Full Length Research Paper

Development of "entrepreneur role-playing game" educational program and evaluation of its implementation effect from the viewpoint of cognitive apprenticeship theory

Chien-Hua Shen[1], Chun-Mei Chou[2]*, Hsi-Chi Hsiao[3], Yu-Je Lee4 and Su-Chang Chen[5]

[1]Department of Business Administration, Transworld Institute of Technology, Yunlin, Taiwan.
[2]Graduate Institute of Vocational and Technological Education, National Yunlin University of Science and Technology, Yunlin, Taiwan.
[3]Graduate Institute of Business and Administration, Cheng Shiu University, Kaohsiung, Taiwan.
[4]Takming University of Science and Technology, Taipei, Taiwan.
[5]Department of Marketing and Logistics and Management, National Penghu University, Taiwan

This study aims to develop an entrepreneur education program and evaluate its instructional effects from the viewpoint of "cognitive apprenticeship model". In order to accomplish this purpose, this study samples 40 participating students from a case school as subjects, adopts methods of participation and observation, in-depth interviews, writing learning journal; and analyzes data using ATLAS.ti software accompanied by critical incident technique (CIT), "modified analysis induction", and "constant comparison analysis". The findings demonstrate that the program possesses entrepreneur role development functions, such as external support, transition, and self-adjustment.

Key words: Micro business, entrepreneur education, cognitive apprenticeship.

INTRODUCTION

Entrepreneur education aims to develop and enhance students' entrepreneurship perceptions and cultivate students' devotion, ambition, and pioneering and adventurous spirits (Chou and Shen, 2003; Dyer et al., 2008; Jones and Iredale, 2006; Shinnar et al., 2009; Wilson et al., 2007). Entrepreneur education effectiveness is examined upon entrepreneur plan writing and launching. The teaching process is based on team work, from the establishment of business ideas, products, operations, sales locations, and market investigations; the instructional activities are conducted upon collaborative learning, as well as instruction of in-school teachers and mentors outside the school (Florin et al., 2007; Jones and Iredale, 2006; Mars and Garrison, 2009; Souitaris et al.,

2007).

"Cognitive apprenticeship" is the model following traditional apprenticeship, where learners are guided by mentors. In other words, through mentors' (experts') demonstrations, teaching, and support, with students' observations and active learning, the students absorb knowledge, skills, and attitude (Haynie and Sepherd, 2009; Mars and Garrison, 2009; McGee et al., 2009). Zanting et al. (2001) suggested that in order to become experienced when learning from mentors, and to practice and believe, students must experience three stages, namely, 1) "externally supported", which means regular reflection on professional socialization, technical reflection, practical reflection, and critical reflection; 2) "transitional", which means three different levels from the abstract to the specific of students' practical knowledge, including professional knowledge in actual entrepreneurship, personalized characteristics, and concrete

*Corresponding author. E-mail: choucm@yuntech.edu.tw.

behavior in special situations; and 3) "self-regulatory", which means students' learning content under the mentors' instruction, including job familiarity, goals and values, organizational culture, interpersonal relationships, etc. Some scholars indicated that the instructional strategy of the cognition apprenticeship theory is effective with collaborative learning. Hytti and O'Gorman (2004) and Duncan (1996) also suggested that apprenticeship is an effective learning mechanism.

The technical entrepreneur education program, as proposed by Yemini and Haddad (2010), was based on collaborative learning. Boore and Poter (2011) suggested that entrepreneur education should emphasize situated learning and collaborative learning. Therefore, this study focuses on collaborative learning, and by applying instructional model of cognitive apprenticeship, plans and implements an entrepreneur education program and explores the students' learning effectiveness as the main research motive. Based on the research motive, the purposes of this study are:

1) To construct an entrepreneur education program based on the cognitive apprenticeship theory.
2) To explore the students' learning effectiveness under this entrepreneur education program of cognition apprenticeship.

LITERATURE REVIEW

Origin of cognitive apprenticeship theory and its instructional strategy, and studies on its educational programs are as described thus.

