

Inductive research in the entrepreneurial behaviour of Generation Y

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“I once went into a forest and discovered many trees with wonderful colours. When I came out and told a friend what I had seen, he went also into the same forest... After a while, he came out and said to me, “I did not find them”. I asked him, “Why did you want to find them. I discovered them?” (Joop Vinke, July 2012¹)

1. Context of the research

In the context of a globalizing world, as we experience today, organizations put emphasis on self-employment and more entrepreneurial behaviour of individuals/employees, as ways to cope with this globalizing and to achieve competitive advantages. Next to venture creation, the element of “entrepreneurial behaviour” also begins to gain more attention, as the labour market shows a need for more entrepreneurial acting employees within the organization, and not only venture creators.

Entrepreneurial behaviour also becomes increasingly important in the current developments for the upcoming generation of new managers. Aspects like globalization, innovation, informational development and social media, have great impact on the main traits of this current learning generation. This generation, consists mainly of the individuals born between 1977 and 1997, and they are the receivers of the current

¹ Quote taken from the doctoral thesis of J.Vinke, “*The added value of Gyroscopic Management for Management*” September 2012, University of West Timisoara, Romania

and future entrepreneurial education. We think that several issues can be raised when we address to that education, the aspects of improvising and exploring as an attitude that can lead to more entrepreneurial behaviour.

An example of the impact that the current generation has on education and education on that generation, can be found in the work of Vinke et al, (2012a), in which a Grounded Action based research is described on the change that students experience when they go from their role as a student that wants to be a professional, towards the role of a professional that also can act as a student. The characteristics of the students from this generation Y are different than the ones of the generations before and in that earlier research we are questioning if the current didactical styles are suitable enough for this new generation of students.

As educators at a University for Applied Science in The Netherlands, as well as researchers, we have also raise the question whether a more improvising and entrepreneurial behaviour can be educated or trained , and, if so, by which means. Business schools, and other educational institutes, need to rethink and change their more pedagogical approach towards entrepreneurial education. This requires a strong shift towards innovative methods which seek out and facilitate experiential learning (Cope, 2005; Hamilton, 2005; Hamilton, 2011; Pittaway & Cope, 2007a). Current entrepreneurial education, still follow the most used mind-set and path of order in the way of: first the knowledge), then the skills) and after that attitude (K.S.A.), due to the before mentioned mind-set and focus of the educators and trainers on developing a business plan and acquiring business know-how, which is seen as necessary to manage a business.

As the mentioned opportunities in entrepreneurial behaviour, like improvisation, inductive thinking and discovering cannot be planned, neither can be the acting upon these opportunities. Starting from the “classical” approach of “Knowledge” about these aspects as basic, will not increase the likelihood that the individual will become more entrepreneurial in their behaviour.

Based on this, we believe that (entrepreneurial) behaviour and attitude (competence) can be only stimulated, not educated, and this requires a focus on the mind-set of the participants. In practice, we have been able to explore this idea, by developing a different didactical approach, called “gyroscopic management” (Vinke & Orhei, 2011). This didactical approach turns the before mentioned “classical” path in educational setting of K.S.A. into A (attitude) .S (skills).K (knowledge). In abbreviations this lead to A.S.K., which gives a clear sign of the mind-set behind the approach. Then, by using the motivation of the person, he or she will start from that and creates on that base their own M (otivation).A.S.K.

The development of a more improvisational and entrepreneurial mind-set therefore starts in this new order: the motive of the person (M.) as a strong leading element for the attitude (A.), on which base the skills (S) will be build and at last this can be completed with the needed and wanted knowledge (K.) This didactical style has implications for both the structure of the educational process, as well as the individual delivering and receiving of this process. The educator and his/her abilities to “practice what they preach”, by showing such behaviour him or herself is already mentioned as one of the main success factors of developing an entrepreneurial behaviour (Vinke et. al, 2013).

The aim of this paper is to present the first results of a follow up research in entrepreneurial behaviour among the representatives of the before mentioned learning generation, Generation Y, within the HAN University of Applied Science in The Netherlands. The research combines deductive (quantitative surveys) and inductive methods (from the Grounded Action research), within the field of interest of “entrepreneurial behaviour”. We will describe the intervention tool we used to support our research, in the form of a special action based training, which we called T.E.B. (Training Entrepreneurial Behaviour). This intervention tool has been developed during our earlier Grounded Action research, using the explanatory theory: transition of students from student to professional within this learning Generation (Vinke et. al, 2012a). Furthermore, we will also mention a more quantitative based tool, which we developed to measure the Entrepreneurial Behaviour as Competence. We used this as a parallel “measuring” instrument on the impact of the intervention tool, within this research.

