

Development of Instructional Model Enterprise-based Problem Based Learning in Sport Science Program of Faculty of Sport Science

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Abstract: The purpose of this study to obtain based Enterprise Learning Model Problem Based Learning valid, practical, and effective. This type of research are: *Research* and *Development* (R & D). The sample were 168 students of IKOR. The data analysis technique used is descriptive statistics. T test was used to test the effectiveness. Based on data analysis and discussion it can be concluded that: The process of development of entrepreneurial learning model based on *Problem Based Learning* is done by analyzing the curriculum, uncover perceptions and attitudes of students towards entrepreneurship, design models, develop, implement and evaluate the advantages and disadvantages of models produced is practical and effective.

1 INTRODUCTION

The impact of all these problems, there is no graduate department of IKOR UNP to become entrepreneurs. "Entrepreneurship Learning Model-based Development of *Problem Based Learning* in UNP IKOR Studies Program. Given this research will certainly be able to overcome the problems of entrepreneurship lectures and also improve the quality of lectures in the future full of challenges.

1.1 Problem-Based Learning Model Based on Entrepreneurship

Learning model is an abstraction of an object under study. Changes in teaching methods that do of course leads to corrections or improvements of previous models which would aim to improve the quality of learning should be done by educators and improve learning outcomes obtained by learners. The development is also defined as the systematic application of knowledge and understanding that is directed to the production of useful materials, devices, systems or methods, including design, development and improvement priorities and new processes to meet specific requirements. In this case, the research is the development of activities that describe the activities associated with the creation or invention, methods / products and use new found

knowledge to meet the needs (Son, 2011). Development of learning models not an easy task and can be done at will. Learning model development process was through systematic stages. Ded that the process of developing a model of learning done carefully and engage people and experts to evaluate a new model. Before testing the product, necessary to test the design of a model created beforehand. Once the design is designed tested, it needs to be applied first, then be reevaluated to see the advantages and disadvantages of the development is done. After an assessment of the advantages and disadvantages of the model development by experts, will be produced or applied mass and into the findings. The material of entrepreneurship that has been given today consists of: basic concepts of entrepreneurship, introduction of entrepreneurial potential, factors driving entrepreneurship, business planning and practice of entrepreneurship, forms of entrepreneurial, management and marketing, tips the success of entrepreneurship, partnership in entrepreneurship, capital business and financial management, entrepreneurship success tips. According to the type of research developed conducted by ADDIE models.

Instructional design principles, applied in the framework of values Lebow (1993), can cause a variety of learning models. Diverse learning model that reflects these principles are described Duffy and Jonassen (1992) and Duffy, Lowyck, and Jonassen

(1993). Elaboration and implementation of these principles in the specific context described (Brooks & Brooks, 1993; Fosnot, 1989; & Duffy, 1994). PBL model is effectively used in the learning process Howard Barrows (1985; 1992). Implementation of the education program, there are two policies relating to the matter of entrepreneurship, namely: 1) entrepreneurship as a subject in secondary education, and as a subject in higher education, as well as 2) entrepreneurship as a skill that is based on standards of competence (MONE 2010). The last few years, a lot of research on entrepreneurship worldwide (Kuratko, 2003). It seems that the entrepreneurial engine that drives the economy and society most countries (Brock and Evans, 1989; Acs, 1992; Carree and Thurik, 2002). Although entrepreneurship is not a new concept, but the attention of research during the past 15 years, entrepreneurship is now considered essential to cope with the new competitive measures (Hitt and Reed, 2000). This arises for a number of reasons, such as the fact that entrepreneurship is felt to benefit both at the macro level of economic development (Birch, 1979) and also at the micro level of satisfaction and personal achievement (Anderson, Kirkwood and Jack, 1998).

According to Binks (2005), the pedagogical process involved in impulse behavior and mindset of entrepreneurial activity. Entrepreneurship education is functionally able to create and increase awareness and promote entrepreneurship as a career option among young people (Clayton, 1989; Fleming 1996). Therefore the role of entrepreneurship education, especially for building a culture of entrepreneurship among young people, which in turn will improve the career choice to become entrepreneurs (Deakins, Glancey et al., 2005). The purpose of entrepreneurship education is directed to change the state of the behavior and intentions of students to understand entrepreneurship, becoming self-employed and become entrepreneurs which eventually resulted in the formation of new businesses and new jobs. Opportunity (Fayolle and Gailly 2005; Hannon 2005; Venkatachalam and Waqif 2005) in achieving this, the design of the curriculum in entrepreneurship education need to be creative, innovative and imaginative and the most important thing is 'academic learning to real world' (Robinson and Haynes, 1991).