Origin of cognitive apprenticeship theory

The "cognitive apprenticeship theory" is originated from the situated cognition theory, as proposed by Brown et al. (1989), which emphasized to provide learning environments of real situations and is problem solving oriented, whereas the learners recognize the absorbed knowledge by learning activities. Such recognition process indirectly influences learners' interpretation and application of knowledge, as it emphasizes the cognitive characteristics of human learning. Situated cognition in instruction stresses the role of learning situations in the learning process. Knowledge learning of special subjects focuses on experience learning, and learning and interpretation of knowledge must be based on the knowledge absorption and application. Situated cognition emphasizes learning concepts through activities and thus stresses the correlation between learning situations and knowledge, foretelling the timing of knowledge application and problem-solving functions. Learners can learn transitional functions through real activities and cultivate situated thinking. By instructional strategy of cognitive apprenticeship - demonstrating, teaching, scaffold

providing and removing, clarification, reflection, and exploration, it cultivates the student to become one who can independently think and can solve problem so as to improve the situation in which students cannot solve daily life problems using learned mathematical concepts in traditional teaching (Cheng, 1993; Lave, 1988; Lave and Wenger, 1991; Mars and Garrison, 2009).

Collins et al. (1989) suggested that knowledge and skill learning must be fused into situations related to daily life application. In cognitive apprenticeship, knowledge of concepts and facts are actively obtained by problem-solving and task fulfillment. "Apprenticeship" cognitive instruction is based on the spirit and approach of traditional apprenticeship, and teaches the skill and strategy of cognition. It not only instructs skills and crafts, by instructional design, but also becomes practice-oriented instructional strategies and turn into a teaching model of cognitive apprenticeship (Perren, 2003; Miettinen, 2006; Sullivan, 2000; Wanberg et al., 2003).

Instructional strategy of cognitive apprenticeship theory

Implementation of instructional strategy of the "cognitive apprenticeship model" includes four constituents of "content", "approach", "sequence", and "social aspect". The curriculum based on the cognitive apprenticeship theory aims to treat experienced expert knowledge as the target knowledge for students in order to enlighten students' learning direction and strategy. By the interaction of technique and strategy as teacher's demonstration, coaching, supervision, diagnosis, modifications, remedies, and student's imitation, articulation, reflection, and exploration, one can design learning procedure step by step, from simple to complicated, from specific to general, from easy to difficult, and gradually increases complexity, generality, and variety. Upon various situations and under support of social and cultural networks, it develops students' cognitive methods and skills to achieve their articulation, effective adaption to environment and professionalism (Collins et al., 1989; Collins, 1991; Kirzner, 2009; Reigeluth and Stein, 1983; Rogoff, 1990; McGee et al., 2009; Wanberg et al., 2003).

In studies related to the cognitive apprenticeship theory, the instructional strategy is based on "situated learning" (Shinnar et al., 2009; Mars and Garrison, 2009; Sagor, 1992). Vygotsky (1978) suggested that, with the demonstration and assistance of individuals with better competences in society, such as colleagues and experts, learners can reduce the zone of proximal development (ZPD). After the 1990s, learning community as the core learning style was advocated, which includes collaborative learning and cognitive apprenticeship. Instructional strategies of cognitive apprenticeships should be based on theory of scaffold and situated learning. After teachers adopt cognitive apprenticeship

instruction of scaffolding, teachers' teaching effectiveness and students' learning attitude are significantly enhanced, and when teachers employ multiple evaluations, it will even further enhance teaching effectiveness (Boore and Poter, 2011; Perren, 2003; Sullivan, 2000).

