

Using Pull Strategy for Curricula Design on Entrepreneurship Education.

Matthijs Hammer

Senior Lecturer

Saxion University of Applied Sciences / University of Technology Delft

P.O. Box 70.000

7500 KB Enschede

The Netherlands

+31 53 4871397

m.h.m.hammermsc@saxion.nl

www.saxion.nl

Han van der Meer

Associate professor

Saxion University of Applied Sciences / University of Technology Delft

Abstract

Universities are deeply involved in stimulating their students in entrepreneurship where they focus on designing programs based on existing knowledge from pedagogics and didactical concepts. Although the Total Entrepreneurial Activity is increasing, the results are not satisfying in all cases. The question arises: where improvements can be made in curriculum design approaches. Exploring recent developments in curriculum design and engaged scholarship anchor points may be found. The start of a traditional journey starts at the development of the adolescent (push approach). In this paper the start is from the other end, the terminal station of the educational process, the profession of the student (pull approach). The journey among the developments shows that an anchor point for an alternative approach can be the context of the curriculum to be designed. Where the macro level is common over years, the micro (personal) level is starting attracting scholars' attention. From the perspective of the meso level, a new context emerges. Engaging this context into the design process, better programs can be developed as technical start-up programs implicate. The questions addressed opens a new insights in the dynamic of the different professional domains. With these specific characteristics, the elements of a curriculum can be adopted to this and specific programs can be designed.

Introduction

In the last decade, the premise that entrepreneurship is an important factor on the economic development of a region is affirmed through many scholars (Ahmad and Hoffmann, 2008, Thurik and Wennekers, 2004, Minniti and Lévesque, 2010, Zalan and Lewis, 2010). It has been shown that a high level of entrepreneurial activity contributes to innovation, competition, economic growth and job creation (Carree and Thurik, 2003). For this reason, politicians on European, national and regional level, started to encourage activities promoting and stimulating the start of new ventures (Sijgers et al., 2005, Khan, 2011, Audretsch, 2004, Raposo and Paco, 2011).

Based on GEM-data it is known that since several years the Total Entrepreneurial Activity (TEA) is increasing worldwide and that a positive relation with the growth of the economy is found (Bosma and Levie, 2009). The support given to entrepreneurs in starting can be divided in hard support, as tax reduction and provision of infrastructure and soft support as, coaching and training (Koopman, 2013). Communities as well as universities designed programmes to support the starting entrepreneurs to contribute to the economic growth in both elements of

support, likely to have double chances achieving their objectives. A main stream of scholars finds that the support of person, the entrepreneur, has a positive impact on the development of entrepreneurship (Zalan and Lewis, 2010, Raposo and Paco, 2011) and helps to avoid Entrepreneurial Failure (Parsa, 2005). This can be one of the arguments that Entrepreneurship Education has been implemented widely in education programs at universities.

For the design of these educational programmes, available tools techniques are used but over time they seem not to fit the need of entrepreneurs and insights from non-traditional perspectives are added to the toolbox of the curricula designers (Honig, 2004, Gibb, 1993, Gibb, 2002, Hammer, 2012). These developments can be described as ‘push’ approach to design programs for Entrepreneurship Education. In the last years, scholars debate on new insights on Entrepreneurship as experiencing the limitations of the program designs in the last decade (Blenker et al., 2011). Based on these insights, new perspectives of educational programs emerge by change the focus to a more ‘pull ‘approach’. The question arises: how do pull approaches look like and effect the existing curricula design protocols?

Background

The design for an educational program or curricula is described in the science of Educational Design Research (van den Akker et al., 2006). In this domain, the pedagogy and andragogy are leading constructs were the aim is to help the development of a child or adult, among their natural development. Given their development stage, a program is designed. A often used model for this type of design is the Curricular spider web of (van den Akker, 2003) as shown in figure 1. In this model the key elements of a curriculum are mentioned and need to be addressed have an internal consistency (van den Akker, 2003). Once a curriculum design is chosen, major changes only affect the content, aims and objectives and learning activities.