2. Entrepreneurial behaviour – From K.S.A. towards A.S.K.

2.1. Entrepreneurial behaviour

Entrepreneurial behaviour has been defined as “*a more generic behaviour that involves recognizing, taking advantage and acting upon these opportunities*” (van Dam et. al, 2010) or as “*an exploring and creating of opportunities while in the process of emerging organizations*” (Gartner et. al, 2010). Entrepreneurial behaviour can occur in existing organizations (Ireland et al., 2009; Kuratko et al., 2005) as well as in new developed ventures (Bird & Schjoedt, 2009)

Entrepreneurial behaviour finds its origins in the concept of corporate entrepreneurship and describes the individual level of this concept. Corporate entrepreneurs have been defined as the ones that demonstrate the key entrepreneurial attributes or behaviours within an established firm (Ireland et al., 2009) and who create innovation (Pinchot, 1985; Sharma & Chrisman, 1999; Thornberry, 2001; Yiu and Lau, 2008). Corporate entrepreneurs or also called “intrapreneurs”, are likely to use their entrepreneurial behaviour and mind-set to create organizational transformation through strategic renewal (Antoncic & Hisrich, 2001; Guth & Ginsberg, 1990) or through corporate venturing for instance by creating business on existing or new fields, markets or industries using a core competency within a firm. (Ellis & Taylor, 1987; Narayanan et al., 2009).

Corporate entrepreneurs also can be seen as the improvising professionals, so much needed in the current business setting (Sabourin & Pratt, 2008). As the business world is constantly searching for ways to expand the skills of its professionals, they explain that improvising and performance under pressure, combined with a creative process, is becoming increasingly popular as a needed strategy to resolve unexpected challenges in organizations.

According to them a promising approach for teaching and training new skills can be an experiential one, with the use of improvisation based exercises. Accordingly, Sabourin and Pratt studied the characteristics of skilled improvisation professionals to see which skills might be applicable to leaders in business. They discovered that there are two kinds of professionals in the business settings: the *executive professionals* and the *improvising professionals*. The first professional, the executive one, has a strong focus on solving problems, taking charge, controlling and managing according to measurable criteria. The second

professional, the improvising one, has more focus on the process of the continuing action. He or she listens, is aware of situations and problems, accept them and adapts to them and then advances.

The behaviour of the improvising professional, therefore is not aimed on solving problems, but taking things as they are, and, instead of searching for the problem and the solution, “*go into a forest*” and taking an attitude of discovering (instead of searching and finding as mentioned in the start of this paper) We think that this behaviour is very similar to most of the aspects that make entrepreneurial behaviour.

2.2. Improvisational behaviour and an inductive mind-set

Improvisational behaviour is been defined as “the deliberate extemporaneous composition and execution of novel action” (Moorman & Miner, 1998). Some of the most used “rules” of improvisation include: trust, listening, accepting, using everything as an offer, spontaneity and no prior preparation (Berk & Trieber, 2009; Koppett, K., 2001).

Baker et al. (2003) suggest that improvisation can be utilized to see how current resources can be used to either meet pre-existing goals (i.e., causation) or to explore what outcomes are possible (i.e. effectuation). Acts of improvisation have been shown to increase innovation performance (Brown & Eisenhardt, 1998; Vera & Crossan, 2005). Improvisation has proved already to be useful in the organizational structure, in settings like new product development Moorman & Miner (1998), internal communication (Pinnington et. al, 2003), team work (Vera & Crossan, 2005) and corporate restructuring (Bergh & Lim, 2008). Studies on entrepreneurs have also shown that improvisational actions are part of the decision making process. (Baker et al., 2003).

When entrepreneurial behaviour is about recognizing, taking advantage and acting upon opportunities (van Dam et al., 2010) or to generate and use innovative resource combinations (Mair, 2002; Gartner et. al, 2010), we, see resemblance to the improvising professional mentioned by Sabourin & Pratt (2008). Therefore, we have considered and treated entrepreneurial behaviour as the behaviour of the improvising professional.

Improvisation can promote spontaneity, intuition, interactivity and inductive discovery, (Crossan, 1998; Moshavi, 2001; Sawyer, 2004; Berk & Trieber, 2009). Therefore it is, according to us, essential to use improvisation to promote an open mind-set which can be realized through more inductive views and approaches.

While improvisational behaviour and the use of improvisational techniques in teaching can increase the exploration part of entrepreneurial behaviour, our experience, as educators, trainers and researchers, has also shown that having a more inductive mind-set can increase further and broader exploration. We mean with this inductive mind-set, the approach as mentioned in the quote in the beginning of this paper: “Discovering instead of searching and finding.” The use of inductive methods as a way to explore entrepreneurship is already used quite frequent (Laukkanen, 2003, Luke et al., 2006, Shaw & S Carter, 2007). We have found, and practised an inductive research practice and the mind-set, in the definition of exploring in an inductive way. The idea of stimulating and promoting entrepreneurial behaviour by stimulating inductive mind-sets and improvisational behaviour have been reflected in the use of the research methodology, which will be presented further in the paper.

We consider, based on our literature research and experience, in the context of entrepreneurial behaviour, improvisation and inductive mind-set, the antecedents as well the instruments that stimulate entrepreneurial behaviour in representatives of Generation Y, which we will explain in the next section.

