

IMPLEMENTING PEDAGOGICAL CONTENT KNOWLEDGE IN TEACHING AND LEARNING ENTREPRENEURSHIP AT COMMUNITY COLLEGE: AN INSTRUCTIONAL ENRICHMENT APPROACH

Merhayati Sipon & Zaidatul Akmaliah Lope Pihie
Faculty of Educational Studies, University Putra Malaysia

Abstract

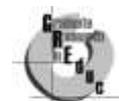
Teachers play an important role in class, not only to teach, but they also play the role of model (in their subject matter) to the audience (students). A good teacher is such like an actor on the stage, the more they were in control and knowledgeable of the topic or subject of the play, the more easier the audience can understand the action of play. Sometimes it will be able to induce the audience to stand up voluntarily giving tribute and a big applause. To get an impression of this effective, teachers need to be skilled and knowledgeable in their own field. These kind of effect are try to be conveyed in the teaching and learning of entrepreneurship subject at Community Colleges. This concept paper embarks on the discussion of implementing pedagogical content knowledge (PCK) in Entrepreneurship Education (EE) at Community College. Many empirical studies confirmed that PCK will improve students understanding and encourage students critical thinking. This study also highlight the effects of PCK in producing a high quality of teaching and learning especially in EE. The implications for future research on the effects of PCK was also discussed.

Keywords: pedagogical content knowledge (PCK), entrepreneurship education (EE)

Introduction

Teachers must regularly update their knowledge about content and pedagogy to keep abreast with current developments in education (Elias, Konting, Lope Pihie & Mahyuddin, 2000). However, little have 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). Lope Pihie & 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. They also found that there is a significant different between science teachers and art / general subject teachers. In the past two decades, "teacher knowledge" or "teacher practical knowledge" and "teacher pedagogical content knowledge" has emerged as a major area of exploration for educational researchers (Shulman, 1986, 1987; Grossman, 1992; Lope Pihie & Hamzah, 1997; Gess-Newsome & Lederman, 1999; Hashweh, 2005; Bond-Robinson, 2005; Halim, Meerah, & Education, 2002; Mansor, Halim, & Osman, 2010; Abd. Rahman & Scaife, 2012; Depaepe, Verschaffel, & Kelchtermans, 2013) mostly in arts, science, mathematics and business. Most researchers have examined teacher thinking, beliefs, attitudes, and teaching practices and have built on Shulman's work on pedagogical content knowledge (PCK) as a specific form of teacher knowledge.

Cochran, DeRuiter, and King, (1993) added emphasis on the socially constructed aspects of PCK by renaming it pedagogical content knowing or PCKg and to outright dismissal of the concept of PCK as redundant and contained within what we know as subject-matter knowledge. However, not much has been written about the practical aspects of PCK, specifically, how pedagogical content knowledge could be used in teacher education to transform teacher knowledge, beliefs, and thinking (Kinach, 2002). This concept paper will reviewing on PCK with main prediction is to understand and find the best model to evaluate and support the importance of PCK in teaching and learning entrepreneurship at Community College, therefor for further clarification on how does PCK could giving influences to students entrepreneurial intention in entrepreneurship education (EE).



Theories on pedagogical content knowledge in teaching

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, Verschaffel, & Kelchtermans, 2013). Half of the PCK studies investigates the development of (pre-service) teachers' PCK (M. Van Dick & Katmaan, 2006; Mansor, Halim & Osman, 2010; Abd. Rahman & Scaiffe, 2012; Halim & Mohd Meerah, 2002; Pihie & Hamzah, 1997). PCK enables practising teachers to make connections between their knowledge of content (Elias, Konting, Lope Pihie & Mahyuddin, 2000) and it is critical for teaching effectiveness (Cochran, deRuiter & King, 1993; Shulman, 1987). Shulman (1987) define pedagogical content knowledge as a special combination of content and pedagogy that is uniquely constructed by teachers and thus is the "special" form of an educator's professional knowing and understanding. Pedagogical content knowledge must be addressed within the context of a diverse pedagogy. Leach and Moon (1999) suggested that 'pedagogy is a joint activity in which the learner has an active role'. Watkins and Mortimer (1999) defined PCK as 'any conscious activity by one person design to enhance the learning of another'. Furthermore, pedagogical content knowledge also is known as '*craft knowledge*' (Jong, Van Driel, & Verloop, 2005). It comprises integrated knowledge representing teachers' accumulated wisdom with respect to their teaching practice: pedagogy, students, subject matter, and the curriculum.

