PROMOTING EQUITY, COMPLEXITY, AND CENTRALITY IN MAKER SPACES

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August 18, 2017
Most species of dragons are reptilian and share many features of this animal type such as egg laying, although they also care for their young. They are unusual in that they are the only creatures that can speak with meaning apart from humans. However, not all dragons have managed this feat, and it seems likely that it is only the oldest, more experienced dragons that have developed this skill.
Making and the Maker Movement
What do young people get out of maker experiences?
it depends ...
Skills
Identity shifts and Confidence
Resourcefulness
(Adaptive Expertise)
Three Requirements

Equity

Complexity

Centrality
Equity

- Equity is complex
- Who is in the room?
- Who has opportunities? Who is taking them up?
- What ideas and practices are celebrated, welcomed, tolerated, or devalued?
- Are all students’ ideas and practices taken seriously?
Complexity

- What is the nature of the work?
- Are students moving out of their comfort zone?
- Are students challenging themselves intellectually?
- Is there opportunity for students to “level up”?
Centrality

• Are students central participants in the learning activity system?
• Are they engaged in valued practices, like figuring things out, prototyping, and getting feedback?
• Are they being pushed to the margins of their project work?
Equity principle: meet youth where they are, as who they are

- Mobile / local
- Encourage playfulness
- Start from areas of comfort and familiarity
- Youth-driven project choice
Complexity

- Encourage intellectual risk taking
- Culture of drafting and feedback
- Always seek out others’ ideas
- Encourage leveling up
- Saturate the environment with resources
- Build toward disciplinary knowledge
- Peer mentoring
Centrality

• Pedagogical moves for scaffolding difficulty up and down
• Focus on “desirable difficulties”
• Patience
Build from Strengths
Bridge to Disciplines

Identity & Sense of Self

Shifts in (disciplinary) knowledge

(Familiar) Knowledge and Practices

Motivation and opportunity to learn

Engagement in maker projects
Belonging

Equity

Complexity

Centrality
Just being able to be myself in a space with a lot of people. I can only be myself when I'm alone. I act like someone else when I'm in front of other people. Being able to sit down, work on my own stuff, and describe it to other people. Knowing that that is me talking. It's just something that really helped me out.
Acknowledgements

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