Relationship Between Instructor's Entrepreneurship Pedagogical Content Knowledge On Student's Entrepreneurial Intention at Kuala Langat Community College

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Abstract

A preliminary studies to investigate the nature of pedagogical content knowledge developed in an entrepreneurship subject/ course and its association with entrepreneurial intention in a group of students, who were enrolled in Modul Asas Kemahiran Keusahawanan's subject at Kuala Langat Community College. Simple random sampling were implemented in distributing the questionnaire and a 187 respondent has returned the complete questionnaire. A simple curriculum overview of Modul Asas Keusahawanan was done and the collected data were analysed using descriptive and multiple stepwise linear regression in SPSS. The findings showed that there is no significant relationship between EPCK (β = .006, p = .962 and is >.05) towards entrepreneurial intention. However, the regression test in assessing the relationship between each subcontract demonstrates that a combination of knowledge of concepts representations and knowledge of learners represents 70.6% variance in the relationship between entrepreneurial PCK and entrepreneurial intentions. This study provides more emphasis on the needs of teachers to master the knowledge of student representation and knowledge, in delivering and teaching the Modul kemahiran Asas Keusahawanan to students. In addition, students believe that their instructors' knowledge in entrepreneurial pedagogy is sufficient.

Keywords: entrepreneurship, entrepreneurship pedagogy, pedagogical content knowledge, entrepreneurial intention

Introduction

Teachers must regularly update their knowledge about content and pedagogy to keep abreast with current developments in education (Elias et. al., 2000). However, little has been written on pedagogical content knowledge in the context of entrepreneurship education and instruction. There have been a number of studies of entrepreneurship education and training (Fiet, 2000; Pihie, 2007; Buang & Awalludin, 2011; Othman & Hussain, 2012; Othman & Nasrudin, 2012) in terms of relationship using entrepreneurship theory (Ajzen, 1991; Shapero and Sokol, 1982; and Bandura, 1973), psychological context and teaching and learning styles (Felder, 1998; Līnan, 2008; Pihie and Othman, 2002). Pihie and Hamzah (1997) emphasize the importance of mastering content knowledge to improve the effectiveness of teaching entrepreneurship by giving more courses related to business accounting and entrepreneurship to the instructor's student. This study will be investigating the instructor's entrepreneurship Pedagogical Content Knowledge (PCK) and its relationship with student's entrepreneurial intention. Pedagogical content knowledge (PCK) was introduced by Shulman (1986, 1987) and refers to the knowledge teachers use to translate particular subject matter to students, taking into account possible misconceptions. PCK was and still is very influential in research on teaching and teacher education, mainly within the natural sciences - naturally in mathematics and science (Depaepe et. al., 2013). PCK enables practising teachers to make connections between their knowledge of content (Elias et. al., 2000) and it is critical for teaching effectiveness (Cochran, deRuiter & King, 1993; Shulman, 1987).

Līnan (2008) considered entrepreneurship as the result of a cognitive process, some researchers thought that the decision to become an entrepreneur is an intricate action of mental processes. Ajzen (1991) theory of planned behaviour has been frequently applied to explain this mental process leading to firm creation. In specific, authors such as Krueger (Krueger et al. 2000; Krueger 2007), Kolvereid (Kolvereid 1996; Kolvereid and Isaksen 2006) and Fayolle (Fayolle and Gailly 2005; Fayolle and DeGeorge 2006) also have used this theory to explain the firm-creation decision. Linan (2008) support the statement by emphasizing that a person's intention to become an entrepreneur depends on individuals' personal attitude, their perceived control over the firm-creation behaviour, and the perceived social pressure to become an entrepreneur or not. In his previous research, Līnan (2008) adopt Ajzen (1991) Theory of Planned Behaviour and determine the entrepreneurial intention into 4 main construct to best describe individual entrepreneurial intention : self-evaluation of individual entrepreneurial intention (EA), personal attraction to become an entrepreneur (PA), perceive behavioural control (PCB) and subjective norms (SN).