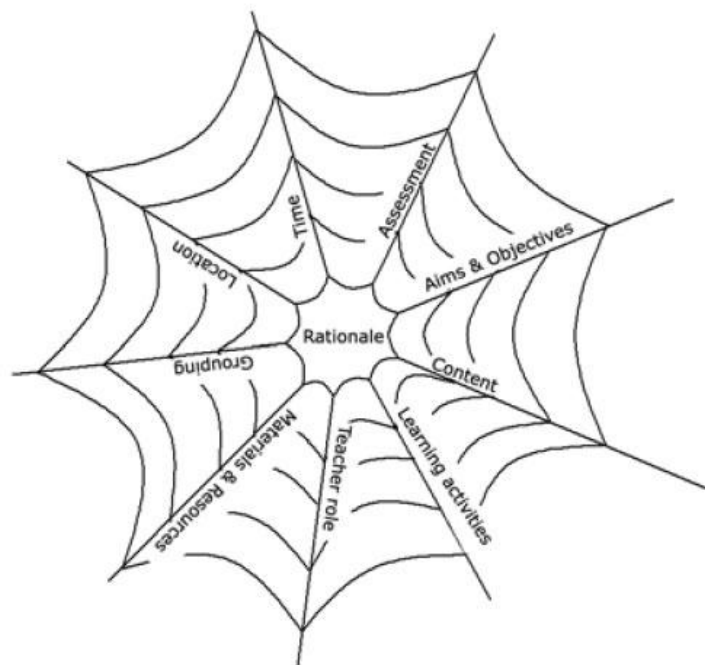


Figure 1, Curricular Spiderweb (van den Akker, 2003)

Leading researches on entrepreneurship education as Allan Gibb (2002) added more diversity and dynamics on the education of entrepreneurs; remaining the existing design processes. Other researchers as Walter and Dohse (2012) argue that that education methods as active

modes, are positively influencing the entrepreneurial education. Neck & Green (2011) conclude that the education structure requires a new approach based on action and practice. Whereas Mathews (2007) argues that constructivism leads to learning that is action-based where learners construct or make interpretations of their world through interactions in the real-world. Walter and Doshe (2012) also conclude that regional context (culture) moderates entrepreneurship education. Other scholars argued that entrepreneurship needs other skills or competences (Groen et al., 2002, Kutzhanova et al., 2009, Binks et al., 2006, Leitch et al., 2012). Based on this, figure 2 is made, where the influences on the entrepreneurial teaching process are shown (Koopman et al., 2013).

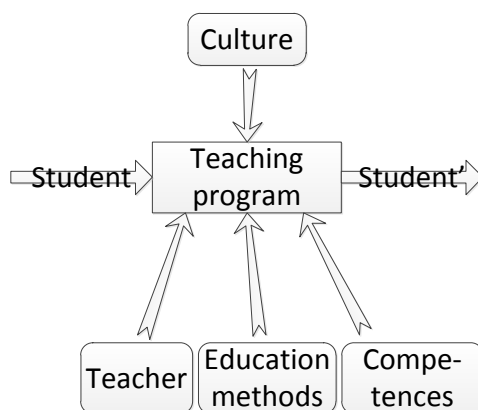


Figure 2, Influences on teaching program

Over time of their natural development, pupils and students focus on a variety of personal and professional interests and develop their own learning style. When debating entrepreneurship education, the only variety in design criteria seem to be determined by the elements of the spider web sometimes a thematic issue as social entrepreneurship or high tech (Hammer and Thuijs, 2013). In the paragraph below, each of the elements of the model from figure 2 will be discussed to identify possibilities to justify the diversity of high school and university students.

Exploring developments

In this paragraph developments of the five influences on a teaching program are briefly discussed. The first and most important element of the model is the student. As it is the objective of the teaching program, an entrance selection or assessment can influence the outcome. For curricula design, the student is the starting point and therefore not further discussed in this paper as a variable. The second element is the teacher. In another paper of this conference the teacher can be seen as a dependent variable in a soft support system and development options in that direction are widely debated (Koopman, 2013). Therefore this paper will not have the focus on this. The education methods, as third element, is addressed by Mathews (2007) where he advocates more constructivism to entrepreneurial programs. On the field of competences, Allan Gibb (2002) and more recently the QAA (2012) defined a detailed set of skills and competences.

Late research on the context is done by Per Blenker et al (2012) where he argued that the entrepreneurship education need to be adopted for context, culture and circumstances, down to a personal level. This might assume that there are more levels which can be taken into account considering curriculum design. An important general aspect of the findings of this

research is that there should be a fit between the need (what the student / entrepreneur wants) and the supply; the programme offered. The programs need to be designed for the use of the most important stakeholders.

Since the publication of the book 'Engaged Scholarship' of Andrew van der Ven (2007), the concept of stakeholder involvement into academic research is used more often. In this book Van der Ven empathises that research questions to solve field problems, need more involvement of the users. When applying these principles on support program design, successful examples can be seen in high tech start-ups incubators; getting co-immersed with the entrepreneurial community result in a valuable payoff.