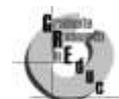
Entrepreneurship at Community College

Community Colleges could potentially have an impact in developing and nurturing entrepreneurship into the society (Che Hassan, Mahamad & Mohd Noor, 2013), hence Department of Community Colleges Education (DCC) has taking initiative by developing a strategic implementation plan called 'Strengthening Entrepreneurship Plan of Community College' (Department of Community College Education, 2010). The plan is designed in line with the Ministry of Higher Education (now has been merge under the Ministry of Education) Entrepreneurship Development Policy as well as taking into account the National Higher Education Strategic Plan and other policies towards producing high performance and competitive entrepreneurs. The plan outlined several comprehensive action plan with monitoring and evaluation activities performed periodically. Among the major initiatives in this plan is the establishment of Community College Entrepreneurial Centre (PUSKOM) at DCC and *e-tech* Centre at every Community Colleges.

PUSKOM establishment has helped the management of DCC in handling more focused and organized entrepreneurial activity among students. PUSKOM plays the important role in governing the planning and implementation of a comprehensive entrepreneurship program at Community College especially in creating more sustainable entrepreneur (Che Hassan Mahamad & Mohd Noor, 2013). PUSKOM working together with *e-tech* centre at every Community College helping to promote entrepreneurial culture among staff and students and the local community through various innovative and creative programs. It is also expected to be able to help the ministry in developing entrepreneurship policy at Community College.

In its earlier establishment in 2001, 12 pioneer Community College ready to disembark their role to the community with the designated primary vision is to make it as a centre of educational excellence in the fields of technology, business and industrial services, and aims to produce competent and responsible graduates in line with the philosophy of education. Moreover, the mission of Community Colleges is to create opportunities, develop potential and achieve excellence for local communities (including graduates and unemployed people) through education and training. In Tenth Malaysia Plan (10MP, 2010), the government has highlighted more roles to Community Colleges by introducing a new, short term skill training program called 'Sijil Modular Kebangsaan' (SMK). This program is part of the enrichment of technical education and vocational training (TVET) offer by Community College. SMK also emphasis in enculcate entrepreneurship among instructor's and students at Community College.

After a decade of the establishment of Community College, in year 2012, there is 81 Community Colleges in Malaysia. Increase in the number of Community College reflects how



society requires a new form of educational institutions (Ahmad, Don, Sakdan, Khalid & Daud, 2012). Ahmad Don, Sakdan, Khalid & Daud, (2012) also believe Community College actually has become a new landscape in our nation education. The concept of Community Colleges that are developed in the vicinity of settlements has opened the eyes of the community to continue their desire to continue learning in line with the concept of Community Colleges as a hub for lifelong learning.

Statement of problem

It is undeniable that PCK is an important goal to emphasis in profesional development program especially in teacher enrichment program (Van Driel & Berry, 2012). Teaching methods and practices are continually evolving, and even the purpose of entrepreneurship education seems to be unresolved (Pittaway & Cope, 2007). While the discipline of entrepreneurship may be mature (Katz, 2003, 2008), the pedagogy of entrepreneurship is not. Some prominent entrepreneurs even question whether entrepreneurship can be taught (Klein & Bullock, 2006). If entrepreneurship cannot be taught, what then is the purpose of entrepreneurship education?

While educators within the field seem to be revolving around the belief that core entrepreneurial skills can be taught (Kuratko, 2005), debate regarding the 'teachability' of entrepreneurship persists (Haase & Lautenschlaeger, 2011). As a result, consensus as to the fundamental goals of entrepreneurship education, such as whether entrepreneurship education can or should positively influence students' propensity to become entrepreneurs (von Graevenitz, Harhoff, & Weber, 2010), has not been reached.