Universities and higher education institutions play a major role in instilling entrepreneurial knowledge and skills students are useful for a future career (Nurmi and Paasio 2007). Entrepreneurship education is recognized as one of the determining factors can influence the career decisions of students

(Kolvereid and Moen 1997; Peterman and Kennedy 2003). Entrepreneurship education can affect the tendency of students to entrepreneurship. The field of entrepreneurship education (Wang and Wong, 2004; Wong and Lena 2005; Menzies and Tatroff 2006), studies that specifically investigated the relationship between entrepreneurship education at the University Malaysia student.

In line with the evolution of the field of entrepreneurship there is increased interest in the development of educational programs to encourage and develop entrepreneurship (Solomon et al., 2002). Recent studies (Finkle and Deeds, 2001) shows that the demand for entrepreneurship material in each faculty has increased rapidly over the last decade. In addition, the deployment of "corporate culture" (Keats and Abercrombie, 1991) aroused interest among the students academically. Peter Drucker as one of the leading management thinkers stated that entrepreneurship is not magic, no mystery, and this has nothing to do with genes. Small Business Research Trust (1998) showed that only 13% of the survey sample who believe that entrepreneurial skills can not be obtained through the learning process. Broad notion that entrepreneurship education will produce more entrepreneurs and better than in the past (Ronstadt, 1985) and that education will increase the chances for success of entrepreneurship (Kirby, 2002).

1.2 Problem Based Learning

Problem Based Learning (PBL) is defined problem-based learning designed for graduate programs in the health field. PBL confirmed it *be set* in the form of learning that begins with a problem that is used by the instructor as metacognitive training and ends with the presentation and analysis of student work. PBL is expected to stimulate students to gain important knowledge, so that students are adept at solving problems and has a self-learning strategies and have the skills to participate in the group. PBL uses a systemic approach to solve a problem or face a challenge that is later required in real life. PBL also be regarded as a model of learning that challenges students to learn how to learn, to work in groups to seek solutions to real-world problems. The given problem used to bind learners curiosity towards learning in question.

Problem based learning (PBL) is the most innovative teaching methods are understood and applied in education. It aims to improve the application of knowledge, problem solving skills of learners, higher order thinking, and self-learning

ability. Its implementation started in medical education (Barrows & Tamblyn, 1980).

Fifty years after PBL was first implemented, its effectiveness as a learning method has been a question open to debate. This method is more effective than conventional methods to reduce the problem of students' knowledge and also improve problem-solving skills of learners and the ability of independent learning (Barrows, 1996; Dods, 1997; Dolmans & Schmidt, 1994), while according to another opinion, PBL was expensive and ineffective because it requires more time for students and educators to obtain a similar learning outcomes (Farnsworth, 1997; Kamin, O'Sullivan, Younger, and Deterding, 2001; Norman & Schmidt, 1992), 1994). Kirschner, Sweller, and Clark (2006) continue to argue that PBL is less effective than conventional methods because the approach is less improve cognitive abilities of learners.

PBL is one of several methods that have been developed to overcome the problem of learners in understanding the material. PBL uses a different approach to facilitate the learning of students. The learning process begins by presenting the learning content for learners to memorize and understand, PBL mimic natural human learning process. That is, learning begins when there is a problem. In searching for solutions to those problems, the person is to learn the skills and knowledge that revolves around the issues and the environment (contextual knowledge) in which these problems occur.

Hoffman and Ritchie (1997) defines PBL as "pedagogical strategies centered learning leading to a situation of contractual, contextual, real, unstructured, guidance, instruction, and opportunities of learners in developing their knowledge and skills. The curriculum is organized to teach about issues learners will face in your personal life or career. The ultimate goal is to guide the model PBL learners in gathering facts "(Rhem, 1998), and also become independent learners (Torp & Sage, 2002).