Regarding the cognitive apprenticeship model, Miettinen (2006) and Perren (2003) suggested that the mentor teaching system not only adopted the concept of "cognitive apprenticeship", but integrated other multi-facet theories. It stressed autonomy, diversity, and flexibility. They also proposed six strategies: 1) modeling: mentors demonstrate the steps of professional tasks to construct the students' overall views on the said tasks. Through the strategy of modeling, students develop professional paradigms; 2) educating: with the assistance, guidance, and feedback of mentors, students practice professional tasks. Through the strategy of educating, students develop professional knowledge and skills; 3) networking: after mentors bestow professional knowledge scaffolding, apprentices can independently fulfill tasks. If the apprentices' competence is insufficient, the mentors will assist and instruct the difficult steps; and once the apprentices can accomplish the tasks independently, mentors will draw back from the problem-solving process. Through networking, students learn to construct situational context; 4) telling: it trains students to gain the capability to clarify concepts and related issues. Thus, apprentices can explain their comprehension in the accomplishment of professional tasks. By telling, students learn to completely describe the coordination processes of task fulfillment; 5) outlooking: this allows students to compare their problem-solving processes with experts or colleagues, or through an internal conceptual model of the entrepreneur work. Through Outlooking, students learn to apply a general view to the situation; and 6) reacting: students learn the problem solving process from mentors. It stimulates their problem-solving ability to discover students' problem-solving style. By reacting, students learn to independently construct the competences to solve problems and undertake tasks (Haynie and Sepherd, 2009; Perren, 2003; Miettinen, 2006; Sullivan, 2000; Wanberg et al., 2003).

Based on the ongoing, the "cognitive apprenticeship theory" is treated as external support for students' professional social competence. It aims to develop students' practical knowledge and skills to meet professional socialization, such as using cognitive information, problem solving, interpersonal relationships, knowledge and competence transition, and job familiarity. Thus, students can effectively adjust and transit entrepreneurial knowledge and skills for future enterprise situations.

PROGRAM DESIGN AND IMPLEMENTATION

1. Teaching objective: to integrate and implement students' professional and entrepreneurial knowledge and skills and introduces the human resources of industrial and academic organization to supplement students' insufficiency in professional and practical knowledge and competence. Through experiential learning, it meet the educational concepts of learning by doing, and doing in learning.

2. Implementation period: there are 20 weeks on Saturdays and Sundays from October 2010 to January 2011. Implementation time has 200 h.

3. Implementation layout: (A) Subjects: graduating students of day (night) school in two-year college program or students above junior in four-year college program. The subjects form 10 groups (5 to 7 members for each group), members from different departments are treated with priority. (B) Registration: (a) only teams as a whole are qualified, individuals are not accepted; (b) before registration, the teams must complete an entrepreneurial orientation scale at the Counseling Center, and sign a learning contract. The contract declare that they will participate in the activity throughout the entire process, follow the regulations related to members, and they are willing to unconditionally share their ideas, plans, and review in this activity on the website. (C) Selection of members: if there are more than ten teams registering for the activity, the center will invite a counselor from the Counseling Center, and members of the Chinese Youth Entrepreneur Association (CYEA) to form a team for member selection. Each team is interviewed, and their learning devotion, entrepreneurial characteristics, and team members' professional differences and complementary aspects are evaluated. (D) Program content: the researcher invites the members of CYEA, the Honorary Guide Association, the Junior Chamber, or the Rotary Club with entrepreneur experience and educational devotion to be mentors. Each mentor instructs one simulated entrepreneurial team. Entrepreneur education experts and scholars are invited to lecture in entrepreneur competence training to enhance members' basic capabilities. The purpose is to establish a micro business, based on entrepreneur plan writing and development. In this program the campus is the market and the students, teachers, and community residents near the school are the customers. Under the instruction of mentors, the students practice entrepreneurship and corporate operation. The activities are introduced as follows:

a) Modeling (entrepreneur lectures and TV instruction of "Discovery of NT dollars"): All members must participate in entrepreneur lectures of micro business, and under teachers' instruction, watch the films "Discovery of NT dollars", which introduce successful entrepreneur and their business running processes. The students must write learning reports and present oral reports in order to understand entrepreneurial processes and business models.