In the year 2011, Community College reported 37,120 number of students enrolment with 84% are male (31,188) and 16% are female (5,932) (Table 1)

Community College Students According to Gender

State	No. of Students	
	Male	Female
Perlis	1669	1063
Kedah	6915	698
Penang	2889	3088
Perak	1445	57
Selangor	1339	159
Negeri Sembilan	2426	82
Malacca	2239	252
Pahang	9743	18
Terengganu	1013	149
Kelantan	700	219
Sabah	755	117
Sarawak	55	30
Jumlah	31188	5932

Sources : Department of Community College (2011)

Among this population, the statistics of student's participation and involvement in entrepreneurship programs / activities / training at Community Colleges as reported in 2012 (Table 2) showed that there were only 11,933 students who attended the entrepreneurship programs. Various 373 entrepreneurship programs have been conducted either by PUSKOM or *e-tech* Centre in 2012. Out of this figure, only 0.68% students manage to become entrepreneur. The number are still far reaching and unconvincing, furthermore why does the students were still not enterprising after all measures been taken care of? Ahmad, Don, Sakdan, Khalid & Daud (2012) found that the number of entrepreneurship programs / activities / training do affect students interpreneurial intention at Community Colleges.

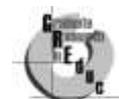


Table 2 2 : Students Involvement in Entrepreneurship Programs at Community Colleges

No.	Community College	No. of Programs	No. of Participation	No. of Entrepreneurs
1	Utara Region	138	4811	14
2	Perak Region	18	1127	24
3	Selangor Region	58	1914	8
4	Negeri Sembilan and Malacca Region	62	1585	11
5	Johor Region	29	809	0
6	Timur Region	54	1422	24
7	Sarawak Region	4	67	0
8	Sabah Region	9	198	0
Jumlah		373	11933	81

Sources : Department of Community College (2012)

However, (Othman & Hussain, 2012) found this dilemma occur as the result of students disability to identify their strength and weaknesses to be a successful entrepreneurs. Even if the students have intention to start up a business, they feel that it is risky and impossible to success in their venture. Hence, (Othman & Hussain, 2012) suggested that students need to be well prepared and strengthened with the knowledge and the appropriate entrepreneurial skills, in addition (Ahmad, Don, Sakdan, Khalid & Daud, 2012) believe that experiential learning should be applied in EE at Community College. This also supported by (Blenker, Dreisler, Faergeman & Kjeldsen, 2006) that emphasizing the diversity of students could only be met by applying variety of pedagogical techniques so that it will make students easy to digest the content afterwards. Again, experiential learning is participative, interactive, and applied. Such an experiential and cognitive component could assist in developing opportunity-recognition ability (Sardeshmukh & Smith-nelson, 2011) and the experience needs to be structured to some degree; relevant learning objectives need to be specified and the conduct of the experience needs to be monitored. In this case, teachers / fasilitators / instructors who are meant to teach entrepreneurship need to be expert and knowledgeable in their subject matter to instill such experience to their students. As (Sarasvathy, 2001) points out, experiential component needs to be tailored to the individual's needs. Sarasvathy (2001) stressed that entrepreneurship depends heavily on '...who you are, what you know, and whom you know...'.

All of the above statement lead us to reconsider the effectiveness of EE that been implemented at Community College now and the importance of PCK to improve EE teaching and learning hence increase students entrepreneurial intention. Thus, the current study is significant in helping teachers and others to understand that PCK is actually beneficial in improving EE.

Effects of Pedagogical Content Knowledge

Starbuck, D. (2006) emphasis that "...in order to be creative in the classroom, you need to enter your creativity state. It all comes down to knowledge and attitude. It is important to make sure that you understand the relevant educational theory properly...". This is align with Ryan, K. & Cooper, J. M. (2011) that "...pedagogical content knowledge enables the teacher to recognize common misunderstandings that students may make in learning new concepts and to know how to overcome those errors in thinking...". This statement show us the importance of adopting and implementing pedagogical content knowledge in teaching and learning. Results showed that teachers have acquired PCK adequately and are able to impart knowledge so that the students understand the content but more room for improvement in terms of teaching aids (technology), and learning strategies (such as computer assisted learning and independent learning – assisted or independent) (Elias, Konting, Lope Pihie & Mahyuddin, 2000). However, what is



the most interesting part that can be concluded here is that all scholars agree that PCK could influence and at certain point improve teaching and learning and also outcome of learning (Baumsmith & Barry, 2011); Heather & Ball, 2005). Most argued is how the teacher in first place could obtain a good PCK: is it through developing a model?, through survey on teacher's PCK? or through continuous training and experience? This were some area of PCK that is need to be further develop and explore by researcher.