1.3 Characteristics of Problem Based Learning

The most distinct characteristics that make PBL different from other learning methods is the structure of content focused on the issue. Moreover, Barrow (1986) has four goals PBL, i.e. contextualization, the reasoning process, independent learning skills, and motivation to learn. The learning process starts with solving the problem, not the content. Barrows and Tamblyn (1980) explains that the PBL learning resulting from the process leading to an

understanding or resolution of a problem. PBL learning model, learners do not accept the learning content of educators in a logical sequence "textbook". Instead, it is structured as a problem or set of problems. The knowledge needed to solve problems and related information to formulate the problem evolved from content coverage in PBL.

Savery and Duffy (1996) asserts that in PBL, students should develop their own learning skills and strategies to complete the task of learning. The learning activities in the learning process encourage and promote self-regulation and metacognitive learners during and / or after the learning process. Mayo, Donnelly, Nash, and Schwartz (1993) suggests that educators should act as a "guide metacognitive". Keller (1987) PBL is an instructional approach that is inherently challenging and motivating. The desire to conquer obstacles and solve the problem is human nature. Components of intrinsic motivation have helped increase the willingness of students to learn and retain an interest in learning. Creating a sense of belonging is a motivational factor of PBL. Dunlap and Grabinger (1996), involves students in learning activities with a set of problems and responsibilities of making decisions about the learning process. To successfully solve the problem, students should see the problem as the problem itself (von Glasersfeld, 1995). As a result, learners take responsibility to overcome these obstacles.

Based on the above explanation about the model-based entrepreneurial development *problem based learning* that is relevant previous research; 1) The PBL approach practiced in the *Republic Polytechnic* in Singapore can be an effective pedagogical approach to entrepreneurship material (Siok & Frank, 2006), 2) the PBL approach can achieve entrepreneurial innovation in material of civil engineering students (Kong, 2005).

2 METHODS

The type of this research is research and development (research and development), the which aims to produce a valid learning tool, practical, effective as needed. The learning models is used as a reference in the development of this research is the model of ADDIE models at the start of the analysis, design, development, and evaluation implementation.

Conduct an analysis of the curriculum IKOR, synopsis, syllabi, lecture destination, the lecture material. Designing an Enterprise Learning Model-based problem based learning Develop Model Implement Model-Based Enterprise Model to

Evaluate the Implementation of Problem Based Learning

Subject to limited field testing using IKOR students numbering 168 people. The research sample of randomly assigned two classes to be used as the experimental group and the control group. The research instrument used in this study comprised: analysis instruments syllabus, handouts, modules, instrument validity, interview with faculty and students, observation sheets, sheet practicalities, instruments and test the effectiveness of learning outcomes. Data analysis techniques were used: descriptive statistics, to measure the effectiveness of using the t formula.

3 RESULTS AND DISCUSSION

3.1 Data Analysis and Results Developments

3.1.1 Stage Analysis

At this stage, an analysis of the curriculum of Sport Science Study Program as follows: analysis of the Vision, Mission and Objectives of Sport Science Study Program. In addition, this research also conducted analysis of Entrepreneurship Course Syllabus Sport Science Study Program are less qualified a course syllabus, among others: Synopsis subjects which is still general not lead to entrepreneurship in Sport Science. It is recognized that entrepreneurship in Sports Science requires substantial capital. But the opportunity was still there when the prospective entrepreneur has a high spirit. Likewise on course materials have not been any material that provides sports science to the students to look at the opportunities that exist in Sport Science. For material each meeting has not been specified clearly and reference books are used as material for understanding the material being studied. For the evaluation and determination of the value has not been loaded explicitly in syllabus.

3.2 Analysis of Attitudes and Perceptions of Students against Program of Sport Science Enterprise

The data of Attitudes and Perceptions toward Student Entrepreneurship Education Course at the Department of Health and Recreation Sport Science Study Program. The research data were as follows:

Descriptive Analysis of Attitudes survey respondents obtained arithmetic average (*mean*)= 125.1, standard deviation = 10.59, minimum value = 88, and the maximum value = 148. Student attitudes to enterprise is good:

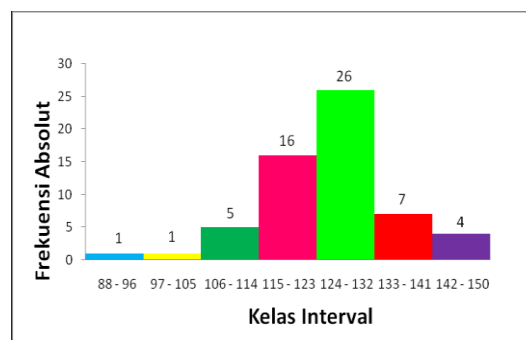


Figure 1: Descriptive Analysis of Attitudes survey respondents.