b) Educating (general courses): In addition to the professional training provided by mentors, all teams must participate in general course training (Table 1) and should not be absent.c) Networking (workplace experience): Each simulated entrepreneur team takes experience in a workplace relevant to their entrepreneurial ideas under mentors' instruction. They observe the entrepreneurs' managerial behaviors, and learn their professional and managerial skills. During the experiencing process, the mentors will accompany and guide them to enhance their professional knowledge and entrepreneurial competence. All members must fill in observation record sheets and internship journals.

d) Telling (report of entrepreneur ideas): First, the mentors guide the simulated entrepreneur team to brainstorm to stimulate new business initiative treating the campus as the market, and teachers, faculty, and students as consumers. Adopting DACUM (developing a curriculum) method, commonly used in curriculum development, students are invited to freely introduce their business ideas and classify them as references for the teams to write themes of entrepreneur plans. Second, according to the outcome of the previous brainstorming, the simulated entrepreneurial teams select the products or product combinations, and complete the entrepreneur plan accompanied by verbal reports under mentors' instructions. Members of CYEA and managers from financial circles and venture firms are invited to form an evaluation team to give

Table 1. General courses of entrepreneur role-playing game.

Title of subject	Training objective	Hours
Writing of entrepreneur plans	1. To understand the function of entrepreneur plans 2. To understand composition and writing of entrepreneur plans 3. Introducing examples	18
Sales practice and drilling of micro business	1. To learn characteristics of micro business 2. To learn sale skill by role playing	12
Practice of Company Law	1. To learn the introduction of Company Law 2. To learn micro-business registration process and the required documents	6
Discovery of NT dollars (TV instruction)	To understand successful entrepreneurial processes	10
Enterprisers' lectures	To learn successful and failed entrepreneurial processes and business models	16

suggestions to the teams to write entrepreneur plans.

e) Outlooking (completion of entrepreneur plans): According to the suggestions of the evaluation team, the mentors guide the simulated entrepreneur teams to write entrepreneur plans with the goal of establishing micro businesses. Thereafter, students give verbal briefings and responses at review meetings in order to clarify their direction, content, and feasibility of entrepreneur plans. Finally, by reorganizing the opinions of reviewers, mentors, and team members, the final versions of the plans are accomplished.

f) Reacting (entrepreneur practice): The simulated entrepreneurial teams practice running micro businesses on campus for five days in order to experience the business behaviors associated with products, sales, human resources, marketing, and finance. Each group must raise their own funds, while the space, water, and electricity during business start-up period are provided by the case school. The mentors serve as consultants. After the end of this program, students brief their learning outcomes. An evaluation team comprised with the researchers selects the prominent teams according to the simulated entrepreneurial outcomes. The case school raises funds as prizes; the rewarded teams will be recommended to reside in the innovation incubation center of the case school for cultivation of a new business. The center will continue tracing the students' business developments.

Based on the foregoing, the idea of this program is to treat the school as the business site, and teachers and students as customers. Each team proposes an entrepreneur plan according to entrepreneur ideas, and simulates market investigation, analysis, and company registration before establishing the company, as well as sales, operations(human resource management), channels, management, and producing income statements(such as promotions and opening up channels) after the establishing the company in order to enhance the integration of professional competence, cultivate students' entrepreneurship and confidence to enter the workplace.

Data collection and analysis

The subjects, implementation procedure, data collection, and data analysis of this study are described as follows:

The subjects

In this study, 10 students from the case school participating in this program are chosen as subjects. Their academic backgrounds include: business administration, marketing management, and beauty science. These students participate in the program throughout the entire process, thus they fully understand the implementation of this program.

Data collection

Using action research method, data is collected by participant observations, interviews, learning journals, and history files to probe into students' learning effectiveness after participating in the "entrepreneur role-playing game" for one semester. The manners of activities and its data collection are as shown in Table 2.

Data analysis

This study analyzes data using ATLAS.ti software. First, according to literature review, the code table was first constructed and the codes were recorded with each key event. The content of the key events then was recorded from what was written by the apprentices in order to understand their thinking processes and reflections, analyze the similarity between or uniqueness of different cases. Data is analyzed and inducted by methods of modified analysis induction and constant comparison analysis and then comparisons were made with what is in the literature.