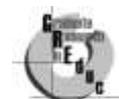
Impact Of Entrepreneurship Programs At Community Colleges

Tracer Study 2012 by Industrial Relations Division, Department of Community Colleges (DCC Tracer Study 2012) initiate that about 3692 (62%) graduates from 5931 respondents intent to become entrepreneurs after graduation. This study is consistent with the findings of the Impact Study on Community College Entrepreneurship Development Programme conducted by addition (Ahmad, Don, Sakdan, Khalid & Daud, 2012) in which the study identified 60% of students have a high desire to enter the world of entrepreneurship. This study also found that such as business competition activities, industry placement, practical and motivational talks from real entrepreneurs has impact on entrepreneurial desire among students. Apart from it, this study reported that Community Colleges have great potential to produce techno-entrepreneurs from other institutions of higher learning. Positive findings from (Ahmad, Don, Sakdan, Khalid & Daud, 2012) agreed that the entrepreneurship programs and education carried throughout the Community College in Malaysia did gave impact on the entrepreneurship policies and curriculum development at Community College. To further uplift Community College potential in crafting more entrepreneurs, a guideline book to strengthening DCC and Community College roles and visibility, 'Pelan Pemerkasaan Kolej Komuniti 2013-2015' and new module of entrepreneurship, 'Modul Asas Kemahiran Keusahawanan' have been developed and circulated in 2013. DCC and Community College have shown their unquestionable commitment and hard work towards realizing the mission for generating more entrepreneurs by successfully conducting various programs / activities / trainings to encourage entrepreneurship among their students and also community. Recently, our Deputy Prime Minister, during the closing ceremony of Carnival of Lifelong Learning Program 2013 at SACC Mall Shah Alam on Sunday, November 17th, 2013 praised the noble effort of DCC in organizing such programs, who tend to encourage people to continue learning and seeking skills that could generate side or second income to community. As reported in the news, the carnival has recorded about 60,000 visitors during the two days event which also conducted collaboratively with various ministries, agencies and private sector. This is something that should be preserve and sustain at Community College.

Conclusion

The impact of PCK in entrepreneurship education (EE) as supported by Magnusson, Krajcik & Borko, (1999) indicate that PCK is simple and applicable to EE. The PCK framework accounts for the educators' orientation towards teaching EE, their knowledge and beliefs about EE curriculum, students' understanding of EE topics, assessment of EE, and instructional strategies for EE. This would provide us with a new perspective in EE hence suggesting a better improvement in EE especially to the educators, the policy makers and to the EE as well. Thus, a study focus on when, how, and why pedagogical content knowledge could play such roles and than further develops new perspective in EE will helps us to understand what are likely the best way to promote and increase entrepreneurial intention through education and learning . Effort to create a culture of entrepreneurship in Malaysia society due to globalization of competition is to be the main focus in Community College. Adoption of the agenda, culture, improvement and strengthening of entrepreneurial activity is important to ensure that the human capital that is born has a high performance work culture, mindset, values and attributes of a successful entrepreneur.

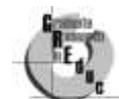
Entrepreneurial learning in Community Colleges were emphasis on hands-on (practical) learning and requires students to have or doing a real experience. Entrepreneurs will learn effectively with this method and will manage to acquire certain competencies through experience in problem solving through real time approach. Entrepreneurs who have knowledge and entrepreneurial skills required were more confidence and high self-efficacy thus enable them to be ready to do something more challenging, especially in the business world (Othman & Hussain,



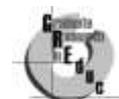
2012). If all lecture's and instructor's in community college well expert in their entrepreneurship pedagogical content knowledge and continuously used various instructional models and strategies such as inductive learning, experiential learning and authentic learning, undoubtedly, student's entrepreneurial intention and potential would be increase.