2.3. Generation Y

To understand the characteristic of the generation of new managers, we needed to look at this generation and relevant literature. Most of the entrepreneurial and business education is currently followed by representatives of the so called Generation Y, which by now have or are entering the professional field and the business environment. The members of this generation are considered to be born between 1977 – 1997², following “Generation X” and the “Baby Boomers”. The members of the current generation (Y) have, according to Quinn (2010), the following common generalized characteristics: Tech-savvy, family based, achievement-oriented, team-oriented and attention-searching. They are seeking for different and creative challenges, personal growth, meaningful careers and are in need for specific supervisors, coaches, and mentors that “help” them to discover and explore themselves. They want to approach problems in new and innovative ways. Moreover, they want to be more “players”. This last part is a much-overlooked value and to make better use of this, we believe that trainers and educators need to become more innovative and “player” themselves. One of the most important characteristic of the Generation Y members seems to be that they are more “out-of-the-box” thinkers. (Kovary & Buahene, 2011). Or in other words, they want to be more “entrepreneurial” in their behaviour. We consider that this generation is prone to improvising behaviour as well as entrepreneurial behaviour. However, what they miss is exactly this improvising and entrepreneurial education. Authors like (Carlson, 2005; Junco & Mastrodicasa, 2007, Oblinger & Oblinger, 2006a; Palfrey & Gasser, 2008) consider improvisation in the classroom consistent with the characteristics of this generation.

Therefore it is, according to us, essential to use improvisation to promote an open inductive mind-set, as mentioned before. This can be realized through inductive views, especially when trainers and educators are aiming to stimulate entrepreneurial behaviour in the participants. In this way referring to the attitude for the trainer/ teacher as: “Practice what you preach”. And let them discover more instead of telling them where to search and to find.

2.4. The need for a new way to educate: from KSA to MASK

Inductive teaching and learning is an umbrella term that includes a range of instructional methods like inquiry learning, problem-based learning, project-based learning, case based teaching, discovery learning, and just-in-time teaching). All these methods stimulate a learner-centred (student-centred) learning (Prince & Felder, 2006). Since (entrepreneurial) behaviour is such an individual occurrence, the “education” and development among learners should not be a deductive, planned one, but rather a constructivist, built by the learner and in the context which he or she is in.

As educating (inductive) professionals, we are constantly busy with finding ways to foster such behaviour among these future managers. We mentioned that we are currently applying a different didactical

² We are aware that there are several definitions given in the literature to describe the Generation Y by years of birth and have chosen these years as their working definition.

approach, called gyrosopic management. This name is based on the principle of a turning gyroscope, which only can find balance while turning. (Vinke & Orhei, 2011). Although at first glance, it might seem that “gyrosopic management” belongs to the inductive teaching and learning umbrella, this didactical approach contains some differences worth mentioning.

This principle, described also in earlier publications (see Vinke & Orhei, 2010 and 2011), is the core of an international bachelor study program called Human Resources and Quality Management (HRQM/ BMS). The program originates from an experiment, some years ago at Arnhem Business School (ABS) in which separated disciplines like HRM, Quality Management, Communication, and Business Ethics were integrated in one common course. This was done to get a new integrated perspective in combination with a ‘systems-thinking’ style. In short, it means that the teachers or trainers, in their gyrosopic approach, do not pretend to be able to give the answers to any management oriented problem, because this would “stop” the turning of the individual (student) gyroscope.

This “not answering approach”, creates the opportunity for the participants to constantly, search for an answer or solution to a problem and find a new balance themselves. It is obvious that this does not always take place in a secure environment. In preparing participants for their professional career, this creates, on purpose, situations and atmospheres that reflect the professional field. This does not feel like a secure environment, especially from the point of view of participants. To re-create the business environment we do things that the participant does not expect and we get their “gyroscopes” to start. As a result of this approach, students (the individual gyroscopes) find new and creative/innovative ways of dealing with what is happening in the environment. They also learn to take charge and be more improvising and sometimes risk taking, as well as using all the elements of the environment as opportunities and not as problems. Earlier studies and researches done by us, already gave examples of this. (Vinke et al., 2012a). As real “improvising professional” (Sabourin & Pratt, 2008), according to us, has a very similar behaviour to entrepreneurial behaviour (Mair, 2002; van Dam et. al, 2010), this is what de students started to show.

To be able to comprehend this didactical approach we refer to the higher education, especially in the applied science settings. During the whole duration of their study, students are exposed to knowledge as strong basis, training in developing skills and actions for realizing attitude change. As the knowledge is the main grounding of the study, especially in business studies, by teaching students the tools, models, theories and tricks, there is very little orientation towards a more exploring entrepreneurial attitude and behaviour. This is mostly done because knowledge offers both students and educators a “safe” and measurable setting. This mostly seems to be with ignoring the personal motivation/drive of the student.