The data code format is data sources-student's major. The data sources are coded as A: observation; B: interview; C: internship journals and related documents. The method of data coding is meant to established categories to define the analytical units.

The categories include externally supported, transitional, and self-regulatory and are further classified according to cognitive content.

Three coders validate reliability by the "encoder reliability approach" (Wimmer and Dominick, 2000). Reliability is 0.824, and the formula is given thus:

$$\frac{\text{Two encoders' inter-code agreement}}{} = \frac{2M}{N1+N2}$$

RESULT

Entrepreneur   education   program   of   cognitive

Table 2. Sources of data collection of "entrepreneur role-playing game".

Activity	Entrepreneurs give lectures and students watch films	General course instruction	Workplace experience	Accomplishing entrepreneur plans	Entrepreneurial implementation
Details	1. The entrepreneurs of first-time and second-time (those who have failed) share their entrepreneurial experience 2. The students watch DVDs introducing successful entrepreneurs 3. Students write learning journals and make oral reports	1. Collaborative teaching of in-school teachers and outside school mentors 2. TV teaching "Discovery of NT dollars"	1. Under the mentors' instruction, students take experience in the workplace in micro business 2. Observe and interview with micro business entrepreneur to learn operation and managerial practices. 3.Teachers have on-site lectures and forums	1. Treating teachers and students as customers and under mentors' guidance, launch business initiative on campus with written and oral briefings 2. Upon guidance of teachers and mentors, the students accomplish entrepreneur plans 3. The teams brief the entrepreneur plans. 4. Evaluation team suggest for modifications, students respond	1. Implement business activities (5 days) 2. Teachers and mentors observe the students and provide necessary assistance 3. students present learning outcomes and make mutual evaluations
Data source	1. Learning reports	1.Learning report of each Unit 2. Overall learning report	1. Workplace experience journal 2. Learning reports from observations	1. Entrepreneurial idea scripts 2. Colleagues' evaluation of entrepreneurial ideas 3. entrepreneur plans 4. Colleagues' evaluation on entrepreneur plans 5. Learning reports	1. Mutual evaluation form of entrepreneur simulation outcomes 2. Learning reports of entrepreneur practices 3. Live filming and evaluation form

apprenticeship model possesses occupational role development functions, such as external support, transition, and self-regulation. Through the cognitive apprenticeship model of Collins et al. (1989), an "entrepreneur role-playing game" educational program that encapsulate domain knowledge, problem solving, hands-on strategies, control strategies, and learning strategies, which should be possessed by experts (mentors), was designed. This program has different cognition at three stages ("externally supported", "transitional", and "self-regulatory"), as suggested by Zanting et al. (2001).

In the process to grow from the inexperienced to experts, students' absorption of professional knowledge in school remains extremely important (Dyer et al., 2008; Mars and Garrison, 2009; Souitaris et al., 2007). In complicated situations of business start-up, although students have sufficient refined descriptive knowledge in schema, they lack the action schema to solve problems. In addition, to learn experts' rapid thinking, implicit knowledge, and implementation wisdom upon encountering complicated entrepreneurial situations, the students must search for possible solution by situated learning of cognitive apprenticeship model in order to learn the experts' thinking styles and implementation wisdom. Therefore, by the educational program of cognitive apprenticeship model of this study, students demonstrate entrepreneur role development functions, such as externally support, transition, and self-regulation. Students have different cognitions toward different educational activities in this program. This study demonstrates that students have different cognitions toward different learning activities in this plan, as shown in Table 3: 1) entrepreneurs' lectures and film watching: critical reflection, practical principles, goal and values; 2) general course instruction: technical reflection, implementation reflection, practical principle, and historical agreement; 3) workplace experience: regular

Table 3. Implementation effectiveness of "entrepreneur role-playing game" plan.