Entrepreneurship's programme and curriculum at community college

The introduction of SMK in 2011 by Community College is as an alternative way to improve skills, especially in technical and vocational education and training. It provides a fast track of learning skills to the students where they will be aiming only on preferred skills to be enhanced. To strengthen more on the SMK program implementation, Community College has embedded entrepreneurship education and training in all SMK programs. A new centre, Pusat Keusahawanan Kolej Komuniti (PUSKOM) as the planner for all entrepreneurship education, training and activities were formed to monitor, evaluate and suggest innovative ways to inculcate entrepreneurship to all community college students. A series of training

has been conducted by PUSKOM to lecturers and students at community college to enhance their knowledge in entrepreneurship.

Modul Asas Kemahiran Keusahawanan were being offered at Community Colleges starting from July 2013. It is designated as an elective module that can be taken by any students enrolled at Community College. The duration and approach of learning is 30 – 40 hours using formative assessment (project based, simulation, mock interview, portfolio, outreach. demonstration. career and personality psychometric. presentation and practical, seminar and workshop). The topics covered of 5 main units / topics : 1) Introduction to entrepreneurship – idea to start / own business, business opportunities and innovation, business plan; 2) Basic accounting, book-keeping and cash flow budget; 3) Basic marketing; 4) Capital, training and consultation on entrepreneurship and 5) Steps in company registration.

Results and Discussion

A conceptual framework was developed as a basic model to be tested in this study based on Halim and Mohd Meerah (2012) on PCK model and Depaepe et. al., (2013), and Līnan (2008) on students' entrepreneurial intention. This study aims to get the significant relationship of pedagogical content towards encouraging entrepreneurial intention among students. Through the analysis and findings, this study will determine which latent constructs of EPCK gave more impacts on entrepreneurial intention (subjective norm, perceive behavioural control and personal attraction).

Two objectives have been identified: 1) To identify the instructor's pedagogical content knowledge in entrepreneurship classes currently in held at Community College; 2) To know the relationship between instructor's pedagogical content knowledge and student's entrepreneurial intention. Three research questions were administered: 1) What is a student's perspective on instructor's entrepreneurship PCK?, 2) What is the student's entrepreneurial intention?, 3) Is there any significant relationship between instructor's entrepreneurship PCK and student's entrepreneurial intention?; to guide the data findings. Test on the reliability of the data showed that all score were giving high Cronbach's Alpha of .982, therefor this data are internally reliable and the normal p-plot graph showed that all data are normally distributed within targeted population.

Demographic and descriptive analysis

Table 1 below enlighten the respondents demographical background on races and type of courses taken by students at Kuala Langat Community College. Out of 187 respondents, 65.1% were female (121) and 34.9% were male (65) with most ages are between 18-20 years age (83.9%). Most of the respondents were young adult learners where the majority were from business and accounting background (57.2%) which have a strong

Table 1: Demographical Analysis						
Demographic Analy	sis	Frequency	Percentage			
Races						
	Malays	128	71.1			
	Chinese	22	12.2			
	Indians	30	16.7			
	Others					
	Total	180	100			
Courses						
	Aplikasi Perisisan Komputer	51	27.3			
	Pembangunan Perniagaan	25	13.4			
	Pengendalian Pelancongan	15	8			
	Pengendalian Pemasaran	25	13.4			
	Pengendalian Perisian Komputer	14	7.5			
	Pengkeranian Akaun	42	22.4			
	Pengoperasian Perniagaan	15	8			
	Total	187	100			

background in entrepreneurship education as compared to other courses (44.8%).

Table 2 below explaining about respondent feedback on their entrepreneurship intention, subjective norms, the need to learn entrepreneurship in college, experience in business and if they were taking any entrepreneurship courses before. The respondents entrepreneurship backgrounds were studied and the results showed that most of the respondents agree that they have an intention to start up a business (85.1%), agree that entrepreneurship should be learnt by all students at the college or university (92.5%) to build the foundation and also to provide them with knowledge and skills of entrepreneurs.

A large number of the respondent said that they have experienced business (59.8%) and attending some entrepreneurial courses (59.8%) such as short courses, long term courses, workshop, seminar and conference. They also stated that their families and closest contact (friends and colleagues) were giving full support to their intention to be an entrepreneur or startup for business (87.6%).

