

# Education SIG of the System Dynamics Society



Carol Frances and Mike Kennedy  
Co-chairs Education SIG



## Interests of the Education SIG

The SDS Education SIG has twin interests in publicising and enhancing both the contribution of SD to Education Management and the evolution of the contribution of SD to the curriculum - in both cases the interest spans the whole span of education from K-12 (schools) to Higher Education.

<http://www.systemdynamics.org/sigs/education>

### Current plans and activities include:

The Education Special Interest Group (SIG) has been evolving a collaborative research effort by:

- Active exploration of the implications of embracing the PK-20+ conception of the educational continuum
- Development of a Taxonomy of publications of relevant to SD work and educational issues to aid future research and to help to spread good practice- see other presentations.
- Commencement of a project to increase our understanding the HE Cost drivers - see diagram
- Planning a second international workshop on the utilisation of systems based approaches to Higher Education management. We are currently evolving the programme in consultation with interested institutions and academics.
- Encouraging education, systems and other graduate students to consider using system dynamics approaches for education policy dissertations.
- Planning to make concerted efforts to introduce members of other education associations to system dynamics approaches to their work and to conduct a survey of all those interested in SD & education so as to form an active network with a data base of current and planned system dynamics topics / projects.

### PK-20+ Learning as a Continuous Life-Long Process

The group is based on a fundamental conviction that learning, more particularly the accumulation of learning, is the distinctive characteristic of human beings, distinguishing us from other living creatures

Educational reform focused on just one sector of a segmented educational structure has not often delivered desired results along the entire educational continuum.

### PK-20+ Where to start?

- Developing a broader conception of the educational mission, reaching along the entire educational spectrum and attempting to build bridges across the spans separating existing educational structures.
- Capitalizing on and integrating K-12 and higher education. The SDS Education SIG embraces both K-12 and higher education.
- Recruiting members of the Education SIG. We can work toward greater coverage of the educational continuum when we recruit members who are open to embracing this new conception of the work to be done.
- Consideration of potential projects to undertake. Putting into operation the PK-20+ conception will likely involve increased collaboration among SD members and those active in higher education policy analysis inside and outside of the System Dynamics Society.
- Research and SD model development
- Practical SD work with educators to improve approaches along the entire educational continuum. Additional practical work to help close the gaps in the continuum by helping one level to prepare for the next level by communicating standards, requirements, and expectations across the current gaps.

### PK-20+ Evolution

This has led to the evolution at the SDS's Boston conference in July 30, 2007 of an ambitious collaborative research agenda through the combined efforts of the SIG members.

We have entitled this "PK-20+" to reflect the role in extending from K-12 (meaning kindergarten through the 12th grade) in both directions to encompass pre-kindergarten to 20 years of education and more.

The PK-20+ thus symbolizes true life-long learning and the programme models the aspects of learning as a continuous life-long process, considers the necessary educational reform and produces a draft action plan.

### Education Special Interest Group (EdSIG)

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Co-chairs: [Michael Kennedy & Carol Frances](#)

The SDS Education SIG continues to pursue its twin interests in the contribution of SD to Education Management and the evolution of the contribution of SD to the curriculum - in both cases the interest spans the whole span of education from K-12 to Higher Education.

The Education Special Interest Group is very enthusiastic about advancing the theory and practice of System Dynamics in our particular domain. We are pleased to be part of this new thrust of the SD Society to broaden the understanding and application of SD through the formation and support of Special Interest Groups.

In response to requests from our K-12 colleagues, the higher education SIG moved immediately to become the E-SIG, or Education SIG, spanning all levels of education, in recognition of our inter-connections and shared interests. The SD Society also encourages us to seek out people who are not members of SD but who share our education interests to invite them to join our efforts.

The main concern of the E-SIG is to encourage the development of system dynamics theory and applications useful in the education domain. We are working toward applications relating to enrollment demand; teaching practice; teaching quality; human resource management; planning, budgeting and management; governance; endowment spending policy; and the external forces shaping the outlook for education. We have a particular interest in developing systems approaches to the creation of the infrastructure which is an essential prerequisite to any privatization of educational institutions.

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