In this paragraph the latest developments on the five influences on teaching programs were discussed. It is argued by Blenker (2012) that the involvement of the stakeholders and end users can bring fruitful insights on the curriculum design. This approach can be described as 'pull' strategy for curricula design. In the paragraph below this is discussed more in detail.

Evolving the pull strategy

In this paragraph emerging questions of the pull strategy on curricula design for entrepreneurship education will be asked and addressed. Based on the findings of Blenkers (2012) the question arise:

on what levels the stakeholders can be involved to the design process?

For the answer of this question the curricula design literature can shed some light on this. It is argued by Susan McKenny (2006) that: "Curriculum concerns may be addressed at various levels: macro (system / nation), meso (school / institution) and micro (classroom / learner) (P.68)". Applying this to the context of a training program and combining this with the findings of Blenkers (2012), the micro level (the learner context) is identified, leaving the meso and macro level to be discussed. To start at the other end of the spectrum, the macro level it is assumed that the biggest entity is useful to position. This can be described as the geographical/cultural context. These aspects can be determined from national or regional development agenda's and cultural habits. The meso level of the context can then be the professional domain you are educated in; positioned between personal and national level. Pupils or students in a technical profession, have other patterns and values of thinking en doing then students in economics, arts, social or healthcare. The different professional domains do have their own dynamics and culture background. Therefore the premise emerge that they differ on values of entrepreneurship. Claiming this premise, the next question can be ask:

how can the meso-level context be engaged into the curriculum design process?

The answer can be found in studying successful examples of this type approach, even if they were not aware of this mechanism. With the exception of the technical start-ups, the distinguishing on the meso-level context in practice is not applied broadly. Nevertheless those type of programmes have a higher survival rates and can be determined as more successful (Bruneel et al., 2012). By studying these type of programmes, the specific demands and needs from the technical-oriented entrepreneur is distinguished by applying the elements of engaged scholarship (Van de Ven, 2007). Although the ice looks thin, a new road for curriculum development on entrepreneurship education.

Implications

The use of a pull strategy for curricula design in entrepreneurship education is argued in this article. There is evidence on a micro level of context involvement. Evidence on a meso level is limited to the domain of high tech start-ups. Therefore further research is suggested with design teams, involving the meso level context.

- AHMAD, N. & HOFFMANN, A. N. 2008. A framework for addressing and measuring entrepreneurship. Paris: OECD.
- AUDRETSCH, D. B. 2004. A Model of the Entrepreneurial Economy. *International Journal of Entrepreneurship Education*, 2, 143-146.
- BINKS, M., STARKEY, K. & MAHON, C. L. 2006. Entrepreneurship education and the business school. *Technology Analysis & Strategic Management*, 18, 1-18.
- BLENKER, P., FREDERIKSEN, S. H., KORSGAARD, S., MÜLLER, S., NEERGAARD, H. & THRANE, C. 2012. Entrepreneurship as everyday practice: towards a personalized pedagogy of enterprise education. *Industry and Higher Education*, 26, 417-430.
- BLENKER, P., KORSGAARD, S., NEERGAARD, H. & THRANE, C. 2011. The questions we care about: paradigms and progression in entrepreneurship education. *Industry & Higher Education*, 25, 417-427.
- BOSMA, N. S. & LEVIE, J. 2009. Global Entrepreneurship Monitor 2009 In: GEM (ed.) *Global Report*. GEM.
- BRUNEEL, J., RATINHO, T., CLARYSSE, B. & GROEN, A. 2012. The Evolution of Business Incubators: Comparing demand and supply of business incubation services across different incubator generations. *Technovation*, 32, 110-121.
- CARREE, M. A. & THURIK, A. R. 2003. The impact of entrepreneurship on economic growth. In: AUDRETSCH, D. B. & ACS, Z. J. (eds.) *Handbook of Entrepreneurial Research*, forthcoming. Boston/Dordrecht: Kluwer Academic Publishers.
- GIBB, A. A. 1993. Enterprise Culture and Education: Understanding Enterprise Education and Its Links with Small Business, Entrepreneurship and Wider Educational Goals. *International Small Business Journal*, 11, 11-34.
- GIBB, A. A. 2002. Creating conducive environments for learning and entrepreneurship: living with, dealing with, creating and enjoying uncertainty and complexity. *Industry and Higher Education*, 16, 135-148.
- GROEN, A. J., WEERD-NEDERHOF, C. D., KERSSSENS-VAN DRONGELEN, I. C., BADOUX, R. A. J. & OLTHUIS, G. P. H. 2002. Creating and Justifying Research and Development Value: Scope, scale, skill and social networking of R&D. *Research and Development Value*, 11, 15.
- HAMMER, M. 2012. How Business Management benefit from Entrepreneurship. *10th International Conference on Management, Enterprise and Benchmarking*. Budapest, Hungary.
- HAMMER, M. H. M. & THUIJS, N. 2013. What to Learn from Entrepreneurial Summer Schools? A Logical Typology. *Practice and Theory in Systems of Education*, 8, 35-40.
- HONIG, B. 2004. Entrepreneurship Education: toward a model of contingency-based business planning. *Academy of Management Learning and Education*, 3, 258-273.
- KHAN, I. M. 2011. Entrepreneurship Education: Emerging Trends and Issues in Developing Countries. *Uluslararası Yükseköğretim Kongresi: Yeni Yönelişler ve Sorunlar (UYK-2011)*. Istanbul, Turkey.
- KOOPMAN, R. G. M. 2013. Debating the soft support of starting entrepreneurship in an educational setting. *Inaugural 3E Conference*. Aarhus: ECSB.