Table 2: Entrepreneurship Background				
Entrepreneurship Background Analysis	Frequency	Percentage		
Entrepreneurship Intention				
Yes	154	85.1		
No	27	14.9		
Total	181	100		
Subjective Norms				
Yes	163	87.6		
No	23	12.4		
Total	186	100		
Should students learn entrepreneurship at college?				
Yes	172	92.5		
No	14	7.5		

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Entrepreneurship Background Analysis	Frequency	Percentage	
Total	186	100	
Any experience in business?			
Yes	110	59.8	
No	74	40.2	
Total	184	100	
Have you taken any entrepreneurship courses?			
Yes	109	59.8	
No	74	40.2	
Total	183	100	

Descriptive analysis on Entrepreneurship PCK and It's Relationship

With Entrepreneurial Intention

Result on the instructor's entrepreneurship pedagogical content knowledge at Kuala Langat community college showed that community college lecturers are possessing high mean on knowledge of entrepreneurship pedagogy of 4.37. Other variables in pedagogical content knowledge (PCK); the knowledge of concepts representations are having mean of 4.08 and the knowledge of learners are having mean of Findings from this study gives a positive insight of how depth 3.19. lecturer's PCK at community college from the student's perspective, hence aswered the research question 1. The success of entrepreneurial learning at community college also supported by the findings in student's entrepreneurial intention where most respondent are high in entrepreneurial intention with mean of 4.30, followed by perceived behavioural control with mean of 4.10 and personal attraction of 4.00, however most respondent are scored moderate in subjective norms with mean of 3.17. This result show a good basis in enculturing and promoting entreprenurial intention among student's and support finding by Ajzen (1991) and Līnan (2008).

The EPCK was establish to covered three latent construct called knowledge on entrepreneuship pedagogy, knowledge of concepts and knowledge Mohd representations of learners (Halim and Multiple stepwise linear regression in Table 3 was Meerah,2012). conducted to see the significant relationship between main independent variables (PCK) and dependent variable (entrepreneurial intention). The latent construct of knowledge of concept representations explain most of the increment of the DV (β = .391, p = .000 and is <.05) and followed by knowledge of learners (β = .253, p = .000 and is <.05). The later finding showed that the EPCK model is unanticipated, not significantly influence DV (β = .006, p = .962 and is >.05). However, the combination of knowledge of concepts representations and knowledge of learners explain a 70.6% total variance of the relationship between entrepreneurial PCK and entrepreneurial intention.

Table 3: Relationship between EPCK and EI

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DV	IV	Construct	R	\mathbb{R}^2	β	F	р
Entrepreneurial Intention (EI) Entrepreneurship Pedagogical Content Knowledge (EPCK)	Knowledge of concepts representations	.588	.346	.391	94.161	.000	
	Knowledge of concepts representations and Knowledge of learners	.609	.371	.253	52.143	.000	
	Knowledge of concepts representations, Knowledge of learners and Knowledge on entrepreneurship pedagogy			.006		.962	

Conclusions

In summary, this study could not support the research question number three on the influence of instructor's entrepreneurship PCK model and student's entrepreneurial intention. The relationship test suggest that the knowledge of entrepreneurship pedagogy is not significantly affect the student's entreprenurial intention as compared to the instructor's knowledge of concepts representations and knowledge of learners. Kuala Langat Community College student's approved that their instructor's were knowledgeable of entrepreneurship pedagogy, but thorough analysis for each latent construct showed that the student's believe instructor's knowledge of concepts representations and knowledge of learners gave more significant effect to their entrepreneurial intention. More proper training, mentoring and coaching in entreprenurship education. be a great help to nourish the individual continuously, may entrepreneurial intention. This study emphasizes that instructor's need to have better knowledge of concepts representation and knowledge of learners to improve their entrepreneurship PCK and hence increase student's entrepreneurial intention. More room for improvement in skills to cope with student diversity and learning style is needed as it may help to indicate knowledge of learners better. Future study should involve more respondents from other community colleges and further analysis should be conducted to this research using the structural equation modelling (SEM), therefore, unobserved variables or latent constructs could be analyse thoroughly and identify deeply.