References

- Abdul Halim Ahmad, Yahya Don, Mohd Fo'ad Sakdan, Mohamad Sukeri Khalid dan Yaakob Daud (2012). Kajian Impak Program Pembangunan Keusahawanan Kolej Komuniti .Pusat Pengurusan Penyelidikan dan Inovasi, Universiti Utara Malaysia.
- Abd. Rahman, F., & Scaife, J. A. (2012). Pre Service Teachers ' Development of Pedagogic Content Knowledge : A Multifaceted Case Study. *Pertanika Journal Social Sciences and Humanities*, 20(3), 615–634.
- Abidin, F. Z., & Bakar, H. (2005). Entrepreneurship Education: The Case of Universiti Utara Malaysia.
- 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.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- 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*.
- Bausmith, J. M., & Barry, C. (2011). Revisiting Professional Learning Communities to Increase College Readiness: The Importance of Pedagogical Content Knowledge. *Educational Researcher*, 40(4), 175–178.
- Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. *Academy of Management Review*, 13, 442–453.
- Blenker, P., Dreisler, P., Færgeman, H. M., & Kjeldsen, J. (2006). Learning and teaching entrepreneurship: dilemmas, reflections and strategies. *International Entrepreneurship Education*, 21-34.
- Buang, N. A., & Awalludin, D. E. (2011). Managing Quality Entrepreneurship Course for Community College Students in Malaysia. *International Business Management*, 5(5), 255-265.
- Buang, N. A., & Yap, P. M. (2012). Kesiediaan Guru-guru Perdagangan di Wilayah Persekutuan dari Aspek Pengetahuan Kaedah Pengajaran dan Sikap terhadap Pengajaran Subjek Pengajian Keusahawanan. *Jurnal Teknologi*, 37(1), 1-16.
- Bond-Robinson, J. (2005). Identifying pedagogical content knowledge (PCK) in the chemistry laboratory. *Chemistry Education Research and Practice*, 6(2), 83–103.
- 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.
- Carsrud, A. L. (1992). *The psychology of entrepreneurship*. Stirling: University of Stirling.
- Chapter 5, 10th. Malaysian Plan Report, (10MP) 2011 - 2015, 2010, Economic Planning Unit, Department of Prime Minister
- Colin Jones, Jack English, (2004) "A contemporary approach to entrepreneurship education", *Education + Training*, 46(8/9), 416 – 423
- Depaepe, F., Verschaffel, L., & Kelchtermans, G. (2013). Pedagogical content knowledge: A systematic review of the way in which the concept has pervaded mathematics educational research. *Teaching and Teacher Education*, 34, 12–25.
- 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*. Wellesley, MA: Babson College.



- Direktori Usahawan Kolej Komuniti. 2010. Department of Community College Education. Ministry Of Higher Education
- Elias, H., Konting, M. M., Lope Pihie, Z. A. & Mahyuddin, R. (2000). Pedagogical Content Knowledge of Secondary School Teachers. *Competencies Needed by Teachers : Implications for Best Teaching Practices. (2005), UPM Press.* 1-11.
- 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).
- Gess-Newsome, J., & Lederman, N. G. (1999). *Examining pedagogical content knowledge.* (J. Gess-Newsome & N. G. Lederman, Eds.) *Science Technology Education Library* (Vol. 6, p. 303). Kluwer Academic Publishers. doi:10.1007/0-306-47217-1
- Halim, L., Meerah, S. M., & Education, F. (2002). Science Trainee Teachers ' Pedagogical Content Knowledge and its Influence on Physics Teaching, *20(2)*.
- Heather, C., & Ball, D. L. (2005). Effects of Teachers ' Mathematical Knowledge for Teaching on Student Achievement.
- Jong, O. De, Van Driel, J. H., & Verloop, N. (2005). Preservice teachers' pedagogical content knowledge of using particle models in teaching chemistry. *Journal of Research in Science Teaching, 42(8)*, 947–964. doi:10.1002/tea.20078
- Katz, J. A. (2003). The chronology and intellectual trajectory of American entrepreneurship education: 1876–1999. *Journal of business venturing, 18(2)*, 283-300.
- Katz, J. A. (2008). Fully Mature but Not Fully Legitimate: A Different Perspective on the State of Entrepreneurship Education. *Journal of Small Business Management, 46(4)*, 550-566.
- Klein, P. G., & Bullock, J. B. (2006). Can entrepreneurship be taught?. *Journal of Agricultural and Applied Economics, 38(2)*, 429.
- Kolvreid, L. (1996). Prediction of employment status choice intentions. *Entrepreneurship Theory and Practice, 21(1)*, 47–57.
- Kolvreid, L., & Isaksen, E. (2006). New business start-up and subsequent entry into self-employment. *Journal of Business Venturing, 21(6)*, 866–885.
- Kuratko, D. F. (2005). The emergence of entrepreneurship education: development, trends, and challenges. *Entrepreneurship Theory and Practice, 29(5)*, 577-598.
- 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.
- Kinach, B. M. (2002). A cognitive strategy for developing pedagogical content knowledge in the secondary mathematics methods course: toward a model of effective practice. *Teaching and Teacher Education, 18(1)*, 51–71.
- Laporan Aktiviti PUSKOM 2012, Department of Community College Education. Ministry Of Higher Education
- Jenny Leach & Bob Moon. (1999). *Learners and Pedagogy* (Eds) 1999 London, Sage 280 pp. ISBN 1-85396-429-8 (pb)
- Lope Pihie, Z. A., & Hamzah, R. (1997). Subject Matter Knowledge of Student Teachers : How Does it Affect Their Ability to Teach Entrepreneurship. *Journal of Social Science and Humanity, Pertanika, UPM Press, 5(1)*, 21–27.
- Mansor, R., Halim, L., & Osman, K. (2010). Teachers' knowledge that promote students' conceptual understanding. *Procedia - Social and Behavioral Sciences, 9*, 1835–1839.