- KOOPMAN, R. G. M., HAMMER, M. H. M. & HAKKERT, A. J. 2013. Teaching Teachers in Effectual Entrepreneurship. *2nd Effectuation Conference* Lyon.
- KUTZHANOVA, N., LYONS, T. S. & LICHTENSTEIN, G. A. 2009. Skill-Based Development of Entrepreneurs and the Role of Personal and Peer Group Coaching in Enterprise Development. *Economic Development Quarterly*, 23, 193-210.
- LEITCH, C., HAZLETT, S.-A. & PITTAWAY, L. 2012. Entrepreneurship education and context. *Entrepreneurship & Regional Development*, 24, 733-740.
- MATHEWS, M. 2007. Constructivist Pedagogy For The Business Communication Classroom. *Journal of College Teaching & Learning*, 4, 99-106.
- MCKENNEY, S., NIEVEEN, N. & VAN DEN AKKER, J. 2006. Design research from a curriculum perspective. In: VAN DEN AKKER, J., GRAVEMEIJER, K., MCKENNEY, S. & NIEVEEN, N. (eds.) *Educational Design Research*. Oxon: Routledge.
- MINNITI, M. & LÉVESQUE, M. 2010. Entrepreneurial types and economic growth. *Journal of Business Venturing*, 25, 305-314.
- NECK, H. M. & GREENE, P. G. 2011. Entrepreneurship Education: Known Worlds and New Frontiers. *Journal of Small Business Management*, 49, 16.
- PARSA, H. G. 2005. Why Restaurants Fail. *Cornell Hotel and Restaurant Administration Quarterly*, 46, 304-322.
- QAA 2012. Enterprise and entrepreneurship education: Guidance for UK higher education providers. Gloucester: The Quality Assurance Agency of Higher Education (QAA).
- RAPOSO, M. & PACO, A. D. 2011. Entrepreneurship education: relationship between education and entrepreneurial activity. *Psicothema*, 23, 453-457.
- SIJGERS, I., HAMMER, M. H. M., TER HORST, W., NIEUWENHUIS, P. A. W. & VAN DER SIJDE, P. 2005. Supporting the contribution of Higher Education Institutes to regional development. Enschede: OECD.
- THURIK, R. & WENNEKERS, S. 2004. Entrepreneurship, small business and economic growth. *Journal of Small Business and Enterprise Development*, 11, 140-149.
- VAN DEN AKKER, J. 2003. Curriculum perspectives: an introduction. In: AKKER, J. V. D., KUIPERS, W. & HAMEYER, U. (eds.) *Curriculum Landscapes and Trends*. Dordrecht: Kluwer Academic Publishers.
- VAN DEN AKKER, J., GRAVEMEIJER, K., MCKENNEY, S. & NIEVEEN, N. 2006. *Educational Design Research*, Oxon, Routledge.
- VAN DER VEN, A. H. 2007. *Engaged Scholarship, a guide for organizational and social research*, Oxford, Oxford University Press.
- WALTER, S. G. & DOHSE, D. 2012. Why mode and regional context matter for entrepreneurship education. *Entrepreneurship & Regional Development*, 24, 807-835.
- ZALAN, T. & LEWIS, G. 2010. Entrepreneurs: Drivers of Economic Change. *Social Science Research Network*, 11.