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References

- Ajzen, I. (1991). The theory of planned behavior. Organizational *Behavior* and Human Decision Processes, 50(2), 179–211.
- Ajzen, I. (2001). Nature and operation of attitudes. Annual Review of Psychology, 52, 27–58.
- Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology*, 32(4), 665–683.
- Ball, D. L. et. al. (2008). Content Knowledge for Teaching: What Makes It Special?
- Bandura, A. (1997). Self-efficacy: The exercise of control. New York: Freeman.
- Bausmith, J. M., & Barry, C. (2011). Revisiting Professional Learning Communities to Increase College Readiness: The Importance of Pedagogical Content Knowledge.
- Bahagian Pengambilan Pelajar, Department of Community College Education. Ministry Of Higher Education. Statistik Kemasukan, Keluaran dan Enrolmen 2011 Kolej Komuniti.
- Bahagian Perancangan dan Dasar, Department of Community College Education. Ministry Of Higher Education. Statistik Pengajian Tinggi 2011 Kolej Komuniti.
- Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. Academy of Management Review, 13, 442–453.
- Boyd, N. G., & Vozikis, G. S. (1994). The influence of self-efficacy on the development of entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice*, 18, 63–77.
- Bond-robinson, J. (2005). Identifying pedagogical content knowledge (PCK) in the chemistry laboratory.
- Carsrud, A. L. (1992). *The psychology of entrepreneurship*. Stirling: University of Stirling.
- Denoble, A. F., Jung, K., & Ehrlich, S. B. (1999). Entrepreneurial self-efficacy: The development of a measure and its relation to entrepreneurial action. In P. Reynolds, W. Bygrave, S. Manigart, C. Mason, G. D. Meyer, H. J. Sapienza, & K. G. Shaver (Eds.) Frontiers of Entrepreneurship Research.
- Fayolle, A., & DeGeorge, J. -M. (2006). Attitudes, intentions, and behaviour: New approaches to evaluating entrepreneurship education. In A. Fayolle, & H. Klandt (Eds.) International entrepreneurship education. Issues and Newness. Cheltenham (UK): Edward Elgar.
- Fayolle, A., & Gailly, B. (2005). Using the theory of planned behaviour to assess entrepreneurship teaching programmes. Center for Research in Change, Innovation and Strategy of Louvain School of Management, Working Paper 05/2005.
- Garritz, A. (2010). Pedagogical content knowledge and the affective domain of scholarship of teaching and learning (SoTL).

- Kleickmann, T., et. al. (2013). Instructor's Content Knowledge and Pedagogical Content Knowledge : The Role of Structural Differences in Teacher Education.
- Kolvereid, L. (1996). Prediction of employment status choice intentions. Entrepreneurship Theory and Practice, 21(1), 47–57.
- Kolvereid, L., & Isaksen, E. (2006). New business start-up and subsequent entry into self-employment. *Journal of Business Venturing*, 21(6), 866–885.
- Krueger, N. F. (2000). The cognitive infrastructure of opportunity emergence. *Entrepreneurship Theory and Practice*, 24(3), 5–23.
- Krueger, N. F. (2007). What lies beneath? The experiential essence of entrepreneurial thinking. *Entrepreneurship Theory and Practice*, 31(1), 123–138.
- Krueger, N. F., & Brazeal, D. V. (1994). Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship Theory and Practice*, 19(3), 91–104.
- Krueger, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15(5–6), 411–432.
- PUSKOM Buletin, Bil 1. 2012. Department of Community College Education. Ministry Of Higher Education
- Pelan Pengukuhan Keusahawanan (2011) . Department of Community College Education. Ministry Of Higher Education
- Pelan Pengukuhan Keusahawanan (2010 2015). Department of Community College Education. Ministry Of Higher Education
- Pelan Pemerkasaan Kolej Komuniti (2013 2015). Department of Community College Education. Ministry Of Higher Education
- Seibert, Scott E and Zhou, Hao, The Big Five Personality Dimensions and Entrepreneurial Status: A Meta-Analytical Review (2006). *Journal of Applied Psychology*, Vol. 91, Issue 2, p. 259-271 2006. Available at SSRN: <u>http://ssrn.com/abstract=1502543</u>