3.3 Perception Analysis of Sport Science Program Students against the Enterprise

Students' perceptions of Data entrepreneurship arithmetic average (*mean*) = 95.78, standard deviation = 9.86, minimum value = 77, and the maximum value = 125. Can be concluded student perception to enterprise is good.

3.3.1 Design

In designing the learning model Enterprise made the development steps as follows: especially more developed synopsis of Sport Sciences and lead to still consider other opportunities. Furthermore, the syllabus developed with attention-indicator indicator development. Material obtained 16 sessions. Purwacaraka further developed with attention to syntax has put forward in theory that is referenced. In the final stage developed an evaluation of the ability of students to discuss any material covered by using model Problem Based Learning.

3.3.2 Develop

Model development done on the learning device in accordance with the program syllabus has been developed using Problem Based Learning approach. The device developed syllabus, purwacaraka, entrepreneurship course modules and book models as the basis for applying the generated model. In the

development of the theory still refers to the referenced.

3.3.3 Implementation

Implementation of the model is done by asking the experts' models produced in accordance with his expertise. Expert opinion concluded from the resulting models already meet the requirements. Furthermore, the model test with a test against the resulting learning device. From the test results concluded the resulting model is effective in improving student learning outcomes Entrepreneurship Sport Science Study Program.

3.3.4 Evaluation

Evaluation was conducted on the learning model that has been generated. From the results of the evaluation of the resulting model obtained a good learning model in accordance with its advantages and disadvantages. From the evaluation results concluded the resulting model is valid, practical and effective in improving student learning outcomes entrepreneurial Sport Science Study Program.

Based on the findings of the research the model of entrepreneurial learning based problem based learning, practical and effective in improving the quality of learning. Students are given a concrete experience in dealing with the problems inherent in entrepreneurship. When observed perceptions and attitudes of students towards entrepreneurship is quite good and this is the basic capital as fundamental for students in developing entrepreneur in life. The results of the research-based entrepreneurial development model confirms the *problem based learning*; (1) The PBL approach practiced in the *Republic Polytechnic* in Singapore can be an effective pedagogical approach to entrepreneurship material (Siok & Frank, 2006); (2) the PBL approach can achieve entrepreneurial innovation in material of civil engineering students (Kong, 2005).

4 CONCLUSION

Based on data analysis and discussion can be concluded the following: The process of development of entrepreneurial learning model based on *Problem Based Learning* is done by analyzing the curriculum, uncover perceptions and attitudes of students towards entrepreneurship, design models, develop, implement

and evaluate the advantages and disadvantages of models produced is valid, practical and effective.

REFERENCES

- Acs, Z. J. 1992. Small business economics: a global perspective. *Challenge*, 35, 38-44.
- Anderson, A. R., Kirkwood, S. and Jack, S. L. 1998. *Teaching Entrepreneurship: A Mentoring Experience*. Paper presented at Babson Conference, Belgium.
- Barrows, H.S. 1985. *How to design a problem-based curriculum for the preclinical years*. New York: Springer Publishing Co.
- Barrows, H.S. 1992. *The Tutorial Process*. Springfield, IL: Southern Illinois University School of Medicine.
- Barrows, H. S. 1996. Problem-based learning in medicine and beyond: A brief overview. *New Direction for Teaching and Learning*, 68, 3-12.
- Barrows, H., and Kelson, A. C. 1995. *Problem-Based Learning in Secondary Education and the Problem-Based Learning Institute (Monograph 1)*, Problem-Based Learning Institute, Springfield, IL.
- Barrows, H. S., and Tamblyn, R. 1980. *Problem-Based Learning: An Approach to Medical Education*, Springer, New York.
- Binks, M. 2005. *Entrepreneurship education and integrative learning*. Retrieved February 23, 2006, from http://www.ncge.org.uk/downloads/policy/Entrepreneurship_Education_and_Integrative_Learning.doc.
- Birch, D. 1979. *The Job Generating Process*. Cambridge.
- Brock, W.A., Evans, D.S. 1989. Small Business Economics. *Small business economics*, 1, 7-20
- Brooks, J.G., Brooks, M.G. 1993. *In Search of Understanding: The Case for Constructivist Classrooms*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Carree, M. A. and Thurik A.R. 2000. The impact of entrepreneurship on economic growth. In Audretsch, D.B. and Acs, Z.J. (eds.) *Handbook of Entrepreneurship*, Boston: Kluwer Academic Publishers.
- Clayton, G. 1989. *Entrepreneurship education at the postsecondary level*. Retrieved December 3, 2005, from www.celcee.edu/abstracts/c19981683.html.
- Deakins, D., K. Glancey, et al. 2005. Enterprise education: The role of Head Teachers. *International Entrepreneurship and Management Journal* 1: 241-263.
- Dods, R. F. 1997. An action research study of the effectiveness of problem-based learning in promoting the acquisition and retention of knowledge. *J. Educ. Gifted* 20: 423-437.
- Dolmans, D. H. J. M., Schmidt, H. G. 1994. What drives the student in problem-based learning? *Medical Education*, 28, 372-380.
- Dolmans, D. H. J. M., and Schmidt, H. G. 2000. *What directs self-directed learning in a problem-based curriculum? In Evensen, D. H., and Hmelo, C. E. (eds.)*

