
**Contributed Papers
Communications libres**

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System Dynamic Modeling of Chronic Wasting Disease

System dynamics methodology is a unique tool that helps us understand the behaviour of complex systems over time. This methodology operates within the context that systems are made up of numerous factors that interact in complex ways to function as a whole. Feedback loops, interactions, non-linear relationships, delays, and heterogeneities can be incorporated in order to simulate real life systems. System dynamics models are not used to forecast the future, but allow us to alter model variables and identify plausible reactions over time. These models can lead to new insights regarding a particular disease, identify critical research gaps and can incorporate changing conditions or management strategies. We developed a system dynamics model of chronic wasting disease (CWD) in mule deer in southern Saskatchewan with two objectives: 1) to identify long-term effects of the disease on free-ranging deer populations; and 2) to test the potential outcomes of various vaccination and management strategies.

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Enhancing the Learning of Business Mathematics/Statistics Using Customized Electronic-Learning Modules

Should I switch to using power-point presentations or should I keep using the old blackboard? Which method is going to be more effective for teaching mathematics/statistics? In this research project we try to find an answer for such questions and investigate the impact of effective use of technology in teaching mathematics and statistics in the context of Business, Commerce and Economics.

Throughout this project we design a survey and present to students three different methods of teaching Introductory Business Statistics. In one lecture we only use the standard power-point files provided to the instructor as E-Learning resources coming with the textbook. In another lecture we use the traditional method of only writing on blackboard, and finally we try a combination of using customized E-learning modules and writing on blackboard. We collect the surveys and receive feedback from students on the teaching methodologies. We perform statistical analysis on the collected data and identify the best teaching methodology from the perspective of the students.

We also discuss the feasibility of implementing the best teaching practices within the educational institutes. We ask ourselves the following questions. How can we facilitate the instructors with the effective E-Learning resources? Private companies hire specialized contractors to ensure effective training of their employees in order to maximize their profit. Should the educational institutes follow a similar path and invest in this direction to ensure effective learning of thousands of students who are going to use the skills learned to contribute to their community, city, province and country?