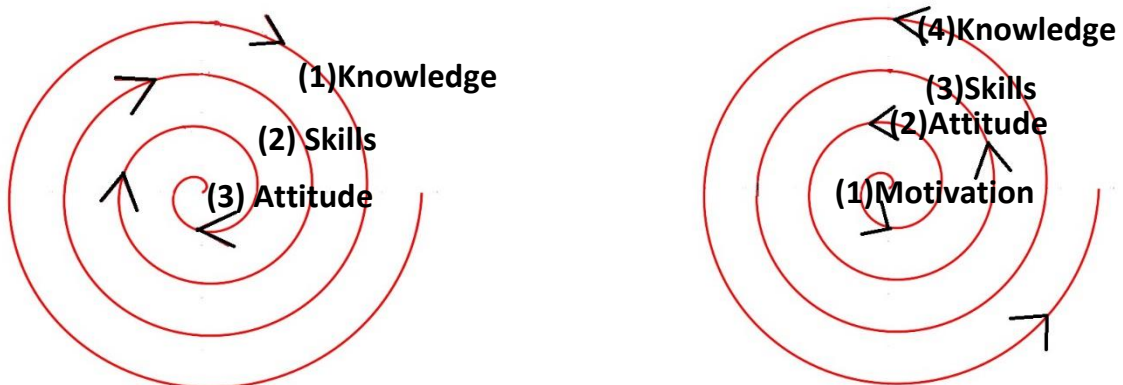


Fig. 1 - From K.S.A to A.S.K? Vinke et al, 2013

As mentioned before, our approach is not based on this K (knowledge), S (kills), A (attitude) approach, but starts from the motivation (drive) and with that as base, the focus starts aimed on the attitude, train the skills and leave most of the knowledge acquisition to the student himself, because it is based on the need and wants of the individual. This didactical approach we call "ASK instead of KSA" as shown in Fig 1.

The figure also illustrates that the K.S.A approach moves from outwards – inwards, while the A.S.K. "spiral movement" moves in the opposite direction. The movement from inwards towards the outwards allows expansion, whilst the outwards-inwards direction facilitates clustering and minimizing. If we were to compare, the first spiral facilitates a more controlled attitude (things become smaller and smaller), very similar to a deductive setting. The second spiral movement encourages expansion and exploration, as the world become bigger and bigger, therefore less likely to be controlled. In order to achieve this movement, one requires an exploring mind-set and capability to improvise, as the future cannot be foreseen. This is what we consider an inductive mind-set or entrepreneurial behaviour.

This approach we researched also in with an inductive mind-set in a so called Grounded Action research and this has resulted in an exploratory and operational theory, which will be presented in the next part.

3. Methodology

3.1. Grounded action

The used Grounded Action research (G.A.) method is an inductive, systematic, and empirical research methodology (Simmons & Gregory, 2003) to generate theories direct from actions and data to explain behaviour. The theory that comes out of exploration of the gathered data can indicate how participants in an action based context, deal with their own relevant issues and problems. The "Grounded Action" methodology uses methods from the "Grounded Theory" (G.T.) method (Glaser & Strauss, 1967) and the most specific part of it is, that it does **not** start with a research question or hypothesis. It starts with a certain field of interest (or phenomenon) with the goal of discovering a theory that can lead to "*what is really going on in that substantive area*" (Glaser, 1978).

According to Simmons & Gregory (2003), Grounded Action consists of two phases: the explanatory theory and the operational theory. The main base for the explanatory theory we use in this research, is already grounded in the existing research on "gyroscopic management" (Vinke, J. & Orhei, L., 2010, 2011; Vinke, J et.al, 2012a). Using the explanatory theory of Vinke et.al, (2012b) on the transition of individuals of Generation Y from student to professional (What is it?), our current research aimed on developing further

the operational theory of how this occurs in behaviour (How does it show?) having “entrepreneurial behaviour” as field of interest.

3.1.1. *The explanatory theory*

Based on Glaser’s opinion that “*All is data*” (Glaser, 1967), the core variables of the before mentioned didactical approach of “Gyroscopic management” were gathered and grounded during several years and presented in an explanatory theory that is formulated in the following way: “*The actual change of role from being a “student” toward being a “professional” consists of five stages. These are: listening, awareness, accepting, adapting, and advancing*”. (Vinke et. al, 2012b) This led to the next step in which this theory was translated into a so-called “operational theory”, which, according to Simmons & Gregory (2003), is needed for a “Grounded Action” methodology.

As the work, activities, didactical style and outputs of the “gyroscopic management` approach have been frequently labelled as entrepreneurial, we started to pay attention to the entrepreneurial aspect of the education we were currently involved in. After observing similarities between what is being described as entrepreneurial behaviour and improvising and inductive mind-set, both used as basis for the “gyroscopic management approach”, we decided to continue the grounded action study of the current Generation Y, by focusing on entrepreneurial behaviour as field of interest.

The first step was to use the explanatory theory already generated in the earlier stages and contextualize it in the new field of interest: “entrepreneurial behaviour”. A new explanatory theory was formulated: “*The development of the own entrepreneurial behaviour is the individual experiences of listening, awareness, accepting, adapting, and advancing*”. (What is it?) This formulation constitutes the grounding for the next stage: the development of the operational theory (How does it show?)

3.1.2. *The intervention tool: TEB*

As part of the second stage of this Grounded Action approach, we have also developed an intervention tool called T.E.B. or “Training Entrepreneurial Behaviour”. This intervention tool was designed as a training, with the aim of further developing the entrepreneurial attitude and mind-set among students, by offering revealing experiences and interventions.

The content and didactical approaches used in the T.E.B. are grounded in our earlier research, and revolves around the explanatory theory already formulated by Vinke et al. (2012b). The focus of the educators/trainers is on the attitude and skills (A.S.K) of the students, rather than knowledge and skills (K.S.A.), as used in traditional entrepreneurial educational settings.

From a didactical perspective, the focus on attitude is achieved by asking, reflecting, stimulating inductive practice and improvisation actions. The training revolves around the five themes: listening, awareness, accepting, adapting and advancing and can be supported by a management simulation game.