Cognitive implication	Action research	Enterprisers' lectures and film watching	General course instruction	Workplace experience	entrepreneur initiative and accomplishment of entrepreneur plan writing	entrepreneurial implementation
Externally supported	Regular reflection	ε	ε	●		●
	Technical reflection		●	●	ε	ε
	Implementation reflection	ε	●		●	●
	Critical reflection	●	ε			
Transitional	Image		ε	●		ε
	Practical principle	●	●		●	●
	Implementation rules	ε		●	ε	●
Self-regulatory	Job proficiency			●		●
	Goal and value	●				●
	School culture	ε		●	●	
	Interpersonal relationship	ε	ε		ε	●
	Historic agreement		●	●		
	Role language	ε				●

● indicates registration frequency of at least 50% in action plans; Ɛ indicates registration frequency 20 to 50% in action plans.

reflection, technical reflection, image, implementation rules, job proficiency, school culture, and historical agreement; 4) entrepreneur initiative and entrepreneur plan writing: implementation reflection, practical principle, and school culture; 5) entrepreneurial implementation: regular and implementation reflection, practical principle, implementation rules, goal and value, job proficiency, interpersonal relationships, and role language.

Specifically, the results of this study demonstrate that "critical reflection", "implementation rules" and "interpersonal relationship" of workplace experience will enhance students' learning reflection and behavior adjustment. Therefore, schools should encourage students to have experience in the workplace so that through mentors' instruction, classmates' discussions, and observation about entrepreneurs, the students' entrepreneurial abilities can be cultivated.

IMPLICATIONS

Four suggestions are proposed in this study for schools to implement entrepreneurial education programs:

1) Enhance students' "externally supported" reflection competence: Schools should apply multiple teaching strategy and implementation activity to associate with students' life experiences, and adopt teaching techniques such as reading, discussion, observations, field study, autobiography, journals, case study, debates, appreciation, and inquiry. They should also get feedback of teaching activities through action study to cultivate students' self-reflection and dialogue with entrepreneurs and to encourage students to be active learners.

2) Enhance students' "transitional" capabilities: Schools should enhance students' professional knowledge and competence by technique-based

teaching, concept thinking teaching, group discussion teaching, ladder internship-oriented teaching, and various teaching strategies in order to make the students to have sufficient transitional and self-regulatory responsive measures in a work environment.

3) Enhance students' "self-regulatory" ability: Before students have the intention to start a business, schools should teach the students to not only collect relevant industry information, but also enhance professional and managerial knowledge and competence. By doing so, students can shorten the gap between the requirements of the ideal and actual work environment so as to become one with entrepreneurship.

4) Successful entrepreneur might not be able to sufficiently share their entrepreneur experience: Implementation of entrepreneur education programs must rely on collaborative instruction of in-school teachers and mentors (entrepreneurs) so that the students can obtain practical and theoretical entrepreneurial knowledge and skills. However, the entrepreneurs should be guided by in-school teachers in order to completely and effectively transmit the information to students. Therefore, before implementing the program, the mentors should be carefully selected and be sufficiently communicated in order to ensure the effective implementation of this program.

LIMITATIONS OF THE STUDY

Suggestion to future studies: This study tries not to interfere with the mentors' beliefs and teaching styles in order to probe into students' learning of entrepreneur's professional knowledge and competence. The assumption of this program is that the mentors have the ability to recognize the students' bottleneck of professional growth in entrepreneurial practice, and they are able to assist the students with corresponding guiding activities according to students' insufficient aspects. Future research can study mentors' teaching beliefs and teaching styles as how these influence on students' learning effectiveness of entrepreneurial knowledge and competence and how these serve as the criteria for case schools when selecting mentors.

