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Gordon Rowland: Systemic Design as an Explanation of Powerful Learning Experience

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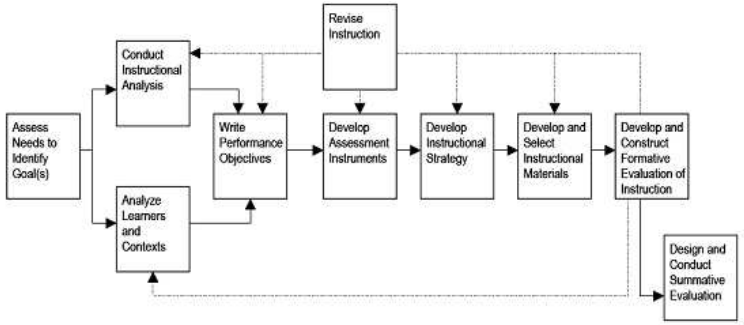
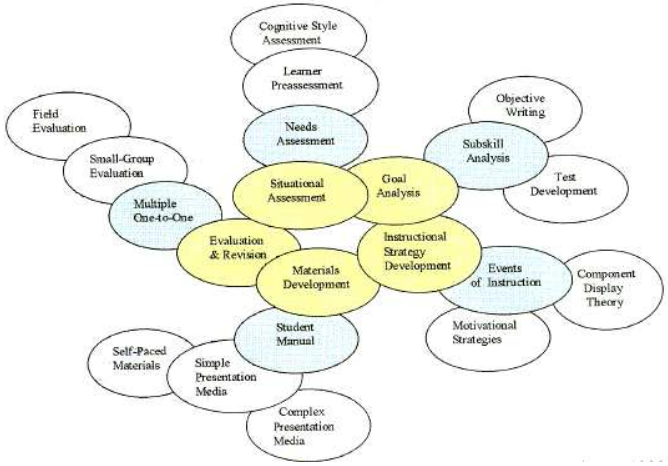
Instructional Development Models





Powerful Learning Experience

A learning experience that stands out in memory because of its high quality, impact on one's thoughts and actions over time, and transfer to a wide range of contexts and circumstances

Themes

- active learning in authentic settings
- relationship with other(s)
- reflection in and on action
- unique combinations and individual outcomes

Links to theory

- social constructivism
- transformative learning
- complexity

Sea Education Association

- Sea Semester: Marine Biodiversity and Conservation
- interviews before and after
- participant observation on voyage
- reflective journal, member check, peer debrief

Themes

- Setting – uniqueness, authenticity, strength of culture
- People – shared fascination, openness, helping relationships
- Processes – sustained focus on learning, intense engagement
- Outcomes – individual outcomes

Approach

- hands-on learning by doing
- authentic situations and tasks
- primarily movement from concrete to abstract
- logical progression of expectations and standards
- embrace of uncertainty and error as learning opportunities
- continuous monitoring and adaptation
- inquiry-based processes of self-monitoring and questioning
- social processes of learning from and with others
- individualization and flexibility to different communication and learning styles

Student states and instructor responses

Student	Instructor
1. *Attraction* (want to do it but don't know how), enthusiasm, uncertainty	*Demonstration* & information (spoken, referral to sources)
2. Initial *attempt*(s), partial success, error(s)	*Encouragement & correction*, confidence (certainty they can do it)
3. *Contribution*, success	*Praise & pointers* for practice
4. *Competence*, accomplishment	*Confirmation* (I knew you could do it)
5. *Habit* (habitual action), pride	Silence, *shared pride*

Interpretations

social constructivism

complexity

design

systemic design

Systemic design as epistemology … toward a theory of powerful learning? Sample questions:

• What if we thought of interactions in learning systems as design actions of people acting as their own and each others' client?

• What if teachers were prepared to foster complexification by defining and imposing productive constraints?

• What if we sought Goldilocks conditions for learning informed by the law of requisite variety (Ashby) and the heuristic of overconceptualization and underspecification (Weick)?

• What if we thought of learning systems as means to consciously evolve (Banathy)?

Thank you. Thoughts? Questions?