- Problem-Based Learning: A Research Perspective on Learning Interactions* Erlbaum, Mahwah, NJ, pp.251–262.
- Dombrowski, L. A. 1997. *Implementation of collaborative problem-based learning in the classroom: A focus group dynamics in relation to self-esteem and skill acquisition through the generation of a Web page*. Dissertation, West Virginia University.
- Duffy, T.M. 1994. *Corporate and Community Education: Achieving success in the information society*. Unpublished paper. Bloomington, IN: Indiana University.
- Duffy, T.M., Jonassen, D. (Eds.), 1992. *Constructivism and the technology of instruction: A conversation*. Hillsdale NJ: Lawrence Erlbaum Associates.
- Duffy, T.M., Lowyck, J., Jonassen, D. (Eds.), 1993. *Designing environments for constructivist learning*. Heidelberg: Springer-Verlag.
- Dunlap, J. C., Grabinger, R. S. 1996. Rich environments for active learning in the higher education classroom. In B. G.Wilson (Ed.), *Constructivist learning environments: Case studies in instructional design* (pp. 65–82). Englewood Cliffs, NJ: Educational Technology Publications.
- Farnsworth, C. 1994. Using computer simulations in problem-based learning. In M. Orey (Ed.), *Proceedings of the Thirty-Fifth ADCIS Conference* (pp. 137–140). Nashville, TN: Omni Press.
- Fayolle, A. G. and B. Gailly. 2005. Using the Theory of Planned Behaviour to assess entrepreneurship teaching programmes, Centre for Research in Change, *Innovation and Strategy*: 1-18.
- Finkle, T., Deeds, D. 2001. Trends in the Market for Entrepreneurship faculty, 1989-1998. *Journal of Business Venturing*, 16, 613-630.
- Fleming, P. 1996. Entrepreneurship education in Ireland: A longitudinal study. *Academy of Entrepreneurship Journal* 2(1): 95-119.
- Fosnot, C.T. 1989. *Enquiring Teachers Enquiring Learners. A Constructivist Approach to Teaching*. New York: Teacher's College Press.
- Hitt, M. A., Reed, T.S. 2000. Entrepreneurship in the new competitive landscape. In: *Entrepreneurship as Strategy*. (eds) Meyer, G.D. & Heppard, K.A. Thousand Oaks: Sage Publications.
- Hoffman, B., Ritchie, D. 1997. Using multimedia to overcome the problems with problem based learning. *Instructional Science*, 25(2), 97–115.
- Kamin, C. S., O'Sullivan, P. S., Younger, M., & Deterding, R. 2001. Measuring critical thinking in problem-based learning discourse. *Teaching and Learning in Medicine*, 13(1), 27–35.
- Keats, R. and Abercrombie, N. 1991, eds. *Enterprise Culture*. London: Routledge.
- Keller, J. M. 1987. The systematic process of motivational design. *Performance & Instruction*, November/December, 1–8.
- Kirby, D. A. 2002. *Entrepreneurship Education: can Business Schools meet the Challenge?*. Paper presented at the ICSB World Conference, San Juan, Puerto Rico.
- Kirschner, P. A., Sweller, J., & Clark, R. E. 2006. Why minimal guidance during instruction does not work: An analysis of the failure of constructivist, discovery, problem-based, experiential, and inquiry-based teaching. *Educational Psychologist*, 41(2), 75–86.
- Kolvereid, L. and O. Moen 1997. Entrepreneurship among business graduates: does a major in entrepreneurship make a difference?. *Journal of European Industrial Training* 21(4): 154-160.
- Kong, I. N. H. 2005. Problem-based learning approach in accomplishing innovation and entrepreneurship of civil engineering undergraduates *. *21(2)*, 228–232.
- Kuratko, D. F. 2005. The emergence of entrepreneurship education: Development, trends, and challenges. *Entrepreneurship Theory and Practice* September: 577-597.
- Lebow, D. 1993. *Constructivist Values for Systems Design: Five Principles toward a New Mindset*, *Educational Technology Research and Development*, 41, 4-16.
- Mayo, P., Donnelly, M. B., Nash, P. P., & Schwartz, R.W. (1993). Student perceptions of tutor effectiveness in a problem-based surgery clerkship. *Teaching and Learning in Medicine*, 5(4), 227–233.
- Menzies, T. V. and H. Tatroff. 2006. The propensity of male vs. female students to take courses and degree concentrations in entrepreneurship. *Journal of Small Business and Entrepreneurship* 19(2): 203-218.
- Norman, G. R., Schmidt, H. G. 1992. The psychological basis of problem-based learning: A review of the evidence. *Academic Medicine*, 67(9), 557–565.
- Nurmi, P. and K. Paasio. 2007. Entrepreneurship in Finnish universities. *Education + Training* 49(1): 56-65. Ooi, Y. K. and H. Ali (2005). "How inclined are lecturers to teach entrepreneurship at university?" *International Journal of Management and Entrepreneurship* 1(1): 41-48.
- Peterman, N. E. and J. Kennedy. 2003. Enterprise education: influencing students'perceptions of entrepreneurship. *Entrepreneurship Theory and Practice* 28(2): 129-144.
- Robinson, P. and M. Haynes. 1991. Entrepreneurship education in America's major universities. *Entrepreneurship Theory and Practice*: 41-52.
- Ronstadt, R. 1985. The Educated Entrepreneurs: a New Era of Entrepreneurial Education is Beginning. *American Journal of Small Business* 10(1), 7-23.
- Savery R. John. 2006. *Overview of Problem-Based Learning: Definition and Distinctions*. Volume 1 Published online: 5-22.
- Savery, J. R., Duffy, T. M. 1996. Problem based learning: An instructional model and its constructivist framework. In B. G. Wilson (Ed.), *Constructivist learning environments: Case studies in instructional design* (pp. 135–148). Englewood Cliffs, NJ: Educational Technology Publications.
- Schmidt, H. G., Boshuizen, H. P. A., de Vries, M. 1992. Comparing problem-based with conventional