Activities that we use during the training are: Applied Improvisation, discussions, group work, individual reflections and role plays. Some of the tangible outputs of this training consist of new business ideas, business plan creation, product creation or business administration experience.

We, as trainers, believe that entrepreneurial behaviour is an individual competence, that can have different levels in different individuals, and we strive to let the students discover their own entrepreneurial attitude through this approach. In order to focus on attitude, actions are needed, because the training is aimed at the individual discovery of entrepreneurial behaviour and mind-set. We therefore use inductive (discovery) and applied improvisation (acting from the spot) activities to trigger the actions from the participants and to measure progress of the discoveries, the students are asked constantly to reflect on their actions.

3.2. Data collection

3.2.1. Qualitative data- Moving towards an operational theory

"Once the explanatory theory has been fully developed the operational theory can be generated. The operational theory is where explanatory grounded theory leaves off and grounded action begins" (Simmons & Gregory, 2003, p. 31). In this part of the research, where we are grounding the actions, we look at the underlying core variables as "action stages" to observe and discover actions that occur at each stage of the explanatory theory (Simmons, 2005). While doing this, we will be creating own explanations and reactions to the explanatory theory. This part of the research consists of an action based training and therefore interactive setting in which the actions that occur need to be mentioned in the detailed operational theory. These detailed descriptions are the "leverage points" as mentioned by Olson & Raffanti (2006a).

Between September 2013 and July 2014, we have delivered the TEB training in different types of studies and courses. Two of them have been used for data gathering by observations, memoing and coding, for the development of the operational theory.

The first training was delivered as part of an Excellence Program, within at the Faculty of Health and Care of HAN University for Applied Science in Nijmegen, The Netherlands. This program is an extracurricular activity, designed to help students of Paramedical studies develop their leadership and entrepreneurial behaviour. The program consisted of the TEB training, guest speakers and a trip to a foreign country. The students were set up as teams of a minimum two students and maximum four. Overall, the participants have spent around 60 contact hours, with all three activities. Students also wrote individual reflections of their own behaviour, after each session of TEB training, as well as an end reflection. At the end of the program, the participants presented their innovative business ideas in the setting of a "market". A jury rated the business ideas and the best one was rewarded with a prize.

The second course in which the TEB training was included was a Management game simulation course at the Business and Management Institute of the Faculty of Economics, Management and Law, HAN University for Applied Science in Arnhem, The Netherlands. In this course, business students get insights into strategic management and human resources management. The students were divided in groups of maximum three students and were assigned the role of the HR managers of a company of 660 employees. Within this course the students were trained in developing entrepreneurial and professional behaviour (TEB principles), using a human resources simulation game as support, during 30 contact hours. The course was assessed by means of a Management team meeting, where the students, acting as HR managers, presented their annual results to the Management team. The students were also asked to write individual reflections of their own behaviour and end reflections for the course.

The data collection process consists in the case of grounded action of observations, memoing and videotaping by the researchers, with focus on behaviour of the participants. During these contact hours, the authors/researchers have gathered, independently, observations of behaviour and wrote memos base on these. All the training sessions were also taped, by a video camera belonging to the researcher. After contact hours, the researchers viewed randomly the video recordings of the sessions and continued the observations of the behaviour. The students, were asked at the end of the course to write end reflections. All the memos, observations, video recordings and end individual reflections were reviewed, by both researchers, independently. As a result, first individual codes were created, and by means of comparison, common codes were created.

3.2.2. The quantitative measurement

Next to the Grounded Action approach and methods, we used a quantitative (deductive) method to measure the impact of the intervention tool. This method involves a survey tool on the Entrepreneurial Behaviour Competence, as developed by Nandram et al, (2014).

With the development of “intrapreneurship”, and the shift from entrepreneurship as venture creation, to entrepreneurship in any kind of organization, behaviour and competence have also been introduced in the field of entrepreneurship. Therefore, next to entrepreneurial behaviour came the focus on both personality and competences. First described as competences for entrepreneurship and venture creation (Man *et al.*, 2002; Bird, 1995), the entrepreneurial competence has recently developed in a self-standing competence for life (European Commission, 2010). The two perspectives, as behaviour and as competence, can be considered quite similar, as many other authors already have described competence as a predictor for behaviour, and also behaviour as a result of existing competences. The development of the perspective of entrepreneurship as competence has increased the attention on education and on how current practices can develop the set of elements that create this competence, as well as how it can enable an individual to show this entrepreneurial behaviour.

The **Entrepreneurial Behaviour Competence (E.B.C.)** consist of five different and interconnected competences: functional, social, cognitive, psychological and generic. The possession of this competence can result (or show) in pro-actively finding ideas, generating resources; designing and implementing a strategic renewal or innovation within an existing organization, or a new venture creation with the aim to create value (Nandram et al, 2014). This is the first attempt to define and measure entrepreneurial behaviour as competence, within an educational setting (HAN University of Applied Science). The competence was built from the individual perspective of entrepreneurial behaviour, considering that each individual can possess a different level of the competence, in each of the dimensions. The competence is meant to measure an EBC profile of the student that fills in the survey. Next to being a research tool, the EBC can serve an educational purpose, by showing the student/learner, what the level of their entrepreneurial behaviour is.