ACKNOWLEDGEMENT

REFERENCES

Boore J, Poter S (2011). Education for entrepreneurship in nursing. Nurse Educ. Today, 31: 184-191.
Brown JS, Collins A, Duguid P (1989). Situated cognition and the culture of learning. Educ. Res., 18(1): 32-42.
Cheng CC (1993). A new view of instructional design of computer-based learning - cognitive apprenticeship. J. Educ. Inform. Libr. Sci., 31(1): 55-66.
Chou CM, Shen CH (2003). Study on interns' socialization from perspective of cognitive Process. Educ. Rev., 20: 57-78.
Collins A (1991). A cognitive apprenticeship for disadvantaged students. Technical Report No. 10, the Center for Technology in Education.
Collins A, Brown JS, Newman SE (1989). Cognition apprenticeship: reaching the craft of reading, writing, and mathematics. In L. B. Resnick (Ed.), Knowing, learning, and instruction : Essays in honor of Robert Glaser. Hillsdale, NJ: Routledge.
Duncan SLS (1996). Cognitive apprenticeship in classroom instruction: Implications for industrial and technical teacher education. J. Ind. Teach. Educ., 33(3): 66-86.
Dyer, JH, Gregersen HB, Christnesen C (2008). Entrepreneur behaviors, opportunity, recognition, and the origins of innovative ventures. J. Strateg. Entrep, 2: 317–338.
Florin J, Karri R, Rossiter N (2007). Fostering entrepreneurial drive in business education: An attitudinal approach. J. Manage. Educ., 31(1): 17-42.
Haynie M, Sepherd D (2009). A measure of adaptive cognition for entrepreneurship research. Entrep. Theory Pract. May: 695-714.
Hytti U, O'Gorman C (2004). What is "enterprise education? An analysis of the objectives and methods of enterprise education programmes in four European countries. Educ. Train., 46(1):11-23.
Jones B, Iredale N (2006). Developing an entrepreneurial life skills summer school. Inter. Inno. Edu. & Teach. 43(3): 233-244.
Kirzner IM (2009). The alert and creative entrepreneur: a clarification. Small Bus. Econ., 32: 145–152.
Lave J (1988). Cognition in practice. Boston: Cambridge.
Lave J, Wenger E (1991). Situated learning: Legitimate peripheral participation. NY: Cambridge.
Mars MM, Garrison S (2009). Socially-oriented ventures and traditional entrepreneurship education models: A case review. J. Educa. Bus., May/June: 209-296.
McGee JE, Peterson M, Mueller SL, Sequeira JM (2009). Entrepreneurial Self-Efficacy: Refining the Measure. Entrepre. Theory Prac., July: 965-988.
Miettinen A (2006). Mentoring for entrepremeurs as an education intervention. In A. Fayolle & H. Klandt (eds), International entrepeneurship education (pp. 112-132). MA: Edward Elgar.
Perren L (2003). The role of e-mentoring in entrepreneurial education and support: a meta-review of academic literature. Educ. Train., 45(8/9): 517-525.
Rogoff B (1990). Apprenticeship in thinking: Cognitive development in social context. New York: Oxford University Press.
Sagor R (1992). How to conduct collaborative action research. Alexandria, VA: Association for Supervision and Curriculum Development.
Shinnar R, Pruett M, Toney B (2009). Entrepreneurship education: Attitudes across campus. J. Educ. Bus., January/February: 151-158.
Souitaris V, Zerbinati S, Al-Laham A (2007). Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources. J. Bus. Ventur., 22(4): 566–591
Sullivan R (2000). Entrepreneurial learning and mentoring. Inter. J. Entrep. Behav. Res., 6(3): 160-175.
Wanberg CR, Welsh ET, Hezlett SA (2003). Mentoring research: A review and dynamic process model. In J. J. Martocchio & G. R. Ferris (Eds.), Research in personnel and human resources management Oxford: Elsevier Science Ltd., pp. 39-124.
Wilson F, Kickul J, Marlino D (2007). Gender, entrepreneurial self-efficacy, and entrepreneurial career intentions: Implications for entrepreneurship education. Entrep. Theory Pract., 31(3): 387-406.
Yemini M, Haddad J (2010). Engineer-entrepreneur: combining technical knowledge with entrepreneurship education-the Israeli case study. Inter. J. Eng. Educa., 26(5): 1220-1229.
Zanting A, Verloop N, Vermunt JD (2001). Student teachers eliciting mentors' practical knowledge and comparing it to their own beliefs. Teach. Teacher Educ., 17: 725-740.