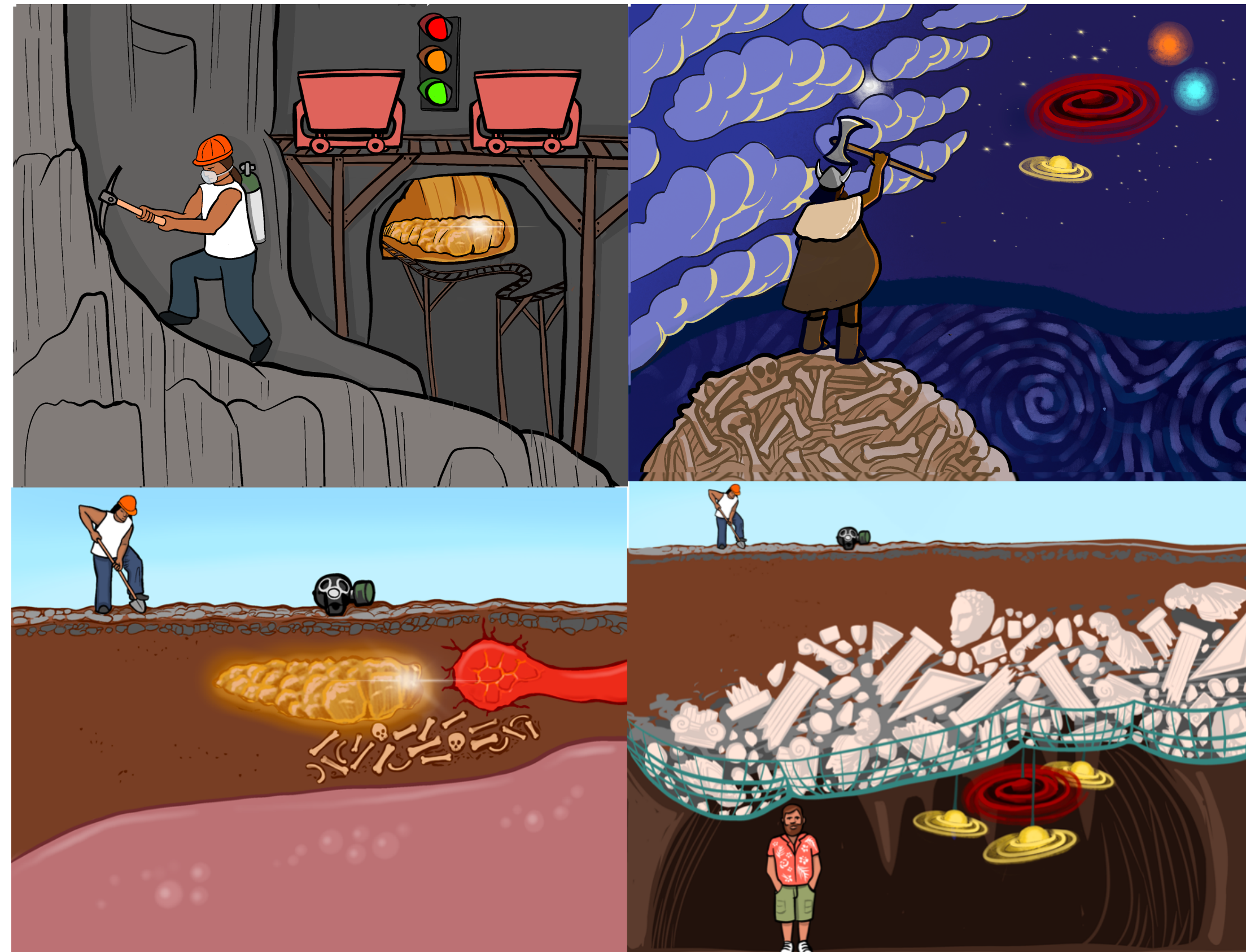


Table 1 Percentage responding "Yes" for each visual mmnemonic

	Easy to understand	Correlate to sonoanatomy	Assist with remembering anatomy	Assist with remembering features
Axillary	71%	78%	53%	46%
Interscalene	92%	92%	71%	78%
Supraclavicular	85%	85%	61%	71%
Infraclavicular	71%	85%	57%	64%
TOTAL	74%	80%	56%	67%