The multidimensional competence was constructed by using the theoretical frameworks of Le Deist and Winterton (2005) as structure and items that were revealed by research (see Nandram et al, 2014) as well

as literature consultation on the topic. The survey assessing the EBC competence uses a 5 point Likert scale to measure the level of the dimensions.

The **Entrepreneurial Behaviour Competence** consists of five different and interconnected competences: functional, social, cognitive, psychological and generic. Every time an individual uses or learns new knowledge, he or she is using **cognitive competence** (knowledge and know-how). If he/she implements a project plan, he or she is making use of their **functional competence** (skills and abilities). When he/she starts something new, he/she will make use of their **social competence** (attitude). If the individual is driven to finish a task that he or she has begun, he or she is using their **psychological competence** (motivation). Every time he/she will take decisions, the individual will make use of their **generic competence**. Although all these parts of the Entrepreneurial Behaviour Competence are competences themselves, each of them requires different attention when developing them.

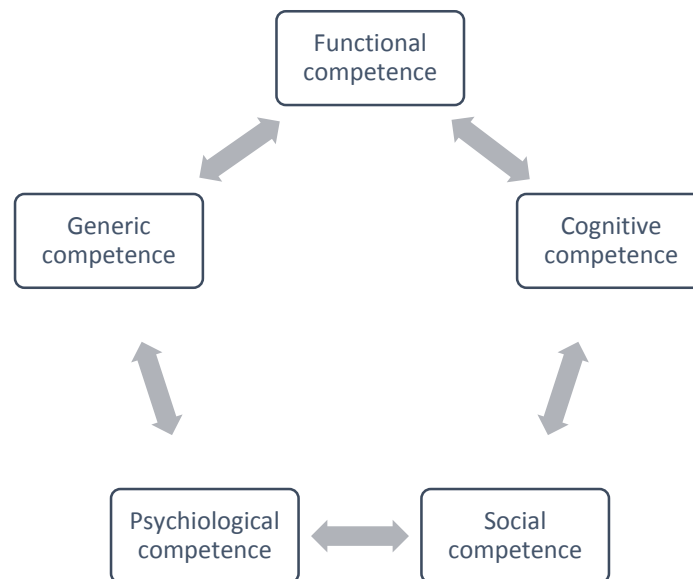


Fig. 2 - Entrepreneurial Behaviour Competence, Nandram et al, 2014

A survey as instrument was developed and used within the context of the two training sessions mentioned before. The students were asked to fill in the survey at the beginning and at the end of the training period. After each filling in of the survey, the students received an individual profile of their EBC competence, which showed their scores on each of the five dimensions measured, as well as the group profile of the class they have been in.

4. Results

A full Grounded Action based research process can, at the end, result in the implementing of initial actions or evaluated outcomes. We went through the first part of this research with memoing, based on our

observations of the courses, reflections, training, interviews (unstructured), video material and written reports.

4.1. Memos and observations

The process of memoing and observing reveals itself as a “discovery” process for us as researchers/practitioners/educators, as well as for the students who are also involved as co-researchers. As a methodology, memoing is most associated with grounded theory, yet all qualitative approaches can be enhanced by the use of memos (Birks et.al, 2008). The practice of memoing is mostly considered a record of a researcher’s personal responses to data, and the experience of data gathering (Gardner, 2008)

The most important contribution that is made by memoing is that it initiates and maintains productivity in the researcher (Charmaz, 2006). Memoing also provides a mechanism by which the perspective of the researcher can be recorded for later critical review or confirmation (Birks et.al, 2008). Memoing is also a process that is flexible and that enables exploration and discovery (Charmaz, 2006). Although there are some standard methodologies to approach memoing (See Strauss and Corbin, 1998; Richards, 2005; Charmaz, 2006), most of the analytical techniques proposed belong to the grounded theory strategy. There is yet little exploration of memoing in the context of grounded action research.

Memos perform a number of functions in the research process: mapping research activities; extracting meaning from the data; maintaining momentum; opening communication (Birks et.al, 2008).

In our research, in the context of grounded action, memoing was used to maintain momentum.

Because all is consider data (Glaser, 1967), as researchers we have considered the memoing next to a strong focus on observations. For us, the memoing has a reflective element and has the advantage of explicating the position of the researcher (Mills et al., 2006), fully aware of our subjectivity as researchers. Two types of memos have been collected until now: memos regarding the reflections from the students and memos regarding the reflections of the trainers. Some examples of memos regarding the reflections of the students are:

- “Listen, adware, accept, adapt and advance”
- “More conscious... opening doors think different / Inspiring to do more self-reflecting”
- “Yes... and”
- “Not nice to get to know myself/ know myself more”
- “Effect of the training came afterwards/ later”
- “I reflect more on myself now”
- “Trainers practise what they preach... they show what they tell”

Examples of the memos of the trainers

- Listening while trainers are talking (0653)
- Slow start with some simple exercises... slow reactions
- “Make it bigger” gives energy
- Giggling when bigger and “smaller”

- Listening seems very active during the whole setting. In the break of the training participants start walking to the other side (807)
- In the end presentations, students take the lead and show pro-active behaviour

In the overall context of the field of interest of “entrepreneurial behaviour”, the memos are the first step into discoveries of “How does it show?” (The development of the operational theory). This is of course done, by focusing on the behaviour and what reactions it triggers, both in the participants and the trainers.

