Promoting Science and Creativity Skills in Colombia: Applying System Dynamics for Learning and Strategy

Jorge Andrick Parra Valencia

Universidad Autónoma de Bucaramanga japarra@unab.edu.co Ivan Taylor
Policy Dynamics Inc.
Ivan@policydynamics.ca

Keywords: scientific vocations, creative skills, system Dynamics.

The development of scientific vocations is an important topic that it is necessary to study to propose strategies. One of the most notorious realities of the countryside in Colombia and the Department of Santander is the migration of people to the cities, generating a concentration of the population in the urban area. One of the reasons why people, especially young people, migrate to the cities is the lack of motivation they feel due to the lack of opportunities in rural areas. Many young people migrate to urban areas to continue their studies because in some regions of the Department, there are no higher education institutions or because those that are present do not offer attractive careers for them.

Several studies have shown strategies to motivate the younger population to connect science courses and their daily lives to promote student interest and performance (Hulleman & Harackiewicz, 2009). Educators and funding agencies promote the relevance of education to students to increase their engagement and learning (Newby, 1991). When science courses are personally meaningful and relevant, students can become engaged in the learning process, focus their skills toward science careers, become involved in science activities, and think about entering college to pursue a career in science (Hulleman & Harackiewicz, 2009). So, this article will present a holistic view of a project which focuses on strengthening scientific vocations for rural development in the Department of Santander through the System Dynamics approach, using resources of the subject to promote scientific vocations in students of different educational levels, thus making a systemic model which will be used to study the behavior of this proposal.

Intentionally Blank: This second page is left intentionally blank.

References

References should start on a new page and follow the reference and <u>citation style</u> of the *System Dynamics Review*. Include the complete set of references you would use for the full paper.