- Othman, N., & Hussain, R. (2012). Evaluation of the Implementation of the Module Basic of Entrepreneurship In College Community Ministry of Higher Education. *ipedr.com*, 36, 96–100. Retrieved from <http://www.ipedr.com/vol36/018-ICETD2012-D10007.pdf>
- 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
- Pihie, Z. A. L., & Sani, A. S. A. (2009). Exploring the entrepreneurial mindset of students: implication for improvement of entrepreneurial learning at university. *The Journal of International Social Research*, 2(8), 340-345.
- Pihie, Z. A. L., & Bagheri, A. (2011). Teachers' and Students' Entrepreneurial Self-Efficacy: Implication for effective Teaching practices. *Procedia-Social and Behavioral Sciences*, 29, 1071-1080.
- Pittaway, L., & Cope, J. (2007). Entrepreneurship Education: A Systematic Review of the Evidence. *International Small Business Journal*, 25(5), 479–510. doi:10.1177/0266242607080656
- S. Magnusson, J. Krajcik, H. Borko(1999). Examining Pedagogical Content Knowledge: The Construct and Its Implications for Science Education. Science & Technology Education Library. pp. 95-132 edited by Julie Gess-Newsome, Norman G. Lederman
- Sardeshmukh, S. R., & Smith-nelson, R. M. (2011). Educating For An Entrepreneurial Career : Developing Opportunity- Recognition Ability ‘ *S. Australian Journal of Career Development*, 20(3), 47–56.
- 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: <http://ssrn.com/abstract=1502543>
- Stitt-Gohdes, W. L. (2001). Business education students' preferred learning style and their teachers' preferred instructional styles: Do they match?" *Delta Pi Epsilon Journal*, 43(3), 137-151. At <http://scholar.lib.vt.edu/ejournals/JCTE/v18n1/pdf/stitt.pdf>
- Van Driel, J. H., & Berry, a. (2012). Teacher Professional Development Focusing on Pedagogical Content Knowledge. *Educational Researcher*, 41(1), 26–28.
- Watkins C and Mortimer P (1999). *Pedagogy: What do we know?* In Mortimer P (Ed) (1999). *Understanding pedagogy and its impact on teaching*. (pp 1-19) London: Chapman
- Williams, L. E. (2004). Entrepreneurial Education: Creating a Usable Economic Community Base.
- Yusof, M., Sandhu, M. S., & Jain, K. K. (2008). Entrepreneurial inclination of university students: A case study of students at Tun Abdul Razak University (Unitar). *Unitar E-Journal*, 4(1), 1.
- Starbuck, D. (2006). *Creative Teaching, Getting it Right*. Publisher, London ; New York : Continuum,
- Ryan, K. & Cooper, J. M. (2011). *Those Who Can, Teach*, 13th ed. Cengage Learning, 2011. 560p.