Another aspect of the methodology employed in this study was observation. Observation has been used in qualitative research in two forms: structured (positivist) and unstructured (naturalist). While the structured approach checks behaviours against a predetermined list, in the unstructured strategy observers using unstructured methods enter ‘the field’ with no predetermined notions as to the behaviours that they might observe (Mulhall, 2002). What is also important to mention about unstructured observations is that the observer cannot be considered an outsider, like in the case of the positivist, structured perspective. Since our roles contain being a researcher, an author and trainer, a structured strategy would not be possible.

The observations presented in the appendix of this paper, have been gathered by means of observing behaviour during trainings and the videos of the trainings, post factum. Examples of unstructured observations gathered by us are:

- Touch face
- Turn papers
- Write
- Talk
- Slap hands
- Push hands
- Swing hands
- Put hands on hips
- Whoosh
- Block
- Drink
- Touch the legs
- Hands on lips

4.2. The quantitative data

Next to the Grounded Action research, we have also made use of a new developed monitoring instrument; an instrument that measures the entrepreneurial behaviour as a competence. This data collection reveals variations in the level of the competence, for all the five named elements and was monitored before and after the given courses/ trainings. Below are the scores for the five elements of the competence for two of the courses that have had the T.E.B. training as intervention tool.

Course	Session	Functional	Cognitive	Social	Psychological	Generic
Excellence program	November 2013 (n= 29)	3.24	3.08	3.42	3.37	3.52
	May 2014(n=20)	3.71	3.60	3.88	3.80	3.90
Variation		0.47	0.52	0.46	0.43	0.38
Management Simulation	November 2013 (n=73)	3.37	3.27	3.45	3.42	3.65
	January 2014 (n=52)	3.63	3.49	3.75	3.64	3.75
Variation		0.26	0.22	0.3	0.22	0.1
	April 2014 (n = 39)	3.46	3.42	3.65	3.56	3.71
	June 2014 (n = 29)	3.69	3.64	3.84	3.78	4.08
Variation		0.23	0.22	0.19	0.22	0.37

Table 1 – The average scores for the Entrepreneurial Behaviour Competence

We have analysed separately each of the courses given within the two faculties. In the case of the Excellence program, the variation in the scores for each of the five dimensions of the competence is a positive one, as students assess themselves higher at the end of the course, than in the beginning.

For the students that participated in the Management simulation course, the first course (November 2013 – January 2014) the average scores have increased by values that vary from .1 to 0.3. For the second round of the course (April – June 2014) the average scores show a similar increase to the first round of data collection.

The highest variations can be observed in the Cognitive, Social and Generic competence. The Generic competence comprises aspects self-management aspects (“knowing own weakness”) as well as decision making (“acting in consistency with my core believes”), therefore, a variation in this aspect of the competence can show a better understanding of self and decision making. There is also a variation in terms of Social competence, which shows elements related to behaviour.

Alpha, N of items	Mean	Standard deviation	1	2	3	4	5
1.Functional competence (.78., N = 15)	3.50	.72	-				
2.Cognitive competence (.80, N = 11)	3.40	.75	.651**	-			
3.Social competence (.79, N = 16)	3.63	.79	.569**	.578**	-		

4. Psychological competence (.86, N = 16)	3.56	.78	.654**	.698**	.699**	-	
5. Generic competence (.76, N = 11)	3.74	.88	.514**	.541**	.570**	.567**	-

**Correlation is significant at the 0.01 level (2-tailed).

Table 2 – Correlation coefficient (r) and scale reliability (α) of the Entrepreneurial Behaviour Competence

As a newly developed measuring scale, we were interested in exploring the constructs in terms of correlations and reliability of the scales. There is a medium, positive correlation ($p < 0.01$) between all five constructs of the Entrepreneurial Behaviour Competence. This results in high level in any of the constructs influencing high level in the other constructs. The most significant result can be observed between the Social and Psychological competence ($r = .90, n = 248, p < 0.01$).

The reliability analysis of the scales showed both average and high values for the Alpha Cronbach coefficient. Values of α is between .76 and .86, $n = 248$. These results are promising in terms of reliability of the scales to measure the entrepreneurial behaviour competence. The next step in the research regarding the EBC competence will focus on exploratory analysis as well as correlation with other variables present in the entrepreneurial research arena.

5. Discussions

This research is, according to us, the first attempt to develop an operational theory, based on actions (Grounded Action) in entrepreneurial behaviour among the current learning generation Y. The research brings new contributions to the field of entrepreneurial education and training, by contextualizing it to the current learning needs, based on actions and reflections of the participants

Mintzberg already argues this issue very strong in his ideas on higher education, that *"learning must emphasize contextual understanding, critical reflection on assumptions and validating meaning by assessing reasons."* (Mintzberg, 2005) A "trustworthy" Grounded Action methodology considers both "what is" (the explanatory theory) and uses the operational theory to look at the possible "what might be" actions.