- education: A review of the University of Limburg medical school experiment. *Annals of Community-Oriented Education*, 5, 193–198.
- Siok San Tan, C. K. Frank Ng, 2006. A problem- based learning approach to entrepreneurship education, *Education + Training*, Vol. 48 Issue: 6, pp.416-428, <https://doi.org/10.1108/00400910610692606>
- Small Business Research Trust. 1998. *Entrepreneurship*. Milton Keynes: Open University.
- Solomon, G.T., Duffy, S. and Tarabishy, A. 2002. The State of Entrepreneurship Education in the United States: a Nationwide Survey and Analysis. *International Journal of Entrepreneurship Education* 1(1), 1-22.
- Torp, L., Sage, S. 2002. *Problems as possibilities: Problem-based learning for K-16 education* (2nd ed). Alexandria, VA: Association for Supervision and Curriculum Development.
- Venkatachalam, V. B. and A. A. Waqif. 2005. Outlook on integrating entrepreneurship in management education in India. *Decision* 32(2): 57-71.
- Von Glasersfeld, E. 1995. A constructivist approach to teaching. In L. P. Steffe & J. Gale (Eds.), *Constructivism in education* (pp. 3–16). Hillsdale, NJ: Erlbaum.
- Wang, C. K. and P. K. Wong. 2004. Entrepreneurial interest of university students in Singapore. *Technovation* 24(2): 163-172.
- Wong, P. K. and L. Lena. 2005. *Antecedents for entrepreneurial propensity in Singapore*. Retrieved April 5, 2006, from <http://unpanl.un.org/intradoc/groups/public/documents/APCITY/UNPAN023984.pdf>.