Participant feedback is available in Table 1

Participant demographics are available in Table 2

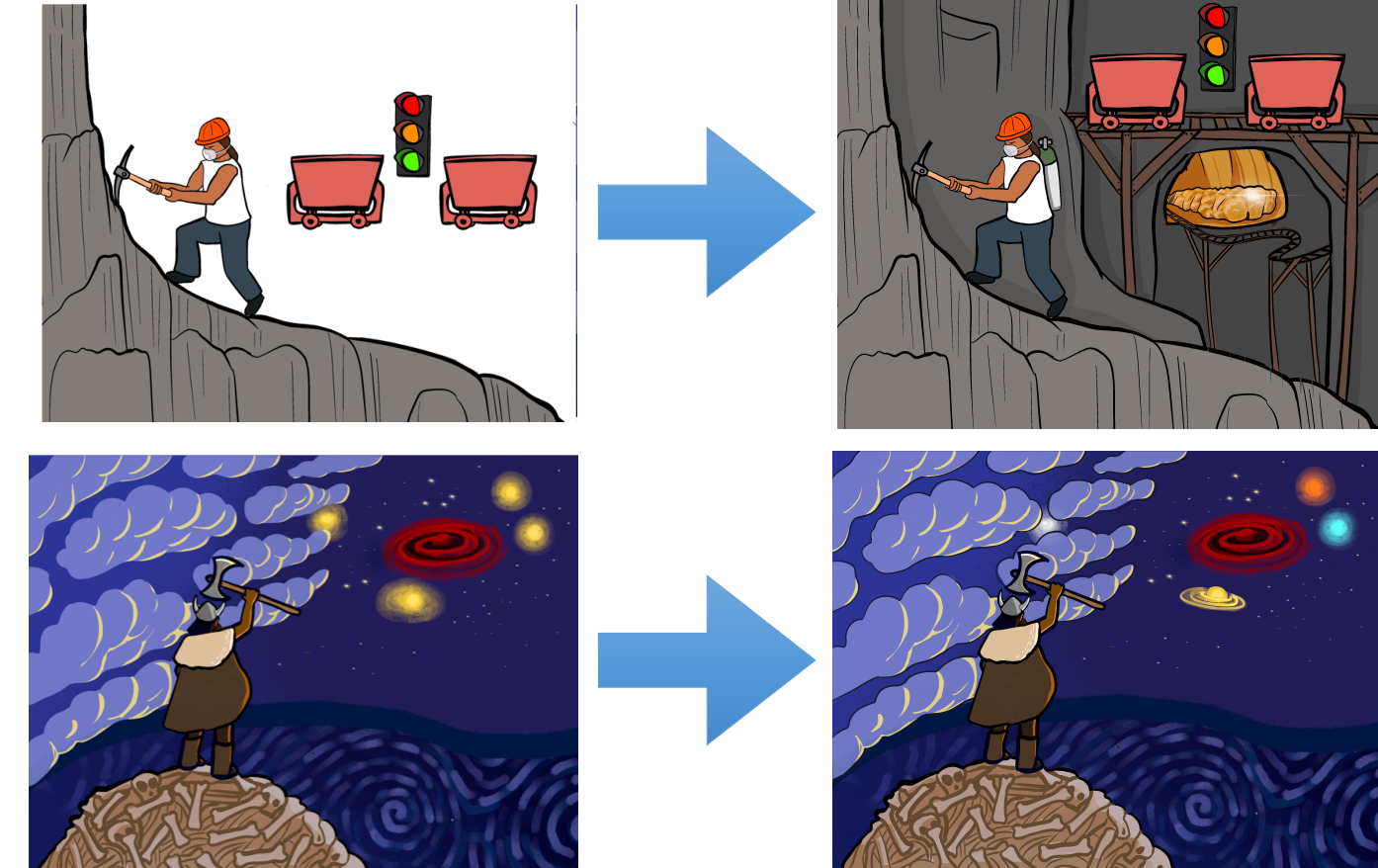
Usefulness of visual mneumonics for future learners was positive for 73.3% of participants.

Table 2 Participant Characteristics and Educational Resources for UGRA Learning

Category	Item	n (%)
Level of Training	Junior attending	66%
	Senior attending	26%
Study Materials Used for UGRA Learning	Textbook	100%
	Video	100%
	Seminar	46%
	Clinical practice	12%
Previous Use of Visual Mnemonics	Visual mnemonics	0%
	Yes	46%
	No	54%

FEEDBACK

Figure 2



CONCLUSIONS

- Visual mnemonics were developed and generally deemed to be useful and easy to understand.
- Visual mnemonics may be powerful tools for learning UGRA and can be applied to additional blocks to assist with training
- Qualitative feedback assisted with improving visual mnemonics

REFERENCES

1. Higbee, Kenneth L. "Recent research on visual mnemonics: Historical roots and educational fruits." Review of Educational Research 49.4 (1979): 611-629.
2. Yang, Adeel, et al. "The Picmonic® Learning System: enhancing memory retention of medical sciences, using an audiovisual mnemonic Web-based learning platform." Advances in medical education and practice (2014): 125-132.