The creation of our explanatory and further exploring of the operational theory, related to generation Y and entrepreneurial behaviour can create a more accurate basis for educating and training the current and generations for the needs of the professional field.

The research brings also added value to the domain of qualitative research, especially by its very inductive approach. While improvisation behaviour and the use of improvisational techniques in training and teaching can increase the exploration side of entrepreneurial behaviour, our experience, as educators, trainers and researchers, shows that having an inductive mind-set increases exploration.

Our next steps as researchers, educators and trainers will be to continue the process of memoing and observing, with the field of interest of "entrepreneurial behaviour", by focusing on how it shows. Next to

this process, our intention is also to further develop the quantitative measuring instrument, in order to offer alternative ways to look at entrepreneurial behaviour for the current learning generation.

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Appendix 1

Memos Regarding The Reflections From The Students

- **Open Mind**
- More calm
- Listen, aware, accept, adapt and advance
- More conscious.. opening doors think different / Inspiring to do more self-reflecting
- Yes.. and
- **Not nice to get to know myself/ know myself more**
- Effect of the training came afterwards/ later
- I reflect more on myself now
- Trainers practise what they preach.. they show what they tell
- Trainers facilitate me to do it myself
- **Romania –trip was my real eye-opener ++++ / irritation/ frustration / all became suddenly clear**
- I missed more “squeezing”
- Being your own manager
- Not nice to reflect
- Glad
- Clear structure
- Miss a knock – out
- Miss the control of myself
- I’m scared
- I thought I knew myself, but I have no idea
- I am a beautiful flower too. but I am not a small one yet!
- Sometimes I didn’t agree with everything that was said
- Just observing gives you a lot of information
- Just do
- Stepping up
- Lots of times I hated the training
- I observe myself now
- Resisted coming out of my comfort zone
- Accept, let I flow
- I am more calm
- Entrepreneurial behaviour is a cloud
- I think in a different way
- Strange, because they do things without a purpose
- I listen more
- Knowing why you do things
- Develop yourself
- I listen and observe more
- It was sometimes chaotic
- Stupid
- Comfortable with groups

- Hard to see the red thread
- I liked it when I was confident
- Sometimes annoying
- Roller coaster
- I have learned nothing
- Apart
- The “why”
- I do more things
- Just do it

The Memos Of The Trainers

- Listening while trainers are talking (0653)
- Slow start with some simple exercises.. slow reactions
- “Make it bigger” gives energy
- Giggling when bigger and “smaller”
- Make a story as a group in line .. “hesitate to step in “
- Choosing your own place .. makes it different and easier than structured places and lines.. (business plan)
- Mirror exercise (00677)delivers fun/ it is strange / giggling / out of comfort zone.. telling each other how to do it
- PRESENTATIONS SHOW DIFFERENT BEHAVIOUR THAN IN THE BEGINNING
- (0821) thanking the audience for the award.. give nice setting and special behaviour. / blocking and also opening minds and daring..
- Werewolves give special actions for students.. attention and full in the game .. (0829)
- Listening is very active during the whole setting/ break is sometimes interesting to see .. people start walking to the other side (807)
- In the end presentations, students take the lead and show pro-active behaviour
- Entrepreneurial behaviour needs a leader – someone needs to step up first (exercise with closing eyes and letting go)

Observations from the trainings

Video training TEB (watched 12.09.2014)

- | | |
|-----------------------|---------------------------|
| • Walking | • Move from left to right |
| • Move head | • Laughing |
| • Hand raised | • Hands on desk |
| • Hand on mouth | • Point with hand |
| • Other hand on mouth | • Nod head |
| • Head down | • Move back and forth |
| • Head between hands | • Hand on knees |
| • Hands in eachother | • Eating |
| • Hands moving | • Hand on nose |

- Change legs
- Move chair
- Lean forward
- Move across the room
- Look down
- Whoosh
- Block
- Drink
- Touch the legs
- Hands on lips
- Spread legs
- Point at self
- Cross fingers
- Hand in pocket
- Finger in nose
- Open the hair
- Close the hair
- Jump
- Jump on 1 leg
- Sit down
- Arms next to body
- Hands between the legs
- Lean towards left
- Write on board
- Scream
- Bend knees
- Put something in pocket
- Swinging legs
- Talk
- Slap hands
- Push hands
- Swing hands
- Put hands on hips
- Put jacket on
- Arrange glasses
- Sit on chair
- Walk with hands closed
- Make letters with fingers
- Take a paper
- Turn page
- Write on paper
- Push on pencil
- Put paper on head
- Cross hands
- Look at telephone
- Move bag
- Eat apple
- Shake ankle
- Sit in group
- Pick up paper
- Leave the room

Video training TEB (watched 16.09.2014)

- Move hands
- Presenting
- Listening
- Look left/right
- Turn hands to the back
- Smile
- Lean forward
- Point at paper
- Point at tablet
- Listen
- Nod
- Lean down
- Group
- Show on phone
- Give plastic cup
- Play with fingers
- Point at a box
- Touch laptop
- Read paper
- Move finger in round shape
- Stand behind a table
- Scratch wrist
- Bite upper lip
- Touch face
- Turn papers
- Write
- Point at leg
- Move head up and down
- Stand on stage
- Point at screen